



# final environmental statement

## SECTION 4 (f) STATEMENT

FOR:

CONTRACT No. M 758-003-371

F.A.P. No. U 9441 (1)

MARYLAND ROUTE 115

FROM MONTGOMERY VILLAGE AVENUE

TO NORBECK

MONTGOMERY COUNTY, MARYLAND

prepared by  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
and  
MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

REPORT NUMBER: FHWA-MD-EIS-79-02-F

REGION III

Maryland Route 115  
From Montgomery Village Avenue  
To Norbeck  
In Montgomery County, Maryland

ADMINISTRATIVE ACTION

FINAL ENVIRONMENTAL IMPACT STATEMENT  
SECTION 4 (f) STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

AND

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

SUBMITTED PURSUANT TO 42 U.S.C. 4332 (2) (C),  
23 U.S.C. 128 (a)  
49 U.S.C. 1653 (f), 16 U.S.C. 470 (f)

M. S. Caltrider  
State Highway Administrator

2/6/80  
Date

by: Hal Kassoff  
Hal Kassoff, Director  
Office of Planning and  
Preliminary Engineering

4/15/82  
Date

by: Vigil H. Jones  
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Office of Environmental Programs  
Federal Highway Administration

- SUMMARY -

1. Administrative Action Environmental Statement:

- ( ) Draft (x) Final
- (x) Section 4(f) Statement

2. For further information concerning this Project, contact:

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3. Description of Proposed Action:

The Maryland Department of Transportation, State Highway Administration and the Federal Highway Administration propose to construct 8 miles of arterial highway (Maryland Route 115) from Montgomery Village Avenue to Norbeck in Montgomery County, Maryland (see Figure No. I-1).

Roadway improvements begin with an intersection at Montgomery Village Avenue and extend easterly as a 4-lane dual highway on new location to Maryland Route 124 (Laytonsville Road). At-grade connections would be made at designated intersecting streets, with full control of access between those intersections.

Construction plans propose that Relocated Maryland Route 115 be developed as a 4 or 6-lane dual highway on new location from Laytonsville Road east to Maryland Route 97 (Georgia Avenue).

4. Actions Required by Other Agencies:

The Maryland-National Capital Park and Planning Commission and Maryland Department of Natural Resources have been consulted on the need for, and mitigative measures to the use of Section 4(f) land (Upper Rock Creek Regional Park).

Coordination with U. S. Fish and Wildlife Service and Maryland Department of Natural Resources has been made for stream relocations.

The following permits will also be required prior to construction:

- U. S. Army Corps of Engineers Section 404 Permit
- Md. Dept. of Natural Resources - Water Quality Certification
- Md. Dept. of Natural Resources - Sediment Control Permit
- Md. Dept. of Natural Resources - Waterway Construction Permit
- Md. Dept. of Natural Resources - Storm Water Management Approval

5. Summary of Environmental Impacts:

A safer, more efficient highway system will result from this proposed action. (For accident data on existing Md. Route 115, refer to page I-4.) The safety features and partial control of access, which are a part of all new location alternates, are expected to significantly reduce both the number and severity of accidents within the Study Area. Implementation of the Maryland Route 115 highway improvements will complete the local roadway system and permit orderly growth in accordance with adopted land use plans. Transit-oriented travelers would also benefit from improved access to the planned Shady Grove Metro Station.

Adverse environmental effects resulting from the proposed action would be as follows:

- Relocation of families and businesses
- Increase in noise levels
- Loss of forest and old field habitat
- Section 4(f) impacts to Upper Rock Creek Regional Park (see page V-32)
- Temporary construction impacts, including dust, noise, poor traffic conditions and minor decrease in water quality from erosion
- Involvement with Rock Creek Floodplain

6. Summary of Selected Alternate: (see Figure II-1)

Alternate 4 - Proposes that Relocated Maryland Route 115 be constructed as a controlled access arterial highway on new location. Access would be fully controlled, except at designated intersecting streets and the interchange at Maryland Route 97. From Montgomery Village Avenue to existing Maryland Route 115 (Muncaster Mill Road), the improvement would have a 60 mph design speed. A 4-lane dual highway is planned to Shady Grove Road, and a 6-lane dual highway between Shady Grove Road and existing Maryland Route 115. From existing Maryland Route 115 to Maryland Route 609, the project follows the Master Plan alignment of the proposed Intercounty Connector\* as a 4-lane dual highway. (Refer to page I-8 for the relationship of this project to the Intercounty Connector.) See Tables II-1 thru II-3 for a comparison between the Selected Alternate and the alternatives presented in the Draft EIS.

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\* Throughout the Final EIS, reference to the Intercounty Connector means the current Master Plan alignment. As presented in Appendix E, the Intercounty Connector is a separate study.

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L I S T O F T A B L E S

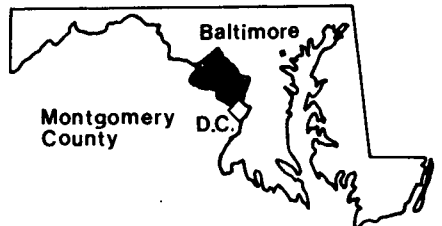
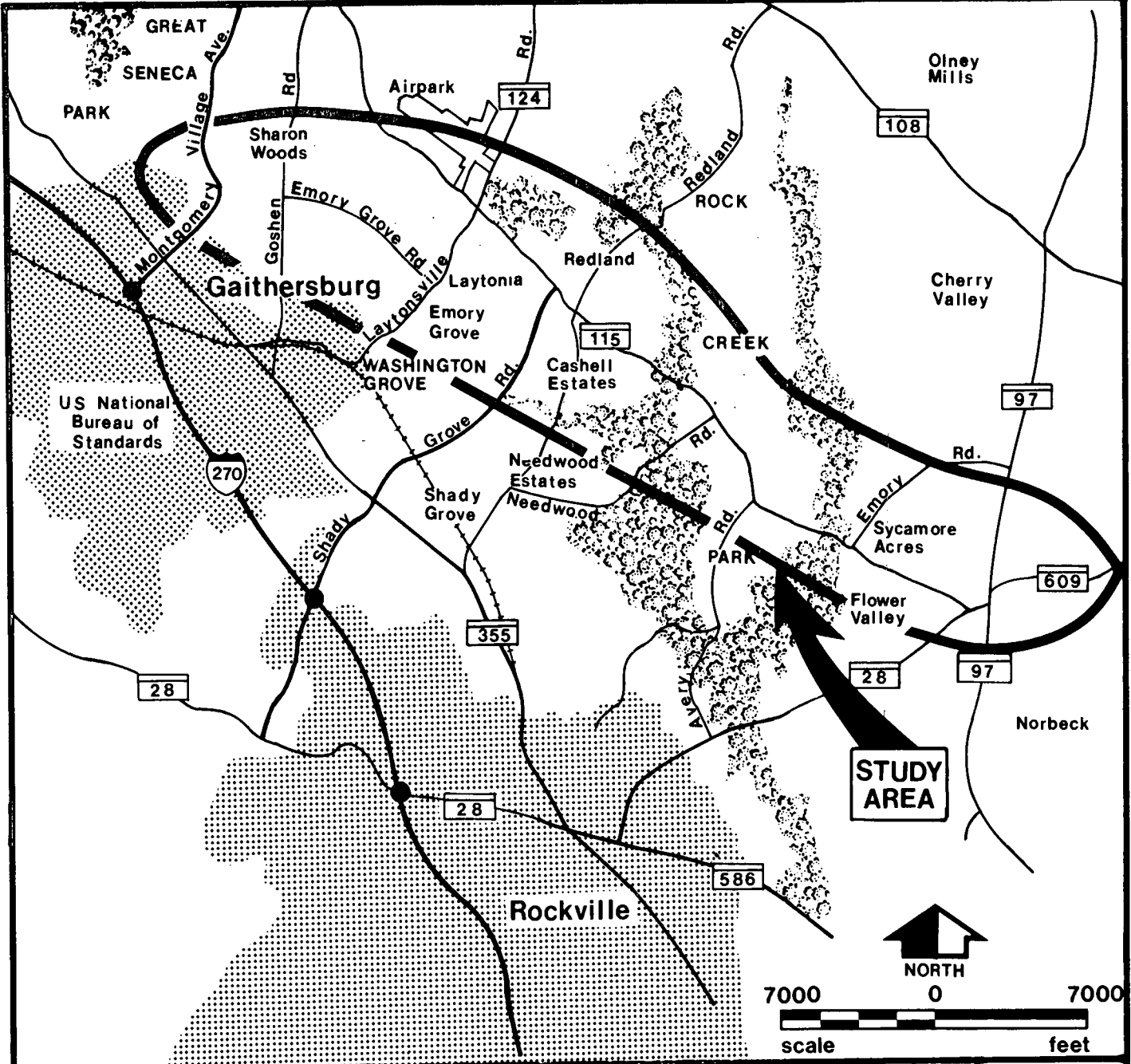
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I. NEED FOR THE PROJECT

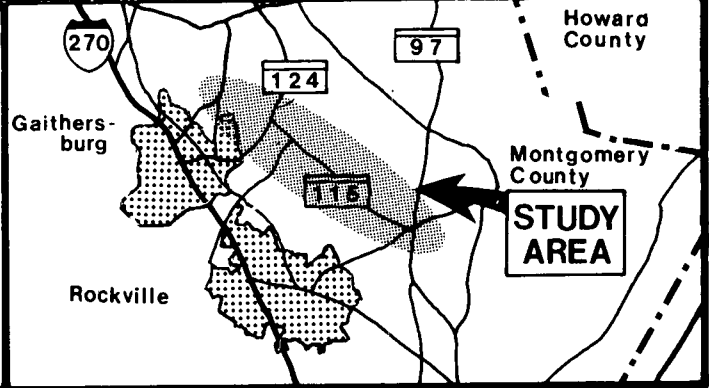
A. PROJECT LOCATION:

The Maryland Route 115 Study Area encompasses approximately 8,300 acres, nearly 13 square miles, in central Montgomery County. The Study Area is located 8 miles north of the Capital Beltway (I-495) and 16 miles north of downtown Washington, D. C. The cities of Rockville and Gaithersburg lie immediately west of the Study Area (see Figure I-1).

The project begins at Montgomery Village Avenue on the north, and extends 9 miles southeast to Norbeck, in the vicinity of Maryland Routes 97, 28, 609 and 115. The Study Area generally parallels existing Maryland Route 355, and consists primarily of suburban residential areas bisected by arms of Rock Creek Park.

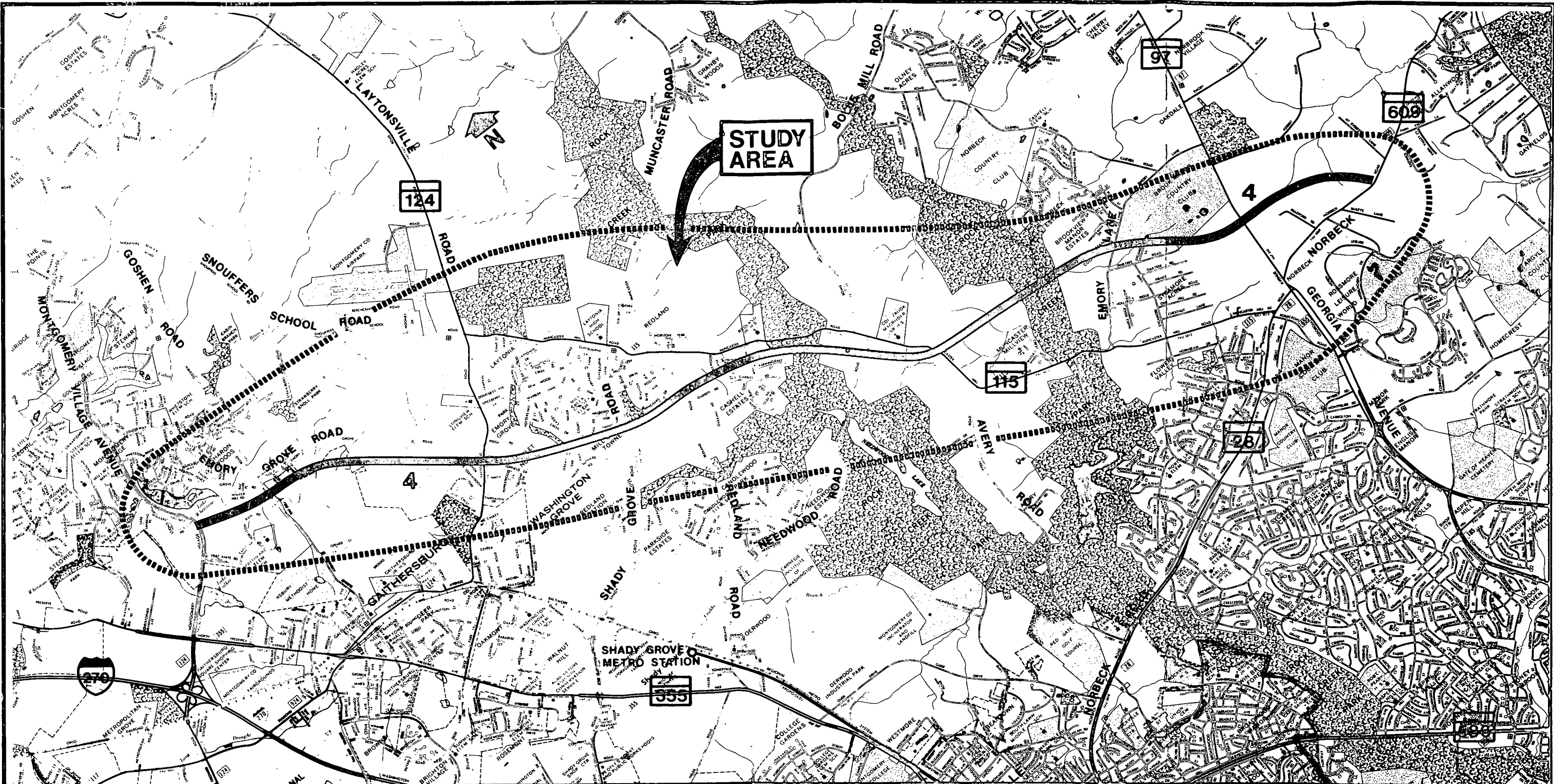


KEY MAP OF MARYLAND



# STUDY AREA LOCATION MAP

FIGURE - I 1



**STUDY AREA**

**SOURCE**

MD. DOT, METROPOLITAN MAP SERIES

----- STUDY AREA BOUNDARY

———— SELECTED ALTERNATE 4



**MARYLAND ROUTE 115**

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(1)

**STUDY AREA  
MAP**

**WITH SELECTED ALTERNATE**

**FIGURE I-2**



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B. DEFICIENCIES OF THE EXISTING FACILITY:

1. Introduction

Existing Maryland Route 115 is a single two-lane roadway without access control, which serves as a collector and provides for local neighborhood traffic movement. As noted on the Study Area Map, Figure I-2, existing Maryland Route 115 extends 5.8 miles from Laytonsville Road (Md. Route 124) to Norbeck Road (Md. Route 28). Northwest of the Laytonsville Road intersection, the highway becomes a County facility and is known as Snouffers School Road. This route becomes Wightman Road after intersecting Goshen Road, then becomes Brinks Road, crosses Maryland Route 7, and terminates at Maryland Route 355 in northwestern Montgomery County.

2. Design Deficiencies

The Maryland Route 115 roadway pavement varies in width from 18 to 22 feet, although it is somewhat wider through residential areas where adjacent curbs and gutters have been added (24 feet minimum width is desirable)<sup>1</sup>. Shoulders are paved in some areas, with widths varying from 3 to 8 feet (full shoulders, 8 to 10 feet wide are desirable)<sup>2</sup>. The horizontal alignment ranges from fair to unsatisfactory, with poor sight distances at several locations due to sharp curves. Maryland Route 115 generally follows the rolling terrain, although steep grades exist in the valleys of Rock Creek Park. The sharp curves and steep grades, generally in the vicinity of Avery Road and Emory Lane, result in a reduction of the posted speed limits of 30 to 40 MPH to 20 and 25 MPH. Construction is underway to remove the curves at Emory Lane (FAP M 5013) as a separate project. Improvements to the horizontal and vertical alignment of existing Maryland Route 115 have been proposed in the vicinity of Avery Road, but are not currently funded.

Numerous intersections and driveways line the entire length of Maryland Route 115. These minor conflict points, and the major intersections at Laytonsville Road, Shady Grove Road, and Maryland Routes 28/97, combined with the heavy traffic volumes and short sight distances, create unsafe travel conditions.

In addition to these basic design deficiencies, another major problem is the meandering, indirect routes on narrow local roads that must be used to travel west to Montgomery Village Avenue from the Study Area. The previously mentioned route along Snouffers School Road provides access to Montgomery Village Avenue well north of the Study Area. Within the Study Area, motorists must travel east from Montgomery Village Avenue on Centerway to Goshen Road; south on Goshen Road to Emory Grove Road; east on Emory Grove Road to Laytonsville Road; then north on Laytonsville Road to Maryland Route 115.

<sup>1</sup> Based on AASHTO Standards

<sup>2</sup> Ibid

B

### 3. Traffic and Operation Conditions

As discussed elsewhere in this document (Sections III-Bl.), Montgomery County's population has grown 10.6% (between 1970 and 1974), and the number of households has grown 19% during this same period. For the nine (9) census tracts in the Study Area (listed on Table III-2) during the period between 1970 and 1975, population increased 97% and households increased 119%. This rapid suburbanization, begun in the early 1950's, is continuing today.

Growth in population and households (indicators of the amount of travel that residential activities produce), and growth in employment (indicator of the amount of travel that commercial activities attract) are evident in the increasing average daily traffic (ADT)<sup>1</sup> volumes in this Study Area. Figure I-3 lists recent State Highway Administration Traffic Counts<sup>2</sup> for the years 1974 thru 1978 at 18 locations in or near the Study Area. Between 1974 and 1978, traffic volume increases on existing Maryland Route 115 (count locations #11 and #12) ranged between 34% and 64%. These increases in automobile travel, which are representative of population and employment growth, have occurred concurrently with the gasoline shortage of late 1973 and constantly increasing fuel prices.

Rather than considering only absolute traffic volumes, more significant analyses of traffic conditions are possible by comparing quality of traffic flow on individual roadway links. Quality of traffic flow is measured in terms of the "Level of Service"<sup>3</sup> provided by a highway facility. This measure, ranging from L.S. 'A' (best) to L.S. 'C' (minimum desirable) to L.S. 'F' (worst), is calculated for each individual roadway segment and is dependent upon highway geometry and traffic characteristics.

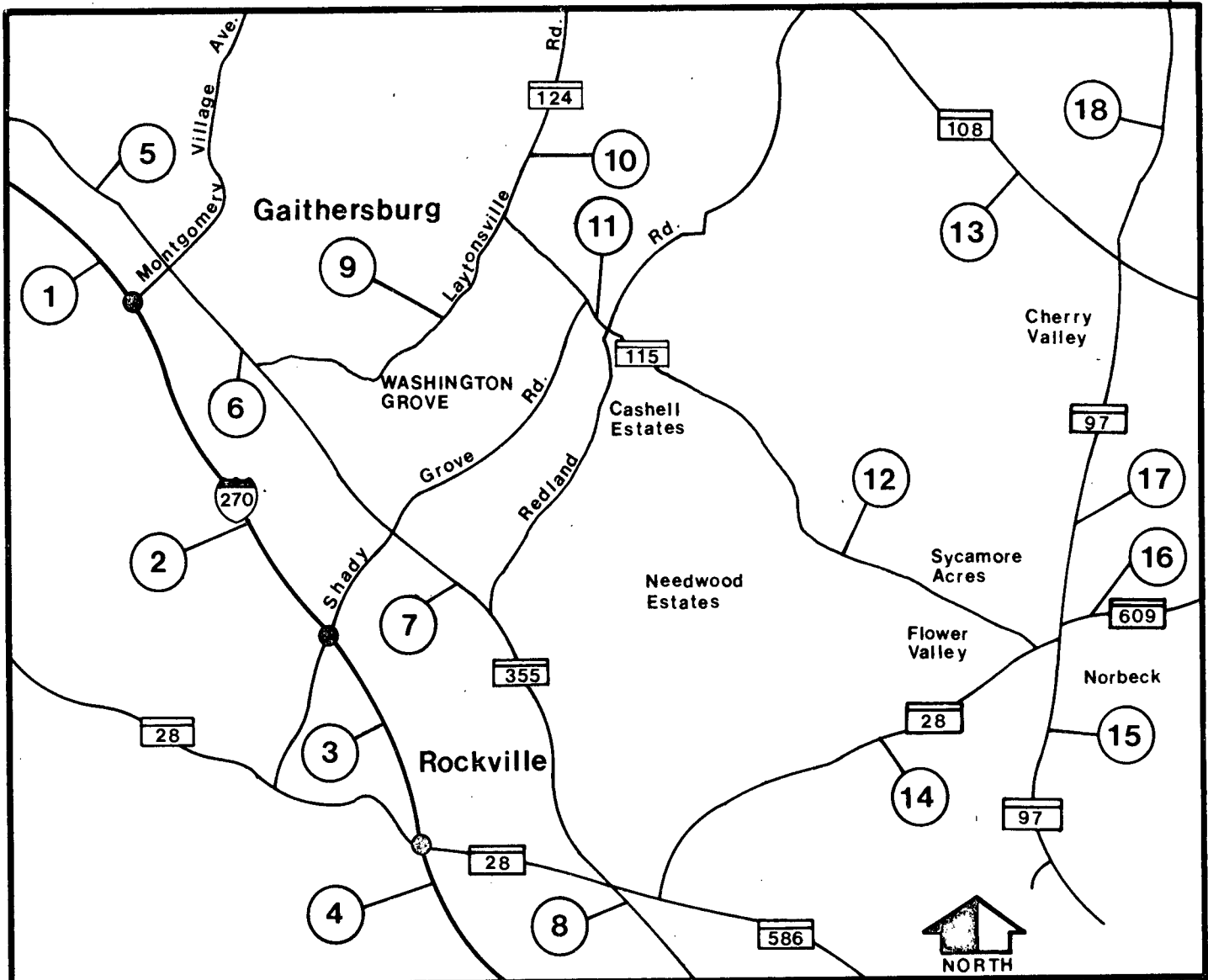
In 1976, the entire length of Maryland Route 115 (between Laytonsville Road and Md. Route 28) experienced Levels of Service 'E' (capacity) operation.

A critical issue that was raised at the July 23 Public Hearing on the Draft Environmental Statement was whether the roadway was needed in light of the current energy situation. Analysis of the impact of the cost and availability of gasoline resulted in a conclusion that there will be a continuing travel demand for vehicular trips and that current modeling techniques can adequately project the level of this demand. Peak hour work trips will be

1 See Appendix A, Glossary for Definitions

2 These ADT counts were volumes observed and counted by SHA personnel during randomly selected time periods throughout the year.

3 See Appendix A for Definition of "Levels of Service".



## RECENT AVERAGE DAILY TRAFFIC VOLUMES

COUNT LOCATION	YEAR					COUNT LOCATION	YEAR				
	1974	1975	1976	1977	1978		1974	1975	1976	1977	1978
1	40,300	42,000	44,000	44,900	53,900	10	6,000	6,250	10,500	10,600	9,500
2	55,600	58,300	61,000	62,200	82,100	11	6,700	6,950	9,300	10,500	11,000
3	61,700	64,700	68,900	69,300	92,000	12	6,850	7,100	8,300	8,800	9,200
4	63,700	66,800	69,600	71,000	99,000	13	3,900	4,050	9,800	10,100	13,000
5	17,300	18,000	11,600	12,000	12,500	14	11,000	12,100	13,900	16,000	15,000
6	22,500	23,500	26,450	26,600	27,500	15	17,700	19,100	19,200	20,300	20,800
7	27,300	27,900	27,700	29,000	33,500	16	3,750	4,000	4,700	6,000	6,200
8	39,900	41,800	45,000	46,900	46,800	17	16,500	17,100	19,500	20,000	23,000
9	8,600	8,900	9,000	10,100	9,500	18	3,950	4,100	6,800	7,000	8,500

FIGURE I-3

least impacted by the energy situation and ultimately it is these trips that determine the roadway cross sectional requirements. Also, increased cost of energy will be offset by the mandated and market trend to more energy efficient cars. The ability of transit to capture extra ridership due to short-term energy induced diversions is limited by its capacity and access mode constraints. There is basically no decrease in the need for road improvements, particularly one such as the Maryland 115 project which provides improved vehicular access to the regional transit services as one of its functions. In summary, available evidence and widespread professional judgment indicates the need for the Maryland 115 project will not be lessened to any significant degree by short-term energy shortages or the long-term national response to the energy problem.

4. Safety Conditions

An accident analysis of Maryland Route 115 has been made by the State Highway Administration, Bureau of Accident Studies and the results are presented in this section.

Maryland Route 115, from Md. Route 124 to Md. Route 28, experienced an average accident rate of 654 accidents for every 100 million vehicle miles of travel (100 MVM) for the three-year period, 1975 thru 1977. This accident rate approximates the statewide average accident rate/100 MVM of 656 for all highways of similar design now under State maintenance.

A total of 356 accidents was reported on this highway during the three year period (1975-1977) of which five were fatal accidents, taking the lives of five persons. The accident cost to the motoring and general public resulting from these accidents is estimated at approximately \$2,512,000 for every 100 MVM. These accidents are listed below by severity indicating persons killed and injured.

<u>Severity</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Fatal Accidents	1	3	1
Persons Killed	1	3	1
Injury Accidents	38	41	61
Persons Injured	61	70	96
Property Damage Accidents	78	64	69
Total Accidents	117	108	131

Three of the above fatal accidents occurred between Avery Road and Emory Lane; the other two occurred between Redland Road and Old Mill Road. These are areas with sharp curves and other design characteristics that have experienced concentrations of single-vehicle accidents, and are not found in modern day road construction.

The area of Maryland Route 115, 0.04 mile west to 0.06 mile east of Avery Road, was identified as a high hazardous location in 1974 and 1975, with one fatal accident reported in 1976. This location has a history of eastbound single vehicle accidents where the vehicle left the roadway and struck a fixed object. This location has also experienced a higher than normal incidence of opposite direction accidents.

The area of Maryland Route 115, 0.02 mile west to 0.03 east of Emory Lane, although not meeting the criterion established for the identification of a hazardous location, is also experiencing a high incidence of fixed object and opposite direction accidents with two fatal accidents occurring, one in 1976 and one in 1977.

At both of these locations, the incidence of wet surface accidents was higher than normally expected for this type of highway. (See page I-2.)

Although Maryland Route 115 is designated as an urban route, it has many accident characteristics of a rural highway. A comparison of existing collision types with both the urban and rural statewide averages are listed below. For the most part, the collision patterns are more consistent with rural trends, with the exception of rear-end collisions, which increase during peak periods and are consistent with urban expectations.

<u>Collision Type</u>	<u>% Study Section</u>	(Rural) <u>% Statewide</u>	(Urban) <u>% Statewide</u>
Fixed Object	32.2	33.6	14.6
Opposite Direction	13.5	7.8	5.8
Rear End	24.4	17.3	28.3
Sideswipe	5.3	3.1	10.7
Other	2.8	2.0	12.6

Traffic forecasts for Maryland Route 115 are projecting a 200% increase in vehicular volumes by the year 2005. Under a no build alternate, and considering the anticipated traffic increase, the type of collisions that are now occurring during the peak hour will begin to occur more frequently during off-peak hours. Under normal conditions, increased congestion on a highway of this type brings about reduced speeds and, therefore, a reduction in the frequency of fixed object accidents.

The peak hour accident rates for both the morning and evening periods are presently lower than the overall statewide accident rate for this type of highway, as well as the existing Maryland Route 115 accident rate. This fact would tend to substantiate that with increased traffic volumes, congestion on this type of highway will reduce the accident rates of certain types of

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collisions; mainly fixed object and opposite direction accidents. We do, however, anticipate an increase in rear-end, left-turn, angle, and same direction sideswipe accidents as congestion grows; and eventually the peak-hour rate will surpass the statewide average accident rate. The peak-hour and statewide rates are listed below.

Morning peak-hour accident rate/100 MVM	518.34
Evening peak-hour accident rate/100 MVM	497.08
Statewide average accident rate/100 MVM	638.10

In summary, the present highway is a rolling, winding two-lane, non-divided facility with numerous street and driveway entrances and is experiencing an accident rate that approximates the statewide average for all similar highways. The peak period analysis indicates an increase in the concentration of accidents exceeding the statewide averages that are normally found in urban areas. If no improvements are made, the collision types and delays that are prevalent through the peak hours will eventually prevail throughout the same day.

Accident costs include present worth of future earnings of those persons killed and permanently disabled, as well as monetary losses resulting from injury and property damage accidents. The unit cost utilized in the previous computations were based upon actual cost values obtained from three independent cost studies conducted in Washington, D. C., Illinois and California and were updated to 1976 dollar values.

C. RELATIONSHIP TO THE TOTAL TRANSPORTATION SYSTEM OF THE AREA:

1. Introduction

In 1964, the General Plan for the Maryland-Washington Regional District in Montgomery and Prince George's Counties, entitled "On Wedges and Corridors", was published by the Maryland-National Capital Park & Planning Commission (M-NCP&PC). Building on the goals included in the earlier 1957<sup>1</sup> General Plan, 8 goals were identified in the 1964 Plan as follows:

- a. Use land efficiently.
- b. Encourage an orderly conversion of developed land to urban use.
- c. Protect natural resources and encourage their proper development

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<sup>1</sup> pp. 16-19

- d. Maintain large open spaces.
- e. Expand opportunities for outdoor recreation.
- f. Facilitate the orderly and efficient arrangement of public utilities and services.
- g. Provide an efficient transportation system, including rapid transit.
- h. Encourage greater variety of living environments.

These goals remain valid today, and support of these goals has been reflected in nearly all subsequent planning documents for the two-county area.

2. Highways

A roadway network is the skeletal framework which ties together and supports the various land uses. Interstate Route 270 forms the backbone of the highway circulation pattern for the development corridor in which the Maryland Route 115 Study Area lies. Envisioning this highway network as a "ladder" pattern of roads, the north-south highways serve as the vertical posts, and the east-west highways as the rungs.

With reference to Figure I-2, I-270 and Maryland Route 355 serve as two vertical posts in this "ladder" network. I-270, being the major highway in the corridor, serves through traffic and long-distance commuters to the Capital Beltway (I-495). Maryland Route 355, generally paralleling I-270 one mile to the east, serves through and local traffic between Germantown and Rockville, continuing into the District as Wisconsin Avenue. Improvements in the Maryland Route 115 Study Area, known as the Eastern Arterial (and M-83), have been included as an integral transportation element of all area land use plans. Serving local traffic, this arterial would be the easternmost north-south highway in the I-270 Corridor.

Major east-west "rungs" within the Study Area include Montgomery Village Avenue, Laytonsville Road, Shady Grove Road (completed in 1977), Redland Road and Norbeck Road (Md. Route 28). These roads serve as important cross-linkages, distributing local traffic to employment and commercial activity centers. Shady Grove Road also serves as a major access facility to the future Shady Grove Transit Station.

Maryland Route 28

The State Highway Administration has recently received location approval for the widening, reconstruction, and relocation

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of Maryland Route 28 (Norbeck Road) from Bauer Drive easterly for approximately 2.3 miles to east of Bradford Road, along Maryland Route 609, at the community of Norbeck. The reconstruction will consist of a four-lane urban highway with service roads. Improved at-grade intersections will be provided at the intersections with Maryland Route 115 and with Maryland Routes 97/609.

### Maryland Route 97

Early in 1980, a project planning study to develop and evaluate reconstruction alternates for Maryland Route 97, from Maryland Routes 28/609 to Maryland Route 108, in Olney will begin. The purpose of this study is to better serve existing and projected traffic in a safer, more efficient manner.

### 3. Intercounty Connector

Land use plans developed for the Maryland Route 115 Corridor have historically shown a major circumferential highway, originally part of a proposed Outer Beltway. This facility has been reduced in scope and renamed the Intercounty Connector (ICC). The current Master Plan alignment of the ICC extends from west of I-270 near Gaithersburg easterly to the Baltimore-Washington Parkway near Beltsville. (See Appendix E-3)

The ICC has been included in this study only for the purpose of analysis. It is important to note that the only relationship between the Maryland Route 115 study, as presented in this document, and the ICC study is to demonstrate the independent need for improvements to Maryland Route 115, regardless of future decisions concerning the ICC. This independent need for Maryland Route 115 is borne out by traffic projections presented later in this section. They demonstrate that the ICC, which appears in local and regional plans, as a full access controlled highway, would not serve the same need as Maryland Route 115. The Intercounty Connector Study was initiated in March, 1979 to determine whether and how the need for improved east-west highway service should be met in Montgomery and Prince George's Counties. (See Appendix E-3)

The Study Area of Relocated Maryland Route 115 lies within the Intercounty Connector Study Area and some alternates developed for the Maryland Route 115 Study followed portions of the Intercounty Connector location as shown in the Master Plan. Approximately 2.3 miles of the selected alternate lies along a portion of the Master Plan alignment for the ICC. This segment will not pre-determine the corridor alternatives for the proposed 20 to 25-mile long ICC. Appropriate design criteria (design speed, median and right-of-way width) and features had been established for Relocated Maryland Route 115 during preliminary planning that would have permitted joint usage should this location also be selected for the Intercounty Connector. In response to public and agency comments, design criteria for the selected alternate have been reduced along these portions to be consistent with the balance of the Maryland



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Route 115 alignment as presented in this E.I.S.. In the event that a common section for the ICC is selected in the future, changes in design criteria and modifications to existing roadway would be necessary as a part of the ICC study.

Traffic predictions for three conditions have been made in order to evaluate the possible effects the ICC may have on design year (2005) traffic volumes for Relocated Maryland Route 115.

Projected ADT's and Levels of Service in the year 2005 are summarized as follows for the three Maryland Route 115 Alternate conditions:

PROJECTED YEAR 2005 ADT'S & LEVELS OF SERVICE  
(from Shady Grove Road to Md. Route 28/97)

<u>CONDITIONS</u>	<u>ROADWAY</u>	<u>ADT</u> <sup>1</sup>	<u>LEVEL OF SERVICE</u> <sup>2</sup>
1. Reloc. Md. Rte 115 built along Alt. 4 alignment, ICC not constructed	Alt. 4	26,000 to 28,000	C
	ICC	No-Build	
2. Reloc. Md. Rte. 115 built along Alt. 4 alignment, ICC built in separate, non-Master Plan alignment	Alt. 4	20,000	B
	ICC	63,000	?
3. Reloc. Md. Rte. 115 built along Alt. 4 alignment, ICC built on common, Master Plan alignment	Alt. 4	100,000	D
	ICC		
	Old Md.115	8,000 to 9,000	E
	Old Md.115	7,000 to 8,000	E
	Old Md.115		

As evident in this traffic data, construction of the ICC would not reduce the forecasted volumes along Alternate 4 below 20,000 ADT. This is because the two facilities serve two distinct and separate functions. The Maryland Route 115 improvement would satisfy local and short through trips, which are projected to significantly increase as a result of the currently on-going and planned local development. The purpose of the ICC is to relieve traffic volumes on the Capital Beltway (I-495) and reduce travel time and distance between its termini (see Appendix E-3 for details). The traffic demand for Alternate 4, with the most competitive alignment for the ICC assured, fully warrants highway improvements of the scale presented in this document. There is a separate need for relocating Maryland Route 115 along the alignment shown for Alternate 4 whether or not the ICC is constructed.

<sup>1</sup> See Appendix A, Glossary for Definition  
<sup>2</sup> Ibid

4. Transit

The Washington Metropolitan Area Transit Authority (WMATA) is the public agency established in 1966 for the purpose of improving the public transportation system in the Capitol region. In addition to operating a regional bus system (Metrobus), WMATA is responsible for constructing and operating a major new rapid rail system. Construction of the 101-mile modern rail system began in 1969, with an estimated completion cost of approximately \$6.8 billion.

All five (5) transit lines, consisting of subway, surface and elevated segments, are now under construction. The Red Line extends south from Glenmont (Georgia Avenue and Urbana Drive) into the District and then north again generally along Wisconsin Avenue through Rockville to the Shady Grove Station. The Shady Grove Transit Station will be located between Redland Road and Shady Grove Road, along the Baltimore & Ohio Railroad. It is expected to be completed and open for use in early 1983. Access to the Shady Grove Station will be provided via I-270 (using a new freeway connection, following a portion of the Intercounty Connector alignment, to be known as I-370), Maryland Route 355 and Shady Grove and Redland Roads.

Highway improvements in the Maryland Route 115 Study Area (identified as M-83 in the Shady Grove Sector Plan) will provide an important local link in the highway network servicing the Shady Grove Transit Station.

D. BENEFITS TO THE STATE, REGION AND COMMUNITY:

Benefits associated with highway construction in the Maryland Route 115 Study Area are expected to accrue primarily to the surrounding community and local traffic. Because through traffic uses I-270 and Maryland Route 355, benefits to state-wide travelers from this project are expected to be minimal.

Regional and community benefits will be derived from the improved local access, providing safer and more efficient local travel. The safety features and control of access, which are a part of all new location alternates, are expected to significantly reduce both the number and severity of accidents within the Study Area. Beneficiaries of safer local travel will be study area commuters, shoppers and school-oriented travelers.

Implementation of the Maryland Route 115 highway improvements will complete the local roadway system, and permit orderly growth in accordance with adopted land use plans. Planning for area park, subdivision and school plans include construction of an improved Maryland Route 115.

Transit-oriented travelers will benefit from improved access to the Shady Grove Metro Station. Continued growth in the study area will necessitate completion of the local roadway network in order to permit adequate access to the transit station.

E. SUPPORTING STUDIES:

Land use planning in the study area is undertaken by the City of Rockville, Montgomery County, The Maryland-National Capital Park & Planning Commission, Washington, D. C. Council of Governments, and numerous Maryland State Agencies. The transportation elements of these plans, which support the need for highway improvements along Maryland Route 115, are summarized in the following paragraphs.

1. City of Rockville, Master Plan (July 29, 1970) -

The Rockville planning area does not include the Maryland Route 115 Study Area. The Regional Highway System included in this Plan indicates construction of the Outer Beltway (Intercounty Connector), Shady Grove Road (now complete), and Gude Drive (M-1) between I-270 and Maryland Route 28.

2. The Maryland-National Capital Park & Planning Commission

a. "... on Wedges and Corridors" (1964)

Maryland Route 115, relocated, is noted on the map of the transportation plan as a major highway, extending between Germantown and Maryland Route 28.

b. Draft Selected Transportation Elements, including the Master Plan of Highways (Map, February, 1974)

Maryland Route 115 (M-83) is shown as a controlled major highway extending from Germantown to Maryland Route 28.

c. Gaithersburg Vicinity Master Plan (June, 1971)

Maryland Route 115 (M-83, Eastern Arterial) is noted as a controlled major highway extending from Great Seneca Creek to Redland Road.

d. Rock Creek, Master Plan (Oct., 1968)

Maryland Route 115 (Muncaster Mill Road Relocated) is noted as a major highway extending from Redland Road to the North Branch of Rock Creek.

e. Olney & Vicinity, Master Plan (Sept., 1966)

Maryland Route 115 (Muncaster Mill Road Relocated) is noted as a major highway extending from the North Branch of Rock Creek to Maryland Route 28 (Norbeck Road). The preliminary draft of the updated Master Plan (April, 1979) does not change this statement.

f. Aspen Hill, Master Plan (December, 1970)

Maryland Route 115 (Muncaster Mill Road Relocated) is noted as a major highway extending from Rock Creek to Norbeck Road (Md. Route 28).

g. Sector Plan for the Shady Grove Transit Parking Area, (adopted & approved, April, 1977)

Maryland Route 115 (Eastern Arterial, M-83) is recommended as an ultimate six-lane, divided, controlled major artery. This road is included in the County's fiscal years 1977-82 Capital Improvements Program for initial construction as a two or four-lane roadway from Shady Grove to Montgomery Village Avenue. This will significantly improve accessibility from the Montgomery Village Avenue and northeast Gaithersburg areas to the Metro Station and County Service Park. Construction of this road is recommended at the earliest reasonable opportunity.

3. Washington, D. C. Council of Governments -

The "Long-Range Transportation Plan for the National Capitol Region (July, 1976)" identifies a "Construct/Upgrade" improvement for Maryland Route 115 between Montgomery Village Avenue and Norbeck Road.

II. ALTERNATES

A. DESCRIPTION OF THE PROPOSED ACTION:

The Maryland Department of Transportation, State Highway Administration, proposes to construct a major highway connecting Montgomery Village Avenue with Norbeck, a distance of approximately 8 miles. Included in the proposed action are increases in roadway capacity and safety.

The roadway improvement begins with an intersection at Montgomery Village Avenue, and extends east to Norbeck, terminating at Maryland Route 609. Improvements include 2 or 3 lanes in each direction, separated by a median width of 30' (minimum) to 54' (maximum). Right-of-way widths vary from 150' to approximately 254'. Full control of access would be provided between intersections, which would be located at Goshen Road, Laytonsville Road, Miller Fall Road, Shady Grove Road, Redland Road, Old Mill Run, Needwood Road, Muncaster Mill Road, and Maryland Route 609. An interchange is planned at Maryland Route 97.

Vehicle recovery areas (varying in width between 20' and 30') would be provided along the entire length of the proposed action.

Draft EIS alternate locations are shown in Figure II-1.

B. PRELIMINARY ALTERNATES CONSIDERED:

The development of location alternates in the Maryland Route 115 Study Area began with Maryland-National Capital Park & Planning Commission's Master Plan Alignment, M-83. Identified as Alternate 2, this alignment had been the subject of earlier SHA and M-NCP&PC studies and public meetings.

From this alternate, an array of 27 alternates was developed and evaluated in terms of their engineering and environmental impacts. During the early stages of this study, it became apparent that 20 of these alternates should be dropped due to significant environmental impacts, engineering difficulties or an inability to meet travel demands.

The 7 remaining alternates were presented to the public during the Interim Alternates Meeting, held March 24, 1977. These alternates accomplished the goal of improved highway access in accordance with the following basic design concepts:

1. No-Build (Alternate 1)
2. Improve existing roadways (Alternate 5)
3. Construct improved roadway in new location, either in the center, north or south of the corridor (Alternates 2 & 7)

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4. Construct improved roadway in new location in conjunction with other planned roadways in this corridor (i.e., joint development with portions of the proposed Intercounty Connector, proposed Perry Parkway, etc.) (Alternates 3, 4 & 6).

As a result of public and agency comments received during and after the Interim Alternates Meeting, the following changes were made. Alternate 4 was deleted because of duplication with Alternate 2. Alternate 7 was deleted because of serious planning conflicts with the Shady Grove Transit Station. Alternate 6-5 was added because of citizen requests. Alternate 6 was shifted south near Laytonia to reduce park impacts to Upper Rock Creek Regional Park (in the vicinity of Laytonsville Road and Maryland Route 115).

After additional traffic studies, Alternates 3 and 6 were extended east from Maryland Route 97 to Maryland Route 609. Heavy traffic volumes at Maryland Route 97, and the resulting "dog leg" from Alternates 3 and 6 to Maryland Route 609, via Maryland Route 97 to Maryland Route 609 if the extensions were not made, necessitated this extension.

These 6 alternates were presented to the public during the Alternates Location Meeting held December 28, 1978 (Alternates 1, 2, 3, 5, 6 and 6-5). As a result of public and agency comments received, Alternate 2 was deleted; Alternate 4 was reinstated; and Alternate 6 was reshifted north through the park (generally as shown in March, 1977). Alternate 2 was deleted because of air quality violations in the vicinity of Maryland Route 28. Alternate 4 was reinstated because of support by the M-NCP&PC. Alternate 6 was shifted back into the park because of severe residential displacements along the alignment east of Laytonsville Road.

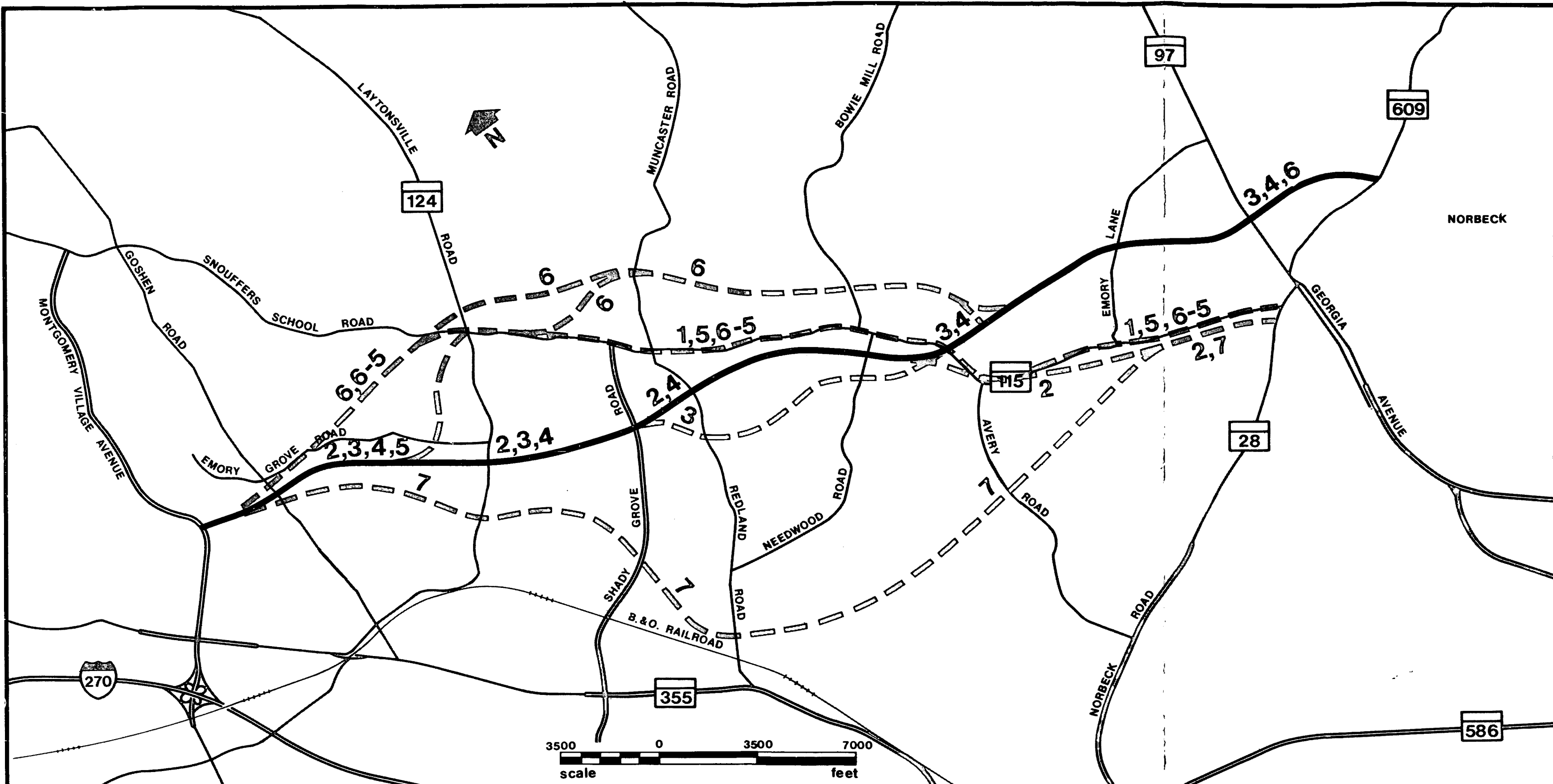
Alternates 1, 3, 4, 5, 6 and 6-5 were presented in the Draft EIS and to the public during the Location Public Hearing on July 23, 1979. After consideration of all the public and agency comments, Alternate 4 was selected by the Administrator for implementation.

The following is a summary of the alternates considered. The Draft EIS alternates are shown in Figure II-1.

- Summary of Alternatives Considered -  
(See Figure II-1)

ALTERNATE 1 - No-Build alternative, envisions use of existing roadways with normal maintenance.

ALTERNATE 2 - Proposed that Relocated Maryland Route 115 be located on the alignment shown in the Montgomery County Master Plan as M-83. Major design features would be the same as noted for Alternate 4. The location of Alternate 2 is shown on Figure II-1 in this Statement. Alternate 2 had been dropped from further consideration



**LEGEND**

-  Selected Alternate 4
-  Preliminary and Draft E.I.S. Alternates Deleted From Further Study

**MARYLAND ROUTE 115**

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(1)

**SELECTED ALTERNATE AND  
PRELIMINARY AND  
DRAFT E.I.S. ALTERNATES**

**FIGURE II-1**



prior to the Draft EIS because the major portion of this alternate, from Montgomery Village Avenue to Maryland Route 115 west of Avery Road, is identical to Alternate 4. In addition, the eastern end of Alternate 2 terminated with an at-grade intersection at Maryland Route 28, which would have resulted in unacceptable traffic congestion and air quality violations.

ALTERNATE 3 - Proposed that Relocated Maryland Route 115 be constructed as a controlled access arterial highway on new location. Access would be fully controlled, except at designated intersecting streets and the interchange at Maryland Route 97. From Montgomery Village Avenue to Shady Grove Road, the improvement would consist of a 4-lane dual highway with a 60 MPH design speed. East of Shady Grove Road to Maryland Route 609, the improvement follows the Master Plan alignment of the proposed Intercounty Connector and would have a design speed of 70 MPH. A 6-lane dual highway was planned between Shady Grove Road and existing Maryland Route 115 (Muncaster Mill Rd.) and a 4-lane dual highway from existing Maryland Route 115 to Maryland Route 609.

ALTERNATE 4 - Proposed that Relocated Maryland Route 115 be constructed as a controlled access arterial highway on new location. Access would be fully controlled, except at designated intersecting streets and the interchange at Maryland Route 97. From Montgomery Village Avenue to existing Maryland Route 115 (Muncaster Mill Road), the improvement would have a 60 MPH design speed. A 4-lane dual highway is planned to Shady Grove Road, and a 6-lane dual highway between Shady Grove Road and existing Maryland Route 115. From existing Maryland Route 115 to Maryland Route 609, the project follows the Master Plan alignment of the proposed Intercounty Connector as a 4-lane dual highway with a 70 MPH design speed. (Refer to page I-8 for the relationship of this project to the Intercounty Connector.)

Alternate 5 - Proposed that Relocated Maryland Route 115 be constructed as a controlled access arterial on new location from Montgomery Village Avenue to Laytonsville Road (Md. Route 124). The improvement within this section would consist of a 4-lane dual highway with a 60 MPH design speed. From Laytonsville Road to Maryland Route 28, Alternate 5 generally follows the alignment of existing Maryland Route 115 (Muncaster Mill Road). The roadway within this section would be improved to a 5-lane curbed urban arterial with no control of access and would have a design speed of 40 MPH.

ALTERNATE 6 - Proposed that Relocated Maryland Route 115 be constructed as a controlled access arterial highway on new location. Access would be fully controlled, except at designated intersecting streets and the interchange at Maryland Route 97. From Montgomery Village Avenue to southeast of Bowie Mill Road, Relocated Maryland Route 115 would consist of a 4-lane dual highway with a 60 MPH design speed. The improvement continues in an easterly direction along the Master Plan alignment of the Intercounty Connector from a

point southeast of Bowie Mill Road to Maryland Route 609 and would consist of a 4-lane dual highway with a 70 MPH design speed.

ALTERNATE 6-5 - Proposed that Relocated Maryland Route 115 be constructed as a controlled access arterial highway on new location from Montgomery Village Avenue to Laytonsville Road (Md. Route 124). The improvement within this section would consist of a 4-lane dual highway based on a 60 MPH design speed. From Laytonsville Road to Maryland Route 28, Alternate 6-5 generally follows the alignment of existing Maryland Route 115 (Muncaster Mill Road) and is identical to Alternate 5. The roadway within this section would be improved to a 5-lane curbed urban arterial with no control of access and would have a design speed of 40 MPH.

ALTERNATE 7 - Proposed that Relocated Maryland Route 115 be located in the southern part of the study area. The alignment of Alternate 7 is shown on Figure II-1 in this Statement. Alternate 7 had been dropped from further consideration prior to the Draft EIS because the alignment is close to the B&O Railroad near Redland Road, passing through the County Service Park and the planned Shady Grove Metro Station parking area. In addition, the eastern terminus of Alternate 7 was identical to Alternate 2, with the same unacceptable traffic congestion and air quality violations.

Comparison of Probable Impacts

A summary comparison of impacts associated with Alternates considered in the Draft EIS for the Maryland Route 115 Study Area is presented at the end of this section.

Table II-1 - compares the engineering features and estimated costs of the alternates.

Table II-2 - compares the social and economic impacts of the alternates.

Table II-3 - compares the natural environment impacts of the alternates.

A discussion of the Environmental Consequences of the Proposed Action is given in Section V. A detailed discussion of the Air Quality and Noise Analyses are included in that section.

Possible Impacts on Historic Sites are also discussed in Section V.

Selection Criteria

Alternate 4 was selected for implementation by the Administrator for the following reasons:

Alternate 4 is consistent with all local comprehensive plans, goals and objectives. This alternate would result in the least damages to floodplains, parks and wetlands. It is, however, the most expensive. This location is also strongly supported by the Maryland-National Capital Parks & Planning Commission, and all local Rock Creek Park plans include roadways in these locations. Alternate 4 is also supported by the Montgomery County Executive (see Section VII for documentation).

Alternates 5 and 6-5, improvements generally in existing location, would have the most adverse impacts to residents. Either of these alternatives lack adequate traffic capacity for the design year and would exceed 8 hour (CO) National Ambient Air Quality Standards. Alternate 5 would cause most adverse impacts to historic sites.

Alternate 6 would not best serve the local community due to its northerly location, and would require an extension of Shady Grove Road to provide access to the Shady Grove Metro Station.

Alternate 3 would cause maximum adverse impact to parklands, wetlands, and floodplain.

The "No-Build" does not fulfill predicted traffic, or local development needs of the study area.

Staged construction has been recommended by the team as a possible solution to the higher cost of Alternate 4. Initial completion of the northern section from Montgomery Village Avenue to Shady Grove Road with access to the Shady Grove Metro Station would help relieve traffic volumes on Maryland Route 355, as well as provide a vital network link to Montgomery Village Avenue.

C. SELECTED ALTERNATE:

Relocated Maryland Route 115, as proposed, would be developed as a controlled access arterial highway on new location. Access would be permitted at designated intersecting streets. However, no access would be permitted between these streets. Typical roadway sections are shown in Figure II-2 and 600-scale roadways plans on Figures II-4 thru II-8.

In response to agency and public comments received after the Draft EIS, modifications to Alternate 4 have been made. These include an alignment shift between Goshen and Laytonsville Roads to minimize adverse stream and floodplain impacts, and a general reduction of design standards where Alternate 4 follows the Master Plan alignment for the ICC. These changes are detailed in the following description of the selected alternate.

Geometric design and safety features would be based on a design speed of 60 MPH, with an anticipated posted speed of 45 MPH. The roadway improvements would consist of two lanes (24' pavement), or three lanes (36' pavement) in each direction, separated by a 54' or 30' wide median (minimum). The 54' median would have a depressed configuration and be grassed, except for the construction of 4' wide paved shoulders along the edge of each roadway. The 30' median would have full width paved shoulders with a double-faced concrete traffic barrier located in the center. The 54' median could be reduced to 30' in the future by the addition of a third traffic lane in each direction. On the right of each roadway, a 10' wide paved shoulder would be constructed, followed by an additional 20' graded on flat (6:1 maximum) slopes to provide a 30' safety recovery area. Excavation or embankment slopes would also be constructed in addition to the necessary drainage ditches for controlling stormwater runoff. The provision for safety recovery areas along each roadway conforms to a nationally recognized criteria to minimize accidents and injuries where a vehicle strays from the travelway.

At certain locations along the selected alternate, previously established right-of-way reservations through now existing communities will require that construction be limited to the 150' wide reservation. Through these reservation areas, or other built-up areas, the design speed and roadway improvements will remain the same as described above. The vehicle recovery area would be reduced to a maximum width of 20' and retaining walls constructed to keep all improvements within 75' of the centerline.

- Intersecting Roadways -

Design requirements and typical sections will vary for each intersecting road; however, the improvements will be based on AASHTO requirements and State or County standards, depending on ownership. The horizontal and vertical geometry for all State and County roads will be based on a minimum 50 MPH design speed, unless otherwise noted.

- Service Roads -

Service roads planned in conjunction with this project will have a minimum of 2 travel lanes with two-way operation. The design will be in accordance with AASHTO requirements and State Highway Administration Standards.

- Bridge Structures -

Bridge structures will be designed to accommodate HS 20 loading, be in accordance with the standards of the State Highway Administration and will conform to current AASHTO Specifications. At specified locations, bridges with pedestrian walkways, as required, are proposed to carry existing and planned streets either over or under Relocated Maryland Route 115 and major stream crossings.

- Drainage Structures -

Drainage structures (primarily box culverts) will be designed to maintain existing drainage characteristics in those areas where the roadway will cross streams. Coordination with the Maryland DNR and U. S. Fish & Wildlife Service during the design phase will provide input for provision of such features as natural stream bottoms and oversize culverts for wildlife passage. Detailed hydrologic studies will be made to determine actual location and minimum size of these drainage structures.

- Maintenance of Traffic & Utility Services -

Vehicular and pedestrian traffic and public utility services will be maintained at all times during the construction of these projects.

Vehicular and pedestrian traffic on intersecting State and County roads will be maintained by the construction of temporary roadways, the use of existing roads to detour traffic around a construction site, or by utilizing existing roads.

Interruptions to utility services during the construction period will be kept to a minimum by exercising care and protection for facilities not directly affected by the project, and by construction of utility relocations where necessary.

Montgomery Village Avenue to Shady Grove Road

The selected alternate begins with an at-grade intersection at Montgomery Village Avenue, approximately 0.6 mile north of Maryland Route 355. The 4-lane dual highway proceeds in an easterly direction to an at-grade intersection with Goshen Road, south of Emory Grove Road. It continues generally parallel to and south of Emory Grove Road to an at-grade intersection with Laytonsville Road. This alignment differs slightly from Alternate 4 as presented in the Draft EIS. It has been shifted slightly to the southwest to minimize stream and floodplain impacts. Service roads would be required west of Laytonsville Road on both sides of Relocated Maryland Route 115. The alignment continues easterly generally to the south of the Mill Creek Towne community, crossing Miller Fall Road and then Shady Grove Road, about 1.5 miles north of Maryland Route 355. At-grade intersections are planned at Miller Fall Road and Shady Grove Road. Through the section of Relocated Maryland Route 115 from Montgomery Village Avenue to Shady Grove Road, retaining walls would be constructed (with reduced right-of-way) at the following locations:

- South side of Md. Rte. 115, east of Montgomery Village Avenue (1100 l.f.)
- North side of Md. Rte. 115, east of Laytonsville Road (600 l.f.)

- South side of Md. Rte. 115, west of Miller Fall Road (500 l.f.)
- North side of Md. Rte. 115, Miller Fall Road to Shady Grove Road (2100 l.f.)

Shady Grove Road to Muncaster Mill Road (Md. 115)

East of Shady Grove Road, the alignment of the selected Alternate gradually curves to a southeasterly direction and is located from 500 to 700 feet south of and generally parallel to Muncaster Mill Road. After crossing Redland Road with an at-grade intersection, a 6-lane dual highway would pass through the Cashell Estates and Winters Run subdivisions with a reduced right-of-way width. The roadway has been widened here to accommodate greater traffic demands (see Section V-A-4 for details). The reduction of right-of-way along this segment would require construction of retaining walls at the following locations:

- South side of Md. Rte. 115, Redland Road to west of Rock Creek Bridge (4000 l.f.)
- North side of Md. Rte. 115, Applewood Lane to west of Rock Creek Bridge (2800 l.f.)

Traffic circulation in the Winters Run subdivision would be maintained across Relocated Maryland Route 115 by means of an at-grade intersection with Old Mill Run. The project continues through a portion of Rock Creek Park, where the dual roadways are carried on bridges over Rock Creek and then would connect to existing Needwood Road and Muncaster Mill Road (Md. Route 115) with at-grade intersections.

Muncaster Mill Road (Md. Rte. 115) to Norbeck Road (Md. Rte. 609)

Relocated Maryland Route 115 continues to the east of Muncaster Mill Road as a 4-lane dual highway, still following the Master Plan alignment of the Intercounty Connector. This portion of the alignment differs from that presented in the Draft EIS. Preliminary design had incorporated features that would have made this section compatible with the proposed ICC. This included such elements as a bifurcation to divide traffic between Maryland Route 115 and the ICC at Muncaster Mill Road, wider median and right-of-way, and 70 MPH design speed. In response to comments at the public hearing and agency comments on the Draft EIS, modifications have been made to eliminate the bifurcated section, reduce right-of-way, and lower the design speed to conform to the balance of the alignment. As stated previously, if a common section for the ICC is selected in the future, changes in design criteria and modifications to existing roadway would be necessary as a part of the ICC study. The roadway passes through another portion of Rock Creek Park where dual bridges would carry the roadway over the North Branch of Rock

Creek. The project underpasses Emory Lane, which would be carried on a bridge over Relocated Maryland Route 115, then passes to the south of the Brook Manor Country Club and generally to the north of Sycamore Acres subdivision. Crossing Maryland Route 97 (Georgia Avenue) approximately 0.6 mile north of Maryland Route 28, it terminates at Norbeck Road (Md. Route 609), about 1.0 mile east of Maryland Route 97.

The interchange planned at Maryland Route 97 would be a diamond type. Maryland Route 97 would be reconstructed parallel to and just east of the existing roadway as a 4-lane dual highway from Maryland Route 28 northerly to Batchellors Forest Road, a distance of approximately 1.0 mile. Improved Maryland Route 97 would overpass the dual roadways of Relocated Maryland Route 115. South of Relocated Maryland Route 115, the existing roadway of Maryland Route 97 would be utilized as a Service Road. An on-going design project (by others) would relocate existing Maryland Route 28 and Maryland Route 609 to provide an improved at-grade intersection with Maryland Route 97.

In summary, access to Relocated Maryland Route 115, within the limits of Alternate 4, would be provided at the Maryland Route 97 interchange and with at-grade intersections located at Montgomery Village Avenue, Goshen Road, Laytonsville Road, Miller Fall Road, Shady Grove Road, Redland Road, Old Mill Run, Needwood Road, Muncaster Mill Road and Norbeck Road. No access would be permitted between these intersections.

New bridge structures would be required at the following locations:

- EB & WB Relocated Md. Rte. 115 Bridges over Whetstone Run west of Goshen Rd.
- EB & WB Relocated Md. Rte. 115 Bridges over Rock Creek
- EB & WB Relocated Md. Rte. 115 Bridges over North Branch-Rock Creek
- Emory Lane Bridge over Relocated Md. Rte. 115
- Md. Route 97 Bridges over Relocated Md. Rte. 115

Estimated costs of the proposed Relocated Maryland Route 115 construction described as Alternate 4, from Montgomery Village Avenue to Norbeck Road (Md. Rte. 609), are shown in Table II-1. The costs are based on 1978 prices and include the mainline of Relocated Maryland Route 115, intersecting road construction, bridge, wall and noise barrier construction and right-of-way.

D. ALTERNATIVE MODE:

As discussed in Section I-C-4, "Transit", the I-270 Corridor will be well served by the Washington Metropolitan Area Transit Authority's (WMATA) "Red Line" transit service. The Red Line will extend from the Shady Grove Station (to open in 1983) into the District of Columbia and then north to Glenmont (to open in 1986). This line is one of five transit lines, consisting of subway, surface, and elevated segments, portions of which are either operational or under construction. The Shady Grove Station will be located between Redland Road and Shady Grove Road, along the Baltimore & Ohio Railroad.

Access to the Shady Grove Station will be provided via I-270 (using the new I-370 interstate spur into the Shady Grove Metro Station) Maryland Route 355, Shady Grove Road (recently extended north to Maryland Route 115), and Redland Road. These highways will provide access for all auto and bus trips oriented towards the transit station.

An evaluation of alternative modes which may be substituted for highway construction must necessarily rule out any fixed rail transit because of the close proximity of the Shady Grove Transit Station. The Maryland-National Capital Park & Planning Commission (M-NCP&PC) has included both major transit and highway improvements in the land use plans.

Because the Maryland Route 115 Study Area parallels the transit line, an improved highway will serve to collect transit oriented trips and distribute them to the Station via Shady Grove Road and Redland Road. The frequent access points for these transit trips would seem to make provisions for carpools/bus lanes (High Occupancy Lanes) infeasible. Non-transit oriented trips along Maryland Route 115 tend to vary widely in origin and destination and are not well suited for high occupancy lanes.



ALTERNATE	LENGTH (MILES)	NO. OF THRU TRAFFIC LANES	NO. OF MAJOR INTERSECTIONS	NO. OF INTERCHANGES	NO. OF BRIDGES	ACRES OF NEW RIGHT OF WAY	COST MILLIONS OF 1978 \$1		
							HIGHWAY CONSTRUCTION	RIGHT-OF-WAY & RELOCATION	TOTAL
1*	5.8	2	8	0	1	-	-	-	-
3	8.63	4-6	7	1	12	406.3	35.50	14.07	49.57
4	8.55	4-6	10	1	10	357.6	40.79	13.01	53.80
5	8.32	4-5	10	0	1	110.6	19.47	5.89	25.36
6	8.87	4	8	1	12	399.5	30.44	14.50	44.94
6-5	8.06	4-5	11	0	1	143.9	19.00	7.26	26.26
SELECTED ALTERNATE	8.55	4-6	10	1	9	336.1	39.09	13.01	52.10

\* LAYTONSVILLE ROAD TO MD. ROUTE 28

## MARYLAND ROUTE 115

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO M758-003 371  
FEDERAL AID PROJECT NO US 9441(1)

## ENGINEERING FEATURES MD. ROUTE 115 ALTERNATES

# MARYLAND ROUTE 115

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO M758-003 371  
FEDERAL AID PROJECT NO US 9441(1)

## POSSIBLE SOCIO-ECONOMIC IMPACTS OF MD. ROUTE 115 ALTERNATES

TABLE II-2

ALTERNATE	SOCIAL EFFECTS 1						ECONOMIC EFFECTS				ACRES OF PARKLAND TAKEN	NUMBER OF HISTORIC SITES FROM WHICH PROPERTY WOULD BE TAKEN	3
	RESIDENCES DISPLACED: TOTAL OWNER OCCUPIED TENANT OCCUPIED	MINORITY RESIDENCES DISPLACED	INDIVIDUALS DISPLACED TOTAL MINORITY	RELIGIOUS/NON-PROFIT ORGANIZATIONS DISPLACED	NUMBER OF COMMUNITIES DIVIDED	TOTAL BUSINESSES DISPLACED TOTAL OWNER OCCUPIED TENANT	EMPLOYEES AFFECTED BY BUSINESS DISPLACEMENT TOTAL MINORITY						
1	0 / 0/0	0	0/0	0	0	0	0 / 0	0	0	0	0	0	3
3	8 / 6/2	0	36/0	0	1	1	4 / 0	0	0	0	52.2	3	
4	15/13/2	0	65/0	0	2	1	4 / 0	0	0	0	19.7		
5	9 / 6/3	4	40/16	0	0	0	0 / 0	0	0	0	6.6		
6	23/18/5	7	102/35	0	1	1	4 / 0	0	0	0	39.0		
6-5	14 / 9/5	8	60/32	0	0	0	0 / 0	0	0	0	6.6		
SELECTED ALTERNATE	14/12/2	0	61/0	0	2	1/1/0	4 / 0	0	0	0	13.1		

- NOTES: 1. Estimates Provided by SMA Bureau of Relocation Assistance.  
 2. Access Could be Provided by At-Grade Intersections or Overpasses for Pedestrian-Bicyclist Travel.  
 3. Section 4(f) of Department of Transportation Act Would be Applicable to these Sites.

ALTERNATE	ACRES OF						APPROX. LENGTH OF STREAM RELOCATION (FT.)	APPROX. DISTANCE (FT.) THRU HIGH EROSION POTENTIAL AREAS
	PARKLAND	FOREST	OLD FIELD	ACTIVE FARMLAND PRIME FARMLAND	WETLANDS	100 YEAR FLOODPLAIN ENCROACHMENT		
1	0	0	0	$\frac{0}{0}$	0	0	0	0
3	52.2	115.6	128.2	$\frac{103.0}{90.0}$	2.2	19.1	2250	2000
4	19.7	85.3	118.6	$\frac{114.0}{97.0}$	0	17.3	1250	0
5	6.6	16.1	30.8	$\frac{49.0}{44.0}$	0	14.6	1250	0
6	39.0	93.1	118.5	$\frac{76.0}{105.0}$	0	10.4	1200	0
6-5	6.6	8.5	22.3	$\frac{47.0}{58.0}$	0	3.0	450	0
SELECTED ALTERNATE	13.1	112.8	123.6	$\frac{93.4}{87.0}$	0	7.1	650	0

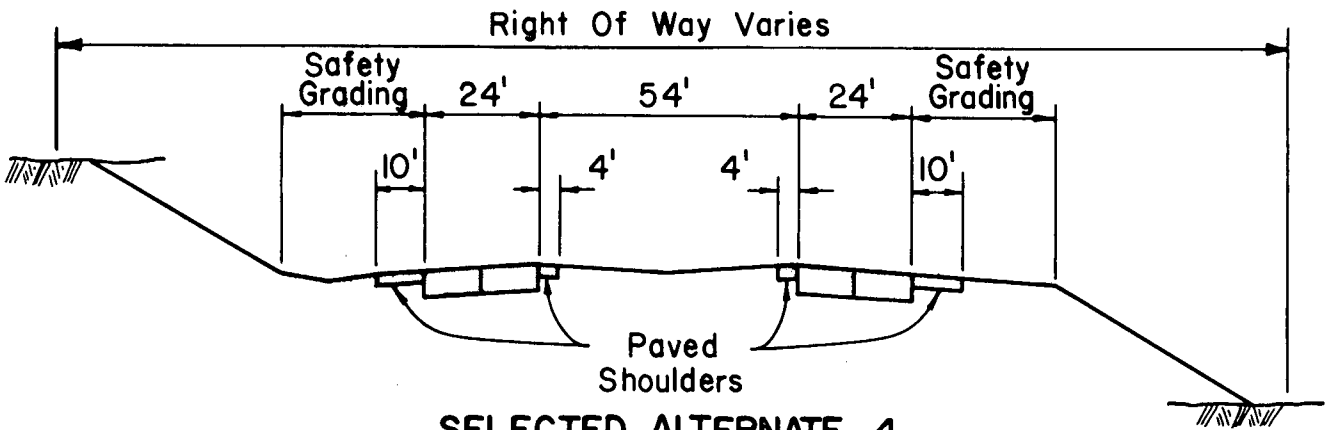
NOTE: The estimates presented above reflect re-analysis of the impacts presented in the Draft EIS.

**MARYLAND ROUTE 115  
FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK**

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO US 9441(1)

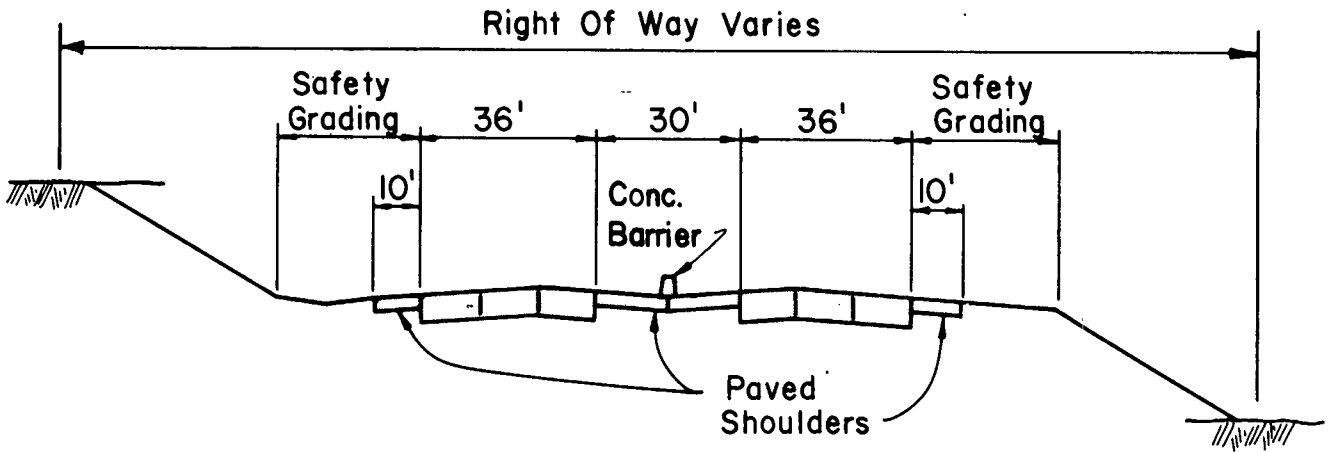
**POSSIBLE IMPACTS OF  
MD. ROUTE 115  
ALTERNATES ON  
THE NATURAL ENVIRONMENT**

**TABLE II-3**



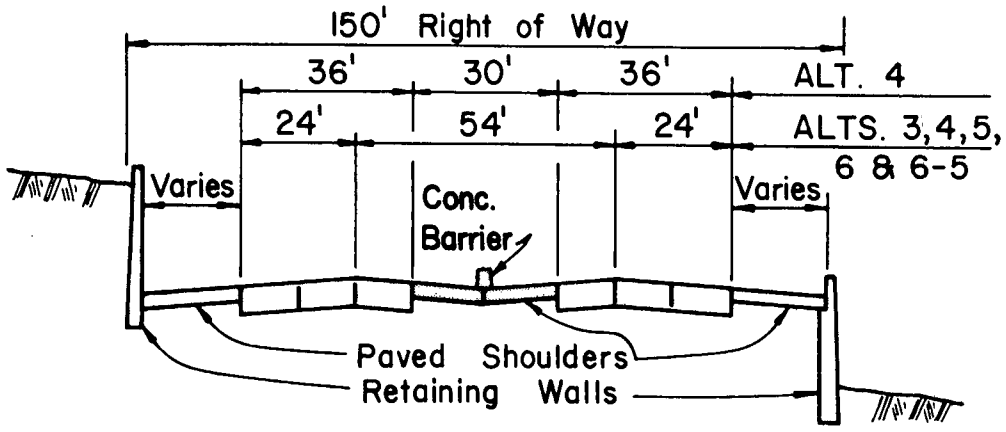
**SELECTED ALTERNATE 4**

(MONTGOMERY VILLAGE AVE. TO SHADY GROVE RD.  
MD. RTE. 115 TO WEST OF MD. RTE. 97)



**SELECTED ALTERNATE 4**

( SHADY GROVE RD. TO MD. RTE 115 )

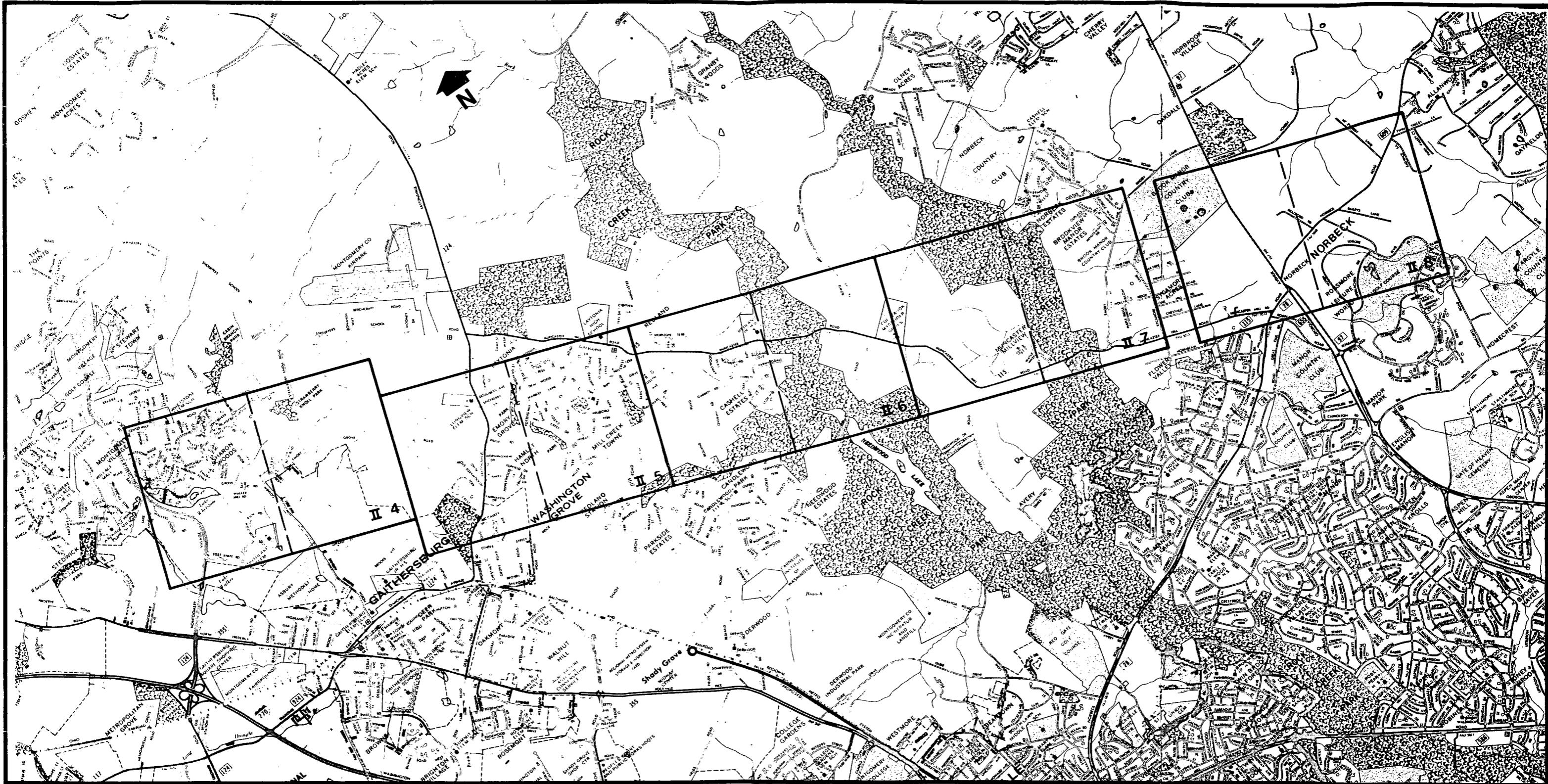


**SELECTED ALTERNATE 4**

( DEVELOPED AREAS WITH RESTRICTED RIGHT OF WAY )

The dimensions shown are for the purpose of determining cost estimates and environmental impacts, and are subject to change during the final design phase.

**TYPICAL ROADWAY SECTIONS**



**MARYLAND ROUTE 115**

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(1)

**INDEX MAP  
ALTERNATE 4**



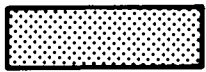
# LEGEND



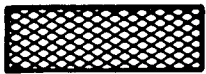
PARKS



LAKES



CHURCHES, SCHOOLS AND CEMETERIES



HIGH EROSION POTENTIAL AREAS



100 YEAR FLOODPLAIN



WETLANDS



SCENIC OVERLOOKS



MASTER PLAN ROADWAYS



RELATED STUDY AREAS



URBAN RENEWAL LIMITS



WATER QUALITY SAMPLING STATIONS



POLICE



POST OFFICE



FIRE STATION



PUMPING STATION



METERING STATION



NEW OR IMPROVED ROADWAY



NEW OR IMPROVED BRIDGE



AT GRADE INTERSECTION



PROPOSED RIGHT OF WAY



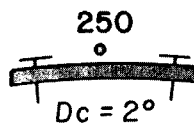
PROPOSED RETAINING WALL



PROPOSED RETAINING WALL / NOISE BARRIER



PROPOSED NOISE BARRIER



STATIONING (IN FEET)

DEGREE OF CURVATURE



BOX CULVERT



AREA OF POSSIBLE SERPENTINITE OUTCROPS

## HISTORIC FEATURES



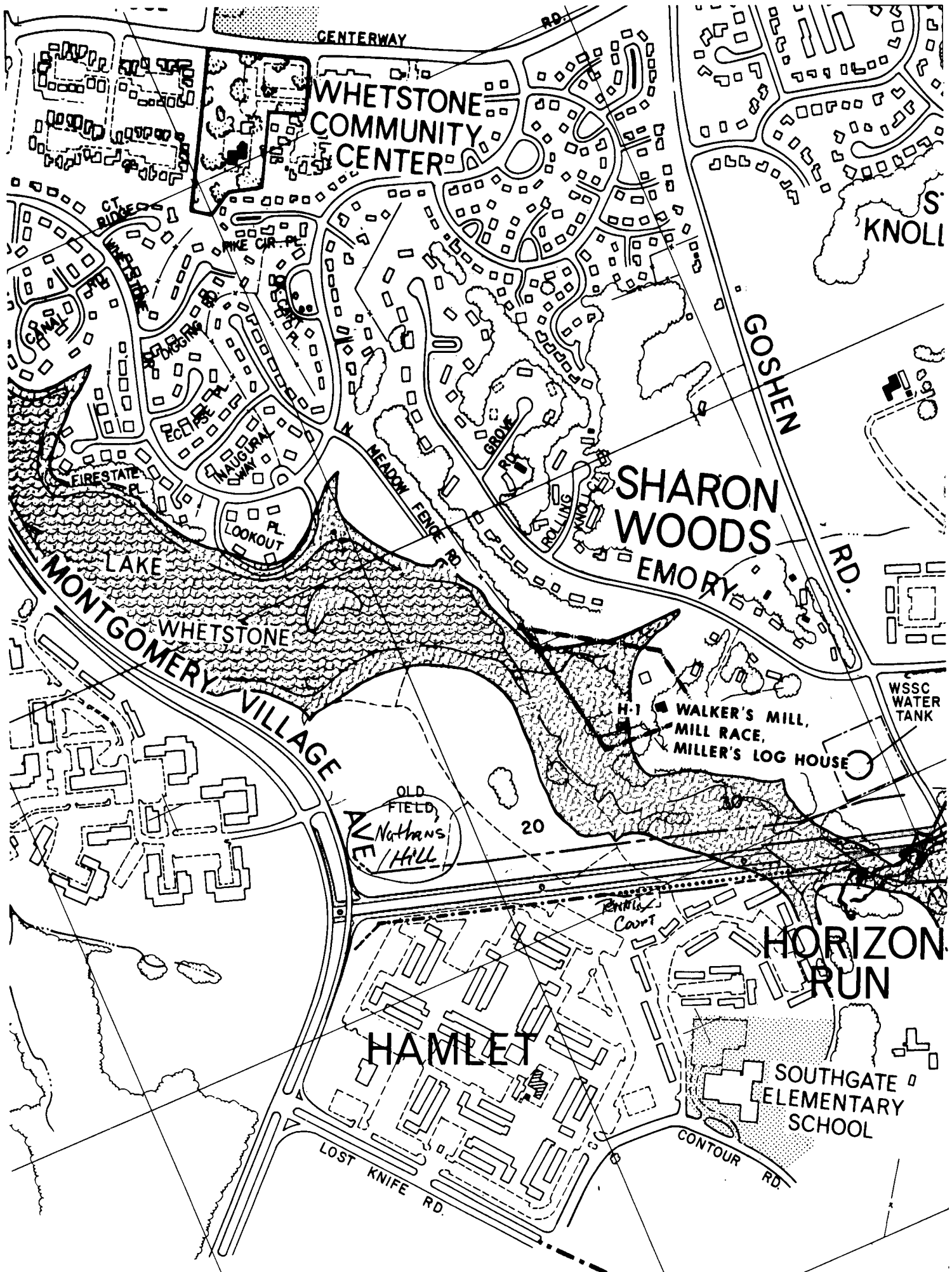
BUILDINGS

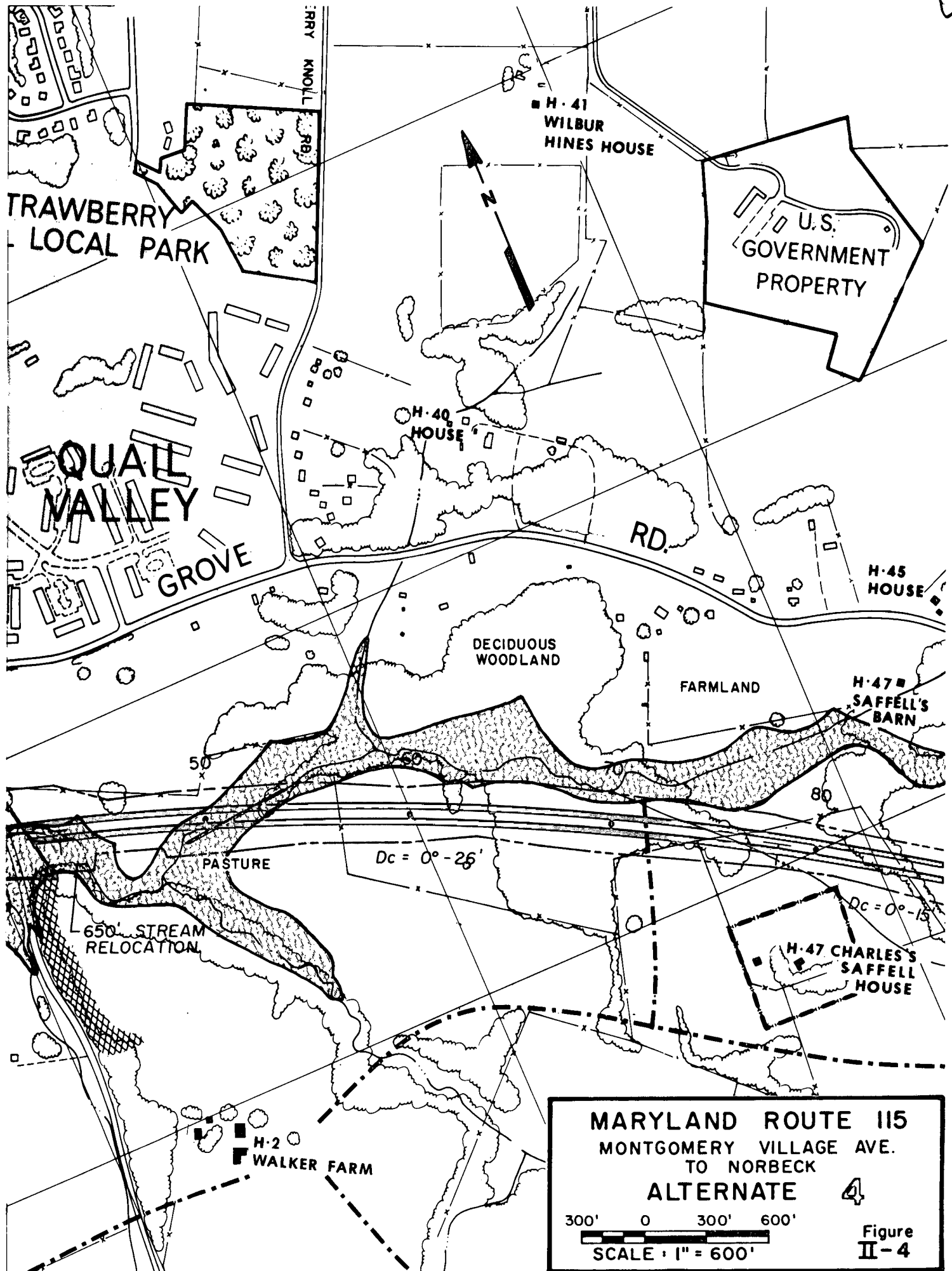


SITES



PROPERTY BOUNDARIES





MARYLAND ROUTE 115  
 MONTGOMERY VILLAGE AVE.  
 TO NORBECK  
 ALTERNATE 4

300' 0 300' 600'  
 SCALE: 1" = 600'

Figure II-4



LAYTONI

LONGVIEW  
ELEMENTARY  
SCHOOL

EMORY  
GROVE

H-3  
EMORY GROVE  
PARK AND  
CHURCH CAMP

EMORY GROVE  
RENEWAL PROJECT  
RD. LIMITS

H-7  
MOODY FARM

EMORY H-4  
GROVE CHURCH

H-7A  
MINERAL  
SPRING  
HOUSE

ALLEN H-50  
HOUSE

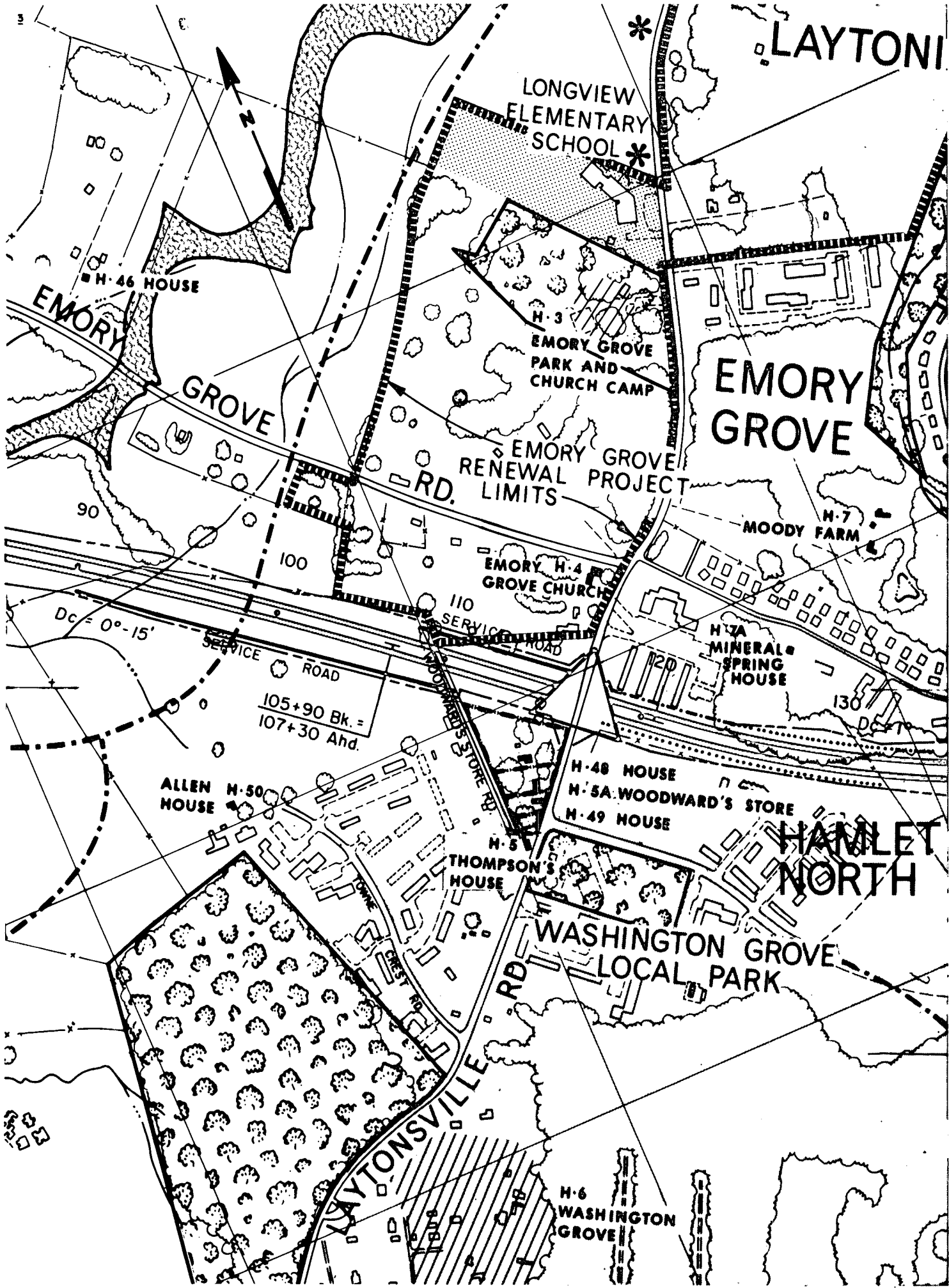
H-48 HOUSE  
H-5A WOODWARD'S STORE  
H-49 HOUSE

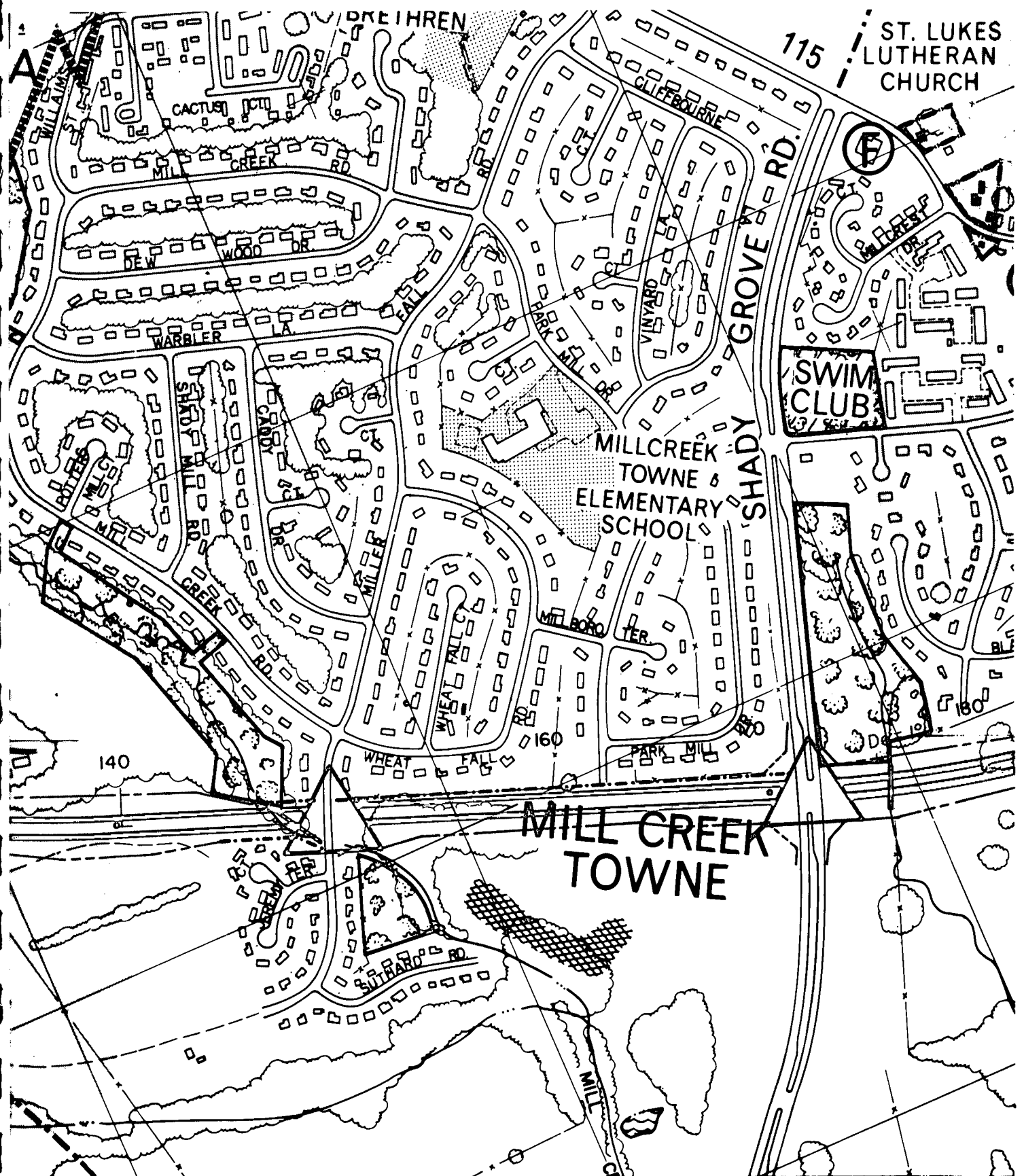
HAMLET  
NORTH

H-5  
THOMPSON'S  
HOUSE

WASHINGTON GROVE  
LOCAL PARK

H-6  
WASHINGTON  
GROVE





140

115

ST. LUKES LUTHERAN CHURCH

SWIM CLUB

MILLCREEK TOWNE ELEMENTARY SCHOOL

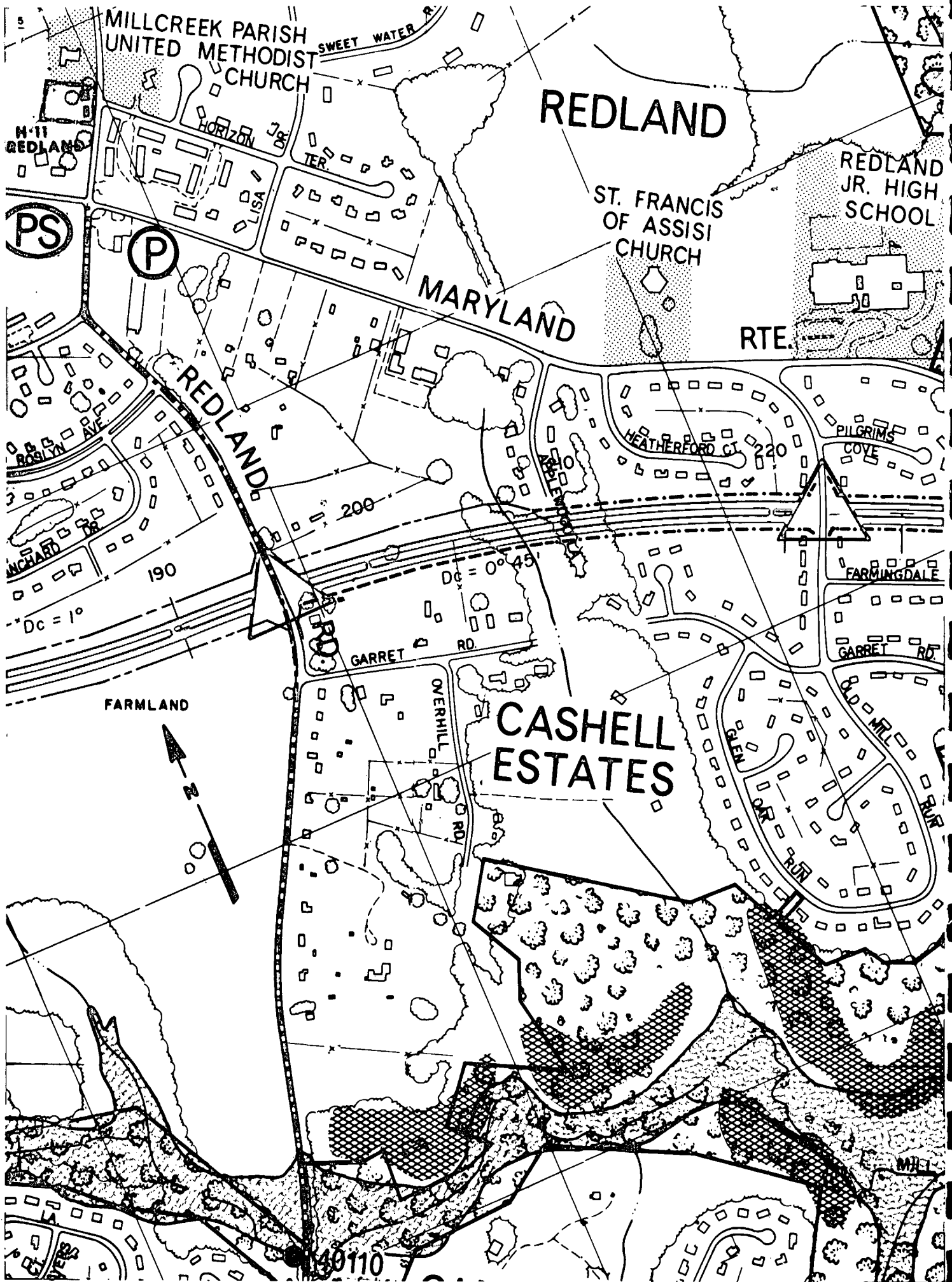
MILL CREEK TOWNE

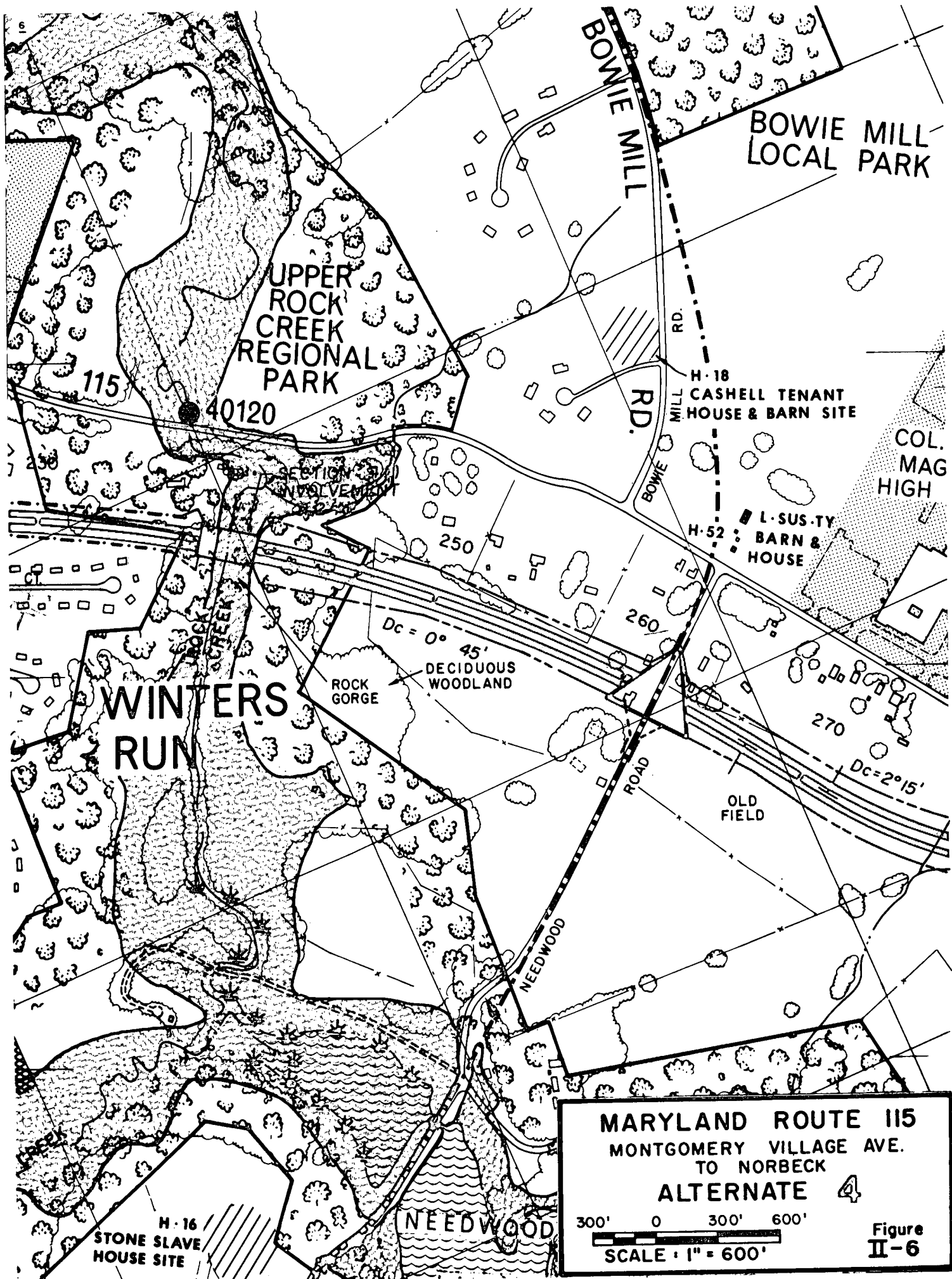
REDLAND STATION

MARYLAND ROUTE 115  
 MONTGOMERY VILLAGE AVE.  
 TO NORBECK  
 ALTERNATE 4

300' 0 300' 600'  
 SCALE: 1" = 600'

Figure II-5





# UPPER ROCK CREEK REGIONAL PARK

SITE OF  
OWENS MILL

ZADOK  
RUDER  
SCHOOL

H-21  
CASHELL  
FARM  
(GRANTHAM)  
& TENANT  
HOUSE

301 + 80 BK =  
304 + 50 A.M.

320

Dc = 0° 30'

300

OLD FIELD

**MS** MUNCAS  
280  
Dc = 2° 15'

290

# MUNCASTER MILLVIEW

MILLVIEW  
WATER  
WHEEL

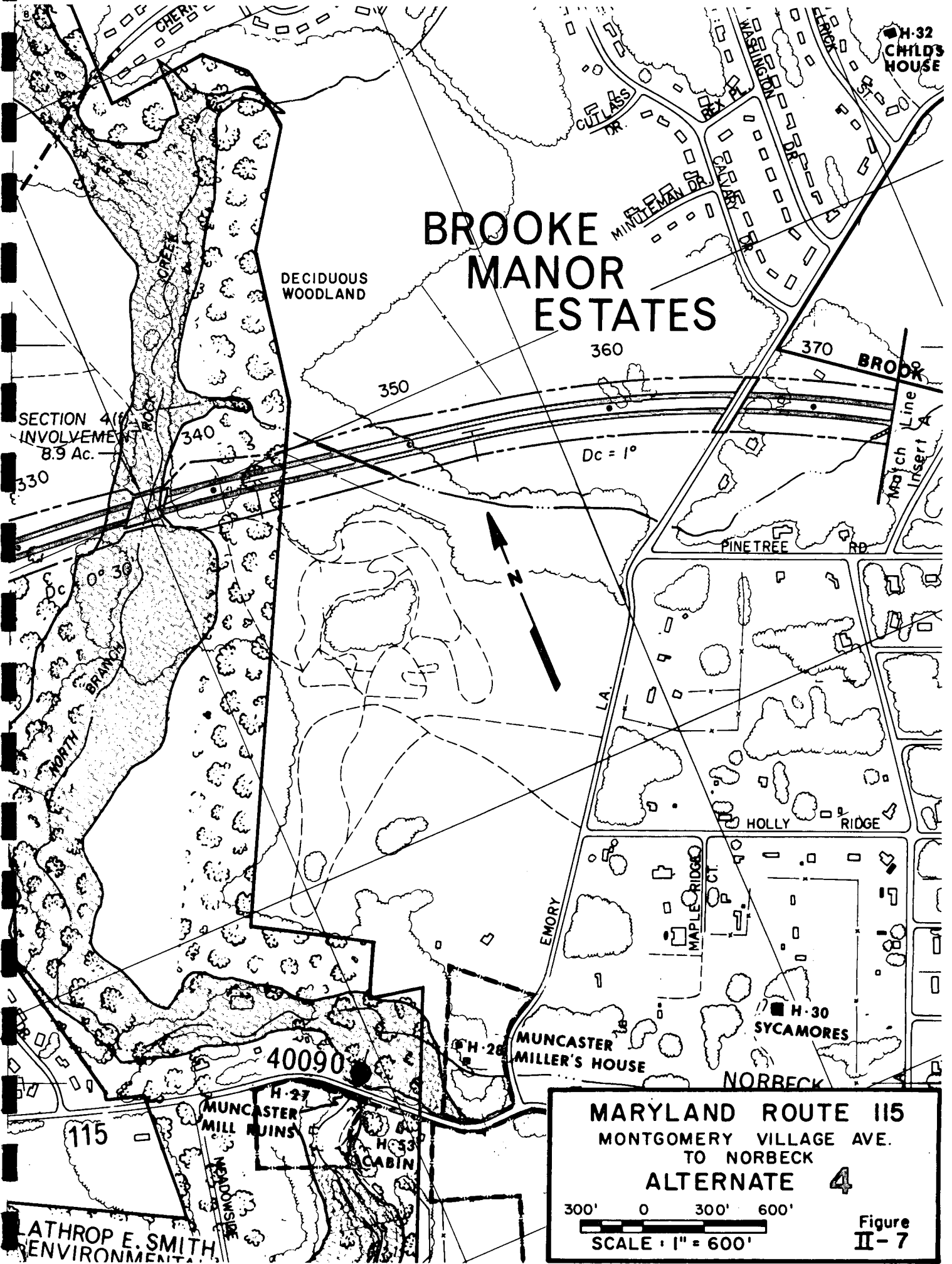
H-22  
BELT FARMHOUSE  
RUINS &  
CEMETERY SITE

H-23  
ADAMSON  
HOUSE

MARYLAND RTE.

RD.  
AVERY

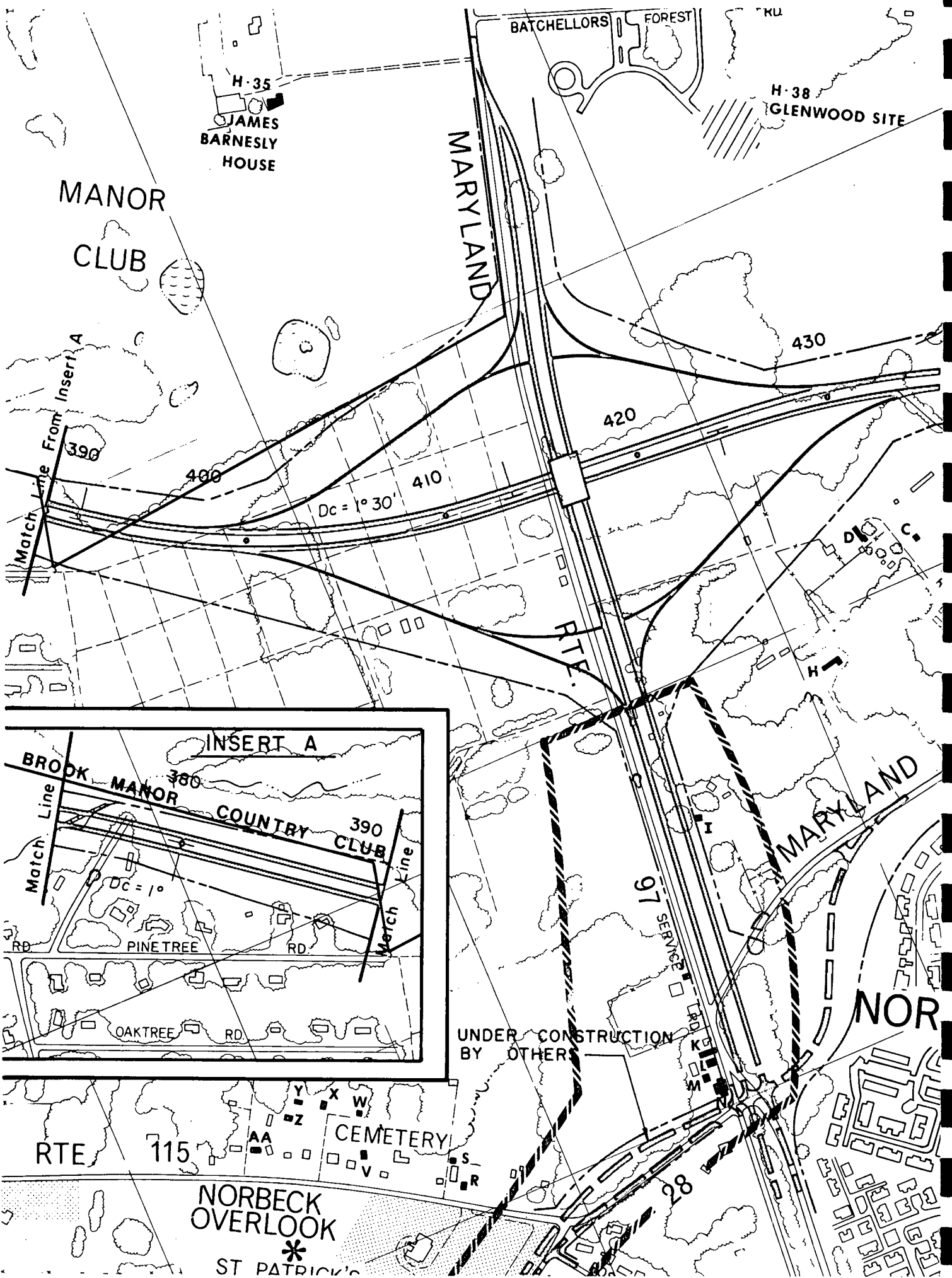
RD.  
MILL



**MARYLAND ROUTE 115  
MONTGOMERY VILLAGE AVE.  
TO NORBECK  
ALTERNATE 4**

300' 0 300' 600'  
SCALE: 1" = 600'

Figure II-7





H-39  
WILLOW  
GROVE

440

450

460

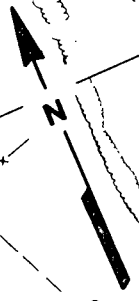
Dc = 1 P 15'

NORBECK  
REC. CENTER 609

NORBECK RD

BAILEYS RD

BECK



MARYLAND ROUTE 115  
MONTGOMERY VILLAGE AVE.  
TO NORBECK  
ALTERNATE 4

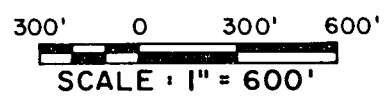
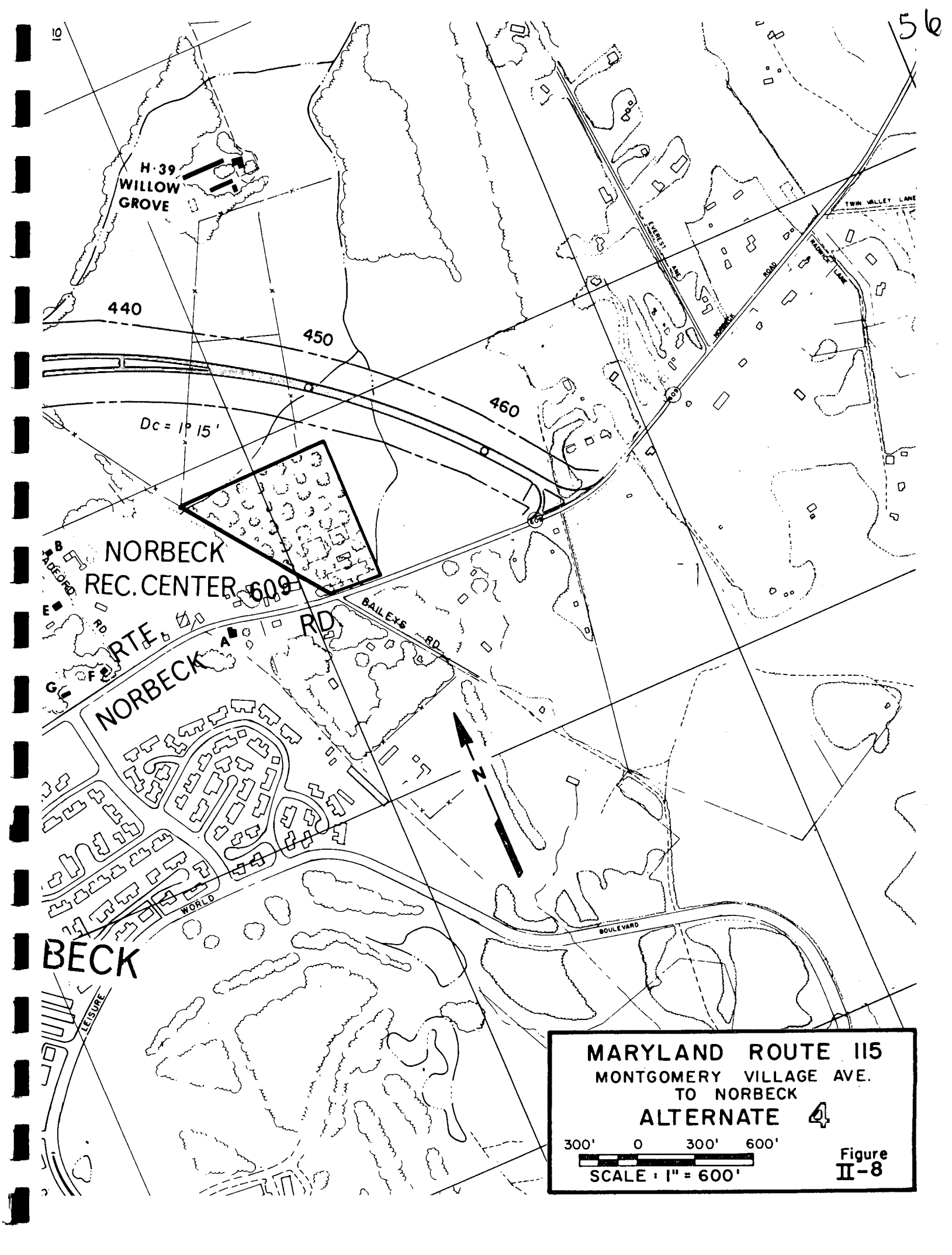


Figure  
II-8





III. AFFECTED ENVIRONMENT

A. PROJECT HISTORY:

1. Project Initiation Meeting

A Project Initiation Meeting was held on Monday, March 10, 1975 at the Col. Zadok Magruder High School on Muncaster Mill Road (Md. Route 115). Approximately 150 citizens attended the meeting. The District Engineer explained that the project was not in the State Highway Administration's Five-Year Construction Program. A brief history of planning for this project was presented and various adopted County Master Plans through 1974 were summarized.

Thirty-four citizens spoke at the meeting, including representatives of several civic associations. Their comments concerned noise and air pollution that may be generated by this project, traffic signals at existing intersections, speed, pedestrian safety and bicycle paths. Several questions concerned the Outer Beltway Study. It was stated that studies of the Outer Beltway would be coordinated with the Maryland Route 115 project. Many of those present were opposed to a recent County proposal to construct the western portion of Maryland Route 115. The majority of those who spoke agreed that an improved facility was needed, but the type of improvement and its location were controversial.

2. Interim Alternates Public Meeting

The Interim Alternates Public Meeting was held on March 24, 1977 at the Col. Zadok Magruder High School, Montgomery County, Maryland. Approximately 200 persons attended. The purpose of this meeting was to present to the public the findings to date of the engineering and environmental studies.

Numerous citizens and representatives of civic associations spoke during this meeting. In summary, public reaction to the alternates as presented during this meeting was as follows:

- Alternate 1 (No-Build) - Little interest shown
- Alternate 2 (Master Plan) - Generally supported
- Alternate 3 - Little interest shown
- Alternate 4 - Little interest shown
- Alternate 5 - Slightly favored
- Alternate 6 - Generally supported
- Alternate 7 - Little consideration given

Several speakers supported a combination of Alternates 5 and 6, primarily because of lesser social impacts.

After the Interim Alternates Public Meeting, comments were received from associations and individuals. Copies of the original written comments can be obtained from the Bureau of Project Planning, State Highway Administration.

Citizens expressed preference through subsequent written comments for Alternates 2, 5 and 6, with some interest shown in a combination of 6 and 5. Civic groups and citizen associations along Alternate 2, the Maryland-National Capital Park & Planning Commission's Master Plan Alignment (M-83), favor Alternate 5 or 6 and oppose Alternate 2. Alternate 6 was supported primarily because "it does not go through anyone's backyard".

Little interest, for or against, was shown in the No-Build and Alternates 3 and 4. Some opposition to the Intercounty Connector, and using the Intercounty Connector corridor for the relocation of Maryland Route 115 was also expressed.

Maryland-National Capital Park & Planning Commission stated that Alternates 1, 2 and 5 should be considered for further study, primarily because all their planning is based around Alternate 2.

Maryland Department of State Planning suggested further study of Alternates 1, 2, 5 and 6. Alternate 6 should be studied with a special view to potential harm to various sections of Rock Creek Park, as well as several planned and existing subdivisions through which it passes.

3. Interim Alternates Report

In September, 1977, the State Highway Administration circulated the Interim Alternates Report. After careful consideration and overall evaluation of the social, economic and environmental aspects of the proposed improvement, and analysis of public input, the Interim Alternates Report recommended that the following alternates be carried forward into detailed study:

- Alternate 1 - The "No-Build" Alternate
- Alternate 2 - The Master Plan Alignment
- Alternate 3 - Master Plan to Intercounty Connector Corridor
- Alternate 5 - Master Plan combined with Master Plan Perry Parkway to existing Maryland Route 115
- Alternate 6 - Northern alignment with modifications in the vicinity of Laytonsville Road and Maryland Route 115, west of Muncaster Road, and west of Rock Creek

Park in vicinity of Muncaster Mill View.

Alternate 6-5 - Combination of west portion of Alternate 6 to existing Maryland Route 115 and Alternate 5 eastward to Maryland Route 28

Interchanges were studied at Montgomery Village Avenue and at Maryland Route 97. Major road intersections were studied at-grade. Portions of alternates utilizing the Intercounty Connector corridor were studied using freeway criteria for horizontal and vertical alignment. All other alternates were studied based on arterial standards.

4. Extension of Study Area East to Maryland Route 609

In early 1978, the State Highway Administration extended the study limit for Alternates 3 and 6 east approximately one mile to Maryland Route 609. High design year turning movements at the interchange of Alternates 3 and 6 with Maryland Route 97, coupled with high traffic volumes at the intersection of Maryland Routes 28/97/609 necessitated this change. This extension would eliminate the "dog leg" for traffic continuing east along Alternates 3 and 6 to Maryland Route 609.

5. Alternates Public Meeting

The Alternates Public Meeting was held on December 14, 1978 at the Col. Zadok Magruder High School, Montgomery County, Maryland. Approximately 130 persons attended. The purpose of this meeting was to present to the public the engineering and environmental studies of the pre-Draft Environmental Impact Statement Alternates.

Seventeen oral comments were made by the public after the intermission. Strong support was voiced for the No-Build, with some support for Alternate 6 (shifted north through Upper Rock Creek as originally shown at the Interim Alternates Meeting) and Alternate 4. Community noise impacts received much discussion, especially in the Mill Creek Towne and Winters Run communities. Several speakers opposed any improvement that connected with Maryland Route 28, citing air quality and traffic congestion as reasons for deleting Alternates 2, 5 and 6-5. Speakers from Sycamore Acres questioned why Alternates 3 and 6 "would destroy residences rather than golf course" (Brook Manor Country Club).

The Maryland-National Capital Park & Planning Commission reiterated their support for construction of Maryland Route 115. The Planning Board recommended Alternate 4 (a combination of Alternates 2 and 3). They were specifically opposed to further study of any other alternates (reference their letter of December 14, 1978).

6. Location Public Hearing

The Location Public Hearing was held on July 23, 1979 at the Col. Zadok Magruder High School, Montgomery County, Maryland. Approximately 300 persons attended. The purpose of this Hearing was to review the details of, and record official public comments on the alternates and environmental assessments developed for the project. Social, economic, natural environment and engineering aspects of the studies for the Draft EIS were presented for public review and both oral and written comments.

Twenty-two oral comments were made by the public after a short intermission. Strong support was voiced for the No-Build, while the bulk of the speakers opposed improvements near their residences or communities. Community noise and air impacts received much discussion, especially in the Mill Creek Towne and Winters Run communities. Several speakers opposed any improvement that connected with Maryland Route 28, citing air quality and traffic congestion as reasons for deleting Alternates 5 and 6-5. Several questions were raised concerning the validity of the traffic projections in light of the current energy situation.

Delegate Toth opposed Alternates 3 and 4 because she believes they pre-empt decisions on the Intercounty Connector (ICC). Both the City of Gaithersburg and the community of Washington Grove support Alternate 3 as being consistent with Master Plan alignment. The Montgomery County Executive supports either Alternate 3 or 4 (old Master Plan alignments) and has requested that no other alternates be considered.

Written comments from private citizens showed the greatest support for the "No-Build" alternate, while specifically opposing Alternates 5 and 6-5, including a petition containing 185 signatures from residents along Muncaster Mill Road. Several local civic associations also voiced their support of the "No-Build" and opposition to Alternates 5 and 6-5.

Local, state and federal agencies are primarily concerned with environmental impacts in their areas of jurisdiction, and generally gave no alternate preferences. However, the Department of the Interior and the Maryland Department of Natural Resources have specifically opposed Alternate 3, and DOI has recommended against Section 4(f) approval for Alternates 3, 4 and 6. The Montgomery County Planning Board of the Maryland-National Capital Park & Planning Commission has recommended that alternative alignment 4 receive location approval.

A complete listing, and copies of agency letters and comments on the Draft EIS have been included in Section VII, Comments and Coordination.

B. SOCIAL AND ECONOMIC CONTEXT:

1. Montgomery County Overview

Montgomery County lies immediately north of Washington, D. C. and is included within the Washington Metropolitan Area. A summary social profile of the County is given in Table III-1.

Montgomery County contains 33 cities, towns and communities. The County population density and number of households increased considerably during the 1960-1970 decade. As shown on Table III-1, the population of Montgomery County rose from 340,900 in 1960 to 522,800 in 1970, an average annual growth rate of 5.34%. Much of this growth is attributed to in-migration due to expanding employment opportunities. Since then, the growth rate has declined.

The 1976 population of Montgomery County was estimated to be 590,000, a yearly increase of about 2.14% over the 1970 population figure. Although this rate shows a net increase, the rate of population growth was significantly slower than it was during the 1960-1970 period. The Maryland-National Capital Park & Planning Commission (M-NCP&PC) predicts continued increases, and projected the 1986 County population to be 687,000.

Household numbers in the 1960-1970 decade also showed notable growth and demonstrate a 10-year average annual growth rate of 6.7%. The growth rate for household number has declined since 1970, and is expected to continue declining into the 1980's. However, growth in the number of households is expected to outpace population growth, resulting in a decreasing average household size. In 1960, the average household size for Montgomery County was 3.30 persons; the 1976 estimate is 3.02 persons, and the 1996 estimate is 2.79 persons (a 15.45% decrease from 1960).

The age structure of Montgomery County's population is shown on Table III-1. Notable trends in the age composition of the population include a relative decline in the size of the 0-14 age groups, increase in the 65 and over age group, and an increase in the 15-64 age group.

The minority population of Montgomery County has grown significantly since 1960, as shown on Table III-1. Minority growth is outpacing general population growth, resulting in an increasing proportion of minority individuals within the County.

The level of educational attainment in Montgomery County is relatively high (see Table III-1). 17.1% of the 1970 population (25 and older) completed some college, and 33.2% completed four or more years of college.

The property tax rate for Montgomery County in 1978 was \$2.90 per \$100 assessed value (at 50% assessment of full market value).

## SOCIAL PROFILE - MONTGOMERY COUNTY

### Six Largest Cities, Towns and Communities - 1970 Populations (5)

Aspen Hill	16,799	Silver Spring	77,496
Bethesda	71,621	Wheaton	66,247
Rockville	41,564	White Oak	17,994

### Population and Households 1960-1986 (1), (3)

<u>Year</u>	<u>Population</u>	<u>Avg. Annual % Increase</u>	<u>Households</u>	<u>Avg. Annual % Increase</u>
1960	340,900		93,830 Est.	
1970	522,800	+5.34	156,700	+6.70
1974 Est.	578,100	+2.64	184,290	+4.40
1976 Est.	590,000	+1.03	195,959	+3.17
1981 Est.	619,000	+0.98	217,459	+2.19
1986 Est.	687,000	+2.20	248,459	+2.85

### Age Structure 1960-1986 (3)

<u>Age Group</u>	<u>1960</u>		<u>1970</u>		<u>1976 Est.</u>		<u>1986 Est.</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
0-4	42,299	12.4	43,074	8.2	43,500	7.3	48,170	7.0
5-14	79,701	23.4	112,707	21.6	98,850	16.7	97,420	14.2
15-24	36,496	10.7	84,387	16.1	95,350	16.2	95,200	13.8
25-34	45,128	13.2	69,402	13.3	95,060	16.1	110,690	16.1
35-44	58,623	17.2	69,943	13.4	72,050	12.3	91,800	13.4
45-64	60,718	17.8	110,677	21.2	136,740	23.2	159,730	23.3
65+	17,963	5.3	32,619	6.2	48,450	8.2	83,990	12.2

### Racial Composition 1960-1973 (4) (8)

<u>Year</u>	<u>Total Non-White Population</u>	<u>% of Total Population</u>
1960	13,200	3.9
1970	28,800	5.5
1973 Est.	42,500	7.2
1977	51,795	9.0

SOCIAL PROFILE - MONTGOMERY COUNTY (CONTINUED)

Highest Year of School Completed by Persons 25 Years Old or Over - 1970 (2)

No High School	10.3%	1-3 Years College	17.1%
1-3 Years High School	10.2%	4 Years or More College	33.2%
4 Years High School	29.2%		

Effective Buying Income by Household - 1975 (2),(5)

<u>Distribution</u>	<u>Percent Households</u>
\$0-\$4,999	6.2
5,000- 7,999	5.0
8,000- 9,999	4.5
10,000-14,999	14.5
15,000-24,999	33.6
25,000-49,999	32.0
50,000-Over	4.1

Effective Buying Income - Personal Income Less Personal Tax And Non-Tax Payments, Similar To Disposable Personal Income.

Sources:

- (1) Montgomery County Planning Board, Maryland National Capital Park & Planning Commission, 1974. Population, Household and Employment Growth Forecast 1974-1984 Montgomery County, Maryland.
- (2) Maryland Department of Economic And Community Development. Community Economic Inventory Montgomery County, Maryland, 1976
- (3) Maryland-National Capital, Park & Planning Commission. Third Annual Growth Policy Report for People, Jobs & Housing, 1976
- (4) Maryland State Highway Administration Interim Alternates Report Project Planning Studies for Maryland Route 115, 1977
- (5) Maryland Department of Economic and Community Development Montgomery County, Maryland Brief Industrial Facts, 1977
- (6) Maryland-National Capital, Park & Planning Commission. Census Update for Montgomery County, 1977



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2. Maryland Route 115 Study Area

a. Census Data -

Census tract boundaries in and near the Maryland Route 115 Study Area are shown on Figure III-1. Pertinent data from the 1970 Census of Population and Housing are given in this section. Where available, these data from the U. S. Census are supplemented by data from other published reports, particularly the Forecast of People, Jobs and Housing in Montgomery County.<sup>1</sup>

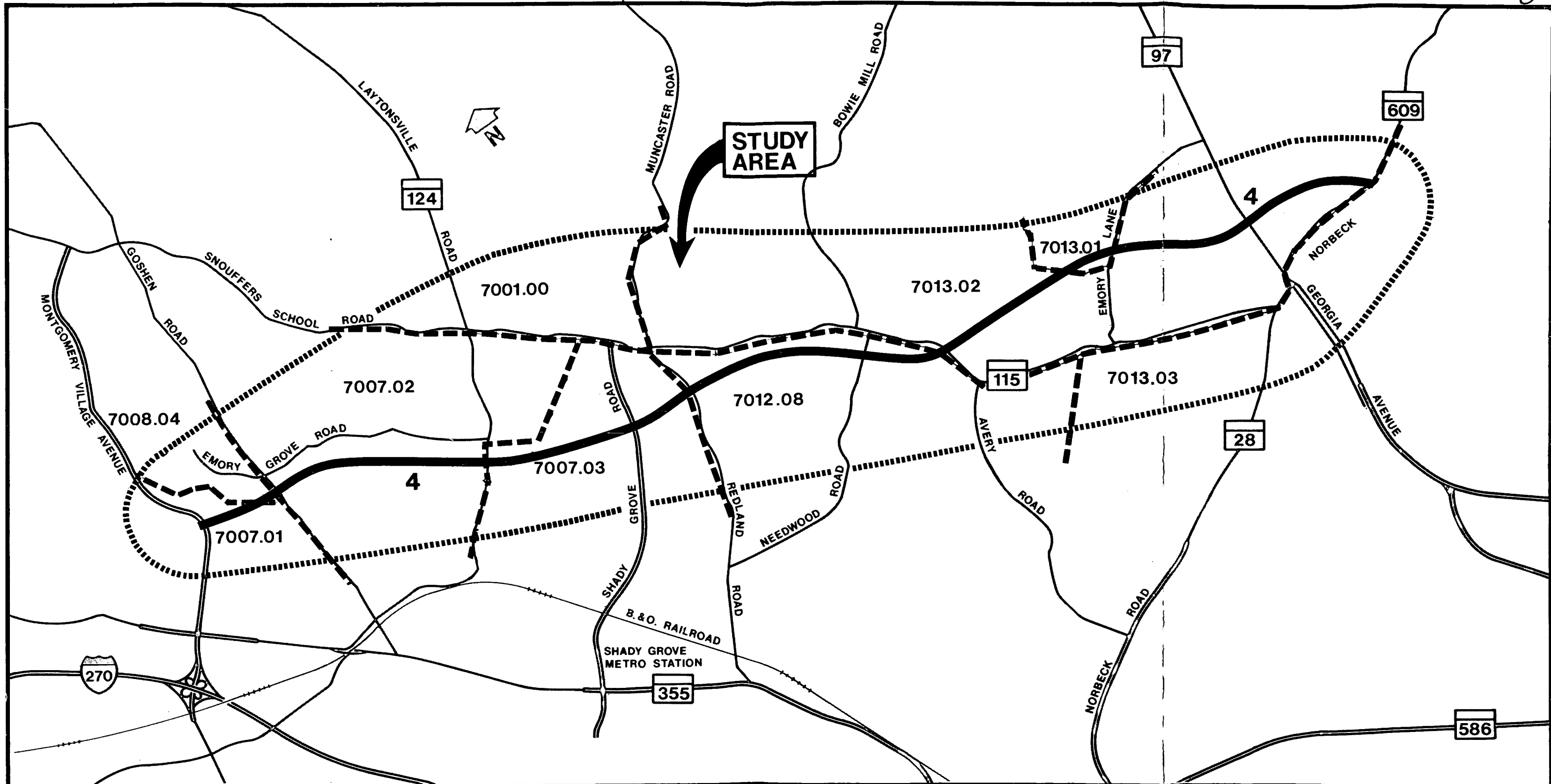
The Study Area includes portions of census tracts 7001, 7007.01, 7007.02, 7007.03, 7008.04, 7012.08, 7013.01, 7013.02 and 7013.03. As shown on Figure III-1, none of these tracts are entirely within the Study Area and several (7001, 7008.04, 7012.00, 7013.02) are mostly outside of the formal study area boundary. However, these tracts will be directly served by the roadway network under consideration and are all included in the census data presented here. Census data for the Study Area tracts are listed in Table III-2.

Unlike the County as a whole, which experienced slower growth during this period, the Maryland Route 115 Study Area has been a focal point of growth. This trend is expected to continue in the future. The population of these study area census tracts increased by 12 to 348% during the period between 1970 and 1975, with tracts 7007.01, 7008.04, 7012.08 and 7013.01 more than doubling their population. By 1975, almost every one of these tracts contained at least 100 persons per square mile, and tracts 7007.01, 7007.03 and 7013.03 contained over 1000 people per square mile. The number of households exhibited similar but slightly higher growth trends.

The minority percentage of the population of these tracts varied from 2.1 to 24.2%, with a mean of 9.5%. High percentages of minority residents are found in tract 7007.02 (24.2%), tract 7013.02 (17.4%) and tract 7001.00 (13.2%).

The age distribution of study area residents indicates relatively high proportions of young and elderly individuals, groups traditionally more dependent on pedestrian and public transportation. Tracts 7013.02 and 7007.01 contain notable proportions of residents aged 65 or over (8.9 and 7.9%, respectively).

<sup>1</sup> Third Annual Growth Policy Report of the Montgomery County Planning Board, October, 1976.



**LEGEND**

- - - CENSUS TRACT BOUNDARY  
 7013.00 CENSUS TRACT REFERENCE NUMBER



**MARYLAND ROUTE 115**

FROM  
 MONTGOMERY VILLAGE AVENUE  
 TO NORBECK

STATE PROJECT NO. M758-003-371  
 FEDERAL AID PROJECT NO. US 9441(1)

**1970 CENSUS TRACT BOUNDARIES**

FIGURE III-1

CENSUS TRACT (SEE FIG. III-1)	TOTAL POPULATION			% MINORITY INDIVIDUALS	3/ POPULATION DENSITY	AGE DISTRIBUTION (%)			% POPULATION IN SAME RESIDENCE 1965-1970	MEDIAN FAMILY INCOME	PERCENT BELOW POVERTY LEVEL	MEDIAN HOUSE VALUE
	1970	2/ 1975	PERCENT GROWTH			19 AND YOUNGER	20 TO 64	65 AND OLDER				
7001.00	3,452	3,880	+ 12.4	13.2	80.6	45.9	58.7	5.4	49.3	\$13,908	7.2	\$31,966
7007.01	4,316	11,460	+165.5	2.9	1147.9	35.2	56.9	7.9	22.3	\$11,526	2.9	\$28,600
7007.02	2,425	3,390	+ 39.8	24.2	587.2	41.5	53.9	4.6	33.5	\$10,545	11.0	\$29,833
7007.03	4,785	6,400	+ 33.7	2.1	1622.0	48.2	49.2	2.6	16.7	\$17,492	0.5	\$30,046
7008.04	2,806	12,590	+348.7	8.0	888.0	40.8	56.8	2.4	4.4	\$19,348	1.2	\$42,049
7012.08	1,349	2,800	+107.6	4.8	203.2	47.2	49.1	3.7	48.2	\$14,557	6.1	\$40,182
7013.01	3,184	10,600	+232.9	6.5	354.6	47.4	48.9	3.7	23.6	\$16,607	3.1	N/A
7013.02	6,562	7,960	+ 21.3	17.4	188.7	43.2	47.9	8.9	54.1	\$15,794	7.2	\$35,821
7013.03	3,144	3,940	+ 25.3	4.3	1806.9	53.3	44.1	2.6	N/A	\$22,614	2.6	\$48,992
STUDY AREA CENSUS TRACTS	32,023	63,020	+ 96.8	9.5	788.0	44.4	50.4	5.2	-	\$15,881	4.5	\$31,580
MONTGOMERY COUNTY	522,800	—	—	—	—	—	—	—	—	\$16,710	—	—

1/ SOURCE: 1970 CENSUS OF POPULATION AND HOUSING, UNLESS OTHERWISE NOTED.

2/ SOURCE: MARYLAND NATIONAL CAPITOL PARK AND PLANNING COMMISSION, INFORMATION BULLETIN NO. 18, 1976

3/ TOTAL PERSONS PER SQUARE MILE

1970 SOCIO-ECONOMIC DATA  
MARYLAND ROUTE 115 STUDY AREA 1/

TABLE III-2

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b. Community Organization, Cohesion & Participation -

The study area may be viewed as part of the general northern Montgomery County community. Residents live in a semi-rural atmosphere, attend similar schools, use the same health and recreational facilities, and are governed by the same local agencies. The census tracts of northern Montgomery County generally show higher house values and incomes, more young children, less elderly residents, and other demographic differences from State norms.

The immediate study area comprises numerous separate subdivisions, each representing a separate community. Many of the subdivisions have their own private tennis and swim facilities and improvement groups, all of which promote common interests. The subdivisions in the Maryland Route 115 Study Area are identified on the Environmental Map, Figure III-2. These communities are generally well defined and geographically distinct.

The Montgomery Village complex is located along Montgomery Village Avenue at the western termini of the Study Area. The existing development, as well as the proposed developments of Dockside, South Village and Walker's Ridge, have all been planned to allow for the M-NCP&PC Master Plan M-83 alignment, through the provision of reserved right-of-way.

The existing communities along Laytonsville Road south of Maryland Route 115 include Laytonia, Emory Grove and Washington Grove. Although a portion of this area lies within the Emory Grove Renewal Project, other portions contain some of the study area's oldest housing.

Mill Creek Towne is a major residential subdivision located south of Maryland Route 115, generally between Laytonsville Road and Redland Road. Approximately 450 homes are located west of Shady Grove Road, 50 of which lie south of the M-83 Master Plan Alignment, along Miller Fall Road. Approximately 120 homes are located east of Shady Grove Road. Two tracts of Mill Creek South are planned, one as an extension of Miller Fall Road and another along the east side of Shady Grove Road. Both the existing and planned development were laid out with land reservations for Shady Grove Road (now constructed) and the Master Plan Alignment for M-83 (included in this Statement).

Cashell Estates (approximately 40 homes) and Winter's Run (approximately 150 homes) are located between Redland Road and Upper Rock Creek Regional Park, on the south side of Maryland Route 115. Both subdivisions include provisions for Master Plan highways.

Between the two arms of Upper Rock Creek Park, Muncaster Millview (approximately 50 homes) is the only existing subdivision. Avery Village is planned along Avery Road, south of Maryland Route 115.

LEGEND FOR FIGURE III-2

**■** SCHOOLS

- 1. Stedwick Elementary School
- 2. Montgomery Village Junior High School
- 3. Watkins Mill Elementary School
- 4. Whetstone Elementary School
- 5. South Lake Elementary School
- 6. Gaithersburg Elementary School
- 7. Gaithersburg Junior High School
- 8. Longview Elementary School
- 9. Mill Creek Towne Elementary School
- 10. Gaithersburg Junior High School
- 11. Redland Junior High School
- 12. Col. Zadok Magruder High School
- 13. Candlewood Elementary School
- 14. North Lake Elementary School
- 15. Flower Valley Elementary School
- 16. Summit Hall Elementary School
- 17. Washington Grove Elementary School
- 18. Earle B. Wood Junior High School
- 19. Parkland Junior High School

**△** PRIVATE GOLF COURSES

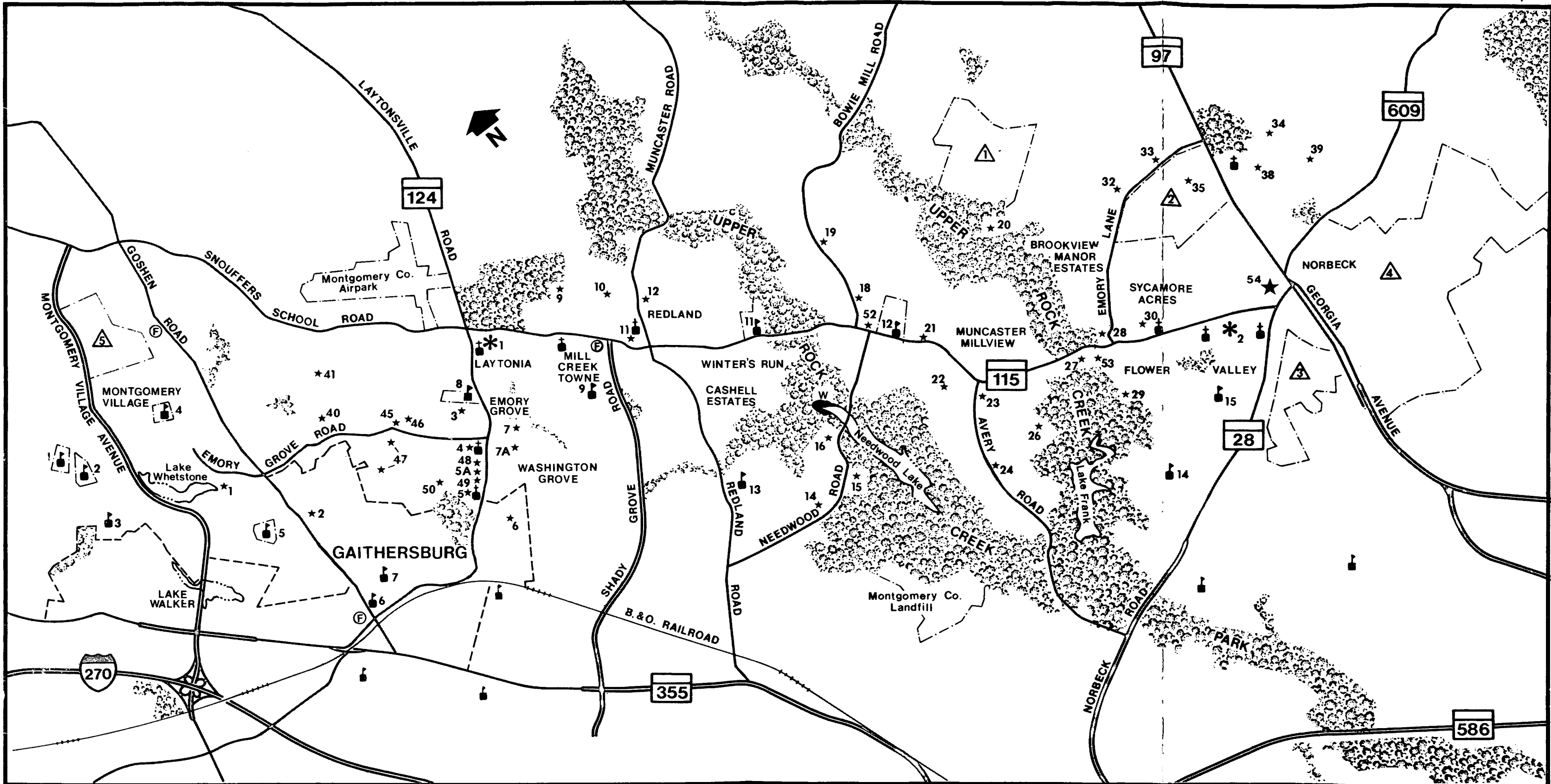
- 1. Norbeck Country Club
- 2. Brook Manor Country Club
- 3. Manor Country Club
- 4. Rossmoor
- 5. Montgomery Village Golf Course

**\*** SCENIC OVERLOOKS

- 1. Emory Overlook
- 2. Norbeck Overlook

**★** HISTORIC SITES

See Section V



**LEGEND**

- SCHOOLS
- CHURCHES
- HISTORIC SITES
- FIRE STATIONS
- COUNTRY CLUBS
- PARKS, RECREATION & OPEN SPACE
- LAKES & PONDS
- WET LANDS
- SCENIC OVERLOOKS



**NOTES**

SEE OPPOSITE PAGE FOR IDENTIFICATION OF SCHOOLS, COUNTRY CLUBS AND SCENIC OVERLOOKS.

HISTORIC SITES ARE IDENTIFIED IN SECTION IX.

**MARYLAND ROUTE 115**

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(I)

**STUDY AREA  
ENVIRONMENTAL MAP**

FIGURE III-2

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Four communities are located at the eastern terminus of the project, between the Park and Georgia Avenue. Flower Valley (approximately 130 homes) lies south of Maryland Route 115 and was planned around Master Plan highway improvements. Sycamore Acres (approximately 70 homes) is located immediately north of Maryland Route 115 and east of Emory Lane. Brookview Manor Estates (several hundred homes) is located west of Emory Lane, along the northern boundary of the Study Area. Rossmoor (Leisure World), a retirement community, is located on the east side of Georgia Avenue, south of Maryland Route 609.

Approximately 140 homes are scattered along the existing 5.8 miles of Maryland Route 115 between Laytonsville Road and Norbeck.

Citizens' groups in the Maryland Route 115 Study Area are listed below. Meetings are either held regularly or on an "as-need" basis. Many print a newsletter to further inform their members. Most of the residents in the study area belong to at least one civic organization.

- Associated Communities of Upper Rock Creek
- Emory Grove Civic Association
- Flower Valley Citizens' Association
- Goshen Citizens' Association
- Greater Olney Area Civic Associations
- Horizon Run Condominium Homeowners' Association
- Laytonia Citizens' Association
- Manor County Club Community Association
- Mill Creek Towne Civic Association
- Montgomery Village Foundation
- Montgomery Village Citizens' Association
- Needwood Civic Association
- Norbeck Meadows Civic Association
- Parkside Estates Civic Association
- Redland Station Home Association
- Rock Creek Manor Citizens' Association
- Sharon Woods Citizens' Association
- Sycamore Acres Community Association
- Winter's Run Civic Association

c. Community Facilities and Services -

Major community facilities, (churches, schools, parks, fire companies, libraries, post offices, etc.) located in the Study Area are shown on the Environmental Map (Figure III-2). The Study Area does not contain major health care facilities, but is served by the Montgomery County General Hospital and the Montgomery County Health Center, both located near Olney (north of the Study Area).

d. Bikeways

Presently, one bicycle path (Class I bikeway) exists in the Study Area. This path (E-16/P-30) follows Montgomery Village Avenue from Maryland Route 355 to Wightman Road. Several future bicycle facilities are proposed in the 1977 Final Draft M-NCP&PC Master Plan of Bikeways and are programmed for completion by 1980. Implementation of the Master Plan will be closely coordinated with resurfacing or reconstruction of county roadways. Allowances for extended pavement are included in maintenance plans for designated roads. As envisioned, the following bikeways are planned for the Study Area:

- P-28 undesignated, desired route
- P-45 Shady Grove Road
- P-29 Rock Creek Park
- S-26 Rock Creek
- P-27 Needwood-Redlands-Fields Road
- S-19 Emory Lane
- S-46 Norbeck Road (MD 28)
- S-41 Georgia Avenue (MD 97)

Detailed descriptions of these bikeways can be found in the 1977 Final Draft M-NCP&PC Master Plan of Bikeways.

C. ENVIRONMENTAL PROFILE:

1. Physiography - Topography

The Study Area lies within the Eastern Piedmont Physiographic Province, an old plateau region dissected by many streams. Topography varies from level on the plateau and floodplains to steeply sloping along the stream valleys. These valleys are relatively narrow and cut into the rolling upland terrain. Slopes of 3% to 15% are common on the uplands, while slopes of 5% to 65% occur along stream valley walls. Elevations in this part of Montgomery County range from about 310 to 565 feet above sea level.

The majority of this area is well drained and only about 9% of the soils are classified as poorly drained. Swampy land exists around Lake Needwood. Most runoff from the Study Area flows into the two branches of Rock Creek. North of Gaithersburg, drainage is to Whetstone Run, a tributary of Seneca Creek. East of Georgia Avenue, the land is drained by the Northwest Branch of the Anacostia River. All runoff from this region eventually enters the Chesapeake Bay by the Potomac River.

The stream gradients in the area average about 30 feet per mile, with occasional falls and minor rapids in steeper sections. Flows are high only during flooding. In the floodplains, flow is normally sluggish along poorly defined, sinuous channels. Several small dams dot the streams in the area.



2. Geology - Groundwater - Mineral Resources

A map indicating the geological formations underlying the Maryland Route 115 Study Area is shown on Figure III-3.

In Montgomery County, the Piedmont Province is underlain by complex crystalline rocks over 400 million years old. These rocks were formerly sedimentary and igneous deposits that have been altered by extreme heat and pressure into a variety of schists, gneisses and other metamorphic rocks. This metamorphism was most severe in the southeast, and its intensity decreases to the northwest.

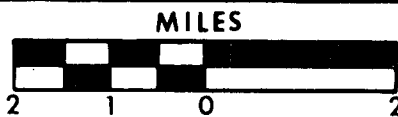
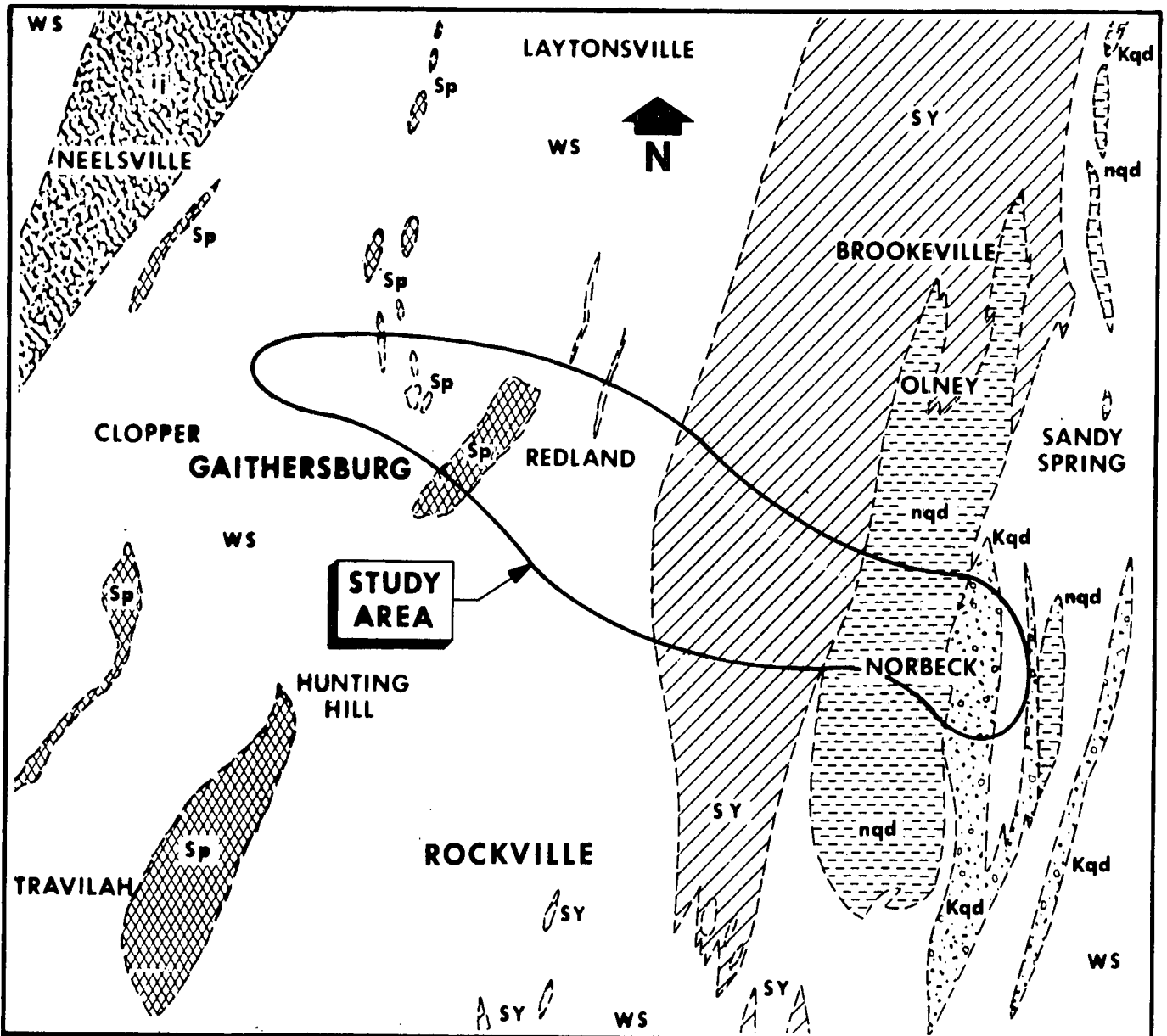
Much of the western half of the Study Area is underlain by the Wissahickon Formation. The Wissahickon Formation is a thick sequence of fine-grained schist and phyllite. These schists tend to alternate between massive, quartzitic layers and thinly foliated, micaceous layers. Generally, the quartz-rich layers are more resistant to weathering than the soft, micaceous layers, but the whole formation is moderately weathered near the surface.







Engineering problems could result from the structure of the Wissahickon Formation. The extensive cleavage in this rock may cause shearing at dips of over 15° toward an open wall face. In the vicinity of Emory Grove, cleavage dips southeast at 35° to 40°. Halfway between Derwood and Redland along Shady Grove Road, cleavage was measured as vertical. East of Redland and Derwood, cleavage dips steeply west at 70° to 80°. Cutbanks dipping in the same direction could present stability problems.

East of this belt of Wissahickon Formation, the Study Area crosses the Sykesville Formation. This formation is granite like schist which covers a broad area east of Rockville. It is a meta-sedimentary rock derived from deep-water deposits.

The Sykesville Formation is generally a medium-grained, weakly gneissic granite but ranges to a more strongly gneissic quartzite or foliated schist. Mineralogically, the Sykesville Formation contains about 90% quartz, feldspar and mica, with a wide variety of accessory minerals. The degree of schistosity of cleavage varies at different locations, emphasized at times by the segregation of mica from quartz and feldspar. Cleavage generally runs in north-south, vertically-dipping planes, except where it is deflected by intrusion of the Norbeck Quartz Diorite.

The Sykesville Formation is generally a more resistant rock than the Wissahickon Formation and usually causes fewer construction problems. Steep cuts into bedrock may require bracing where the rock is very schistose.



 WS	Wissahickon Fm.	 nqd	Norbeck Quartz Diorite
 SY	Sykesville Fm.	 Kqd	Kensington Quartz Diorite
 Sp	Ijamsville Phyllite	 Sp	Serpentinite

(Adapted from Cloos, Ernst, and Wythe C. Cooke, 1953. Geologic Map of Montgomery County and the District of Columbia. Dept. of Geology, Mines and Water Resources of Maryland.)



# GEOLOGICAL FORMATIONS

FIGURE III-3

Near the surface, both the Sykesville and Wissahickon Formation are severely weathered to saprolite (rock which still retains its original structure but crumbles under pressure) of varying thicknesses.

East of the Sykesville Formation, the Study Area crosses a belt of Norbeck Quartz Diorite. The Norbeck Quartz Diorite is a mass of intrusive rock running from Olney to Norbeck. The rock deflects the surrounding Sykesville and Wissahickon Formations. The foliation of this quartz diorite is essentially vertical and trends north-south. This rock's structure does not present any major construction problems. At the eastern end of the Study Area lies a narrow belt of Kensington Quartz Diorite.

A number of serpentinite outcrops are scattered throughout the Wissahickon schist in the western portion of the Study Area. They tend to form thin sheets and thick lenses, and only one body, located east of Gaithersburg, is extensive enough to be important to this Study. The exact nature of the intrusion and metamorphism of this serpentinite is unknown. These rocks are very soft and weather to fine-grained particles. Near the surface, most of this rock is relative soft. Cleavage above Emory Grove dips southwest at 30°, but structure is not a major problem. These rocks contain relatively high amounts of extremely fine-grained asbestos.

In the stream valleys and some of the uplands, very young material has been deposited by water, wind, and the breakdown of plant material. The stream deposits consist of gravel, sand and silt, while the wind-borne deposits are composed almost entirely of silts. The breakdown of plant material produces rich soils containing much organic detritus.

There are few economically significant mineral resources in this area. Serpentine, mica schist and minor amounts of iron ore have been mined in the Study Area, or adjacent areas, in the past. However, no mineral production occurs there today.

Most Study Area residents utilize water supplied by the Washington Suburban Sanitary Commission. However, some scattered residents still draw their water from private wells. These wells tap the groundwater passing through fractures and cleavages in the underlying crystalline rocks, and through saprolite near the surface. The minor amounts of water in these rocks can easily be depleted during droughts. The water is found, under water table conditions, in wells between 20 to 750-feet in depth. Groundwater yields range from 1 to 180 gallons per minute (gpm) in the County, depending on the topographic position and bedrock of the well. The best aquifer (water bearing rock) in this area is the Wissahickon Formation, with an average yield of 14 gpm. All other formations average less than 10 gpm yield.

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Recharge of this groundwater comes primarily from local precipitation. Two-thirds of the precipitation in this area evaporates, leaving one-third, or about 13 inches as surface and groundwater. The groundwater is generally of good quality, except for some areas of locally high iron concentration.

### 3. Soils

Soils of the Maryland Route 115 Study Area are part of the Glenelg-Manor-Chester soil association, a large zone of moderately deep to deep, well-drained, micaceous silty soils developed on strongly sloping land. These are the best soils in the region for agriculture or residential development. Detailed mapping of the soil units recognized within this association is available from the U. S. Department of Agriculture, Soil Conservation Service (Soil Survey of Montgomery County, Maryland, 1961).

In general, upland soils of the Study Area are silt loams, silt clay loams and very stony silt loams. Soil stability is fair to good, while susceptibility to frost action is moderate. Water and wind erosion hazards are moderate to high in the area, particularly on the steeper slopes. Drainage is usually good, with the seasonally high water table 3 - 15' below the surface. The floodplain and lowland soils of this region are mostly silt loams. Stability of these soils is poor to fair, and susceptibility to frost action is generally high. Erosion is a moderate to high hazard, although most slopes are less than 8%. Drainage is poor to fair on these soils and the water table may reach surface level during very wet periods. All of these soils can be present construction problems related to high water tables, but the degree of hazard involved varies with specific soil series.

The U. S. Department of Agriculture, Soil Conservation Service has identified areas of "Prime Farmland" within the study area. These soils are plentiful and cross this corridor in four belts occupying the higher lands between stream valleys. Most of this acreage is zoned as low density residential property and may be lost to development in the future. Much of it is not currently being used for agricultural production. No "Unique Farmland" has been identified in the study area.

### 4. Water Quality

The portion of Rock Creek, including its tributaries, within the Study Area, is classed by the Maryland Water Resources Administration as Recreational Trout Water, Class IV (see Department of Natural Resources, Rules and Regulations 08.05.04.01 - 08.05.04.11 for definitions and characteristics), and tributaries of Seneca Creek and the Anacostia River are classed for Water Contact Recreation and Aquatic Life (Class I).

A number of previous studies have discussed water quality (i.e., silt, coliform bacteria, chemical pollutants, etc.) in, or near, the Study Area portion of the Rock Creek, Seneca Creek and Northwest Branch drainages. These have been recently reviewed by Dietemann<sup>1</sup>, who added additional information derived from an analysis of the distribution of pollution sensitive fish species throughout the drainage area. Generally, water quality in the upper portions of these streams is good in the headwaters region and fair in the middle region. From there, water quality deteriorates rapidly as the stream flows through urbanized areas on its way to the Potomac River. Even in relatively healthy upper reaches of this drainage, Dietemann has noted increasing rarity of some pollution sensitive species.

The following data, provided by the Montgomery County Department of Environmental Protection in their report, Water Quality of Streams in Montgomery County, Maryland (1977), summarize trends for specific water quality parameters within the Study Area.

Dissolved oxygen standards were consistently met at all sampling stations.

Counts of fecal coliform bacteria periodically violated the state standard at all sampling stations. Common sources of fecal coliform pollution are leaking septic systems, pasture runoff and urban stormwater runoff.

Hydrogen ion concentration (pH) at all Rock Creek sampling stations showed averages and minima within the accepted state ranges, but maxima were often excessively basic.

Temperature readings at all stations met State standards.

Average and maximum turbidity readings met State standards at all stations.

In summary, water quality in the Maryland Route 115 Study Area waters met most state requirements for their designated use. Coliform bacteria counts were an area of concern and can indicate a public health hazard.

5. Floodplains

The extent of the 100-year floodplain, as defined by the Maryland National Capital Park & Planning Commission, in the Maryland Route 115 Study Area is shown on the detailed plans in Section II.

<sup>1</sup> A Provisional Inventory of the Fishes of Rock Creek, Little Falls Branch, Cabin John Creek and Rock Run, Montgomery County, Maryland. The Maryland-National Capital Park & Planning Commission, June, 1975.

6. Terrestrial Ecology

The biotic diversity of undeveloped portions of the Maryland Route 115 Study Area is rich and varied, although continued urban development is reducing the extent of the remaining areas of undeveloped land. However, a significant portion of the remaining natural habitat is included within Rock Creek or other parks, and will remain in a relatively natural state.

Detailed lists of the flora and fauna of this area have been developed by the Maryland-National Capital Park & Planning Commission (Rock Creek Watershed Habitat Survey and Inventory of Fauna and Flora, 1977). These lists have not been reproduced here, but can be obtained from the M-NCP&PC. The terrestrial habitat of the Maryland Route 115 Study Area can be divided into five general types (grassland, agricultural, old-field, forest, and wetland). These are noted in the following brief discussion.

Grassland in the Study Area is usually a man-altered habitat consisting of mowed lawns, pasture or areas of tall "weedy" grasses. Unless managed by mowing or grazing, these areas succeed to old-field habitat, then to other later successional stages. These areas are important to a diversity of animal species, including many small mammals and birds.

Agricultural land consists of crop and pastureland, and is often associated with hedgerows and stream bank thickets. The hedgerows and thickets of the Study Area provide excellent habitat for small game species (quail, pheasant, rabbit). Croplands provide food for many species. The amount of agricultural land in the Study Area is declining due to increasing suburbanization.

Old-field habitat varies from tall grasses (one or two years undisturbed growth) to a dense mixture of herbaceous vegetation, vines, shrubs, conifers and seedling hardwoods (nine or ten years growth). Beside providing cover for a variety of birds and mammals, the vegetation of these old-field communities produces a great volume of seeds and other materials that provides an important food resource for many wildlife species. The amount of old-field habitat present has increased in the past several years, due to the abandonment of several large farms.

Forest habitat in the Study Area is largely confined to Rock Creek Park. It is typically composed of second growth deciduous woods having abundant ground cover and a somewhat varied canopy layer. Two forest associations are present in this area. These two differ in their species composition and ecology.

<sup>1</sup> Vegetation Map of Maryland, the Existing Natural Forests, Johns Hopkins University, 1976.

Tulip Poplar Association - Tulip Poplar Association woods are dominated by Tulip Poplar and occupy upland areas.

Sycamore-Green Ash-Box Elder-Silver Maple Association - This Association is dominated by the species listed and is characteristic of floodplains.

As Figure III-3 shows, the western portion of the Study Area overlies a number of isolated patches of Serpentine Rock. Where similar patches outcrop at the surface in other areas of this State, they are inhabited by a unique association of plants. No areas characterized by this "Serpentine Flora" appear to exist within the Study Area.

A diverse mammal fauna inhabits the Study Area. The existing omnivorous species (plant and meat-eating; skunk, opossum, raccoon), and some rodents and insectivores seem to be maintaining their populations, probably due to their ability to adapt to environmental changes. Many other mammals in the study Area, however, are declining in numbers, due to habitat loss or modification from development. Serious declines have been reported in the deer and fox populations, both of which require relatively large, undisturbed tracts of land. A number of species inhabiting this area are of sport or minor commercial importance (i.e., rabbit, squirrel, deer, muskrat, otter).

Even more diverse than the mammal fauna of the Study Area is the birdlife, including both permanent resident (present year round) and migratory species which pass through semi-annually. Some species typical of undisturbed areas have suffered declines in recent years; however, sufficient areas of woodland and other habitat remain to support a diversified avian fauna.

Reptile and amphibian species are also thought to be declining in the region, due to the combined effects of pollution and suburbanization. Favored habitats include undisturbed thickets, wooded floodplains, marshes, streams and ponds.

7. Aquatic Ecology

Most of the tributary streams in the Study Area are sinuous with relatively steep gradients and bottoms of boulders, cobbles, gravel and sand. The larger creeks are slower flowing with deeper pools interspersed with rock riffles. In many areas, silt has washed from adjacent land to be deposited in these pools. Undercut banks and overhanging streamside vegetation frequently occur, increasing habitat diversity.

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The habitat requirements of many stream-dwelling species of fish, amphibians and invertebrates are exact and, while a diverse aquatic community still exists in some areas, the cutting of forests and removal of other streamside vegetation, deposition of silt, and introduction of other pollutants has reduced the abundance and distribution of some species in recent years.

The entire portion of the Rock Creek drainage network located within the study area is classed by the Maryland Water Resources Administration as Recreational Trout Waters. Generally, the streams comprising this drainage network are of good quality and contain well-balanced, diversified animal communities. Dietemann<sup>1</sup> notes that Rock Creek itself contains "numerous pools and is heavily shaded with large trees over most of its length. Sand and gravel make up the major part of the streambed". Dietemann collected thirty species of fish in Rock Creek, including largemouth bass, three species of catfish, four species of sunfish, brown trout, and several other species sought by fisherman. The brown trout are stocked on a yearly basis by the Maryland Fisheries Administration and no evidence of their natural reproduction has been found.

Lake Needwood, at the southern edge of the Study Area is an artificial impoundment of 74 surface acres that was created by damming Rock Creek in 1966. This lake provides improved habitat for bass and other warm water gamefish, waterfowl, muskrat and other species. Its upper portion serves as a sediment trap and may decrease turbidity and otherwise improve water quality downstream. This upper portion of the lake is maintained by the Soil Conservation Service, which periodically removes accumulated silt by dredging.

#### 8. Wetlands

A small area of wetland is present at the head of Lake Needwood (see Figure III-2). Willows, cattail, pondweeds, sedges, rushes and other species of wetland vegetation are present. Although not extensive, this marsh is important to the ecology of the area. It provides habitat for nesting and overwintering marsh birds, as well as marsh dwelling mammals. Such marshlands also serve to remove sediment, nutrients and other pollutants from waters flowing through them. This reduces environmental stress to the aquatic community in Lake Needwood and downstream portions of Rock Creek.

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<sup>1</sup> A Provisional Inventory of the Fishes of Rock Creek, Little Falls Branch, Cabin John Creek, and Rock Run, Montgomery County, Maryland. The Maryland-National Capital Park & Planning Commission, June, 1975.



9. Rare and Endangered Species

No known threatened or endangered species occur within the Study Area.<sup>1</sup>

10. Conservation of Existing Natural Resources

Land use planning for the Maryland Route 115 Study Area forecasts increasing suburban development. For this reason, conservation of the area's remaining natural environment will rest largely with the park system. The Study Area contains several existing local and regional parks, and a number of others are planned (see Figure III-2). However, the major conservation entity is, and will continue to be, Upper Rock Creek Regional Park.

Rock Creek Regional Park, which is administered by M-NCP&PC, is a 6000 acre facility along the stream valley of Rock Creek, from its headwaters near Laytonsville to its confluence with the Potomac River in Washington, D. C. The primary functions of the Park are conservation and public outdoor recreation. As the major open-space and outdoor facility within convenient reach of the District of Columbia, as well as Rockville, Gaithersburg and other communities in the Study Area, this park is extremely important and will become more so as this area continues to develop in the future.

Within the Maryland Route 115 Study Area, Rock Creek Regional Park consists of two "branches". The eastern branch, following the North Branch of Rock Creek, contains the Meadowside Nature Center and the Lathrop E. Smith Environmental Education Center and, just south of the Study Area, the 54-acre Lake Bernard Frank. The western branch, following Rock and Mill Creeks, contains the 74-acre Lake Needwood. The predominant habitat in this portion of Rock Creek Regional Park is forest, with lesser amounts of old-field, wetland and open water. This forest habitat and wetland area are particularly important due to their low inventory in the Study Area.

Areas planned for eventual addition to Rock Creek Regional Park are shown on Figure IV-1.

11. Scenic Overlooks

Two sites within the Study Area that provide scenic vistas have been identified by the Maryland-National Capital Park & Planning Commission. These sites are briefly described below and identified on Figure III-2.

<sup>1</sup> See Section VII for documentation.

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Emory Overlook - Location on Route 124 at the junction of Maryland Route 115, this site provides a good view of the open farm patchwork to the northwest.

Norbeck Overlook - Located at the junction of Routes 28 and 115, this site provides an extensive vista, including, on clear days, Sugarloaf Mountain.

IV. LAND USE PLANNING

A. EXISTING LAND USE:

The Maryland Route 115 Study Area lies within the Washington, D. C./Baltimore area, one of the fastest urbanizing areas on the East Coast. Montgomery County, in which the Study Area is located, has experienced extremely rapid urban development (see Section III-B).

The existing land uses in the immediate Maryland Route 115 Study Area are shown on the detailed plans for selected alternate (Figures II-4 thru II-8). These maps and the Study Area Map (Figure I-2), graphically define residential and commercial areas, parks, roads, etc. The Environmental Base Map (Figure III-2) identifies the locations of churches, parks, schools, known historic sites, police and fire stations and other features.

Although large portions of the Study Area are agricultural, wooded or devoted to some form of open space, the prospect for the future is quite different, as evidenced by the number of new residential developments completed recently or now under construction. Most of the existing subdivisions are located within the area bounded by Laytonville and Needwood Roads, and in the vicinity of the project terminals. The remainder of the homes are scattered throughout the area.

The landscape configuration varies from flat to rolling, with occasional steep slopes being formed adjacent to streams. Study Area elevations range from an approximate low of 310 feet to a high of 565 feet. Rock Creek, North Branch of Rock Creek, Whetstone Run and the three large man-made impoundments identified as Needwood Lake, Lake Frank and Whetstone Lake are the dominant water features. However, numerous other smaller streams and farm ponds make substantial contributions to the importance of this material resource.

Within the planning area, open space uses include, in addition to farming, a few institutional holdings; a private golf course; several small recreational facilities and the extensive public open space of Rock Creek Park. Within the Rock Creek Park area are the two recreational and flood control lakes previously identified (Needwood Lake and Lake Frank).

Approximately 20 percent of the project area is wooded. Although Rock Creek Park contains the bulk of this resource, occasional woodlands have been retained and are scattered throughout the corridor.

B. LAND USE PLANS:

The Maryland-National Capital Park & Planning Commission (M-NCP&PC) is the agency responsible for planning future development in Montgomery County. This agency prepared a County Master Plan

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in 1964. Titled "On Wedges and Corridors", this document spelled out planning and zoning policies which placed development along major transportation corridors radiating from Washington, D. C., while maintaining wedges of open space between these corridors. To complement the County Master Plan, area master plans for individual planning districts throughout the County also were prepared. These districts encompass smaller areas and their plans reflect not only the needs of the County, but also the needs of smaller, homogeneous regions having unique resources or problems.

The Maryland Route 115 Study Corridor passes through portions of the following planning areas; Gaithersburg, Rock Creek, Olney and Aspen Hill (see Figure IV-1).

- Gaithersburg Vicinity Planning Area -  
(32 sq. mi.)

Gaithersburg is identified as one of the cities within the Interstate Route 270 corridor, which extends from Washington, D. C., northwesterly in Montgomery County. The Master Plan envisions that each corridor city would have employment opportunities; a complete range of community services, and a variety of housing types. The plan for the City of Gaithersburg and vicinity has the capacity to accommodate a maximum population of 190,000 when fully developed. Approximately 50% of this planning area would be used for residential, 17% for commercial and industrial, and 33% for institutional and public uses.

The Maryland Route 115 Study Corridor is located in the northeastern part of the Gaithersburg planned area and extends from Montgomery Village Avenue to Redland Road. Within these limits, the proposed Maryland Route 115 corridor passes through relatively undeveloped land, except for the apartment complex east of Montgomery Village Avenue and the Mill Creek Town community south of existing Maryland Route 115 at Shady Grove Road. The Montgomery County Airpark and Emory Grove Urban Renewal Area are also located in this general area. The majority of the remaining undeveloped land in the vicinity of the project is planned for single-family residential development.

- Rock Creek Planning Area -  
(18 sq. mi.)

The Rock Creek Planning Area is located between the planning areas of Gaithersburg on the west and Aspen Hill and Olney on the east. For all practical purposes, the Rock Creek Planning Area lies within the watershed of Rock Creek and is one of the wedges

referred to in the County's Master Plan "On Wedges and Corridors". It lies between the I-270 corridor through Gaithersburg and the Maryland Route 97 corridor through Olney. The Rock Creek Planning area has been developed using the wedge concept with approximately 34% of the planning area developed to open space and community facilities, 60% to residential use and 6% for commercial and industrial uses. The land use pattern takes a linear form following Rock Creek with the lowest density uses surrounding and adjacent to the public open space areas in the lower portions of the valley and increasing to higher density residential as the land capability of accepting these levels improves. The highest densities also form a linear pattern of development following the two ridges of high ground on either side of Rock Creek. The Rock Creek Planning Area has the potential to accommodate a maximum population of about 25,000 when fully developed.

The Maryland Route 115 Study Corridor crosses the Rock Creek Planning Area in a band centered about Muncaster Mill Road from Redland Road to the North Branch of Rock Creek. This area is relatively undeveloped, except for the Candlewood Park and Winters Run communities. Needwood Lake, Lake Frank and Meadowside Nature Center are all located to the south of the planned relocation of Maryland Route 115. The majority of the remaining undeveloped land in the project study area is planned for public open space and low density single-family residential development.

- Olney & Vicinity Planning Area -  
(49 sq. mi.)

The Olney and Vicinity Planning Area is located east of the Rock Creek Planning Area and north of Aspen Hill. The Master Plan seeks to make Olney a satellite town with an identity of its own. The Olney satellite and the larger Olney community, which comprise the southern half of this planning area, are composed of a land use pattern, which has a capacity to accommodate a maximum population of 29,000 with ultimate development. The northern half of this planning area has been given a zoning category, which does not require sewers and, therefore, there is reasonable assurance that the area will not develop to its maximum capacity of 27,000 persons. This has been done in order to preserve the Hawlings River Watershed along with the larger Patuxent Watershed, as an open space wedge.

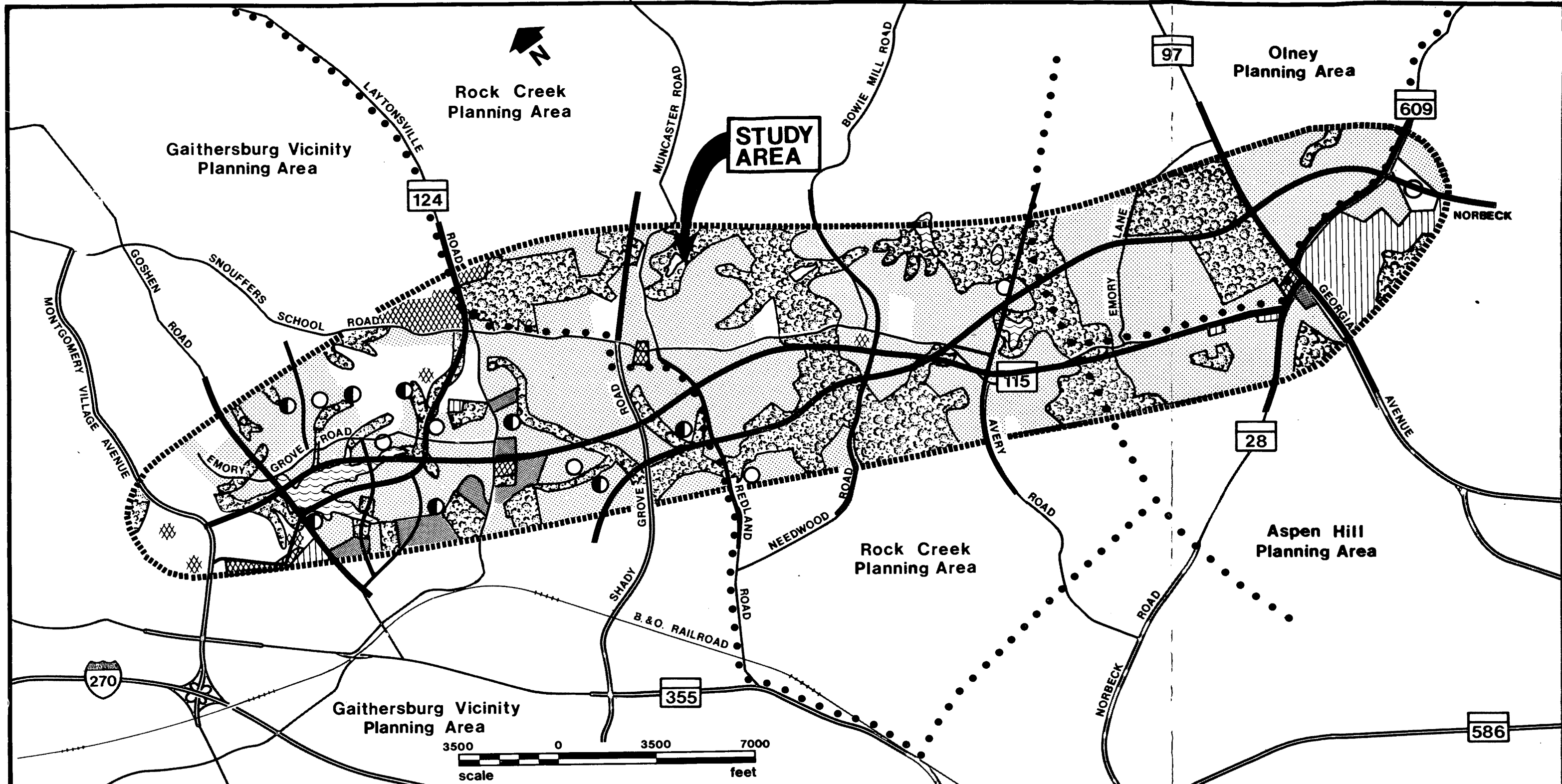
47

The Maryland Route 115 Study Corridor is located in the southern tip of this planning area and extends from the North Branch of Rock Creek to Maryland Route 609, just east of Maryland Route 97. Except for the Sycamore Acres community, a country club and nursery, the proposed Maryland Route 115 corridor passes through undeveloped land in this planning area. The majority of the remaining undeveloped land in the vicinity of this project is planned for single-family residential development.

- Aspen Hill & Vicinity Planning Area -  
(13 sq. mi.)

The Aspen Hill and Vicinity Planning Area is located to the east of the Rock Creek Planning Area and south of Olney. Aspen Hill is considered as an urban-rural transitional area as it is situated between the urban areas of Rockville and Wheaton and the rural low-density areas of Olney and Cloverly. The plan for Aspen Hill and vicinity has a potential to accommodate about 74,000 people when fully developed. Approximately 99% of this planning area would be used for residential and open space areas and 1% for commercial uses.

The Maryland Route 115 Study Corridor is located in the northern tip of this planning area and extends from the North Branch of Rock Creek to east of Maryland Route 97. The northern part of the Aspen Hill area includes the Flower Valley community south of existing Maryland Route 115, the Manor Country Club between Maryland Routes 28 and 97, the planned retirement community of Leisure World east of Maryland Route 97, and several undeveloped areas. Several alternates in this study proposed to upgrade existing Maryland Route 115, which is the northern boundary of Aspen Hill. All other alternates were located to the north in the Olney Area.



LEGEND	
[Stippled Box] LOW DENSITY RESIDENTIAL (5 D.U./Acre Or Less)	[Circle with Dotted Line] PROPOSED SCHOOL
[Cross-hatched Box] MEDIUM AND HIGH DENSITY RESIDENTIAL	[Circle with Solid Line] PROPOSED SCHOOL AND PARK
[Diagonal Lines Box] COMMERCIAL AND INDUSTRIAL	[Thick Solid Line] MAJOR HIGHWAY IMPROVEMENTS
[Horizontal Lines Box] INSTITUTIONAL	[Thin Solid Line] PRIMARY ROADWAY IMPROVEMENTS
[Wavy Lines Box] PARK AND OPEN SPACE	[Dotted Line] PLANNING AREA BOUNDARIES
[Wavy Lines Box] PROPOSED LAKES	<u>MASTER PLAN SOURCES</u>
[Dashed Line Box] M-NCP & PC "SPECIAL PLANNING DISTRICT"	OLNEY (1966), ROCK CREEK (1968)
	ASPEN HILL (1970), GAITHERSBURG (1971)

**MARYLAND ROUTE 115**  
 FROM  
 MONTGOMERY VILLAGE AVENUE  
 TO NORBECK

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STATE PROJECT NO. M758-003-371  
 FEDERAL AID PROJECT NO. US 9441(1)

**PROPOSED LAND  
 USE PLAN**

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THE MARYLAND-NATIONAL  
 CAPITAL PARK AND  
 PLANNING COMMISSION

FIGURE IV - 1



C. PUBLIC FACILITY PLANS:

Public facility plans, as reported in Montgomery County Capital Improvement Program, Fiscal Years 1980 to 1985, which could affect the Maryland Route 115 Study, are listed below. Copies of the CIP are available from Montgomery County, Maryland.

Project Name & County Map CIP Code	Project Location (Planning Area)	Status
<u>FIRE &amp; RESCUE</u>		
Fire Training Facility Renovation (D12L)	Along Md.Rte.28	Planning
Maintenance & Supply Facility (D11M)	Gaithersburg	Preliminary Planning
<u>POLICE</u>		
Central Property Facility (D11M)	Gaithersburg	Planning & Design
<u>SANITATION</u>		
Resource Recovery - Central Processing Facility (D11M)	County-Wide	Planning
Sanitary Landfill-Gude Southlawn (D12N)	County-Wide	Planning
Solid Waste Transfer Station (D11M)	County-Wide	Preliminary
<u>HEALTH &amp; SOCIAL SERVICES</u>		
Medical Center - Phase I (D12L)	Gaithersburg	Construction
<u>CONSERVATION OF NATURAL RESOURCES</u>		
Crabbs Branch Stormwater Management System (D12M)	Gaithersburg	Preliminary
<u>COMMUNITY DEVELOPMENT &amp; HOUSING</u>		
Norbeck Neighborhood Strategy Area (D12Q)	Aspen Hill	Construction

Project Name & County Map CIP Code	Project Location (Planning Area)	Status
<u>MARYLAND-NATIONAL CAPITAL PARK &amp; PLANNING COMMISSION</u>		
Amity Drive Local Park (D11M)	Gaithersburg	Conceptual
Aquarius I Local Park (D13Q)	Aspen Hill	Planning
Aquarius II Local Park (D12Q)	Aspen Hill	Conceptual
Blueberry Hill Local Park (D11N)	Gaithersburg	Planning
Harmony Hills Neighborhood Park (D13Q)	Aspen Hill	Preliminary
North Gate Local Park (D13Q)	Aspen Hill	Planning
Oakdale Local Park (D11P)	Olney	Conceptual
Olney Southeast Local Park (D11Q)	Olney	Conceptual
Redland Local Park (D11N)	Gaithersburg	Planning
Strathmore Local Park (D13Q)	Aspen Hill	Conceptual
Crabbs Branch Stream Valley Park (D12N)	Upper Rock Creek Watershed	Conceptual
North Branch Stream Valley Park Unit 2 (D11P)	Upper Rock Creek	Conceptual
Rock Creek Regional Park (D120)	Upper Rock Creek	Design
Gude Drive Recreational Park (D12N)	Upper Rock Creek	Preliminary
Central Maintenance Facility (D11N)	County-Wide	Design

Project Name & County Map CIP Code	Project Location (Planning Area)	Status
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WASHINGTON SUBURBAN  
SANITARY COMMISSION

Norbeck Pumping Station (D11Q)	Norbeck Vicinity	Design
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TRANSPORTATION

Bel Pre Road (D12Q)	Aspen Hill	Design
Crabbs Branch Way (D11N)	Gaithersburg	Design
Fields Rd.-Muddy Branch/ Shady Grove (D11L)	Gaithersburg	Design
Muddy Branch Road (D11L)	Gaithersburg	Environmental Impact
Redland-Fields Road (D12N)	Gaithersburg	Design
Shady Grove Road Widening (D12M)	Gaithersburg	Design
Gude Drive-Rte.355/ Southlawn (D12N)	Upper Rock Creek	Conceptual
Md.Rte.28 Relocated (D12L)	Gaithersburg	Conceptual
Eastern Arterial - Md. 115 Ext. (M-83)(B10M)	Gaithersburg	Design/ Construction

D. RELATIONSHIP OF THE PROJECT TO LAND USE AND PUBLIC FACILITY PLANS:

The Proposed Action is in general conformance with the proposed land use and public facility plans, as described earlier in this section. The concept of an improved highway facility (Relocated Maryland Route 115) is consistent with and, in fact, is necessary to support the goals outlined in the County Master Plan and the Master Plans for individual planning areas through which this project passes. Improved highway facilities are part of the overall objectives of orderly development, and safe, efficient transportation.

The improvement in the Maryland Route 115 Study Area is identified as M-83 in the County Master Plan and Gaithersburg Master Plan and as M-1 in the Rock Creek and Olney Master Plans. Serving local traffic, this improvement would be the easternmost arterial in the I-270 Corridor. The location of the project (M-83 or M-1), as shown in these Master Plans, has been revised slightly. Alternate 4 follows the Master Plan alignment from Montgomery Village Avenue to the Intercounty Connector, and then along the Master Plan alignment of the Intercounty Connector corridor to the terminus at Maryland Route 609. The major circumferential highway known historically as the Outer Beltway, has been renamed as the Intercounty Connector and is now planned to extend from I-270 to the Baltimore-Washington Parkway (see Section I-C-3).

This project is consistent with all public facility plans, including park and open space plans. Extensive coordination has taken place with transportation planners at all levels of government, and could result in this project providing needed components for several highway systems. Improvements in the Maryland Route 115 Study Area would also provide an important local link in the highway network serving the Shady Grove Transit Station.

V. ENVIRONMENTAL CONSEQUENCES

A. PRIMARY IMPACTS:

1. Impacts to Natural Environment

a. Groundwater, Geology & Mineral Resources -

The possible adverse impact of the selected alternate under consideration in this study to groundwater supplies would be minimal. Construction would convert surface area that is presently available for groundwater recharge to water impervious roadway surface. However, the reduction in recharge area would not be significant when compared to the amount remaining. Little, if any, deep-cutting into subsurface rock formations carrying groundwater would be required, so no disruption of groundwater flow or alteration of water table levels is anticipated.

Pollution of groundwater can occur due to accidental spills or transport of de-icers and other roadway pollutants by stormwater runoff. It is not expected that pollution of groundwater by these sources would be significant in the Study Area.

Portions of the study area are underlain with serpentinite deposits which may pose construction problems. As stated previously, the exact nature of the intrusion and metamorphism of this serpentinite is unknown. Construction of the selected alternate would require cut-and-fill operations in these areas. However, the overburden is usually thick enough that cutting into these outcrops would not be necessary. If cutting into serpentine rock is required, dust control measures will be stringently applied to prevent circulation of free asbestos particles in the air. No serpentine rock will be used as temporary or permanent road surfacing material.

No unique or otherwise significant geologic features would be adversely impacted by construction. Nor, would the present or future utilization of any mineral resource be significantly affected. No mining activity is presently going on in the Study Area or anticipated by existing land use projections.

b. Soil Resources -

Construction of the selected alternate would impact soils in several minor ways. Right-of-way acquisition would convert some surface soil acreage to roadway use. Additional soil disturbance would be created by construction activities such as grading and cut-and-fill operations. This is not expected to significantly impact Study Area soil resources.

Loss of surface soils through erosion is a serious ongoing problem. Erosion rates in the Study Area would be accelerated where unstable soils are exposed by construction activities.

B

All appropriate procedures and controls of the State Highway Administration Sediment and Erosion Control Program would be stringently applied during all construction, to minimize soil erosion. This impact would be temporary, ceasing when construction has been completed and exposed soil surfaces stabilized. No significant permanent impact is anticipated.

A significant portion of the study area is composed of "Prime Farmland", as defined by the USDA Soil Conservation Service. Construction would require the conversion of some prime farmland to roadway uses. The amount required would be approximately 97 acres for the selected alternate. Much of this acreage is not presently being cultivated and most is zoned as low density residential property or public open space. In the future, this land will probably be utilized for residential development or public usage and will not be available for agricultural production. It is important to note that much of the prime farmland in the area has already been developed for residential use. Construction of the selected alternate is, therefore, not expected to significantly affect the future agricultural utilization of prime farmland in this region.

A significant portion of the study area is under active cultivation today, although the acreage has decreased in recent years. Construction would require the conversion of 114 acres of active farmland to roadway uses (see Table II-3). It is not anticipated that the loss of this farmland would significantly impair future agricultural production in this region, and no farms would be displaced. Much of this farmland acreage will be lost to agricultural production as this region develops, even if a build alternate were not selected as part of this project.

No other unique or uncommon soil types or features are known to occur in the Study Area, and construction would not preclude or significantly impact any soil use.

c. Surface Water Quality -

Study Area waters already suffer from ongoing siltation caused by residential construction and agricultural activities. Additional siltation will occur during construction. The Sediment & Erosion Control Program, adopted by the State Highway Administration in 1970, specifies procedures and controls to be used on highway construction projects. These procedures and controls will be stringently applied to limit and control the generation and transport of silt. This will be particularly important where construction will be required on steep slopes of stream valleys or in areas of soil having a high erosion potential. This plan would include the following:

Proper staging of construction activities to permanently stabilize ditches at the top of cuts and at the foot of slopes prior to excavation and formation of embankments.

Seeding, sodding, or other stabilizing slopes as soon as practicable to minimize the area cleared and left barren at any time.

Properly timed placement of sediment traps, temporary slope drains and other control measures.

Since the alignment will pass through areas of varying slope, soil erodibility, stream size, and vegetation associations, specific control measures could best be defined after design features have been considered. However, with the application of available erosion control technology, no significant impact to surface water quality is generally anticipated. A small stormwater management-sedimentation pond near the Horizon Run Condominium complex may be affected by construction of the roadway. The actual impact and mitigative measures to be implemented will be determined during final design. No significant increase in sedimentation or stormwater runoff is expected to occur as a result of this action.

Some minor degradation of surface waters can be anticipated due to the introduction of de-icers and other chemicals in stormwater runoff from the roadway surface. With the construction of the selected alternate, these pollutants could be introduced directly into a portion of the stream not receiving them today. However, proper stormwater management can substantially reduce the amount of roadway pollutants that reach the stream system. The use of infiltration systems to store stormwater and allow it to percolate into the soil, and natural filtration via runoff over vegetated areas provide natural means to reduce the introduction of pollutants directly into streams. Barring unusual occurrences such as large spills of toxic substances, runoff induced materials are not expected to enter Study Area surface waters in sufficient concentrations to significantly affect water quality.

d. Floodplain Involvement -

This project is in compliance with Executive Order 11988 "... to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative ...." Due



to the orientation of this project to the Rock Creek drainage network, it will not be possible to construct any, build alternate without involvement with the 100-year floodplain.<sup>1</sup> The extent of this floodplain in the Study Area, as defined by the Maryland-National Capital Park & Planning Commission, is shown on the detailed plans in Section II.

This project does not have significant encroachment on the 100-year floodplain. Floodplain involvement does occur at three sites along the selected alternative. The proposed alignment crosses over the floodplain of Whetstone Run (Figure II-4) on bridge to avoid increasing the downstream discharge rate or headwater pool elevation upstream. The second crossing is carried over Rock Creek via a bridge, as is the crossing over North Branch. Neither of these crossings would have a significant effect on the extent of the 100-year floodplain. The U. S. Army Corps of Engineers has also indicated its belief that there will be no changes to the size or extent of the floodplain in the Rock Creek Watershed as a result of the proposed activities (see Section VII for documentation).

The majority of floodplains lie within Rock Creek Regional Park. The Proposed Action would not entail risks to human activity, would not affect floodplain values, nor support direct or indirect development in the base floodplain. In addition, Montgomery County Ordinance prohibits development within the 100-year floodplain.

During final design, the Maryland State Highway Administration will prepare a detailed hydrologic and hydraulic study to determine the existing discharge rate and floodplain elevation caused by a 100-year storm. This would provide a data base for the design of the roadway and its associated drainage and stormwater management structures so that no increase in the flooding characteristics of the study area floodplains would occur.

e. Terrestrial Ecology -

Impacts to terrestrial ecology by the selected alternate in this study would be primarily those associated with habitat loss. 85.3 acres of forest and 118.6 acres of old-field community, the major terrestrial habitats, would be required for construction. It is difficult to evaluate the effect that these habitat reductions would have on the overall terrestrial ecology of this region; however, it is not expected to be great and would not preclude the use of this area by any species presently using it. Impacts to particular habitat areas are noted on the detailed plans in Section II.

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1 See Appendix A, Glossary of Terms

The selected alignment crosses forest and/or old-field areas in Rock Creek Park. Impacts to the Rock Creek Park System are considered in more detail in Section V-C of this Statement.

f. Aquatic Ecology -

Impacts to aquatic ecology would be primarily those associated with increased siltation and the introduction of roadway pollutants into surface waters by stormwater runoff. Siltation generated by highway construction would be temporary. It would, however, increase turbidity and add to existing sediment loads during the construction period. A coordinated, conscientiously applied erosion control program will be utilized during construction activities to minimize erosion and siltation. This program would include temporary cover in the form of mulch for protection of exposed slopes as well as retaining vegetated buffer zones. High erosion potential areas are identified on the plans in Section II. The selected alternate would not require construction in any of these areas.

Stormwater runoff from roadway surfaces frequently carries de-icing compounds, grease, petroleum and other pollutants that can be toxic to aquatic organisms when present in sufficiently high concentrations. As noted previously, proper stormwater management will be utilized to minimize the amount of roadway pollutants introduced into the stream system. Vegetated buffer areas filter contaminants in overland flow. The presence of vegetation enhances soil permeability and allows water to infiltrate and be filtered by the soil. Similar filtering occurs on the surface through humus and litter which accumulates under vegetation. In addition to filtering, the presence of vegetation and litter slows the rate of overland flow, permitting particles to settle out of suspension. Minimum disturbance to vegetation and immediate planting in affected areas, will enhance stormwater management and significantly reduce impacts to aquatic ecology. It is expected, however, that slight increases in roadway pollutant concentrations may occur, but would not adversely affect the existing aquatic communities.

Bridges, culverts, or other drainage structures would be designed to prevent blockage of the movement of fishes or other aquatic organisms. Coordination has been made with the U. S. Fish and Wildlife Service and other concerned agencies to insure that the impact to the existing aquatic system would be minimal.

The selected alternate would require approximately 650 feet of stream relocation. This section of stream is shown in Figure II-4. It is presently adjacent to a cow pasture on the east side of Goshen Road in scrub/shrub area on the west side. Goshen Road crosses the stream on a single-span bridge. There is no cover vegetation and the stream occupies a coarse sand and gravel bed. No permanent impact to the stream should result from relocation.

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Downstream sedimentation would be the primary impact to the stream due to construction activities and unstable sediment. This would only be a temporary condition until the bottom stabilizes. Silt from this area would be carried downstream to Lake Whetstone, where water velocity would decrease and silt would settle out of the water column. The DNR - Inland Fisheries Administration has indicated that relocation should not adversely affect the aquatic ecology of Whetstone Run. Specific mitigation measures will be coordinated with DNR during final design phase.

g. Wetland Involvement -

The only wetland existing within the Study Area is a nine-acre tract located at the head of Needwood Lake (Figure II-2). This wetland is divided into two parcels by the service road providing access to the Needwood Lake Flocculation plant. The Maryland Department of Natural Resources, Water Resources Administration, has determined<sup>1</sup> that six acres of swamp/marsh exist along the west side of Rock Creek, upstream of the access road, and three acres of marsh exist downstream where Rock Creek widens into Lake Needwood. These wetlands provide valuable habitat for many species of wildlife and probably function to help trap sediments carried by Rock Creek. The selected alternate will not require any construction in this area.

h. Threatened or Endangered Species -

No known threatened or endangered species of animal or plant is known to inhabit the Study Area, or any adjacent region close enough to be adversely affected by construction of a build alternate. (See Section VII for documentation.)

i. Conservation of Existing Natural Resources -

The effect of the proposed action on the conservation of existing natural resources within the Study Area would be minimal. Conservation efforts are primarily the responsibility of the Park system. Due to the orientation of the study corridor to the existing and proposed park network (see Figures III-2 and IV-1), it will not be possible to implement this project without taking parkland.

Expansion of the existing Rock Creek Park System within the Study Area is planned. Figure IV-1 shows the extent of this expansion as visualized in the area Master Plans. A comparison of Figure IV-1 with Figure II-1 shows that the selected alternate would not hinder this proposed development.

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<sup>1</sup> See Section VII for documentation.

j. Scenic -

The selected alternate will require the construction of significant amounts of roadway in new location, as well as two new crossings of Upper Rock Creek Regional Park. This construction would change the existing scenery within the Study Area and could cause adverse scenic impacts.

Generally, the proposed improvements would be unobtrusive, ground level roadways that should not significantly detract from existing scenery in presently undeveloped areas. However, due to the extent of residential development within the Study Area, it will not be possible to construct any major roadway improvement entirely out of sight of existing communities or subdivisions. This is particularly true where development has occurred along reserved right-of-way that will be utilized. This reserved land is presently undeveloped and its conversion to roadway could create substantial visual impact to adjacent residences. Construction of walls, seeding or sodding slopes and medians, landscaping and other measures are under consideration to minimize scenic impacts.

Alternate 4 will require an interchange at Maryland Route 97. Construction of an elevated roadway for the interchange could intrude on the existing view from adjacent properties.

The selected alternate will require new crossings of Rock Creek Park. Alternate 4 will pass over the North Branch of Rock Creek in the region where foot paths, utilized by Meadowside Nature Center, are present in the stream valley. These crossings would be visible to persons using these paths.

These crossings would generally require bridges over Rock Creek. Mitigation measures such as the use of colored or textured concrete or natural rock facing to blend these bridges into the existing landscape will be developed in cooperation with the Maryland-National Capital Park & Planning Commission.

2. Relocation Impacts

a. Relocation Process -

Relocation of any individuals, families, or businesses displaced by this project would be accomplished in accordance with the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (Public Law 91-446), and could be affected in a timely and humane fashion. A summary of the Relocation Assistance Program of the State of Maryland is given in Appendix B of this Statement and a summary of the Equal Employment Opportunity Program is presented in Appendix C.

b. Residential Displacement<sup>1</sup> -

An analysis of the probable residential displacement that would be caused by the alternate under consideration has been made by the State Highway Administration, Bureau of Relocation Assistance.

- Alternate 4 -

The selected alternate would displace thirteen owner-occupant families and two tenant families, an approximate total of 65 persons. One business, J. H. Small & Sons Nursery, would also be displaced. No known minority group members would be affected.

- Housing Availability -

To ascertain the availability of replacement housing in the Study Area, local realtors were contacted and listings in The Washington Post were surveyed. The Study found sufficient housing to exist on the open market for the owner-occupants, but found the rental market to be somewhat restrictive, with limited numbers of dwellings and high monthly rentals.

In the event that tenants displaced are paying below market rents for their housing, last resort housing funds may be necessary to provide adequate decent, safe and sanitary housing.

c. Business Displacement -

The J. H. Small & Sons Nursery will require relocation under the proposed action. This Nursery employs approximately 4 individuals, none of which belong to minority groups. No other business or farms would be displaced, although some right-of-way would be required from several. Available land in the vicinity, combined with special exception zoning, should permit a reasonable relocation.

d. Other displacements -

No institutions, non-profit organizations, public or private community facilities would be displaced by the construction of the alternate under consideration.

<sup>1</sup> This information is taken from the more detailed Conceptual Stage Relocation Report, which is available for examination at the offices of the State Highway Administration, 300 West Preston Street, Baltimore, Maryland.

3. Community Impacts

a. Existing Communities -

Numerous civic and community associations have been established within the Study Area (see Section III-B2b). Their active membership demonstrates considerable citizen interest in the organization and functioning of these communities. This concerned interest indicates a high degree of community cohesion.

Due to the extent of residential development in this corridor, it would not be possible to construct a roadway in one location without separating adjacent communities. Since the existing roadway network will be retained, there will generally be no change in their existing roadway access to each other. However, some individuals who now walk directly between communities through undeveloped or sparsely developed land, would have to walk to intersections to safely cross the new roadway. This would have a minor effect on community cohesion and should cause only minor inconvenience to Study Area inhabitants.

The selected alternate would utilize reserved right-of-way through the Winters Run subdivision (see Figure II-4). This has the potential for adverse impact to cohesion within this unit. However, since Old Mill Run Road, which connects the two portions of this subdivision today, would remain in service, no significant impact is anticipated.

Alternate 4 would also used reserved right-of-way through a portion of the Mill Creek Towne (see Figure II-5) subdivision. Existing access to the community would be maintained at Miller Fall Road. this should not cause significant impact because this is the only access present today.

Subdivisions in this area that have grown along or around reserved right-of-way, have done so with full knowledge of the possibility that this land could eventually be utilized for roadway construction.

Proximity effects of highways vary widely, depending on land use and traffic charactersitics. The primary problem of highway proximity in residential areas is that some properties abutting or near the highway may be adversely affected without compensation (as is possible when property is acquired for right-of-way). Noise, air pollution and pedestrian safety have been cited most often as problem areas.

Surveys involving highway effects on neighborhoods indicate there is a significant difference between proximity effects expected and disadvantages actually experienced. For exmple, a survey of 2046 adults, selected to permit the findings to be

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projected to the U. S. population in general, 29% of the before respondents expected to experience greater pollution. However, only 10% of the after group believed such an increase actually occurred. The percentages of those expecting noise were 45 and 14, respectively. While 28% of the respondents in the before group expected a decrease in property values, none of those in the after group felt that such a decrease occurred.<sup>1</sup>

A study concerning the influence of highway environmental effects on residential property values indicates that lower property values due to proximity cannot always be expected. In some cases, the increase in value due to greater regional accessibility outweighed decreases due to adverse environmental effects.<sup>2</sup> Thus, the net effect of highway proximity may act to raise property values as well as decrease them.

b. Access to Community Facilities & Services -

- Schools -

The Study Area is served by numerous primary and secondary schools (see Section III-B2d). Students presently walk to school or travel by public or private transportation. Construction of the selected alternate in this study would not change the existing path of access by Study Area roadways. It could, however, change the route taken by some students who walk to school today, if the new roadway would block their path through undeveloped areas. These students would have to walk to intersections to cross the new roadway safely. This is not expected to create a significant impact.

Montgomery County Schools provide bus transportation for elementary students who live more than one mile from school, and for secondary students who live more than one and one-half miles away. In some cases, where safety is a problem (e.g., roads without sidewalks, crossing major highways), students are bussed from lesser distances.

Students attending Gaithersburg, Washington Grove, Candlewood, Cashell and Flower Valley Elementary Schools, who live on the opposite side of Relocated Maryland Route 115, are presently bussed due to their distance from their respective schools.

1 Anticipation of the Effects of an Urban Highway Improvement on the Highway Corridor, by Resource Management Corporation for the Federal Highway Administration, Washington, D. C., 20590, 1972.

2 The Influence of Highway Environmental Effects on Residential Property Values, by Institute for Research on Land and Water Resources, Pennsylvania State University for Federal Highway Administration, Washington, D. C., 1974.

Students from the Dockside development in Montgomery Village, who would attend South Lake Elementary School, would be required to cross the proposed roadway at the signalized intersection with Montgomery Village Avenue. A crossing guard would be provided, if necessary.

Elementary school students from the area south of the proposed roadway in Mill Creek Towne would cross at the signalized intersection of Miller Fall Road.

The only secondary school students who would have to cross relocated Maryland Route 115 would be those attending Redland Middle School from the Winters Run subdivision. They would cross at Old Mill Run. All others live far enough away to be bussed, have no sidewalk access (Redland Rd., Muncaster Mill Rd.) or have no conflict with the roadway.

- Police & Fire Emergency Services -

A number of police and fire stations are located in or near the Study Area to provide emergency police, fire, rescue and ambulance service. Construction of the selected alternate in this study would not reduce the accessibility of any portion of the Study Area to these important services. It could, in fact, significantly reduce travel time between these stations and many regions of the corridor.

- Medical Facilities -

Montgomery County has an abundance of medical doctors in private practice, and a number of major hospitals to serve its residents. No hospitals are located within the Maryland Route 115 Study Area, but two - Montgomery County General Hospital and Montgomery County Health Center - are located just to the northeast near Olney.

Construction activities for this project could require slightly longer trip distances for some area residents to reach family doctors located on the opposite side of the new roadway; however, this would be temporary and would not create significant hardship. Construction of the proposed roadway improvements would significantly reduce the travel time for emergency travel from most of the study area to hospitals located in the Olney area.

c. Impacts to Parkland -

All roadway improvements under consideration for this project would require right-of-way from Upper Rock Creek Regional Park. The right-of-way required would be from undeveloped



areas of the Park and its use would not reduce the recreational potential or environmental value of the existing Park or its planned development. These parkland impacts are discussed in more detail in Section V-C of this Statement.

d. Bikeways -

The selected alternate will be compatible with all present and planned bikeway facilities. Most of the bikeways, as envisioned in the Master Plan, will follow existing roadways. Allowances will be made in the at-grade intersections to accommodate bicycle traffic during the design phase. Alternate 4 will also cross two bikeways in Upper Rock Creek Regional Park. In these areas, the bikeways follow the stream valleys for Rock Creek and North Branch and the proposed roadway would be carried over them by bridges. In other areas, bikeways may cross the roadway where there are no bridges or intersections. It may be necessary to build pedestrian/bikeway overpasses for these crossings. There are presently no designated bikeway routes which would fall into the latter category.

e. Other Community Facilities -

Roadway access to post offices, churches, parks and recreation areas, libraries and other community facilities would not be altered. However, residents that presently walk directly to such facilities through undeveloped areas would be required to travel to intersections in order to safely cross the new roadway. This is not expected to create a significant impact.

f. Community Services -

The comments above, directed at public access to community facilities, are also applicable to access to gas stations, stores and other privately-owned services.

4. Traffic Impacts

a. Introduction -

Preliminary traffic data, used in the earlier stages of this study, was developed by SHA's Bureau of Highway Statistics Traffic Forecasting Section. Because of the interdependence between land use plans, transportation facilities and estimates of future travel, input parameters were obtained from the Washington, D. C. Council of Governments (COG) Master Plan. The traffic data

presented in this Statement is based on refined computer assignment analyses for 1995, performed by the Montgomery County Planning Board of the Maryland-National Capital Park & Planning Commission (fall 1978). Design year traffic (2005) was projected from these 1995 forecasts. Projected 2005 Average Daily Traffic Volumes<sup>1</sup>, Number of Lanes, and Levels of Service<sup>2</sup> are shown on Figure V-1.

b. Land Use Assumptions -

Maryland National Capital Park & Planning Commission (M-NCP&PC) is responsible for land use planning in the Maryland Route 115 Study Area. In accordance with the Master Plans for Gaithersburg, Rock Creek, Olney, and Aspen Hill, M-NCP&PC reviews requests for residential and commercial development. Because M-NCP&PC responsibilities encompass all aspects of land use planning (schools, sewer and water, recreation, police and fire, libraries, transportation, etc.) each request is reviewed for overall consistency with regard to these Master Plans. Transportation service and the need for improvement are only a part of each Master Plan and not an end unto itself.

Future residential and commercial development, consistent with the Master Plans, was assumed to be unaffected by the selection of a Build Maryland Route 115 Alternate. Estimates of future trip making were based on existing development, current development request (plans in the "pipeline"), and estimates of future Master Plan development which could logically be expected to be in place by 1995. Estimates of future trips from each transportation zone to all other zones were made using data from the Washington, D. C. Council of Governments for the area of the region not covered by M-NCP&PC.

The following assumptions concerning Master Plan elements were made in the development of future travel estimates:

- 1) The Shady Grove Metro Station and access roads were assumed in place.
- 2) The I-370 connection from I-270 to the Shady Grove Metro Station was assumed in place.
- 3) The Intercounty Connector (ICC) was not assumed in place until after the design year.

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1 See Appendix A for definitions.  
 2 Ibid.

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Given the basic assumption that the level of future development in the Study Area is independent of the outcome of the Maryland Route 115 Study, the travel analysis focused on identifying the roadways which projected traffic could be expected to use. The overall level of future trip-making remained constant, while the routes used by automobile travelers varied.

c. Design Year Traffic Projections & Levels of Service

Figure V-1 presents the projected (2005) daily traffic volumes for Relocated Maryland Route 115 and adjacent major existing roadways. For the selected alternate, the basic number of through lanes and level of service expected in the design year are also shown.

The following traffic characteristics were assumed for the selected alternate and used in calculating the number of through lanes, level of service, air quality impacts and noise impacts:

DHV % OF ADT = 11% (This means that 11% of the average daily traffic (ADT) is expected to occur during each design hour, AM and PM peak periods. The DHV is this design hour volume.)

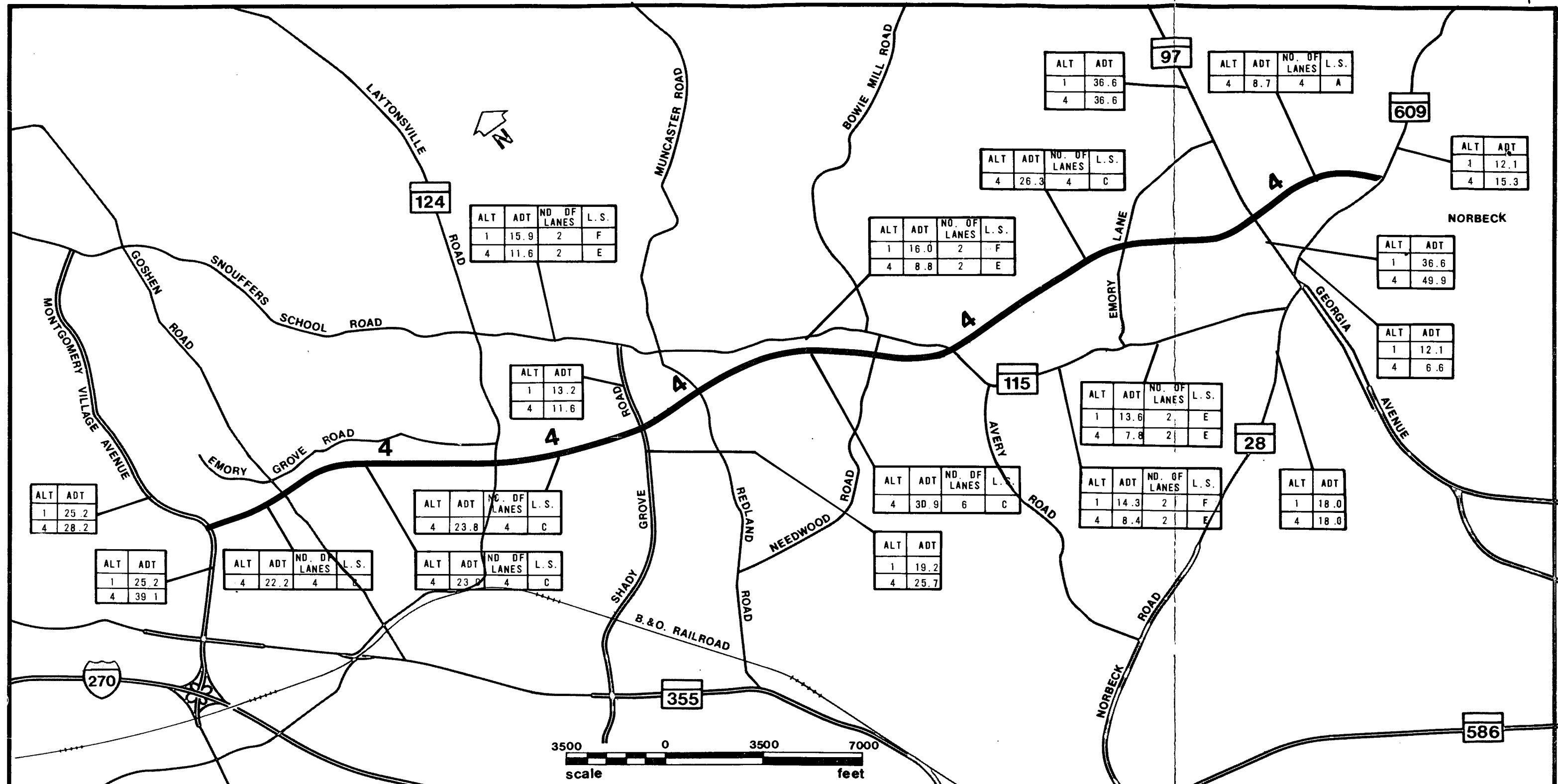
DD = 58% DHV (The directional distribution (DD) of the peak-hour volume is expected to be 58% in the peak direction, and 42% in the non-peak direction.)

DISTRIBUTION OF TRUCK TRAFFIC

Total Daily Truck Volume: = 6% of ADT  
Gasoline powered 2.2%  
Diesel powered 3.8%

Total Hourly Truck Volume: = 4% of ADT

The computer analysis used to forecast the 1995 traffic volumes, from which the 2005 traffic volumes were projected, incorporated roadway capacity. Termed "capacity restraint" (CAPRES), this process includes as input the "free" travel time for each roadway link (i.e., the time it would take a motorist to drive from A to B, assuming no other vehicles on the roadway). Assuming drivers seek out the minimum time path between A and B, the computer re-calculates new travel times for each line as trips are added to the system. The last 20% of trips added will not have the same



**LEGEND**

**Selected Alternate 4**

**KEY**

- ALT. ALTERNATE
- ADT. AVERAGE DAILY TRAFFIC (X1000)
- NO. OF LANES NUMBER OF THRU TRAFFIC LANES
- L. S. LEVEL OF SERVICE

**MARYLAND ROUTE 115**

FROM MONTGOMERY VILLAGE AVENUE TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(I)

**PROJECTED 2005  
AVERAGE DAILY TRAFFIC  
VOLUMES**

FIGURE V-1

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minimum time paths as did the first 20%. Thus, the computer is attempting to model actual experience, where drivers seek alternative, less congested routes when the main routes become too congested.

Given the quantity of traffic expected in 2005, expressed in Average Daily Traffic, the quality of traffic flow is measured in terms of Level of Service. These levels range from LS "A" (indicating best or freely flowing traffic conditions) to LS "F" (indicating worst, or breakdown conditions with long delays). As shown in Figure V-1, capacity operation and breakdown conditions ("E" to "F") are expected along the existing roadway if no improvements are made. The selected alternate is expected to operate at Levels of Service between "A" and "C", with near capacity operation expected on existing Maryland Route 115. The portion of Alternate 4, between Shady Grove Road and Maryland Route 115, near Avery Road is projected to carry additional traffic volumes because it offers a shorter route to the adjacent communities than existing Maryland Route 115. To provide a desirable Level of Service "C" in the design year on this portion of Alternate 4, six thru-lanes would be required. These additional lanes are located in the median of Alternative 4 (see Figure II-2), and would not require any additional right-of-way.

#### 5. Safety Impacts

Maryland Route 115 currently experiences a severe accident problem, primarily due to the narrow pavement width and poor horizontal and vertical curvature (see Section I). Increasing traffic volumes and the resulting congestion will further compound this problem. Rear-end collisions, hit vehicle-opposite direction and sideswipe, and run-off the road accidents would be expected to rapidly increase with the No-Build, paralleling increases in traffic volumes.

The selected alternate is expected to improve the highway safety conditions in the Maryland Route 115 Study Area. Improvements in existing locations would not have provided as high a level of traffic safety as could be expected with the highway in new location.

The two most important beneficial highway design and operation features which will contribute to an improvement in highway safety are:

- Increasing Control of Access - The selected alternate will have partial control of access. Driveway entrances will be eliminated, with all access limited to intersections. Elimination of these points of conflict will reduce right-angle, hit turning vehicle, hit pedestrian and other similar accident types.

- Increased Capacity & Reduced Congestion - These benefits will be accomplished by adding roadway in new location, and improved signing and marking. A reduction in the number and severity of rear-end, sideswipe (same direction) and hitting outside guardrail/barrier accidents is expected to occur. Because the existing highway operates at or near capacity, the resulting congestion-related accident rate will become intolerable, unless capacities are increased.

Other features which are expected to improve traffic safety include:

- Median Barrier - Double-face, concrete median barriers will be constructed on all 6 lane portions of the selected alternate that have a narrow median. Complete elimination of head-on collision and opposite direction sideswipe accidents will occur with the construction of a median barrier; however, crossed median and hit object accidents will become hit median barrier accidents.
- Vehicle Recovery Area - A flatly-graded obstacle-free vehicle recovery area will be constructed along the selected alternate. Varying from 20' (minimum) to typically 30' in width, such recovery areas will significantly reduce both the number and severity of the following accident types:
  - : hit outside guardrail
  - : hit embankment
  - : hit light pole
  - : hit sign support
  - : left the road and overturned
- Signing & Marking - Improved signing and marking conforming to accepted standards, is expected to bring about a reduction in the number of accidents.
- Full Left & Right Side Shoulders - In addition to providing room for vehicle recovery, full shoulders will reduce "hit parked vehicle" and "hit pedestrian" accident types.

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- Improved Design Speed - The selected alternate will be designed to 60 MPH standards. Maryland State accident data collected since early 1974 (i.e., post 55 MPH National Speed Limit) indicate that the safest Maryland highways are those designed for 70 MPH, and driven at 55 MPH. Any increase in design speed provides a very beneficial margin of safety for the driving public.

The selected alternate includes an interchange at Maryland Route 97 and an extension east to Maryland Route 609. The interchange will significantly reduce conflict points at Maryland Route 97. The extension to Maryland Route 609 will reduce the volume of traffic entering the congestion at Maryland Routes 28/97/609 intersection.

#### 6. Economic Impacts

Adverse economic impacts generated by construction of this project would be minimal. There could be some initial reduction in the market value of residential properties adjacent to new roadway; however, development of convenient access to other undeveloped properties, both residential and industrial, is expected to more than offset these possible value reductions.

Since the existing roadway network within the Study Area will remain unchanged, no significant adverse impacts are expected to accrue to existing area businesses; although traveler oriented concerns along the existing Maryland Route 115 and adjacent roadways could experience some reduction in patronage. However, enough traffic would continue to use the existing Maryland Route 115 to maintain the profitability of these businesses. It is also possible that some of these businesses could suffer a temporary decrease in patronage caused by customer inconvenience during the construction period.

A significant portion of Montgomery County's revenue is generated by property taxes. The conversion of private property to highway right-of-way would initially reduce this realized revenue. The number of acres of new right-of-way required, and resulting estimated County property tax loss for the selected alternate is given in Table II-2.

The only business relocated would be the J. H. Small & Sons Nursery. This Nursery employs 4 people. These are the only jobs that could be lost due to the construction of this project, and even these might not be lost if the Nursery relocates within the Study Area.

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## 7. Construction Impacts

Traffic on existing roads within the Study Area will be continuously maintained during the construction required with this project. Vehicular and pedestrian traffic will be maintained by the construction of temporary roadways, the use of existing roads to detour traffic around construction sites, or by utilizing existing roads. The sequence of construction will be carefully developed in order to maintain access to all properties and existing roads.

State Highway Administration procedures require the Contractor to obtain all required borrow materials and to dispose of all waste materials resulting from the construction project. In accordance with the provisions of Chapter 245 of the Acts of 1970 for the State of Maryland, it is also necessary for the Contractor to obtain permits from the appropriate County agency for any off-site work, which includes borrow pits, waste areas and the treatment of these during and after completion of the project. The County agency will refer the plan for such areas to the Soil Conservation District for review and approval of the erosion and sediment control provisions. The erosion control features installed by the Contractor shall be acceptably maintained for the duration of the contract.

If cutting into serpentine rock will be required, dust control measures will be stringently applied to prevent the circulation of free asbestos particles in the air. No serpentine rock will be used as temporary or permanent road surfacing material.

Temporary construction impacts to area residents and the traveling public include traffic, safety and socio-economic concerns. Congestion during construction will be minimal due to the amount of roadway on new location. At-grade intersections will be the most congested areas to affect traffic flow. Proper procedures will be followed to maintain traffic through these intersections or use existing roads to detour around construction.

Socio-economic concerns during the construction period generally involve construction noise. Construction associated with this project shall comply with all Federal, State and Local noise control regulations, as well as the provisions of the Occupational Safety and Health Act of 1970. Noise-quieted equipment and limitations on working hours will be required on construction operations in residential areas.

## 8. Air Quality Impacts

### a. Introduction -

In order to determine the impact which the highway will have on air quality, an air quality analysis has been conducted. There was a microscale carbon monoxide (CO) emissions analysis



consisting of two components; free-flow traffic conditions and a stopped-flow mode, signalized intersection analysis.

The microscale analysis consisted of projections of one and eight-hour concentrations of CO at various receptor sites under worse-case meteorological conditions for the years 1985 (year of completion) and 2005 (year of design).

b. Microscale Analysis -

Free-Flow Mode Dispersion Simulation

To estimate the microscale air quality effects associated with the selected alternate, predictions of one-hour and eight-hour concentrations of CO were made at seventeen sensitive receptor sites for the years 1985 and 2005, using E.P.A.'s computer Model HIWAY. The location of receptor sites are shown on Figure V-2. Predicted concentrations were added to projected background CO levels to arrive at total levels. Site selection of sensitive receptors was made on the basis of proximity to the roadway, number of affected people and the presence of other CO augmenting factors (such as intersections).

The factors which must be considered in making these projections include existing background air quality, facility design, traffic data, vehicular emission factors and meteorological data. The inputs used in these areas and the assumptions made in conducting the "worst case" analysis are as follows:

- 1) The carbon monoxide regional background levels used were obtained from the Maryland State Highway Administration and were based on the Hanna-Gifford Rollback Model adapted for the Washington, D. C. area.
- 2) Traffic projections were made for the selected alignment. Data included mean average daily traffic volumes, diurnal curve (hourly traffic volumes), ranges of running speeds, and percentages of gasoline and diesel powered trucks.
- 3) Emission factors were derived by utilizing the E.P.A. Mobile 1 computer program, which is based on the most recent (March, 1978) version of AP-42 Compilation of Emission Factors. The emission factors were computed on the basis of the following input:
  - : 35° F ambient temperature
  - : FTP driving cycle

- : Non-methane hydrocarbon factors request care (to include evaporative emissions).
- : Montgomery County vehicle-age distribution for light-duty vehicles assumed to not change between 1977 and 2005.
- : National vehicle-age distribution for heavy-duty vehicles also assumed to remain constant over time period covered by this analysis, as well as truck mix and diurnal traffic curve.

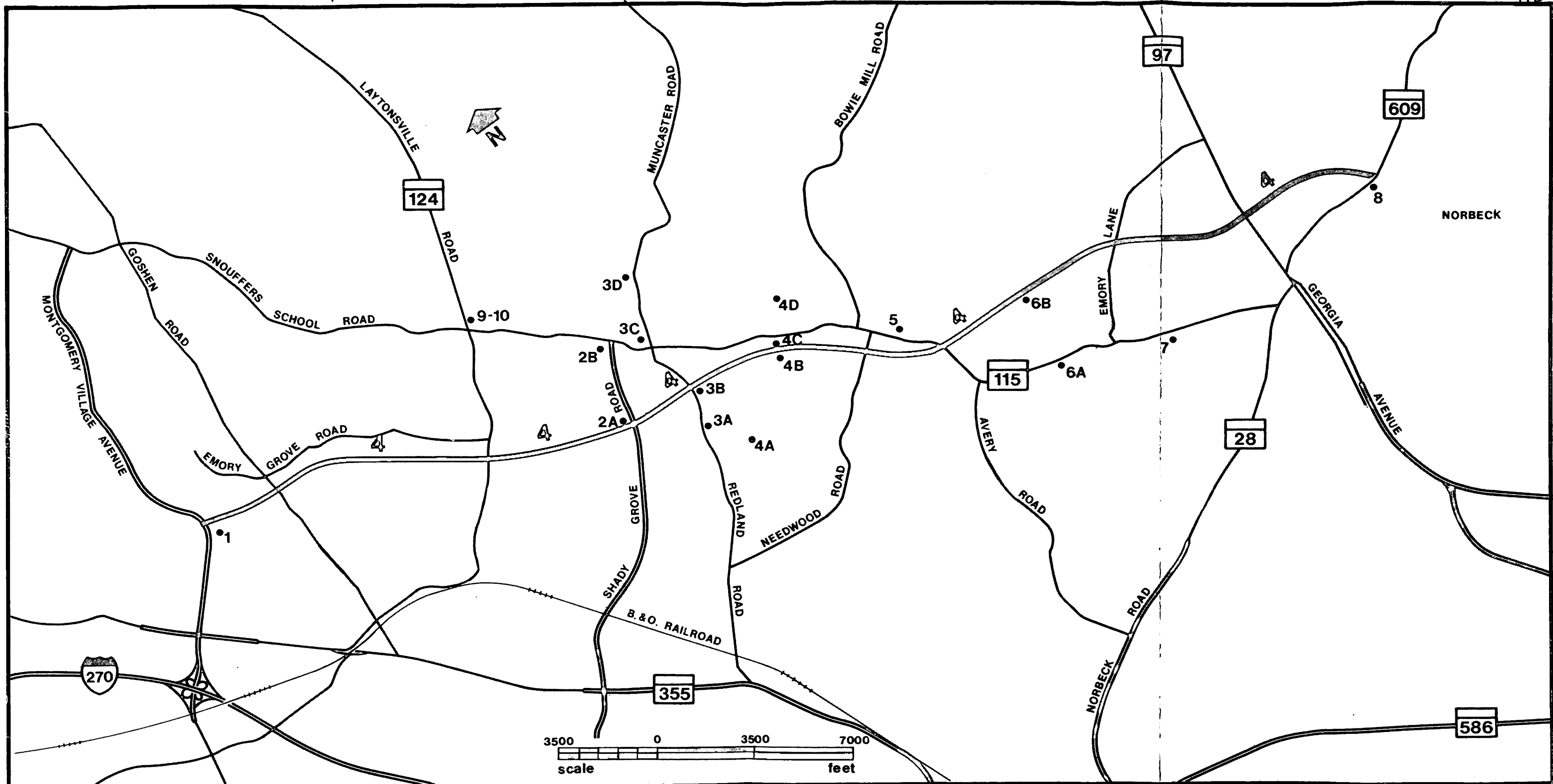
Note: Input did not include Inspection/Maintenance (I/M) which is effective in 1981. This requires a 30% stringency level and mechanic training which would lower vehicle emissions. If this were included, projected CO levels would be lower than those presented in this document, resulting in an overall decrease in CO concentrations.

4) Worst case meteorological conditions were input to both the free-flow mode and stopped-flow mode analysis as follows:



Wind Speed	-	2m/sec (1 PM - 5 PM)
	-	1m/sec (5 PM - 9 PM)
Stability Class	-	D before 5 PM
		F after 5 PM
Mixing Height	-	350 meters
Wind Direction	-	That which maximized CO concentration at a particular receptor

The results of this analysis, which accounts for only free-flow mode CO contributions plus background (regional) CO, presented in the following table, show no violations of either one hour or eight hour National Ambient Air Quality Standards (NAAQS) for CO due to the selected alternate at any site for either 1985 or 2005. The NAAQS CO Standards are as follows:

Maximum 1 hour	=	35 ppm
Maximum consecutive 8 hours	=	9 ppm



**LEGEND**

-  Selected Alternate 4
-  Air Quality Receptor Sites

**MARYLAND ROUTE 115**

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(1)

**AIR QUALITY  
RECEPTOR SITES**

FIGURE V-2

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TOTAL CO LEVELS, ppm, FREE-FLOW MODE

	1985		2005	
	<u>1-Hour</u>	<u>8-Hour</u>	<u>1-Hour</u>	<u>8-Hour</u>
<u>NO-BUILD, ALTERNATE 1</u>				
Site 2B	8.2	2.8	9.6	3.3
Site 3C	9.3	3.2	10.5	3.6
Site 4C	7.2	2.5	8.2	2.8
Site 5	5.6	1.8	6.0	1.9
Site 6A	7.1	2.4	8.7	3.0
Site 7	6.3	2.1	6.7	2.2
Site 10	8.5	3.5	10.9	4.8

ALTERNATE 4, PROPOSED ACTION

Site 1	4.8	1.5	4.6	1.4
Site 2A	5.7	1.9	5.5	1.8
Site 3B	7.4	2.4	7.0	2.3
Site 4B	12.5	4.3	11.8	3.6
Site 6B	8.6	2.9	7.9	2.7
Site 8	5.8	2.0	5.5	1.8

Stopped-Flow Mode Dispersion Simulation

Although signalization is contemplated for parts of the selected alternate, estimates of vehicle backups at red phase signals, i.e., queue lengths, were only available for the Shady Grove Road intersections. Based on predicted queue length for traffic on Alternate 4 where it would intersect Shady Grove Road, estimates of CO concentrations at sensitive receptors were made on a point source basis. Predictions of one-hour and eight-hour concentrations of CO were made for the years 1985 and 2005. The factors considered in making these projections are as follows:

- 1) The leading vehicles in the queues were placed at the edges of their respective roads, and trailing vehicles were spaced at lengths of 6.2 meters.
- 2) Wind angles were chosen to maximize the contribution of each queue's plume toward a receptor. Queues producing the greatest concentrations were selected, and their respective wind angle chosen as the worst case. Each queue had a pivotal vehicle, which was selected as the axial point source. Other vehicles in the queue were designated off-axial, and contributed less to the CO concentrations at the receptor.

3) Wind speed and stability classes are the same as specified for the free-flow mode.

4) Emission factors used were from the Mobile 1 program's output for idling vehicles, and red to cycle length ratios were used to adjust CO concentrations calculated to hourly levels. Concentration diminishment factors were taken from Turner's graphs on the basis of the above parameters.

The final step in the stopped-flow mode calculations was factoring in the free-flow mode contributions, which includes the background CO levels. The stopped-flow analysis showed no violations of the NAAQS in either 1985 or 2005 at Shady Grove Road as envisioned with the selected alternate. This data is presented in the table below. Since this particular alternate/intersection combination is anticipated to produce the greatest red light queue lengths, it is concluded that no violations of any NAAQS will occur due to the selected alternate at any of the other intersections.

**TOTAL CO LEVELS, ppm, COMBINED**  
(Free-Flow + Stopped-Flow Modes)

<u>Site</u>	<u>1985</u>		<u>2005</u>	
	<u>1-Hour</u>	<u>8-Hour</u>	<u>1-Hour</u>	<u>8-Hour</u>
Alternate 1 - 2B	9.4	3.7	7.3	2.7
Alternate 4 - 2A	11.0	5.6	8.3	4.1

c. Consistency with State Implementation Plan -

The project air quality analysis assessed the micro-scale carbon monoxide impacts of the alternates. This analysis determined that for the selected alternate no violation of NAAQS for carbon monoxide will occur during the completion and design years. As a result, this alternate is consistent with the State Implementation Plan and the Implementation Plan for the National Capital Interstate Air Quality Control Region (NCIAQCR).

The consistency of the project in relation to construction activities was addressed through consultation with the Maryland Bureau of Air Quality and Noise Control. The State Highway Administration has established Specifications for Materials, Highways, Bridges and Incidental Structures, which specify procedures to be followed by contractors involved in State work. These specifications have been reviewed by the Maryland Bureau of Air

Quality and Noise Control and found them consistent with the Regulations Governing the Control of Air Pollution in the State of Maryland.

9. Noise Impacts

a. Introduction -

The standards which stipulate specific noise levels applicable to highways are contained in the Federal Highway Administration's Federal-Aid Highway Program Manual (FHPM 7-7-3). This document establishes maximum noise levels allowable for various types of land uses (see Table V-1 for a summary of these noise levels). Existing land uses in the study area have characteristics typical of both suburban and rural development. Generally residential development is most prevalent: (1) in the area of the western project terminus near Montgomery Village, (2) generally to the south of existing Maryland Route 115 (Muncaster Mill Road), and (3) near the eastern end of the study area from Emory Lane to east of Maryland Route 97. There are extensive tracts of farmland distributed throughout the project area with the majority of such land located between Goshen Road and Laytonsville Road and to the north of existing Maryland Route 115. Several sections of the Upper Rock Creek Regional Park are located within the study area, and consist mostly of undeveloped woodland and scrub regions. Because of the existing character of areas adjacent to the alternatives under consideration, the applicable FHPM 7-7-3 land use category is "B", for which the maximum ( $L_{10}$ ) exterior design noise level is 70 dBA. This and other categories are explained in Table V-1.

<u><math>L_{10}</math> Change over Ambient</u>	<u>Degree of Impact</u>
Decrease over Ambient	Positive
0 - 5 dBA Increase	Negligible
6 - 10 dBA Increase	Minor
11 - 15 dBA Increase	Significant
Over 15 dBA Increase	Severe

When it is determined that a noise impact will occur by exceeding the 70 dBA design noise level and/or by creating an undesirable increase in noise level over the ambient, an evaluation of possible noise attenuation measures will be conducted. If the evaluation of these measures show that attenuation is not feasible or would not reduce the predicted  $L_{10}$  noise levels to below the Federal design noise levels, an exception must be approved by the Federal Highway Administration before a project can be constructed.

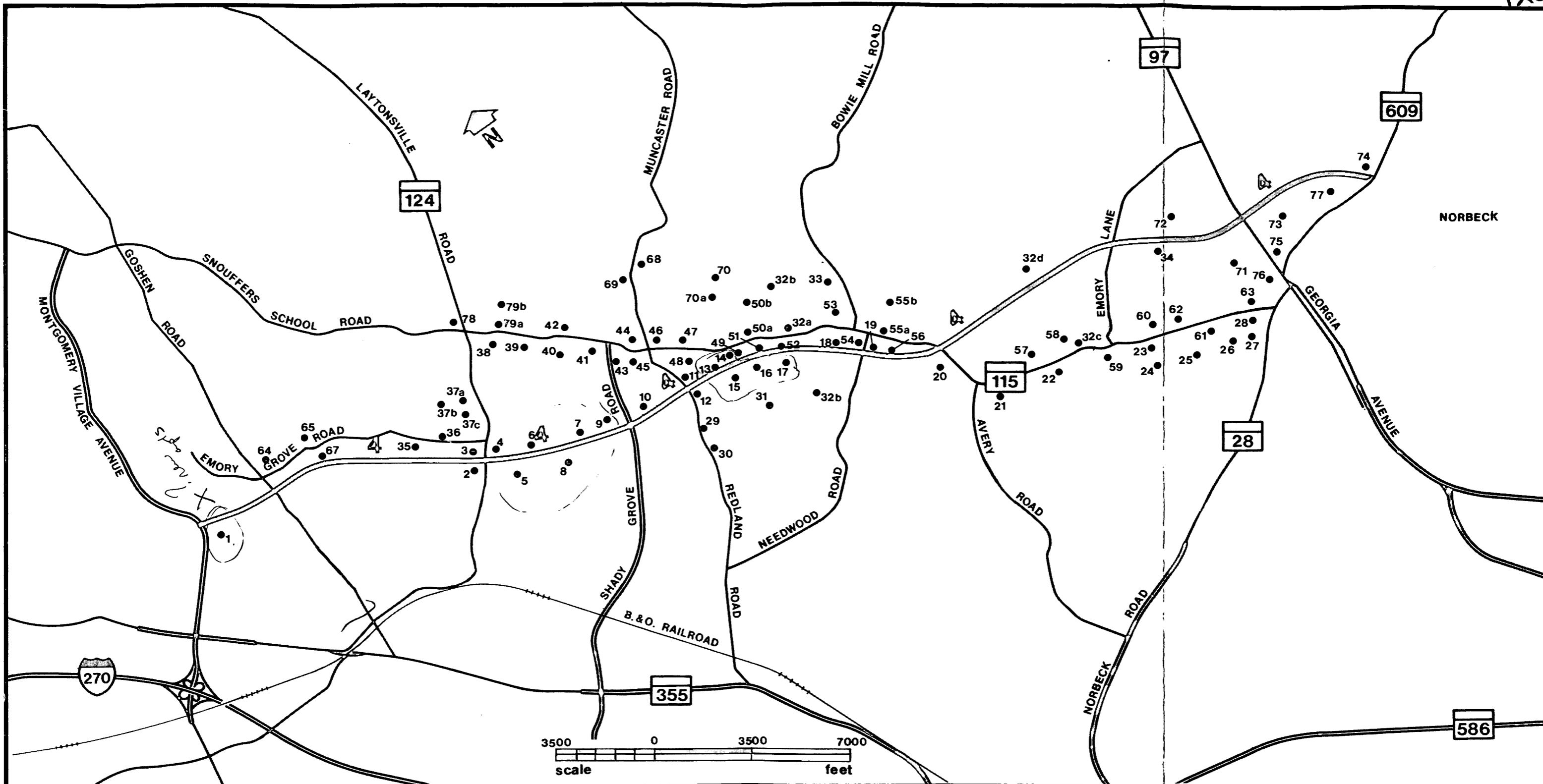
A detailed Noise Report is available for review at the Maryland State Highway Administration, 300 West Preston Street, Baltimore, Maryland, and is summarized as follows:

- T A B L E V - 1 -

DESIGN NOISE LEVELS & LAND USE RELATIONSHIPS  
SPECIFIED IN FHPM 7-7-3

<u>Land Use Category</u>	<u>Design Noise Level - L<sub>10</sub></u>	<u>Description of Land Use Category</u>
A	60 dBA (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	70 dBA (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in categories A and B above.
D	None Prescribed	Land which is undeveloped on the date of public knowledge of the project, and for which no known future developed is planned.
E*	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

\* See paragraph 1(c) of Appendix B of FHPM 7-7-3 for method of application. Partial quotation from paragraph 1(c): "The interior design noise level in Category E applies to indoor activities for those situations where no exterior noise sensitive land use or activity is identified".



**LEGEND**

Selected Alternate 4

●<sup>10</sup> Ambient Noise Monitoring Areas

**MARYLAND ROUTE 115**

FROM  
MONTGOMERY VILLAGE AVENUE  
TO NORBECK

STATE PROJECT NO. M758-003-371  
FEDERAL AID PROJECT NO. US 9441(1)

**AMBIENT NOISE  
MEASUREMENT AREAS**

FIGURE V-3



b. Ambient Noise Levels -

The ambient noise in any area is the background noise that is developed by all of the natural and man-made noises within a given area. The objective of ambient noise measurements is to establish the present noise environment for existing activities and developed land uses in the study area, and to provide a base for assessing the impact of predicted noise level increases resulting from the roadway alternate under consideration. The ambient noise levels, as recorded, represent a generalized view of present noise levels. Variations of the ambient noise levels with time, total traffic volumes, truck traffic volumes, speeds, etc. may cause fluctuations in the noise levels of several decibels. However, for the purpose of impact assessment, these fluctuations do not significantly affect the assessment.

Measurements of ambient noise levels were made at 70 noise sensitive areas in the vicinity of project study area in July and September, 1978 and in January, February and March 1979. Table V-2 lists the measured noise level recorded for each sensitive area. The location of these ambient noise sensitive areas is shown on Figure V-3.

c. Predicted Noise Levels -

Predicted noise levels were developed by utilizing the Federal Highway Administration's (FHWA) Highway Traffic Noise Predication Model. The FHWA Model utilizes an experimentally and statistically determined reference sound level for three classes of vehicles (autos, median duty trucks and heavy duty trucks) and applies a series of adjustments to each reference level to arrive at the predicted sound level. The adjustments include, (1) number of vehicles, average speed and time period of consideration; (2) distance adjustment comparing a reference distance and actual distance between receiver and roadway and including roadway width and number of traffic lanes; and (3) adjustments for various types of physical barriers that would reduce noise transmission from source (roadway) to receiver. Traffic information for this analysis, as well as project design, was supplied by the Maryland State Highway Administration's Bureau of Traffic Engineering and Bureau of Highway Statistics.

Projected design year (2005)  $L_{10}$  noise levels (exterior) for applicable noise sensitive areas along the selected alternate are presented in Table V-2. These levels may be compared with the ambient noise level, also shown in this table and to the Federal design noise level, which would be  $L_{10} = 70$  dBA for the land uses in this project study area.

1 NOISE SENSITIVE AREA		1978-79 L <sub>10</sub> dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L <sub>10</sub> NOISE LEVELS	
AREA NO.	DESCRIPTION		NO BUILD	SELECTED ALTERNATE
1	HAMLET APART./HORIZON RUN	51		69
2	RESIDENCES ON LAYTONSVILLE RD.	49		64
3	RESIDENCES ON LAYTONSVILLE RD.	66		68
4	AMITY GARDENS APARTS.	62		72*
5	MILL CREEK SOUTH TOWNHOUSES	45		67
6	RESIDENCES ON SHADY SPRING RD.	45		67
7	RESIDENCES ON MILLER FALL RD.	49		67
8	RESIDENCES ON JEREMY TERRACE	49		70
9	RESIDENCES ON PARK MILL DRIVE	52		67
10	RESIDENCES ON BEAUVOIR BLVD.	52		66
11	RESIDENCES ON REOLANO RD.	64		66
12	RESIDENCES ON GARRETT RD.	64		68
13	RESIDENCES ON APPLEWOOD LANE	49		67
14	RESIDENCES ON WINTERS RUN	49		70
15	RESIDENCES ON GARRETT CT.	49		67
16	RESIDENCES ON FARMINGDALE CT.	49		70
17	RESIDENCES ON FARMINGDALE CT.	49		68
18	RESIDENCES ON MD. RTE. 115	54	54	63
19	RESIDENCES ON NEEDWOOD RD.	54	60	66
20	RESIDENCES ON MD. RTE. 115	64	64	67
21	HISTDRIC SITES (H-23) ON MD. RTE. 115	57	58	
22	RESIDENCES ON MD. RTE. 115	57	59	

1 SEE FIGURE V-3 FOR SITE LOCATIONS.

\* FEDERAL DESIGN NOISE LEVEL CRITERIA EXCEEDED.  
SEE TABLE V-1 FOR DESCRIPTION.

MD. ROUTE 115

PROJECT NOISE LEVELS

TABLE V-2

1 NOISE SENSITIVE AREA		1978-79 L <sub>10</sub> dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L <sub>10</sub> NOISE LEVELS	
AREA NO.	DESCRIPTION		NO BUILO	SELECTED ALTERNATE
23	RESIOENCES IN FLOWER VALLEY	59	59	
24-27				
28	ST. PATRICKS CATHOLIC CHURCH	57	60	
29	RESIOENCE ON REOLANO RO.	63		
30	RESIOENCES ON REOLANO RO.	43		
31	RESIOENCES ON GLEN OAK RUN	49		
32a	LEFT ARM ROCK CREEK PARK, 50' FROM MO. 115	67	67	6B
32b	LEFT ARM ROCK CREEK PARK, IN PARK	50		
32c	RIGHT ARM ROCK CREEK PARK, 50' FROM MO. 115	67		
32d	RIGHT ARM ROCK CREEK PARK, IN PARK	50		6B
33	RESIOENCES ON WILLOW KNOLL ORIVE	50		
34	RESIOENCES ON PINE TREE RD.	37		64
35	TAVERN ON EMORY GROVE RO.	66		
36	RESIOENCES ON EMORY GROVE RO.	66		
37a	LONGVIEW ELEMENTARY SCHOOL, FRONT OF BLOC.	47		
37b	LONGVIEW ELEMENTARY SCHOOL, PLAYFIELD	40		
37c	EMORY GROVE PARK & CHURCH CAMP	47		
38	RESIDENCES ON MD. RTE. 115	7D	70	
39	LAYTONIA DEVELOPMENT	64	64	
40	FLOWER HILL CHURCH DF THE BRETHREN	7D	7D	
41	RESIDENCES ON MD. RTE. 115	69	69	
42	RESIDENCES DN MD. RTE. 115	65	65	

1 SEE FIGURE V-3 FOR SITE LOCATIONS.

\* FEDERAL DESIGN NOISE LEVEL CRITERIA EXCEEDED.  
SEE TABLE V-1 FOR DESCRIPTION.

MD. ROUTE 115

PROJECT NOISE LEVELS

TABLE V-2 (CDNT.)

1 NOISE SENSITIVE AREA		1978-79 L <sub>10</sub> dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L <sub>10</sub> NOISE LEVELS	
AREA NO.	DESCRIPTION		NO BULD	SELECTED ALTERNATE
43	RESIDENCE DN MILLCREST DRIVE	69	69	
44	HIGH'S STORE/GULF GAS STATION	66	67	
45	RESIDENCES ON MD. RTE. 115	72*	72*	
46	RESIDENCES ON HORIZON TERRACE	60	63	
47	RESIDENCES ON MD. RTE. 115	62	62	
48	REDLAND BAPTIST CHURCH	62	62	
49	RESIDENCES IN WINTERS RUN	64	64	
50a	REDLAND JUNIOR HIGH SCHOOL, FRONT OF BLDG.	57	58	
50b	REDLAND JUNIOR HIGH SCHOOL, PLAYFIELD	50		
51	RESIDENCES ON MD. RTE. 115	70	70	
52	RESIDENCES ON MD. RTE. 115	58	59	
53	RESIDENCES ON WILLOW HILL LANE	50	55	
54	RESIDENCES ON MD. RTE. 115	67	68	
55a	COL. MAGRUDER H.S., FRONT OF BLDG.	58	59	
55b	COL. MAGRUDER H.S., PLAYFIELD	50		
56	RESIDENCES ON MD. RTE. 115	64	64	
57	RESIDENCES/ACADEMY HORSE RING ON MD. 115	57	61	
58	HISTORIC SITE (H-28) ON MD. RTE. 115	57	60	
59	HISTORIC SITES (H-27, -53) ON MD. RTE. 115	57	61	
60	NORBECK BAPTIST CHURCH	56	56	
61	SHEPARD OF THE VALLEY LUTHERAN CHURCH	59	60	
62	RESIDENCES ON MD. RTE. 115	59	60	

1 SEE FIGURE V-3 FOR SITE LOCATIONS.

\* FEDERAL DESIGN NOISE LEVEL CRITERIA EXCEEDED. SEE TABLE V-1 FOR DESCRIPTION.

MD. ROUTE 115  
PROJECT NOISE LEVELS

TABLE V-2 (CONT.)

1 NOISE SENSITIVE AREA		1978-79 L <sub>10</sub> dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L <sub>10</sub> NOISE LEVELS	
AREA NO.	DESCRIPTION		NO BUILD	SELECTED ALTERNATE
63	MT. PLEASANT METHODIST CHURCH ON MD. 115	65	66	
64	QUAIL VALLEY DEVELOPMENT	55		
65	RESIDENCE ON KNOLL ROAD	47		
66	RESIDENCES ON EMORY GROVE RD.	47		
67	RESIDENCES ON EMORY GROVE RD.	47		59
68	RESIDENCE ON MUNCASTER RD.	58		
69	RESIDENCE ON MUNCASTER RD.	58		
70	RESIDENCES ON SWEET WATER RD.	44		
70a	RESIDENCE ON SWEET WATER RD.	44		
71	RESIDENCE ON MO. RTE. 97	47		61
72	BROOK MANOR COUNTRY CLUB	47		55
73	RESIDENCES ON BRADFORD RD.	40		58
74	RESIDENCES ON MO. RTE. 609	56		63
75	RESIDENCE ON MO. RTE. 97	65		67
76	RESIDENCE ON MO. RTE. 97	71*		69
77a	NORBECK RECREATION CENTER, COURTS	56		58
77b	NORBECK RECREATION CENTER, PLAYFIELD	45		60
78	RESIDENCE ON LAYTONSVILLE	73*		
79a	ROCK CREEK PARK AT LAYTONSVILLE, 50' FR. MD. 115	70		
79b	ROCK CREEK PARK AT LAYTONSVILLE, IN PARK	50		

1 SEE FIGURE V-3 FOR SITE LOCATIONS.

\* FEDERAL DESIGN NOISE LEVEL CRITERIA EXCEEDED.  
SEE TABLE V-1 FOR DESCRIPTION.

MD. ROUTE 115  
PROJECT NOISE LEVELS

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d. Noise Impact Assessment and Feasibility of Noise Control -

The determination of environmental noise impact is based on the relationship between the predicted noise levels, the established design noise levels and the ambient noise levels in the project area. The applicable standard is the Federal Highway Administration's design noise level/land use relationship, which for this project would be  $L_{10} = 70$  dBA.

Impact assessment is also based on the change in  $L_{10}$  noise levels from ambient levels. The degree or amount of the change has been assessed according to the criteria listed in the Introduction to this Noise section.

Whenever the  $L_{10}$  noise levels are increased by more than 10 dBA over ambient conditions, noise abatement measures (in general, noise barriers) are considered to minimize impact. Consideration is based on the size of the impacted area (number of structures, special distribution of structures, etc.), the predominant activities carried on within the area, the visual impact of the control measure and economic feasibility.

The location, size, and degree of effectiveness of the noise barriers investigated with the selected alternate are subject to change during the final design phase. Predicted noise levels and barrier effectiveness have been determined for purposes of potential environmental impact. Further refinement of the noise analysis will be conducted during the design phase to determine detailed barrier location, size, and effectiveness for noise attenuation. Noise barrier types will be determined during the design phase and will include public input. Full or partial abatement measures, including berms, landscaping and partial barriers, will be investigated before exceptions to the design noise levels are requested during the design phase.

- The Selected Alternate -

Twenty-two (22) noise sensitive areas along the selected alternate have design year  $L_{10}$  noise levels more than 10 dBA over ambient levels. Specific areas experiencing significant or severe design year noise impacts are NSA's 1, 2, 4-10, 13-17, 19, 32b, 32d, 34, 67, 71, 73 and 77b. The alignment would pass through areas where highway traffic is not now a dominant noise source. This would account for the high number of significant and severe impact areas.

No schools or churches would experience adverse noise impacts from the selected alternate.

Brook Manor County Club (NSA 72) would experience a minor increase in noise levels. The ambient L<sub>10</sub> noise level measured at NSA 72 was 47 dBA. By the design year, levels at the location would increase by approximately 8 dBA to an L<sub>10</sub> of about 55 dBA. The L<sub>10</sub> design noise level of 70 dBA would not be exceeded anywhere on the County Club grounds.

Federal design noise level criteria would be exceeded at NSA 4, the Amity Gardens Apartment Complex. The area consists of four (4) three-story buildings situated perpendicular to the proposed alternate alignment. Noise abatement for this area would not be feasible or cost-effective for the following reasons:

1) Only about one-sixth of the residences of the complex (i.e., those living in ground floor apartments) would benefit from a barrier of moderate height (15 feet) at a cost of roughly \$100,000. A barrier in excess of 30 feet would be needed to protect residents on the second and third floors at about double the cost.

2) The influence of traffic noise from Laytonsville Road would limit reductions to about 7 dBA at the buildings closest to Laytonsville Road (the maximum reduction would be around 12 dBA).

3) A noise barrier to protect the upper floors of the apartment buildings would be extremely high (30 feet) and not aesthetically pleasing or in harmony with the surrounding environment.

4) Unless the higher wall were used, noise reflected off the building walls would further reduce the effectiveness of the barrier. Under Alternate 4, an exception to the Federal design noise level would be considered for this area.

There are eleven (11) noise sensitive areas along the selected alternate (NSA's 1, 5-9 and 13-17) where noise abatement measures to minimize noise impacts appear feasible. Federal design noise levels would not be exceeded at these locations; however, noise levels would increase 15-22 dBA over ambient levels by the design year. Noise abatement measures are being considered at these areas to reduce the projected increase to around 6-11 dBA. It could be accomplished by construction of noise barriers on top of the proposed retaining walls, at the edge of safety grading areas or along the right-of-way line. Noise barriers are being considered at the following locations. Further detailed study during the design phase will determine the actual length and height of these barriers for proper acoustical performance.

Fig. No.	NSA	Location	Approx. Length	Approx. Cost
II-4	1	South of Reloc. 115, East of Montgomery Village Ave.	2000 l.f.	\$200,000.
II-5	5	South of Reloc. 115, 1200' East of Laytonsville Rd.	1400 l.f.	\$140,000.
II-5	6	North of Reloc. 115, 1800' East of Laytonsville Rd.	1600 l.f.	\$160,000.
II-5	7,9	North of Reloc. 115, Miller Fall Rd. to Shady Grove Rd.	2100 l.f.	\$210,000.
II-5	8	South of Reloc. 115, West of Miller Fall Rd.	500 l.f.	\$ 50,000.
II-6	13,14	North of Reloc. 115, West of Applewood Lane to East of Pilgrims Cove	2600 l.f.	\$260,000.
II-6	15,16 17	South of Reloc. 115, Applewood Lane to East of Farmingdale Ct.	2700 l.f.	\$270,000.

Total Estimated Cost for Noise Barriers along the Selected Alternate is \$1,290,000.

Noise sensitive areas 32b, 32d and 77b are located in Rock Creek Park or the Norbeck Recreation Center, and noise impacts on these areas are discussed in the following section 'e' - Impacts on Section 4(f) Lands.

Noise sensitive areas 2, 10, 19, 34, 67, 71 and 73 would not be considered for noise abatement because no more than 5 residences are clustered at any one sensitive area, and abatement for so few residences would not be cost-effective.

e. Construction Impacts -

As with all major construction projects, areas around the construction site are likely to experience varied periods and degrees of impact from noise. This type of project will probably employ the following pieces of equipment which will likely be sources of construction noise:

- Bulldozers & Earthmovers
- Graders
- Front-end Loaders
- Dump and other heavy trucks
- Compressors



It is probable that construction activity will not occur after 5:00 P.M. or before 7:00 A.M. on weekdays, and will likely be limited to weekdays only. Therefore, the critical time during which evening outdoor recreation and nocturnal rest periods occur, construction noise will not be present. Limiting construction activity to non-critical time periods will minimize noise impact on surrounding areas.

Maintenance of construction equipment should be regular and thorough to minimize noise emissions because of inefficiently tuned engines, poorly lubricated moving parts, poor or ineffective muffling systems, etc.

f. Exceptions to Design Noise Levels -

An exception to the Federal design noise level would be considered for NSA 4 for the selected alternate.

10. Historic & Archeological Impacts

a. Historic Sites -

Four sites in the study area for relocated Maryland Route 115 appear to be eligible for the National Register. There are an additional 63 historic sites of state and/or local significance. All these sites are listed below, with those eligible for the National Register of Historic Places noted with an asterisk (\*).<sup>1</sup> These sites are identified on Figure III-2, and those in close proximity to the selected alignment are shown on the detailed plans in Section II. Selected Alternate 4 will not require taking any land from any historic resources. The State Historic Preservation Officer has determined<sup>2</sup> the Selected Alternate will have no effect on any of these sites.

<u>Site Designation</u>	<u>Site Name</u>
H-1*	Walkers Mill Rd., Miller's Log House, Mill Race
H-2	Walker Farm
H-3	Emory Grove Park & Church Camp
H-4	Emory Grove Church
H-5	Thompsons House
H-5A	Woodward's Store
H-6	Washington Grove
H-7	Moody Farm
H-7A	Mineral Spring House
H-9	Cooke Farm Pope Range
H-10	Griffith Tenant Cabin

<sup>1</sup> See Section VII for documentation.

<sup>2</sup> Ibid

Site Designation

Site Name

(Continued)

H-11	Redland
H-12	Magruder-Waters Site
H-14	Eubank Farm & Tenant House
H-15	Needwood Mansion
H-16	Stone Slave House
H-18	Cashell Tenant House & Barn Site
H-19	Hazel Cashell Farm
H-20	Site of Owens Mill
H-21	Cashell Farm (Grantham) & Tenant House
H-22	Belt Farmhouse Ruins & Cemetery Site
H-23	Adamson House & Barn
H-24	Barnesly House
H-26	Prather Family Cemetery
H-27	Muncaster Mill Ruins
H-28	Muncaster Miller's House
H-29*	Milton Farm & Out Buildings
H-30	Sycamores
H-32	Child's House
H-33	Emory Church Site & Old Schoolhouse
H-34	Woodburn
H-35	James Barnesly House
H-38	Glenwood Site
H-39	Willow Grove
H-40	House
H-41	Wilbur Hines' House
H-45	House
H-46	House
H-47	Charles S. Safell House & Barn
H-48	House
H-49	House
H-50	Allen House
H-52	L-SUS-TY House & Barn
H-53	Cabin
H-54-A	James Burriss House I, 3212 Norwood Road
-AA	Two-story House, 4289 Muncaster Mill Road
-B	Tenant Cabin
-C	Tenant Cabin
-D	Albin Brooks Farmhouse
-E	Dim Hat Acres House
-F	Easton House, 3501 Norwood Road
-G	One-story House, 3509 Norwood Road
-H	Curtis House, 3601 Norwood Road
-I	Charles Anderson Farmhouse, 15621 Georgia Avenue
-J	Cattery, 15520 Georgia Avenue
-K	Two-story I-House, 15518 Georgia Avenue
-L	Laurence White House II, 15516 Georgia Avenue
-M	Laurence Shite House I, 15514 Georgia Avenue

Site Designation

Site Name

(Continued)

- N Whites Hardward, 15510 Georgia Avenue
- O James Burns House II, 15220 Georgia Avenue
- R\* Mt. Pleasant Church
- S\* Norbeck Community Center
- V One-story House
- W One-story Cabin
- X One-story Cabin
- Y One-story Cabin
- Z Ricks House

b. Archeological Sites

An archeological reconnaissance of the Maryland Route 115 Study area has been completed. A detailed report of this investigation is available for inspection at the State Highway Administration, 300 West Preston Street, Baltimore, Maryland. At several localities, traces of prehistoric remains were found or have been reported. However, all are "indicative of limited, small group exploitation", and the State Historic Preservation Officer has determined these are not of significance. If additional sites are discovered during the construction process, an opportunity will be provided for their examination, evaluation and possible salvage by the State Archeologist and/or other concerned agencies.

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1 See Section VII for documentation.

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B. SECONDARY IMPACTS:

Construction of an improved roadway within the Study Area would increase the capacity, efficiency and safety of local traffic movements and could open to development areas not presently served by roads suitable for commuter traffic. Roadway improvements through unimproved areas could tend to accelerate development in these areas or alter area growth patterns. However, the selected alternate generally follows the alignment of Master Plan roadways, around which development has been planned and is proceeding. Although not directly attributable to the improved roadway, secondary environmental impacts caused by accelerated growth (i.e., siltation, decreased water quality, loss of natural areas, etc.) can be a serious problem and must also be considered when evaluating the overall impact of roadway improvement projects.

The question of more rapid land development is not related to highways in any simple manner; however, the conversion of vacant or unimproved land to "higher uses" is often associated with highway improvements. Overall growth patterns and the amount of vacant or farmland are significant factors in the rate of development of any area. Generally, land utilization progresses from vacant and agricultural to a combination of agricultural, residential, commercial and vacant land with subsequent changes involving the conversion of additional agricultural and vacant land to higher uses. Roadway impacts are most evident initially in the conversion of farm and vacant areas. Latter changes depend on the rate of urbanization of the area as a whole and are often independent of the highway.

The Maryland Route 115 Study Area contains a large amount of vacant and farmland with some low intensity residential use, generally in the form of planned subdivisions. Future development in the study area will be controlled by the Master Plans for Gaithersburg, Rock Creek, Olney and Aspen Hill, which propose that this large area of vacant and farmland be converted to permanent open space or parkland and low density residential use. These master plans include the construction of two major highways to serve the areas: the Intercounty Connector and the Improvement to Maryland Route 115. See Section IV, Land Use Planning.

Figure IV-1 shows the planned development in the study area as a relatively homogeneous blend of low density residential or park and open space land, with no higher intensity land use along the roadways. Since the planned development along these master plan roadways does not differ from that envisioned elsewhere in the study area, their construction is not expected to generate additional development over the no-build projection. Therefore, secondary impacts would not be increased as a result of the selected alternate. The selected alternate follows one or the other of the master plan roadways for the entire length.

The accessibility afforded by the planned highway will increase the attractiveness for residential development planned for this area and could result in an increase in demand for public facilities and services. An increase in the demand for public facilities and services would, in turn, translate into a need for investments by the County; i.e., a need for additional police and fire protection, water and sewer service, libraries and schools, etc. Implementation of the Maryland Route 115 project would, at worst, increase the time frame for the development of this area.

C. SECTION 4(f) STATEMENT-UPPER ROCK CREEK REGIONAL PARK:

1. Introduction

Construction of the selected alternate would require 13.1 acres of land from Upper Rock Creek Regional Park. Since this is publicly owned parkland of State and Local significance, Section 4(f)<sup>1</sup> of the Department of Transportation Act would apply to the acquisition of this property.

Funds provided by the Land and Water Conservation Fund Act were used to develop the Meadowside Interpretive Nature Center and Lake Needwood Road and its parking facilities.<sup>2</sup> Since no property would be required from either of these facilities by the alternate under consideration, Section 6(f)<sup>3</sup> of this Act would not be applicable to this project.

2. Description of Parkland

The Rock Creek Park System is an extensive, relatively narrow, linear complex of parkland following Rock Creek from its headwaters, north of the Study Area in Montgomery County, to the Potomac River in Washington, D. C. Over its length, Rock Creek Park runs through relatively pristine woodland, agricultural land, and developed regions ranging from low density residential areas in rural Montgomery County to the densely developed portions of Washington.

This strip of parkland provides a vital buffer protecting the remaining undisturbed portions of Rock Creek and its associated floodplain, although much of the existing stream system itself is notably polluted. It also provides a major source of active and passive outdoor recreation (i.e., walking, nature study, quiet contemplation, etc.) that is of great importance to residents of the

1 See Appendix A for definition  
2 See Section VIII for documentaiton  
3 See Appendix A for definition

The Lathrop E. Smith Environmental Education Center is operated by the Montgomery County School System and provides day-time as well as resident outdoor education activities to students, teachers, other public school staff, and non-school groups. This center serves an estimated 15,000 students a year.

Upper Rock Creek Regional Park is administered by the Maryland-National Capital Park & Planning Commission. Actual ownership of the park within the study area is divided between Montgomery County and M-NCP&PC, depending on when a particular parcel was acquired.

3. Selected Alternate

The selected alternate in this Study would require land from Upper Rock Creek Regional Park. The alignment would cross both the Rock Creek and North Branch Rock Creek areas of the Park. The selected alternate is described in detail in Section II of this Statement.

13.1 acres of parkland would be required for construction of the selected alternate. A 260-foot bridge is planned for the structure crossing Rock Creek and a 180-foot bridge is planned for the North Branch Crossing. The roadway plans in Section II show the detailed location of the parkland required. Both bridges would leave sufficient room along the stream to allow the construction of paths for bicycle or pedestrian travel and park maintenance vehicles.

General Development plans for Rock Creek Regional Park have included master plan roadways in both of these locations since 1966. Staff of the Montgomery County Parks Department of M-NCP&PC have participated in the review of the Draft EIS, and have recommended Alternate 4 as the most desirable option (see Section VII).

4. Alternates to the Use of Parkland

Since the study area crosses two continuous north-south belts of parkland (see Figure II-2), it would not be possible to construct any surface roadway improvement through this corridor without significant parkland involvement. It would, however, be possible to avoid direct impact to parkland by either extending the study area to the north, beyond the limits of the park system, or remaining within the study area as defined and carrying the improved roadway under the park through a tunnel or over the park on an elevated structure.

Designing an alternate alignment to the north around the northern limits of the park would so distort the roadway network, that it would no longer serve the study area or provide an efficient connection between Montgomery Village Avenue and Norbeck. This is illustrated in Figure I-2. Note the limits of Rock Creek Park.

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The approximately 2.5 miles of additional roadway and approximately 85 acres of right-of-way required would also increase the cost of this improvement by approximately \$15 million.

Crossing the existing parkland would require elevated structures approximately 3200 linear feet in length. The cost of these structures would be about 16 million dollars. The structures would also produce a notable visual impact to adjacent areas of the park and would interrupt enough sunlight to restrict or prevent the survival of plant life beneath.

Construction of a tunnel would involve no visual impact to the parkland but, to avoid severe environmental disruption, would involve boring for its entire length. The tunnel lengths required would be approximately the same as those required for bridging but, because of the construction techniques and other necessary features (ventilation, etc.), would be considerably more expensive.

Six alternate alignments were presented on the Draft Environmental Impact Statement. A summary is presented below to demonstrate that Selected Alternate 4 is the only feasible and prudent alternative.

Alternate 1, the "No-Build" Alternate does not provide adequate service, and leaves a critical gap in the highway network between Montgomery Village Avenue and Shady Grove Road. Adverse circuitous travel patterns would be maintained between these two roads. This gap must be filled, if adequate access is to be provided to the Shady Grove Metro Station. Existing Maryland Route 115 currently operates at Level of Service 'E' (capacity) and traffic volumes would generally increase by 35 to 80 percent by the year 2005. This would lead to Level of Service 'F', indicating breakdown conditions with long delays. Additionally, increasing traffic volumes and the resulting congestion would further compound the now-severe accident problem due to narrow pavement width and poor horizontal and vertical alignment (see Section I for a more detailed discussion).

Alternate 3 would cause maximum adverse impact to parklands, wetlands, and floodplain (see Table II-3). This alternate would cross Rock Creek Regional Park near Lake Needwood, where the majority of recreational activity occurs. It would impact a wetland area which was evaluated to be "significant" by the Maryland Department of Natural Resources and would require 52.2 acres of parkland for right-of-way.

Alternates 5 and 6-5, which involve improvements generally in existing location, would have the most adverse impacts to residents, displacing 9 and 14 homes and approximately 40 and 50 individuals, respectively. In addition, both alternates would require property from 6 historic sites and destroy buildings from one. Violations of the 8-hour National Ambient Air Quality Standard (NAAQS) for CO (9.0 ppm) would occur on Alternates 5 and 6-5 in both 1985 (14.0 ppm) and 2005 (9.4 ppm).

Alternate 6 does not adequately serve transportation needs due to its northerly location, and would require an extension of Shady Grove Road to provide access to the Shady Grove Metro Station. It would require more parkland acreage for right-of-way than Selected Alternate 4 (39.0 acres vs. 13.1 acres; see Table II-3). Alternate 6 would also have adverse impacts to a portion of Rock Creek that is more pristine than the portion impacted by Alternate 4.

Of the Draft EIS Alternates considered, Selected Alternate 4 is the only one which is prudent and feasible with respect to having minimum adverse impacts to historic sites, wetlands, streams, residences, air quality and parklands. Alternate 4 is also the only alternate which the Maryland-National Capital Park & Planning Commission, who administers Rock Creek Regional Park, has included in the General Development Plan for the Park.

5. Probable Impacts to Section 4(f) Land

a. Parkland Required

The amount of parkland required by the selected alternate and reference to the figures showing details of its location were given previously. This parkland is generally undeveloped old-field, forestland, or a combination of both. Utilization of this land would have no significant impact on the recreational value or public usage of the existing park.

b. Visual Impacts to Park Scenery -

Construction of the selected alternate would place new roadway and bridge crossings where none exist today and thus have the potential to adversely affect the existing scenery. Measures to favorably mitigate this impact (landscaping, textured facades and natural stone bridge facing) will be developed in cooperation with the Maryland-National Capital Park & Planning Commission.

c. Access to Parkland -

Construction of the selected alternate would not affect the existing access to any part of Upper Rock Creek Regional Park.

d. Impacts to Park Facilities -

The selected alternate would not adversely affect any park facility.



e. Impacts to Natural Communities -

The natural communities of Upper Rock Creek Regional Park are especially important since the future conservation of these resources within the Study Area lies with this park system. These wooded, grassland, old-field community and wetland areas provide vital habitat for numerous residents and migratory wildlife species, as well as opportunities for their appreciation and study. The selected alternate would require 123 acres of these communities.

f. Future Expansion of Existing Park System -

Future expansion of Upper Rock Creek Regional Park, as shown in area master plans, is given on Figure IV-1. Comparison of this figure with Figure II-1 allows for an evaluation of the impact of the selected alternate in this study to this proposed expansion of the park system within the Study Area. The proposed action would have only minimal impact on plans for the possible future expansion at Upper Rock Creek Regional Park.

g. Construction Impacts -

Construction impacts resulting from this project would involve visual intrusion and increased noise levels caused by the presence and operation of construction equipment. Construction noise is further discussed in the following section on Noise Impacts.

h. Noise Impacts -

The Federal Highway Administration, through FHPM 7-7-2, requires an evaluation of potential impacts on properties designated as Section 4(f) Lands. Section 4(f) of the Department of Transportation Act of 1966 states that publicly owned land, or any land from an historic site, may be used for Federal-Aid highway projects only if no other feasible alternative to the use of such lands can be found, and if the project includes all possible planning to minimize impacts on the 4(f) lands, resulting from such use. Such lands would include public parks, recreation areas, wildlife or waterfowl refuges or historic sites of national, state or local significance.

A noise analysis predicting the impact of this project on study area noise levels has been completed using the Federal Highway Administration Highway Traffic Noise Prediction Model. The results and methodology of this study are described in detail in Section V-A-9 of this Volume. Data from this analysis indicates that noise levels within portions of Upper Rock Creek Regional Park would increase if the selected alternate is constructed.

In both sections of Rock Creek Park, a highway would be introduced into presently undisturbed parkland where ambient L<sub>10</sub> noise levels are quite low (around 50 dBA). Construction of the selected alternate would increase noise levels in these areas. Design noise level criteria of 70 dBA (L<sub>10</sub>) would be exceeded to a distance of roughly 70 feet from the edge of roadway pavement (in most cases this is within State right-of-way). L<sub>10</sub> noise levels would exceed 60 dBA to a distance of about 225 feet from the edge of pavement. It is projected that increases in noise over present levels would be realized up to a distance of about 500-550 feet from the edge of pavement.

Construction Noise - As with all major construction projects, areas around construction sites are likely to experience varied periods and degrees of noise impact. This project would probably employ the following pieces of equipment which are likely to be sources of construction noise:

- Bulldozers and Earthmover
- Graders
- Front-end Loaders
- Dump and other heavy trucks
- Compressors.

It is probable that construction activity will not occur after 5:00 P.M. or before 7:00 A.M. on weekdays, and will likely be limited to weekdays only. Therefore, during the critical time when evening outdoor recreation occurs, construction noise will not be present. Limiting construction activity to non-critical time periods will minimize noise on human usage of surrounding areas.

i. Air Quality Impacts -

A microscale Free-Flow Mode and Stopped-Flow Mode dispersion simulation analysis has been completed for the selected alternate. Detailed information on the methodology and results of this study is given in Section V-A-8. This analysis indicates that construction of the selected alternate would not result in a violation of either the 1 or 8 hour National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO) within any portion of Upper Rock Creek Regional Park.

6. Mitigation Measures

Extensive coordination with the Maryland-National Capital Park & Planning Commission has resulted in the development of mitigation measures to minimize the impact of the proposed roadway to Rock Creek Regional Park. These measures include:

- Reduction of median width from Draft EIS Alternate 4 across the North Branch arm of the park to reduce the amount of Section 4(f) acreage taken;
- Landscaping along roadway improvements to blend with the natural scenery;
- Design of bridges to minimize visual impact, including the use of natural rock facades;
- Design of roadway appurtenances to minimize pollutant loads in stormwater runoff;
- Bridge span lengths and pier placement will be designed to allow for passage of pedestrians, bicyclists, and park maintenance vehicles, as well as access for any future development needs of the park;
- Bridge piers will be placed with sufficient setback from the stream to provide adequate space for sediment control measures to prevent adverse impact to the stream system;
- Any special fencing to control access to and from the park will be discussed with park officials during Final Design.

The State Highway Administration is willing to provide suitable replacement land for acreage required for right-of-way. The Montgomery County Park and Planning staff of M-NCP&PC has stated that "Consideration of replacement parkland in exchange for the right-of-way needed for the facility should be determined during the design phase of the project". (See Memo of July 30, 1979 in Section VII for documentation.)

VI. DISTRIBUTION LIST

DISTRIBUTION LIST

Contract No. M 758-003-371  
F.A.P. No. U 9441(1)  
Maryland Route 115  
From Montgomery Village Avenue  
to Norbeck

FEDERAL AGENCIES

Environmental Protection Agency  
Environmental Impact Statement Coordinator  
Curtis Building - 6th Floor  
Sixth and Walnut Streets  
Philadelphia, Pennsylvania 19106

Mr. Bruce Blanchard  
Director, Office of Environmental  
Project Review  
U. S. Department of the Interior  
18th and C Streets, N.W.  
Washington, D. C. 20242

Regional Administrator  
Department of Housing and Urban Development  
Curtis Building  
Sixth and Walnut Street  
Philadelphia, Pennsylvania 19106  
ATTENTION: Mr. Francis X. Healy  
Director, Office of Regional  
Community Planning Development

Regional Director  
National Marine Fisheries Service  
Federal Building  
14 Elm Street  
Gloucester, Massachusetts 01930

Office of Economic Opportunity, Director  
1200 - 19th Street, N.W.  
Washington, D. C. 20506

State Conservationist  
Soil Conservation Service  
Room 522  
4321 Hartwick Avenue  
College Park, Maryland 20740

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FEDERAL AGENCIES (Cont'd.)

Deputy Assistant  
Secretary for Environmental Affairs  
U. S. Department of Commerce  
14th and Constitution Avenues  
Room 3876  
Washington, D. C. 20235

Commander  
Corps of Engineers  
Baltimore District  
Box 1715  
Baltimore, Maryland 21201  
ATTENTION: NABOP - F

Mr. Frantz K. Gimmler  
Region III, Director  
Urban Mass Transportation Administration  
Suite 1010  
434 Walnut Street  
Philadelphia, Pennsylvania 19106

Director  
Division of NEPA Affairs  
U. S. Department of Energy  
Mail Station E-201, GTN  
Washington, D. C. 20545

Commander  
U. S. Coast Guard, 5th District  
431 Crawford Street  
Portsmouth, Virginia 23703

Associate Administrator for Planning  
Management and Demonstration  
Urban Mass Transit Administration  
400 7th Street, S.W.  
Washington, D. C. 20590

ELECTED FEDERAL AND LOCAL OFFICIALS

The Honorable Paul S. Sarbanes  
United States Senate  
Old Senate Office Building - Suite 362  
Washington, D. C. 20510

The Honorable Charles McC. Mathias  
United States Senate  
Old Senate Office Building - Suite 406  
Washington, D. C. 20510

The Honorable Michael B. Barnes  
United States Congress  
House of Representatives  
1607 Longworth Office Building  
Washington, D. C. 20515

The Honorable Laurence Levitan  
State Senator - Montgomery County  
11426 Georgetowne Road  
Potomac, Maryland 20854

The Honorable Judith C. Toth  
Delegate - Montgomery County  
6611 8th Place  
Cabin John, Maryland 20034

The Honorable Robin Ficker  
Delegate - Montgomery County  
7526 Glennon Drive  
W. Bethesda, Maryland 20034

The Honorable Jerry H. Hyatt  
Delegate - Montgomery County  
27521 Mt. Radnor Road  
Damascus, Maryland 20750

The Honorable Howard A. Denis  
State Senator - Montgomery County  
4720 Montgomery Lane - Suite 600  
Bethesda, Maryland 20014

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ELECTED FEDERAL AND LOCAL OFFICIALS (Cont'd.)

The Honorable Marilyn Goldwater  
Delegate - Montgomery County  
5508 Durbin Road  
Bethesda, Maryland 20014

The Honorable Nancy K. Kopp  
Delegate - Montgomery County  
6301 Dahlonga Road  
Bethesda, Maryland 20016

The Honorable Constance A. Morella  
Delegate - Montgomery County  
6601 Millwood Road  
Bethesda, Maryland 20034

The Honorable S. Frank Shore  
State Senator - Montgomery County  
305 James Senate Office Building  
Annapolis, Maryland 21401

The Honorable Jennie M. Forehand  
Delegate - Montgomery County  
712 Smallwood Road  
Rockville, Maryland 20850

The Honorable Joseph E. Owens  
Delegate - Montgomery County  
120 House Office Building  
Annapolis, Maryland 21401

The Honorable Luiz Simmons  
Delegate - Montgomery County  
10 Eton Overlook  
Rockville, Maryland 20850

The Honorable Margaret C. Schweinhaut  
State Senator - Montgomery County  
3601 Saul Road  
Kensington, Maryland 20795



ELECTED FEDERAL AND LOCAL OFFICIALS (Cont'd.)

The Honorable Donald B. Robertson  
Delegate - Montgomery County  
7003 Delaware Street  
Chevy Chase, Maryland 20015

The Honorable David L. Scull  
Delegate - Montgomery County  
8717 Susanna Lane  
Chevy Chase, Maryland 20015

The Honorable Patricia R. Sher  
Delegate - Montgomery County  
1916 Rookwood Road  
Silver Spring, Maryland 20902

The Honorable Sidney Kramer  
State Senator - Montgomery County  
11500 Gilson Street  
Silver Spring, Maryland 20902

The Honorable Lucille Maurer  
Delegate - Montgomery County  
222 House Office Building  
Annapolis, Maryland 21401

The Honorable Victor L. Crawford  
State Senator - Montgomery County  
9 N. Adams Street  
Rockville, Maryland 20850

The Honorable Steward Banium, Jr.  
Delegate - Montgomery County  
9039 Sligo Creek Parkway, Apt. 1715  
Silver Spring, Maryland 20901

The Honorable Shelia E. Hixson  
Delegate - Montgomery County  
1008 Broadmore Circle  
Silver Spring, Maryland 20904

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ELECTED FEDERAL AND LOCAL OFFICIALS (Cont'd.)

The Honorable Ida G. Ruben  
Delegate - Montgomery County  
11 Schindler Court  
Silver Spring, Maryland 20903

The Honorable Charles W. Gilchrist  
County Executive  
Montgomery County  
County Office Building  
Rockville, Maryland 20850

The Honorable Neal Potter  
Member - Montgomery County Council  
6801 Brookvale Road  
Chevy Chase, Maryland 20015

The Honorable Ruth Spector  
Member - Montgomery County Council  
613 Smallwood Road  
Rockville, Maryland 20850

The Honorable Rose Crenca  
Member - Montgomery County Council  
9101 Flower Avenue  
Silver Spring, Maryland 20901

The Honorable Esther Gelman  
Member - Montgomery County Council  
8719 Postoak Road  
Potomac, Maryland 20854

The Honorable L. Gudis  
Member - Montgomery County Council  
14809 Old Columbia Pike  
Burtonsville, Maryland 20730

The Honorable Elizabeth L. Scull  
Member - Montgomery County Council  
9315 Greyrock Road  
Silver Spring, Maryland 0910

ELECTED FEDERAL AND LOCAL OFFICIALS (Cont'd.)

The Honorable Scott Fosler  
Member - Montgomery County Council  
4104 Woodbine Street  
Chevy Chase, Maryland 20015

LOCAL GOVERNMENTAL AGENCIES

Mr. Neil A. Ofsthun, Director  
Department of Recreation  
County Office Building  
Rockville, Maryland 20850

Mr. Richard J. Lynch, Acting Director  
Department of Transportation  
Executive Building  
6110 Executive Boulevard  
Rockville, Maryland 20850

Robert W. Lanham, Director  
Department of Economic & Community Development  
County Office Building  
Rockville, Maryland 20850

Maryland National Capital Park & Planning Commission  
Executive Director  
8787 Georgia Avenue  
Silver Spring, Maryland 20904

MARYLAND DEPARTMENT OF TRANSPORTATION

Director  
Division of Public Affairs  
Maryland Department of Transportation

Mr. Clyde E. Pyers, Director  
Office of Transportation Planning  
Maryland Department of Transportation

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STATE CLEARINGHOUSE

Local Governments

- Department of State Planning
- Department of Natural Resources
- Department of Budget & Fiscal Planning
- Department of General Services
- Department of Economic & Community Development
- Department of Education
- Department of Health & Mental Hygiene
- Interagency Committee for School Construction
- Maryland Environmental Trust
- Maryland Geological Survey
- Department of Public Safety & Correctional Services
- Maryland Historical Trust

ELECTED FEDERAL AND LOCAL OFFICIALS

The Honorable Idamae Garrott  
Delegate - Montgomery County  
13115 Estelle Road  
Wheaton, Maryland 20906

The Honorable Helen L. Koss  
Delegate - Montgomery County  
3416 Highview Court  
Wheaton, Maryland 20902

VII. COMMENTS & COORDINATION

The following lists reference a portion of the extensive coordination by the State Highway Administration with Federal, State and local agencies and community organizations during the development of the Maryland Route 115 Study.

As an aid to the reviewer, the 5 years of extensive project coordination has been listed by 5 categories. These categories include:

- A. Public Meetings
- B. Natural Environment
- C. Archeological and Historic
- D. Maryland-National Capital Park & Planning Commission
- E. General

Important letters resulting from coordination efforts, which are indicated by an asterisk (\*), are reproduced on the following pages by category, in chronological order. All remaining letters and memoranda are available for public inspection at the State Highway Administration, 300 West Preston Street, Baltimore, Maryland. Sections of this document which discuss pertinent issues addressed during coordination are noted for each category.

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A. PUBLIC MEETINGS:

<u>Date</u>	<u>Coordination</u>
March 10, 1975	Project Initiation Meeting Col. Zadok Magruder High School
March 24, 1977	Interim Alternates Public Meeting Col. Zadok Magruder High School
December 14, 1978	Alternates Public Meeting Col. Zadok Magruder High School
July 23, 1979	Location Public Hearing Col. Zadok Magruder High School

B. NATURAL ENVIRONMENT:

<u>Date</u>	<u>Coordination</u>
January 6, 1975	Letter locating proposed Bowie Mill Local Park
February 18, 1975	Letter of meeting with FHWA, Md. DOT and SHA to discuss air quality program on subject project
August 18, 1975	Letter from Water Resources Administration referring to Department's comments to clearinghouse, Fisheries Administration comments and Wetland Data Sheet
October 7, 1975	Meeting with Rock Creek Regional Park Naturalist
September 7, 1977	Letter to Maryland Wildlife Administration DNR, requesting information on rare or endangered species in Study Area
September 9, 1977	Memo of meeting, during field trip, with personnel from Environmental Education Center and Meadowside Nature Center
September 21, 1977	Letter from Maryland Department of Natural Resources stating that there are no known endangered species in the Study Area
September 27, 1977	Letter to Naturalist Meadowside Nature Center, with questions relative to publication "Rock Creek Watershed - Habitat Survey and Inventory of Fauna & Flora"
January 10, 1978	Letter to Naturalist, Meadowside Nature Center requesting information relative to Study Area
November 14, 1978	Letter to U. S. Fish & Wildlife Service requesting information on possible impacts of the project on rare and endangered species



<u>Date</u>	<u>Coordination</u>
November 15, 1978	Letter to Heritage, Conservation & Recreation Services requesting information on parks or other facilities ties in Study Area that were funded through the Land & Water Conservation Fund Program
November 17, 1978	Letter to Department of Natural Resources requesting determination of wetland status along upper portion of Lake Needwood in Rock Creek State Park
November 30, 1978	Reply to November 15, 1978: Lake Norbeck Road and Parking and Meadowside Interpretive Nature Center have received fund assistance
December 6, 1978	Reply to November 14, 1978: No known rare or endangered species in the Study Area
December 11, 1978	Memorandum detailing DNR evaluation of Lake Needwood Non-Tidal Wetland as significant
December 27, 1978	Cover letter transmitting December 11 DNR Memorandum
May 15, 1979	* Maryland DNR, Fisheries Administration comments on Draft EIS
June 28, 1979	* Maryland DNR, Water Resources Administration comments on Draft EIS
June 29, 1979	* Maryland DNR, Water Resources Administration Planning Division Review of Draft EIS
July 6, 1979	* USDA, Soil Conservation Service comments on Draft EIS
July 11, 1979	* Maryland DNR, Wildlife Administration review of Draft EIS
July 18, 1979	* Maryland Department of State Planning review of Draft EIS
July 18, 1979	* Maryland DNR, Water Resources Administration review of Draft EIS

<u>Date</u>	<u>Coordination</u>
August 2, 1979	* U.S. EPA comments on Draft EIS
August 3, 1979	* U.S. Army Corps of Engineers review of Draft EIS
August 9, 1979	* U. S. DOI comments on Draft EIS
September 18, 1979	U. S. DOT, FHWA review of Draft EIS
November 12, 1980	* Coordination Meeting with U. S. DOI, Heritage Conservation and Recreational Service, to discuss Section 4(f) issues.
January 22, 1981	* Letter from U. S. DOI, Heritage Conservation and Recreational Service, in response to the November 12, 1980 meeting (response to U. S. DOI's letter attached).

D. MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION:

<u>Date</u>	<u>Coordination</u>
April 18, 1975	Meeting to gather information relevant to project
September 12, 1975	Informational Meeting to obtain data relevant to project
September 16, 1975	Meeting to gather information and publications relative to project
December 5, 1975	Received plans relative to Shady Grove Sector Plan
June 8, 1978	Meeting with SHA, M-NCP&PC, Montgomery County and RK&K, requested by Montgomery County, review current status of the project
October 20, 1978	Memo stating M-NCP&PC traffic data will be used for the continued development of the Maryland Route 115 Study
December 14, 1978	Letter reiterating support for construction of project and recommending selection of Alternate 4
July 30, 1979	* Transportation Planning Division Review of Draft EIS
July 30, 1979	* Montgomery County Park & Planning staff comments concerning Draft EIS
August 6, 1979	* Montgomery County Planning Board recommendation of Draft EIS Alternate 4 for location approval
January 29, 1980	* Director of Parks comments concerning plans for Alternate 4 and park impacts, indicating that Alternate 4 is the preferred route.
September 18, 1980	* Coordination meeting with M-NCP&PC to detail mitigation steps for use of reserved right-of-way (see memorandum dated October 3, 1980).
November 7, 1980	* Letter from M-NCP&PC stating Montgomery County Planning Board approval of mitigation measures as detailed in October 3, 1980 memorandum.

E. GENERAL:

<u>Date</u>	<u>Coordination</u>
June 3, 1975	Coordination meeting with Md. Department of State Planning
November 26, 1975	Coordination meeting with SHA, M-NCP&PC, Md. DOT for project planning activities
October 8, 1976	Received comments on Draft Interim Alternatives Report from SHA, Washington Metropolitan Region, Bureau of Urban & Regional Liaison
December 2, 1976	Received comments on Draft Interim Alternatives Report from Maryland Department of State Planning
February 28, 1978	Letter to Md. Department of Economic & Community Development requesting copy of "Community Economic Inventory"
February 28, 1978	Letter to Montgomery County Department of Education, Planning Dept., requesting area public school enrollment, capacity and where attending students reside
March 8, 1978	Letter from Montgomery County Department of Education transmitting requested information on school enrollment
August 29, 1978	Copy of Resolution No. 8-2160 by County Council of Montgomery County, Maryland recommending addition to the current 6-Year Capital Improvements Program of the Eastern Arterial (Md. Route 115) between Montgomery Village Avenue and Shady Grove Road
August 3, 1979	* U. S. Department of Commerce, National Oceanic & Atmospheric Administration review of Draft EIS
August 6, 1979	* U. S. DOT, Urban Mass Transportation Administration comments on Draft EIS

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<u>Date</u>	<u>Coordination</u>
August 10, 1979	* Maryland Department of State Planning summary of comments on Draft EIS
August 20, 1979	* Metropolitan Washington, D. C. COG review of Draft EIS
August 24, 1979	* Maryland Department of State Planning, additional comments on Draft EIS
September 20, 1979	* Montgomery County Executive letter supporting Draft EIS Alternates 3 or 4



DEPT. OF STATE PLANNING RECEIVED	
JUL 10 1979	
REVIEWED	
ANSWERED	

Maryland Historical Trust

April 24, 1979

**RECEIVED**

JUL 6 1979

DIVISION OF  
LOCAL & REGIONAL DEVELOPMENT

Mr. Eugene T. Camponeschi, Chief  
Bureau of Project Planning  
State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

Re: Maryland Route 115 Study  
SHA No. M 758-003-371  
Draft EIS review

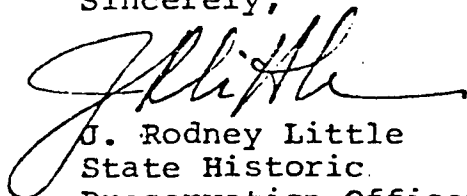
Dear Mr. Camponeschi:

We have received a copy of the above-referenced Draft EIS for review. The statement adequately lists the known standing structures and correctly states the prehistoric resources in the project area are not of significance. However, the archeological report by Gardner and Haynes states that the Muncaster Mill complex may be affected by either Alternatives A-6 or A-7. The archeological report recommends that additional testing be conducted at this site to determine the presence and significance of resources if either A-6 or A-7 are given further consideration (IX-13). I concur with these recommendations. The final EIS should be expanded to include the recommendations by Gardner and Haynes for the Muncaster Mill complex.

Section V-C-2

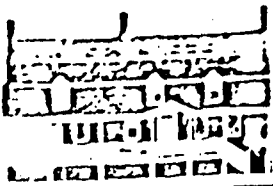
Thank you for the opportunity to comment on the Draft EIS.

Sincerely,

  
J. Rodney Little  
State Historic  
Preservation Officer

JRL/WEC/van

cc: John L. Bell  
Tyler Bastian



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Maryland Historical Trust

May 11, 1979

Mr. Eugene T. Camponeschi, Chief  
Bureau of Project Planning  
State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21203

Re: Md. Rte. 115, Montgomery Village Ave.  
to Norbeck. Contract No. M758-003-371  
F.A.P. # U9441 (1)

Dear Mr. Camponeschi:

The following sites in the vicinity of the subject project appear to be eligible for the National Register:

- H-1 Walker's Mill site, Mill Race and Miller's Log House
- H-29 Milton Farm
- H-54R Mount Pleasant Church
- H-54S Norbeck Community Center

Historic boundaries for H-1 and H-29 are equivalent to present property lines; those for H-54-R and S are indicated on the enclosed map. Alternates presently under consideration will have no effect.

In addition, six sites in the village of Norbeck are of local historic significance, but probably not eligible for the Register. These sites are shown on the enclosed map (AA, V, W, X, Y and Z). Historic boundaries are coterminous with the structures themselves.

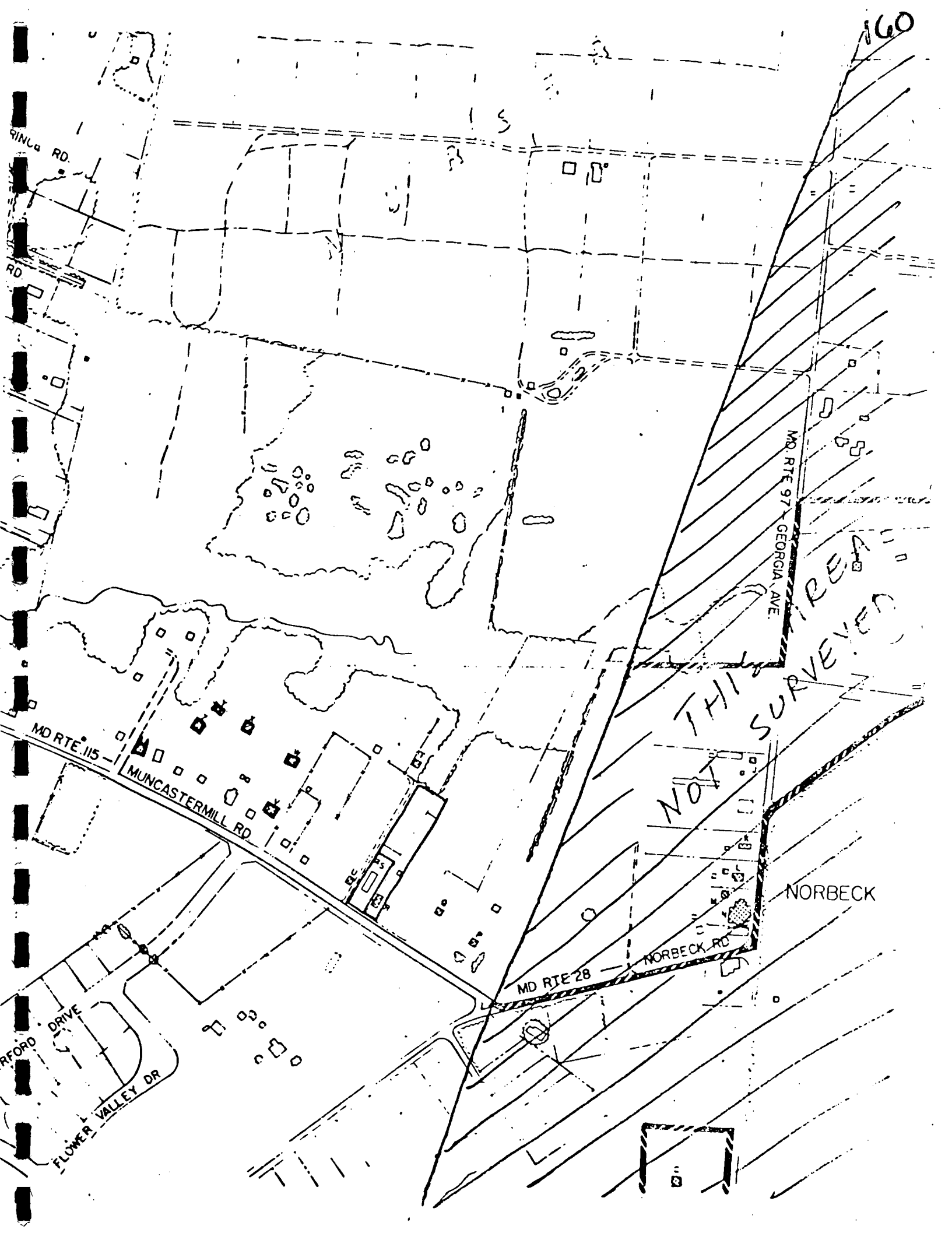
Two other sites shown on the map no longer exist (T and U); sites P and Q appear on further investigation to have no historic significance.

Sincerely,

J. Rodney Little  
State Historic  
Preservation Officer

JRL/PK/van  
Enclosure

cc: M. Ballard  
M. Edwards  
P. Kurtze



RINLU RD.

RD

MD RTE 115

MUNCASTERMILL RD

RFORD DRIVE

FLOWER VALLEY DR

MD RTE 28

NORBECK RD

MD RTE 97 GEORGIA AVE

NORBECK

NOT THIS AREA SURVEYED

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Memorandum: 15 May 1979

To: Kirk Cover, Watershed Permits Section, WRA  
*Robert L. Schueler*  
From: Robert L. Schueler

W. R. Carter, III  
Fisheries Technical Assistance Program

Subject: Fisheries Administration comments on preliminary draft environmental impact statement for Maryland Route 115 from Montgomery Village to Norbeck, Project No. 75-PP-0114. Washington Metropolitan Drainage Basin.

We have reviewed the subject Draft EIS, made a field survey of the Study Area and have the following General and Detailed Comments in response to your request of April 11, 1979.

General Comments

(1) The geographical scope of the Study Area covered by the Draft EIS limits the effectiveness and adequacy of the environmental analysis. Portions of three drainages are involved ( Upper Rock Creek, Seneca Creek and Northwest Branch) but only Upper Rock Creek receives significant analysis from the standpoint of the natural and aquatic life environment. On the other hand, the comparable treatment of traffic-related externalities is much more detailed. There are two adjacent SHA road construction projects which are not covered by this DEIS but which impact the inter-related fisheries habitats represented by the three drainages mentioned. A more effective environmental analysis would have been accomplished by a single DEIS covering all three SHA projects.

p V-4

(2) The most important direct environmental impacts of the project are increased sediment loadings on a system that has already been severely stressed by inadequately-controlled past loadings and increased pollution of surface waters by run-off from an expanded roadway system. The DEIS dismisses these impacts as minor and temporary during project construction stages only. This is contrary to the past history of the area and the scientific literature. While accumulation of sediment loadings takes place in the two major lakes of the system ( Lakes Needwood and Frank ), the problem originates in the stream networks above the lakes. The best protection of the water quality of the lakes requires the least disturbance of the streams. All the proposed alternatives cross the stream systems in several places. The potential for serious adverse impacts is insufficiently explored.

p V-4

(3) The most important indirect impact of the project on fisheries and aquatic life habitat will be its facilitation and acceleration of the conversion of open space and farmland to commercial and residential purposes. The DEIS is ambiguous on these secondary effects, seeming to say in some sections that roadway development is necessary to " orderly development " while asserting in other sections that it will not affect such developments. On the key issue of " orderly growth " the DEIS is somewhat misleading. It implies an end product of consciously-planned open space, parkland and commercial/residential development. Actually, Figure III-1 makes it clear that the " mix " will, for practi-

Section V-B

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cal purposes, consist of existing parkland with the balance of the Study Area being blanketed by 1/5 acre residential development. The impacts of a land use change of this magnitude in terms of reduced infiltration, accelerated run-off, increased sediment loading and degraded water quality are not adequately addressed in the DEIS.

(4) Alternative 5 or Alternative 6-5 would have the least adverse effects on fisheries and aquatic life resources.

(a) Alternatives 5 and 6-5 generally follow the existing alignment of Maryland Route 115 and would thus concentrate adverse impacts in an area that has already had its ecological integrity seriously altered. This, in turn, would preserve viable open space options elsewhere should it become advisable to re-examine the Master Plan use designations in the future. Preservation of additional open space is the key to long range protection of the quality of the lake and stream system in the Study Area and the fisheries and aquatic life resources it supports.

Alternatives 5 and 6-5 have been dropped due to NAAQS violations. See Section Y.

(b) Alternative 6 is the least desirable since it will impact that portion of the stream system which, while it has been degraded by sediment loading and non-point source pollution, is still the highest quality portion of the system. This alternative would encourage secondary development impacts in an area of still-open land and thereby aggravate future sediment loading, water quality degradation and eutrophication problems most.

Alternative 6 was not selected.

(5) The MFA finding that alternatives 5 and 6-5 are the least harmful to the environment is contingent upon the most stringent efforts to control sediment loadings and highway run-off that have already done much damage to the fisheries and aquatic life resources in the Study Area. Particulars of the implementation approach to achieve this control should be addressed in much greater specificity than do the present generalities in the DEIS.

See Section Y.

(6) The DEIS indicates that all culverts and similar structures will provide for unobstructed passage of fish. MFA will be pleased to work with the SHA to achieve this objective.

Coordination with the Inland Fisheries Administration during Design phase will provide input for drainage structures.

DETAILED COMMENTS:

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page I - 8, C 1. - A total of eight General Plan goals are cited of which four are primarily related to open spaces, natural environments and similar considerations. In the discussion of the " Relationship of the Project to Land Use and Public Facility Plans " on page III-8, the assertion is made that the proposed action is in conformance with the General Plan goals but only the goals of orderly development and safe, efficient transportation are discussed, with the others four goals ( open space, natural environments, etc. ) being ignored. This imbalance tends to be reflected throughout the DEIS. See p IV-8.

pages I - 7 through I - 9 - Highways and Transit - This discussion appropriately considers the ramifications and connections of the Highway and Transit System outside the Study Area. The Study Area takes in portions of three drainage basins ( Rock Creek, Seneca Creek, and Northwest Branch ). All three of these drainages will be impacted, particularly the Northwest Branch, if the immediately adjacent SMA highway projects ( Maryland Rt. 28 from Bauer Dr. to Rt. 609 and Maryland Route 97 from Rt. 28/609 to Rt. 100 ) are completed . In a fully adequate DEIS it would seem that a comparable treatment of these hydrologic externalities would be appropriate. This hydrologic interaction should be discussed more fully in the FEIS. From the standpoint of fisheries and aquatic life, a single DEIS covering all three of these interlocking SMA projects would result in a more integrated environmental analysis. Refer to Sections III and V.

page I - 10 Benefits to the State, Region and Community - Here and in many other places in the DEIS completion of the project is mentioned as a requirement for " orderly growth ". On the other hand, on pages IV - 12 and VII - 1 it is stated that the level of future development is independent of the project. This seeming inconsistency should be resolved in the FEIS. Of equal concern to the Maryland Fisheries Administration ( MFA ) is the definition of " orderly growth ". It is apparent from the discussion in Section III that in the Study Area it is accepted that virtually all open spaces not already in parkland, cemeteries etc. will be occupied by residential and commercial development, although mention is made of some open space provisions considerably to the north of the Study Area. Having accepted this pattern of development as a " given "; having linked it to highway development in general and this project in particular; it follows that the impacts of this massive shift in land use on the streams and aquatic life in the Study Area and downstream should receive detailed analysis in the DEIS. For the most part, however, the DEIS does not do this. It either asserts, without documentation, that impacts will be minimal or leaves the problems to be resolved in the FEIS ( IV-2 to IV-5 ). These important inadequacies and shortcomings will hopefully be remedied in the FEIS. See Sections IV and V

- planning land use

page II-14 Water Quality - The DEIS concentrates its discussion of this aspect on the Upper Rock Creek drainage but neglects the Seneca and Northwest Branch drainages, portions of which are in the Study Area. Citing Dietmann, the DEIS correctly describes the Rock Creek drainage as having good water quality in the upper portion, fair in the middle reaches and degraded in the lower section. It states that the drainage within the Study Area is classified as recreational troutwater. It should also point out 1750 legal-sized trout were stocked in the Study Area in 1979. More detailed

Refer to pp. III-12 and III-13

DETAILED COMMENTS ( con't ):

treatment of the fishery values provided by this resource would strengthen the DEIS . The document also notes Diotemann's concern over the increasing rarity of some pollution sensitive species. It does not follow up on this in terms of addressing the impact of the urbanization it takes for granted and which will be facilitated by highway construction, i.e. bringing about additional degradation of the upper and middle reaches of Rock Creek and its tributaries towards the levels now prevailing in its lower section.

Section V-B

page II-15 - Trends for specific water quality parameters within the Study Area

A total of nine parameters are mentioned in the Montgomery County Dept. of Environmental Protection report " Water Quality of Streams in Montgomery County ( 1977 ) . Only five are mentioned in this discussion. Moreover the same report mentions on page 5 that special studies are needed for such parameters as nutrients from surface run-off, toxic substances ( pesticides, heavy metals etc. ) and hydrocarbons from oil and gas spills. These aspects should be brought out in the DEIS to gain a realistic appreciation of the status of water quality with respect to fishlife and aquatic resources in the Study Area. This an important omission, since the project will influence these parameters which, in turn, are related to the effect of the project on run-off and non-point pollution ( see Appendix A to these comments ).

Sections V-A-1c, V-A-1d

page II-7 - Impact of small marsh - It appears that the use of the upper end of Needwood Lake and portions of this marsh as a sediment trap ( with dredging of the trapped spoil ) has had adverse effects on the environmental quality of this marsh. Since wetlands are not common in the Study Area, these possibly adverse impacts should be discussed more fully in the DEIS.

*This wetland will not be impacted by Alternate 4*

section IV Probable Impact of the Proposed Action - The DEIS states on page IV-3 that " Impacts to aquatic ecology would be primarily those associated with increased siltation and the introduction of roadway pollutants into surface waters by stormwater run-off." Having said this, however, much of section IV consists of assertions that impacts will be minimal and temporary. Discussions of detailed provisions to avoid or mitigate adverse effects tend to be put off until preparation of the FEIS. Section IV in its entirety seems to the IEA to be particularly inadequate with respect to the discussion of increased sedimentation and polluted run-off from road surfaces. Both are treated as temporary impacts during the stage of actual construction only - a position that can be seriously questioned ( see Appendix A to these comments ).

Sections V-A-1c  
V-A-1f

section IV-2 Surface Water Quality - Considerable stress is placed on the SMA

" Sediment and Erosion Control Program " as a means of avoiding increased sediment loadings to both stream and lake habitats in the Study Area. These habitats have already been heavily impacted by previous sediment loadings. For example, the Montgomery County Planning Board's report " Stormwater and Water Quality Management Study " (1977) states on page 9-40 " A dissolved oxygen and temperature profile of Lake Needwood taken by CH2M Hill in September 1977 showed the near bottom zone of the lake to have a dissolved oxygen concentration of almost zero. This is due to the high demand for oxygen exerted by the bottom sediment deposits. " Obviously the sediment control program has not been completely effective in the past. The DEIS makes the statement that the proceedings and controls of the program will be rigidly applied. Without

see p V-2

effective implementation reliance on any program to control sediment loadings cannot be simply assumed as is done in the DEIS. There should be more precise discussion of the implementation and monitoring aspects of the control and monitoring program, including allocation and timing of resources to be devoted to the program in view of the over-riding importance of the sedimentation problem and past adverse impacts on fishlife and aquatic resources.

This concern of the NEA with proposed road construction and resultant siltation of streams and lakes is one of long standing. Although the sediments come to rest in the lakes, the problem arises with loadings into the streams in the first place, including even the smallest feeder streams. NEA is also concerned with water pollution induced by chemical run-off from road surfaces and increased run-off from developments the roads facilitate. A stringent sediment control program must be not only incorporated in construction plans but detailed, adequate plans must be spelled out for implementation, monitoring and follow-up to gain NEA approval. This program should include paving of road shoulders and seeding of grass up to the pavement edges to eliminate gross sediment transport following moderate to heavy rainfall. In addition, the DEIS should discuss precautions to minimize surface water pollution from road run-off during the life of the project. In particular it should discuss the feasibility of diverting road run-off to " on-land " disposal rather than directly to the stream system or ditches leading directly to the stream system. The DEIS should discuss the consequences of past neglect of such precautions in the Study Area. The consequences of run-off from road surfaces containing heavy metals, chlorides, PCBs etc. to the quality of surface waters and the aquatic life they support are described in considerable detail in Appendix A to these comments. Some of this material could be incorporated into the DEIS with advantage.

page IV-19 Secondary Impacts - The discussion in this section is confusing and somewhat misleading. It seems to state simultaneously that improved roadway construction will stimulate development but that this will not have any really significant impacts on the environment because the development would take place anyhow. This seeming contradiction has been mentioned previously in our comments on I-10. The statement in the third paragraph that " Future development in the Study Area will be controlled by the Master Plans for Gaithersburg, Rock Creek Olney and Aspen Hill which propose that this large area of vacant land and farm land be converted to permanent open space or parkland and low-density residential use. " is misleading. Close inspection of Figure III-1 reveals that virtually all the planned park and open space is land in parks already with only minor additions planned. The bulk of the Study Area will be blanketed by low-density housing - 5 dwelling units per acres - hardly " open space " as the term is normally understood. This represents a major change from the existing land use pattern. It will have massive impact on accelerated run-off and increased sediment and pollution loadings as the amount of pavement, houses, shopping centers etc. multiply to reduce infiltration rates, speed run-off and increase urban, non-point pollution. It is also difficult to follow the reasoning that Alternate 5 which largely follows existing Md. Rt. 115 will generate more development because it is not a Master Plan roadway. Figure III-1 would seem to indicate that 1/5 acre developments will occupy virtually all of the Study Area not already in existing parkland. See Section V-B

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page V-21 - Mitigation Measures - Discussion of this important aspect is, for the most part, put off until preparation of the FEIS. Comment and constructive input at the DEIS stage is much less effective than at the DEIS stage which is designed for this purpose. Thus the lack of adequate discussion of mitigation measures in the DEIS is a serious deficiency.

Refer to Section V

page V-16 - Comparison of Probable Impacts - This section is largely taken up with descriptions and maps of the various road construction alternatives. Relatively little text is devoted to actual analysis of probable impacts. Most of the analysis presented deals with the impacts on existing parkland. This is a very important consideration but only part of the impact on the natural environment. However, Table V-3 "Possible Impacts of Maryland Rt. 115 Alternatives on the Natural Environment" is very useful. It shows clearly that Alternative 5 (which largely follows existing Md. Rt. 115 alignment) and Alternative 6-5 (which is the same as Alternative 5 except for some minor adjustments at the eastern end) have the least impact on the natural environment. Of the build alternatives, these two also have the least adverse impacts on fisheries habitat. See Section V and detailed plans in Section II

section VI - Probable Adverse Environmental Effects Which Cannot Be Avoided - To the list given on page VI-1, the IFA believes the following should be added, (pending more firm evidence of adequate provision for control and remedial action than is now available in the DEIS); (1) increase in siltation, (2) degradation in water quality and (3) adverse effects of accelerated development.

This section has been deleted.

APPENDIX "A" (Included only with the original memorandum because of its length. However, copies are available on request.)

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STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
WATER RESOURCES ADMINISTRATION  
TAWES STATE OFFICE BUILDING  
ANNAPOLIS, MARYLAND 21401  
(301) 269-3871

June 28, 1979

MEMORANDUM

TO: Lester A. Levine

FROM: William S. Sipple 

SUBJECT: Clearinghouse Project 79-6-1385  
Md. Rt. 115 from Montgomery County  
Village Avenue to Norbeck  
Draft EIS

Attached is a memo which is part of Section X. Comments and Coordination of the DEIS. The memo discusses the value of the wetland that would be involved if alternate 3 is chosen. The wetland is identified in the memo as "wetland A".

Although the wetland is non-tidal thereby not requiring a wetland license or permit for altering the wetland, the wetland is considered to represent valuable wildlife habitat and should therefore not be significantly disturbed or altered. We therefore recommend that alternate 3 not be chosen or that the alignment be modified to avoid this area. If alternate 3 is chosen on grounds that appear to outweigh environmental considerations, we recommend that the roadway be an elevated structure, as shown on Figure V-12.

Alternate 3 was not chosen to avoid impacts to wetlands.

WSS:vst



STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
WATER RESOURCES ADMINISTRATION  
TAWES STATE OFFICE BUILDING  
ANNAPOLIS, MARYLAND 21401  
(301) 269-3871

December 11, 1978

MEMORANDUM

TO: Kirk Cover  
FROM: Wayne Klockner *WK*  
SUBJECT: Lake Needwood Non-tidal Wetland

This memo is in response to your request for comments concerning a non-tidal wetland area at the north end of Lake Needwood in Montgomery County. I examined the site on December 5, 1978.

The wetland at this location is actually divided into two parcels by an unimproved road that crosses the Rock Creek floodplain approximately 1500 feet upstream from Needwood Road. The southern parcel, wetland A, borders the head of Lake Needwood. The northern parcel, wetland B, is part of the floodplain of Rock Creek.

Wetland A consists of approximately 3 acres of low land where Rock Creek widens into Lake Needwood. This area varies slightly in elevation. The dominant vegetation in the wetter areas adjacent to open water is willow. The herbaceous layer is composed of grasses and rushes (Juncus sp.). In areas away from the water's edge, perennial herbaceous vegetation predominates. Common species include arrow-leaved tearthumb, goldenrod, sedges (Carex sp.), false nettle, and beggers-tick sunflower. This area is less frequently inundated. In fact, the ground-water table in this portion of wetland A is usually below the surface of the soil.

The willow-grasses association of wetland A provide a waterfowl resting and feeding area on the lake. Both mallards and black ducks were seen in this association during the site visit. The grasses growing in this association are valuable waterfowl foods. The perennial herbaceous vegetation on the higher elevations within wetland A provides wildlife cover and an important food source for wintering songbirds. At least six species of finches and sparrows were identified during the site visit.

Wetland B is a 6 acre swamp/marsh complex on the west side of Rock Creek. The groundwater table in this area is at or above the soil



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surface, and numerous springs discharge into the wetland from a hillside that borders it to the west. This diverse area consists of a mixture of wooded swamp and shallow marsh. The wooded swamp is vegetated with sapling red maples. Other woody plants include willow, pin oak, and river birch. There is little ground cover due to a heavy leaf litter and areas of standing water. The shallow marsh is quite diverse vegetatively. Dominant woody plants are buttonbush, willow, swamp rose, and winterberry holly. Herbaceous vegetation includes cattail, sedges (Carex sp.), soft rush (Juncus effusus), grasses, arrow-leaved tearthumbs, and jewelweed.

Due to its diverse vegetation and the high degree of wetland type interspersion, I consider wetland A to represent valuable wildlife habitat. Several species of songbirds were observed foraging here during the site visit. Many of the plants that occur here are valuable wildlife foods, and the area provides good cover for wildlife. Both wetlands A and B probably function as traps for sediments carried by the flood waters of Rock Creek.

In summary, these wetlands are diverse freshwater systems which provide valuable wildlife habitat due to the characteristics mentioned above and the overall scarcity of non-tidal wetlands in Piedmont Maryland.

WK:jmb



STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
WATER RESOURCES ADMINISTRATION  
TAWES STATE OFFICE BUILDING  
ANNAPOLIS, MARYLAND 21401

June 29, 1979

MEMORANDUM

TO: Lester A. Levine  
THRU: Kathleen Adgate \*  
FROM: Frank L. Hamons, Jr. FLH

SUBJ: 79-6-1385 - Draft EIS MD Rt. 115 from Montgomery County Village Avenue to Norbeck

This is to advise you that ~~the~~ above referenced Clearinghouse project has been reviewed by Bill Davidson of the Planning Division.

We find this project is not inconsistent with the plans, programs, and policies of the Administration.

FLH:KA:k1f



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

4321 Hartwick Road  
College Park, Maryland  
20740

1031

July 6, 1979

JUL 9 11 9 5

Mr. Eugene T. Camponeschi, Chief  
Bureau of Project Planning  
Maryland State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

AGRICULTURE  
PROJECT PLANNING

Dear Sir:

Thank you for the opportunity to review your draft environmental impact statement on Maryland Rt. 115, from Montgomery Village Avenue to Norbeck, in Montgomery County, Maryland.

Our review indicates that you have adequately addressed those areas in which we have concern. We do, however, urge that the least impact on prime farmlands be weighted heavily in your selection of final alternatives.

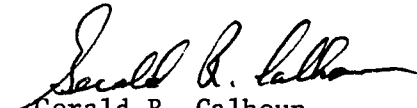
Section V-A-1b

We also suggest that you correct our agency title on your enclosed distribution list to read: State Conservationist, Soil Conservation Service, Room 522, 4321 Hartwick Road, College Park, Maryland 20740.

p. i-4

If we can be of further assistance please feel free to contact us.

Sincerely,

  
Gerald R. Calhoun  
State Conservationist

cc: Robert E. Brennan, Chairman, Montgomery SCD, 14530 Dufief Mill Road,  
Gaithersburg, Maryland 20760  
R. M. Davis, Administrator, SCS, South Bldg., Washington, D.C.  
Director, Office of Federal Activities, EPA, Washington, D.C. (5)  
Director, Environmental Services Division, SCS, South Bldg., Wash., D.C.  
Coordinator, Environmental Quality Activities, USDA, Washington, D.C.





MARYLAND DEPARTMENT OF NATURAL RESOURCES  
WILDLIFE ADMINISTRATION

NATURAL RESOURCE BUILDING  
ANNAPOLIS 21401  
AREA 301 269-3195

TO Lester A. Levine

DATE July 11, 1979

FROM Carlo R. Brunori *CRB*

SUBJECT: DEIS Md. Rt. 115 From Montgomery County Village Avenue to Norbeck 79-6-1385

We have reviewed this document and have the following comments.

Of the remaining five build alternatives which are still viable (3,4,5,6, and 6-5), we favor alignment 6-5. This choice is based on the amount of 4 (f) involvement, wetlands encroachment, cropland disturbance, and maximum utilization of the existing right-of-way. It is doubtful that construction of a limited access arterial will slow or effect at all development of the surrounding area. We therefore associate no wildlife benefits with such a roadway.

*Alternate 4 was selected. See Section II for details.*

As mentioned in the DEIS on several occasions, Rock Creek Park serves an extremely important role as an open-space area which is protected from development (with the exception of encroachment such as is proposed here), and as one of the most significant tracts of wildlife habitat remaining in the D.C. area. This is especially true for forested habitat.

Of near equal importance are the agricultural lands remaining in the Gaithersburg, Rockville, D.C. area. As in the case of parklands, a concerted effort on the part of the SHA to leave as much of these lands as undisturbed as possible is warranted.

In conclusion, regardless of which alternative is chosen, parklands and agricultural lands must be left as undisturbed as is possible, and we specifically object to alternate 3 which would incur far too much environmental damage should construction take place along this alignment.

*Alternate 3 was NOT SELECTED. See Section II.*

CRB:SEM:wfs  
cc: B. Halla

113

Date: July 18, 1979

DEPT. OF STATE PLANNING	
RECEIVED	
JUL 24 1979	
REVIEWED	
ANSWERED	

Maryland Department of State Planning  
 State Office Building  
 301 West Preston Street  
 Baltimore, Maryland 21201

SUBJECT: PROJECT SUMMARY NOTIFICATION REVIEW

Applicant: State Highway Administration

Project: EIS Md. Rt. 115 from Montgomery Village Ave. to Norbeck  
 (Montgomery Co.)

State Clearinghouse Control Number: 79-6-1385

CHECK ONE

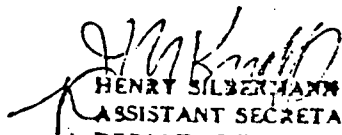
This agency has reviewed the above project and has determined that:

1. The project is not inconsistent with this agency's plans, programs or objectives. \_\_\_\_\_
2. The project is not inconsistent with this agency's plans, programs or objectives, but the attached comments are submitted for consideration by the applicant. ~~\_\_\_\_\_~~
3. Additional information is required before this agency can complete its review. Information desired is attached. \_\_\_\_\_
4. The project is not consistent with this agency's plans, programs or objectives for the reasons indicated on attachment. \_\_\_\_\_

Signature: 

Title: ASSISTANT TO THE DIRECTOR

Agency: WATER RESOURCES ADMINISTRATION

  
 HENRY SILBERMANN  
 ASSISTANT SECRETARY  
 DEPARTMENT OF NATURAL RESOURCES

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Thomas C. Andrews  
DIRECTOR



STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
WATER RESOURCES ADMINISTRATION  
TAWES STATE OFFICE BUILDING  
ANNAPOLIS, MARYLAND 21401  
(301) 269-2265

July 18, 1979

MEMORANDUM

TO: Lester A. Levine

FROM: Michael A. Ports *MAP*

SUBJECT: Draft EIS Md. Rte. 115 from Montgomery County Village Avenue to Norbeck - WRA File #75-PP-0114

The office has received and reviewed the above referenced document. As a result of our review the following comments are offered for transmittal to clearinghouse:

- 1 - Summary (page i-2) - the following should be added *see p i-2*  
to Actions Required by Other Agencies: Md. Dept. of Natural Resources - Storm Water Management Approval.
- 2 - Environmental Profile (page II-14) - The U.S. Department of Housing and Urban Development - Federal Insurance Administration has published flood insurance rate maps which include the area under study; therefore, any detailed maps presented must reflect and reference this information. *see p III-13*
- 3 - Floodplain Involvement (page IV-3) - our report has two versions of this page. This should be clarified in the Final EIS; however, either version would be acceptable except that item #2 above should be included. *see p V-3, V-4*
- 4 - In general, from a water resources viewpoint, alternatives which would involve the least amount of soil disturbance and waterway construction would be preferred.

In addition to the aforementioned comments I am forwarding previous comments from the Division of Archeology and the Maryland Fisheries Administration.

MAP/CKC/mc  
Attachment



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III

6TH AND WALNUT STREETS  
PHILADELPHIA, PENNSYLVANIA 19106

AUG 6 1970

1970 AUG 6 AM 10 10

MARYLAND  
HIGHWAY  
ADMINISTRATION  
PROJECT PLANNING

Mr. Eugene T. Camponeschi, Chief  
Bureau of Project Planning  
Maryland State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

Re: Maryland Route 115, From Montgomery Village Avenue  
to Norbeck, In Montgomery County, Maryland

Dear Mr. Camponeschi:

We have reviewed the draft Environmental Impact Statement for the proposed project referenced above, and have classified it in EPA's Reference Category ER-2. We have enclosed a copy of the Definition of Codes for the General Nature of EPA Comments to provide a more detailed description of this rating. In accordance with our responsibilities under Section 309 of the Clean Air Act to inform the public of EPA's views on the potential environmental effects of Federally assisted actions, this rating will be published in the Federal Register.

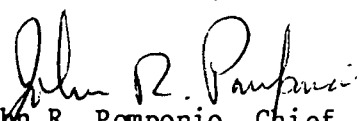
Our review of the draft EIS has raised several questions concerning the environmental impacts of the project, as well as this project's relationship to other anticipated highway construction in the area. Our detailed comments on these issues are included with this letter. Alternate 3 is clearly the least desirable from an environmental standpoint, due to its impacts on wetlands, streams and floodplains. We do not recommend this alternate for further consideration, and encourage Md DOT to concentrate on the other alternates.

In addition to the environmental issues involved with the five action Alternates, EPA is also concerned that the proposed project will become part of a larger local highway system in the near future. In particular, we question the relationship of the proposed project to the Intercounty Connector. If portions of Alternates 3 and 4 are to become part of the Intercounty Connector, then this fact should be reflected in the traffic projections and the air quality and noise analyses for the appropriate segments of these two alternates. These issues should be clarified in the final EIS.

Refer to  
Section I-C-3

If you have any questions concerning our comments, or if we can be of further assistance, please contact Mr. Eric Johnson of my staff at (215)-597-4388.

Sincerely yours,

  
John R. Pomponio, Chief  
EIS & Wetlands Review Section

Enclosure



Comments

1. The nature of the anticipated floodplain encroachment should be explained in the final EIS. Since it is apparently impossible to avoid the floodplain, Md DOT should coordinate measures to mitigate adverse floodplain impacts with the appropriate State and Federal agencies.

see  
p. V-3, V-4

2. It is not clear that the cost of noise abatement structures has been included in Table V-1. We believe that such figures should be included in the highway construction cost estimates, in order to provide an accurate comparison of the Alternates.

refer to  
p. II-10,  
Table II-1

3. The proposed project could have a substantial effect on the water quality of Rock Creek, and the final EIS should include specific steps for eliminating project-related water quality impacts. Since the portion of Rock Creek within the study area has been classified as Recreational Trout Water, we believe that special efforts should be made to protect the Creek.

Refer to  
Sections V-A-1c  
V-A-1f

4. Although an air quality burden analysis is referred to in Chapter IV, Section 8a, the results of that analysis do not appear to be included in the draft EIS. This material should be included in the final EIS for all the alternates.

FHWA does not  
sanction a "microscale"  
burden analysis, thus  
all reference to the burden  
analysis should have been  
deleted from the DEIS.

5. Although Alternates 5 and 6-5 are projected to produce 8-hour CO violations at the Shady Grove Road intersection, the other environmental impacts of these two alignments are less severe than those of the remaining three action Alternates. Rather than dropping these Alternatives from further consideration because of these violations, we encourage Md DOT to explore ways of eliminating the CO violations through engineering or traffic control measures, and to present this analysis in the final EIS.

Predicted CO levels for  
Alternates 5 and 6-5  
assumed demand-response  
traffic signals, free right  
turns, and other TSM type  
improvements at Shady Grove  
Road. Further improvement  
would only be possible with  
a wider roadway section,  
resulting in greater resident  
impacts.

6. On page III-8 it is stated that this project may provide "needed components for several highway systems." Although we appreciate the need for long range transportation planning, CEQ regulations discourage the practice of piecemealing several small projects into one large one. In particular, if portions of Alternates 3 and 4 are to become part of the Intecounty Connector, the impacts of the entire network should be clearly described and analyzed in the final EIS.

Section I-C-3

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DEPARTMENT OF THE ARMY  
BALTIMORE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1715  
BALTIMORE, MARYLAND 21203

REPLY TO ATTENTION OF:

NABPL-E

11 AUG 7 PM 4 03 August 1979

ADJUTANT GENERAL  
PROJECT PLANNING

Mr. Eugene T. Camponeschi  
Chief  
Bureau of Project Planning  
Maryland State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

Dear Mr. Camponeschi:

The Baltimore District, Corps of Engineers, has reviewed the Draft Environmental Statement for the Section 4(F) Involvement for Improvements to Maryland Route 115 in Montgomery County, Maryland. Our Operations Division referred the Draft Environmental Statement to our Planning Division for review. The Statement has adequately dealt with all areas involving the Corps of Engineers. There will be no changes to the size or extent of the flood plain in the Rock Creek Watershed as a result of the proposed activities. Furthermore, there are statements in the document that acknowledge the need for a Corps of Engineers' Section 404 permit prior to construction.

p V-4

The Baltimore District appreciates the chance to comment on the Draft Environmental Statement. If there are any questions, please contact us.

Sincerely yours,

WILLIAM E. TRIESCHMAN, Jr.  
Chief, Planning Division



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UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

OA/C52x6:JLR

AUG 3 1979

TO: PP - Richard L. Lehman  
FROM: OA/Cx1 - *Gordon Lill*  
SUBJECT: DEIS #7906.24 - Section 4(F) Involvement  
For: Maryland Route 115, From Montgomery Village Avenue  
to Norbeck; Montgomery County, Maryland

The subject statement has been reviewed within the areas of NOS responsibility and expertise, and in terms of the impact of the proposed action on NOS activities and projects.

The following comment is offered for your consideration.

Geodetic control survey monuments may be located in the proposed project area. If there is any planned activity which will disturb or destroy these monuments, NOS requires not less than 90 days' notification in advance of such activity in order to plan for their relocation. NOS recommends that funding for this project includes the cost of any relocation required for NOS monuments.

Attachment

NOS monuments have not been found in the study area. However, during final design, if any are found, the NOS will be notified immediately to make proper arrangements.

Rec'd PP/EC  
AUG 08 1979

Bcc D. Wallace 8/15/79





REGION III

DEPARTMENT OF TRANSPORTATION  
URBAN MASS TRANSPORTATION ADMINISTRATION  
434 WALNUT STREET  
PHILADELPHIA PA 19106

August 6, 1979


Mr. Eugene T. Camponeschi, Chief  
Bureau of Project Planning  
Maryland State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

RE: Environmental Impact Statement  
Maryland Route 115 - Montgomery  
Village Avenue to Norbeck

Dear Mr. Camponeschi:

UMTA has reviewed this subject document and has no comment on its  
contents.

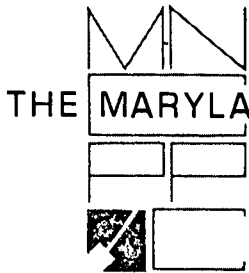
Sincerely,

  
FRANZ K. GIMMLER  
Regional Director

PROJECT PLANNING

180  
AUG 9 1979

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THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20907

(301) 279-1000

August 6, 1979, 10:00 AM

PROJECT PLANNING

Mr. Eugene T. Camponeschi, Chief  
Bureau of Project Planning  
Maryland State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

Re: Maryland Route 115  
from Montgomery Village  
Avenue to Norbeck

Dear Mr. Camponeschi:

This is in regard to the Draft Environmental Statement for the subject project.

The Montgomery County Planning Board, at its regular meeting on August 2, 1979, reviewed this and concurred with the staff recommendation (copy attached) that alternative alignment number 4 receive location approval.

Also, the Board is recommending that during the design phase of this project, every effort will be made to design a roadway with a parklike atmosphere.

Extensive coordination w/ M-NCP & PC will be maintained during design phase to provide input for mitigative measures.

Sincerely,

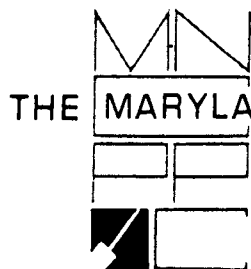
Royce Hanson  
Chairman

RH:ELF:bap

Attachment

cc: The Honorable Neal Potter  
The Honorable Charles Gilchrist  
The Honorable Victor Crawford  
The Honorable David Scull

D. Wallace 8/13/79



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20907

July 30, 1979

MEMORANDUM

TO: Montgomery County Planning Board

FROM: Transportation Planning Division

SUBJECT: Review of Maryland 115 Draft Environmental Statement

-----

1. Projected average daily traffic (ADT) volumes are shown for the various alternatives in Figure V-35. The projections were based on a 1995 land use and transportation analysis and factored up to a 2005 design year. The total travel demand across a screen line between Montgomery Village Avenue and Shady Grove Road for Alternative 4 is projected to be 23,800 ADT on the realigned Maryland 115 and 11,600 ADT on the existing Maryland 115 for a total of 35,400 ADT. The projected volumes across a screen line at Emory Lane are 26,300 ADT on the Intercounty Connector alignment and 7,800 ADT on existing Maryland 115 for a total of 34,100 ADT. These volumes are based on land use patterns that represent about 2/3 of the potential development of the Gaithersburg portion of the I-270 Corridor.

If Alternates 5 or 6-5 is chosen the ultimate roadway cross section would be limited to four through lanes with a continuous center left turn lane. The roadway would be contained in an 80 foot right-of-way with no possibility for expansion. The design speed would be 40 mph with posted speed limits of 30 or 35 mph. There would be no access control and all existing and future driveway curb cuts would be permitted. The roadway would not have the safety features of a divided highway constructed on the Master Plan alignment. These features are described in detail on pages IV-12 through 14 of the report and include: access control, increased capacity and reduced congestion, median barrier, vehicle recovery area, left side shoulders, and improved geometrics due to higher design speed.

Alternates 5 and 6-5 also pose the problem of how to accommodate the combined traffic of Maryland 115 and Maryland 28 on the short section of Maryland 28 as it approaches Georgia Avenue. Alternate 2 from the original alternates meeting was dropped because of this problem. If Alternate 5 or 6-5 was chosen it is quite possible that an interchange would be required at the intersection of Maryland 28 and Georgia Avenue. The cost of this interchange has not been included in the cost estimates contained in the draft statement.

*Alternate 4 was selected, which includes an interchange at this intersection.*

Alternates 5 or 6-5 severely limit the capability of the transportation network to meet the capacity and safety needs for the 2005 design year and beyond. The ability to expand the facilities to 4 or 6 lane divided highway with access control is precluded. For these reasons it is recommended that Alternates 5 or 6-5 be dropped.

*Alternates 5 and 6-5 have NOT been selected.*

2. Alternate 6 is a non-Master Plan alignment. Numerous public and private decisions have been made based on the Master Plan alignment and our recommendation is not to pursue non-Master Plan alignments. In addition, the cost to the County to extend Shady Grove Road to meet Alternate alignment 6 is not included in the cost estimates.

*Alternate 4 has been selected which utilizes master plan alignments for M-88 and the ICC.*

3. A transportation planning issue raised by many people at the public hearing was one of; why is Maryland 115 being planned for improvement if there is not going to be any gasoline to run the cars to use the new road? It is the judgment of staff that the need for the improvement will not be lessened, either directly or indirectly, as a result of any short term energy shortages or long term solutions to the energy problem. This judgment is based upon specific transportation factors as well as the latest national thinking and research on the general issue. Refer to Section I.

Surveys and research have reviewed how people here in the United States responded to the energy crisis of 1973/1974. One of the basic responses was for people to reduce their discretionary travel, such as shopping and social trips, to a greater degree than reducing automobile travel for work related purposes. This resulted in their being larger percentage decreases in daily travel than peak period travel. Recent news releases from the USDOT on national traffic trends shows that there has been a similar response to the current gasoline shortage. From this observation, one could conclude that while short term responses to energy shortages would be decreases in ADT the peak hour requirements would still require the full capacity forecasted for particular roadway improvements.

A second lesson learned from our first and second energy crisis and the intervening period is that the major factor causing people to change their transportation behavior is gasoline availability and not cost. It has been the "hassle factor" and the uncertainties of getting any gasoline that has caused people to reconsider where, when and how they travel or whether to travel at all. The major price changes per se for gasoline, in 1973/1974 or 1979 have had marginal impact in increasing conservation or in getting people to ride transit or carpool. During the period 1974-1979 while the nominal price of gasoline increased somewhat the cost in constant dollar terms declined relative to the Consumer Price Index. This has had the effect of continuing the historic trend of having cheap energy for personal transportation. It has also been counter-productive to fostering greater utilization to transit.

Another response of people to the energy situation has been one of purchasing and utilizing more energy efficient cars. This has been interdependent to some degree with national policy efforts and with specific legislation requiring a new car fleet averaging 27 mpg by 1985 for each manufacturer. The net effect in the short and long term will be that to satisfy their mobility needs people will drive more energy efficient cars more thereby keeping travel demand high while conserving on gasoline.

A final lesson learned in part from these energy shortages is that people wanting to shift their travel to transit are limited by the capacity of the transit system, especially in the peak period. The general response here in the Washington area in 1973/1974 and in many other metropolitan areas was that transit ridership increased by about 10%. The ridership statistics both locally and nationally in the 1979 shortage have shown short term ridership gains on transit more on the order of 20%. The number of bus trips and frequency of services on many of the major routes, which are provided by the various transit authorities generally have a very direct relationship to the "normal" transit ridership. Most service standards are such that the amount of peak period service which is provided allows for a certain percentage of standees, often as high as 40%, before additional bus services are added. Consequently, most transit services have little slack capacity especially during the peak periods to handle short term ridership increases.

It has been easier during this most recent crisis for the transit system here in the Washington area to handle the surge of transit ridership due to the reconfiguration of the system resulting from the opening of 30 miles of Metrorail service. For example, in



the two-month period from May 1979 to late June, the Silver Spring Corridor from Maryland to D.C. showed an increase in transit users of 30% during the AM peak period hours. The limitations of transit capacity to absorb increased ridership is also dependent upon the mode of access people use getting onto transit. This includes having a sufficient combination of pedestrian, bike facilities, feeder bus, parking and fringe parking, and roadway access to different segments of the transit system.

Transit serving this ridership switch is one of its important contributions which should be encouraged, however we should also not lose sight of the magnitude of the impact on automobile travel. While a 30% increase in transit ridership may seem large it also represents an increase from transit's share of about 9% of work trips (estimated County average) to about 12%. In other words the net effect is one of decreasing automobile travel by about 3%. That represents a marginal and basically no decrease in the need for road improvements, particularly one such as the Maryland 115 project which provides improved automobile access to the regional transit services as one of its functions.

Observations such as these have been considered and weighed in great detail by various national experts concerned with this and similar general issues. The Office of Technology Assessment of the Congress of the United States this past spring released their two year study on Changes in the Future Use and Characteristics of the Automobile Transportation System. One of their findings in the mobility section was that:

"Stricter fuel economy standards, reduced highway construction, and auto disincentives to conserve petroleum and improve urban air quality will have little effect on the amount of auto travel. Only a severe petroleum shortage requiring gasoline rationing or other allocation measures, would produce major reductions in auto use."

Their study is also concerned with the prospect of technological innovations solving these problems. Several of their findings concluded that there are several policy options regarding the use of alternative fuels to gasoline, the production of synthetic gasoline from oil shale, coal, or tar sands that could be in sufficiently large productions by the early 1990's to generally keep pace with the projected demands for our mobility and automobile utilization. Further, there are other

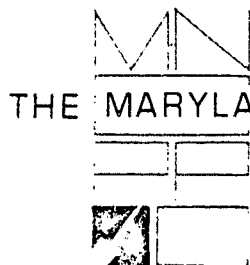
technological innovations such as electric vehicles which can offer some relief to the longer term energy problem. Much recent research has been done as a result of the Electric and Hybrid Vehicle Development and Demonstration Act of 1976. The Report finds that electric vehicles designed for special purposes and limited use may be on the road in significant quantity by the mid 1980's. However, more extensive use of electric vehicles hinges upon the development of improved batteries as the critical technological problem.

A recent national conference sponsored by the American Planning Association concerning the Future of Urban Transportation also addressed this general issue of short term and long term gasoline availability for personal transportation. A diverse group of over 100 individuals from throughout the nation debated these and related concerns for several days. There was a strong consensus that the United States has entered a transition period during which energy will be available, but intermittent fuel shortages are likely to occur for at least the next 10 years. Further, conservation by itself will not solve the nation's energy problems and that resources should be directed immediately to begin developing and producing alternative fuels. Paraphrasing further from the conclusions of the conference, future levels of travel (mobility and accessibility) will be influenced by several interacting factors such as conservation programs, fuel supply and pricing, personal income and housing developments and technology. In the short term through the 1980's urban mobility is likely to be adversely affected by constraints on and interruptions of fuel supply forcing changes in trip making for discretionary travel in particular. In addition, continued increases in fuel prices will reinforce the trend towards smaller, more fuel efficient autos. In the longer term, to the year 2000, travel demand is likely to change in different ways for different geographic areas and population groups. The trend of growth occurring in suburban and smaller urban areas represents preferences for low density living not tied to place of work or recreation and will reinforce the position of the auto as the dominant mode of personal transportation. However, while overall metropolitan area density will be declining and household size decreasing, the suburbs will exhibit higher densities and higher percentages of multiple unit developments. The effect can be a relative reduction of automobile dependency in metropolitan areas and increases in the feasibility of public transportation for certain trip making categories.

In summary, available evidence and widespread professional judgment of planners and transportation planners indicates that the need for transportation improvements such as that proposed in the Maryland 115 project will not be lessened to any significant degree by short term energy shortages or the long term national response to the energy problem.

8/2/79

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## THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20907

July 30, 1979

MEMORANDUM

TO: Montgomery County Planning Board

FROM: Montgomery County Park and Planning Staff

SUBJECT: Draft Environmental Statement for Maryland Route 115 from  
Montgomery Village Avenue to Norbeck Road

-----

Background

On July 23, 1979, the State Highway Administration of the Maryland Department of Transportation held their location public hearing for the improvement of Maryland Route 115 from Montgomery Village Avenue to Norbeck Road (see attached informational brochure). Staff of the Planning Board attended this hearing as well as the previous public meetings over the past several years related to this project. All of the location alternatives under consideration have impacts upon various parkland which is under the jurisdiction of the Maryland-National Capital Park and Planning Commission. A separate request has come in from the State Highway Administration for comments from the Planning Board regarding the parkland impact in accordance with Section 4f of the Federal Highway Act. Staff is requesting that the Planning Board transmit its comments directly to the State Highway Administration for the public hearing record. The recommendations should also be sent to the Montgomery County Council and County Executive for their timely consideration of this important planning and capital programming decision, as well as to members of the County's Legislative Delegation.

Recommendations

1. The reconstruction of Maryland 115 from Montgomery Village Avenue to Norbeck Road is an essential element in the transportation plan required for the short and long term development of the I-270 Corridor. The roadway is urgently needed now to allow continuation of

development in the Gaithersburg area east of I-270, particularly Montgomery Village, and to provide access to the Shady Grove Metro Station. The long term development of the I-270 Corridor is based on a transportation system which includes Maryland 115 (Eastern Arterial) as a major north-south element. The no build alternative must be eliminated from further consideration for without the reconstruction, development in the I-270 Corridor could not continue.

2. The future transportation demand between Gaithersburg and Norbeck cannot be adequately served by a non-controlled access ultimate five lane urban cross section along the existing Maryland 115 alignment. Both Alternatives 5 and 6-5 are non-master plan alignments. Alternative 6 from Montgomery Village Avenue to the Avery Road area is also a non-Master Plan alignment. Numerous public and private subdivision, zoning, special exception and land use decisions have been made on the basis of the adopted roadway alignment contained in the Gaithersburg and Vicinity, Upper Rock Creek, Olney and Vicinity and Aspen Hill Master Plans. It is recommended that Alternative 5, 6-5, and 6 should not be considered.

3. All alternates, including the no-build, have impact on Maryland National Capital Park and Planning Commission owned parkland in Rock Creek Watershed. Staff of the Montgomery County Parks Department have participated in this review of the Draft EIS. The Parks Department is supporting Alternative 4 as their most desirable option. Consideration of replacement parkland in exchange for the right-of-way needed for the facility should be determined during the design phase of the project.

4. The alignment recommended for location approval is Alternative 4 which is the Master Plan alignment of Maryland 115 from Montgomery Village Avenue to existing Maryland 115 and the Master Plan alignment of the Intercounty Connector from existing Maryland 115 to Norbeck Road. The parallel Intercounty Connector roadway on alignment 3 from Shady Grove Road to existing Maryland 115 should be investigated as part of the Intercounty Connector/Rockville Facility Study.

Summary of Environmental, Community and Transportation Impacts:

1. The least noise impact is expected for Alternates 5 and 6-5. Alternates 3 and 4 would have greater noise impacts and would result in increased cost to provide noise abatement devices. The highest noise impact would result from Alternate 6 which passes through undeveloped areas. If Alternate 6 is chosen minimum residential setbacks should be established to minimize future impact.

The highest air quality impact results from Alternates 5 and 6-5 in the vicinity of Redland Road due to congested traffic conditions.

2. The largest number of historical sites are on the Alternate 5 and 6-5 alignment. There will be community impact from any of the build or no-build alternatives. The impact will be minimized by choosing the Master Plan alignment because the location and right-of-way for the roadway has been established and planned for in the subdivision process. The maximum impacts would occur on the non-Master Plan Alternate 6 and Alternates 5 and 6-5 which try to accommodate a major highway within the right-of-way for an arterial roadway on an existing poor geometric alignment.

3. A critical issue that was raised at the July 23 public hearing on the draft environmental statement was whether the roadway was needed in light of the current energy situation. Analysis of the impact of the cost and availability of gasoline results in a conclusion that there will be a continuing travel demand for vehicular trips and that current modeling techniques can adequately project the level of this demand. Peak hour work trips will be least impacted by the energy situation and ultimately it is these trips that determine the roadway cross sectional requirements. Also, increased cost of energy will be offset by the mandated and market trend to more energy efficient cars. The ability of transit to capture extra ridership due to short-term energy induced diversions is limited by its capacity and access mode constraints. There is basically no decrease in the need for road improvements particularly one such as the Maryland 115 project which provides improved vehicular access to the regional transit services as one of its functions. In summary, available evidence and widespread professional judgment indicates the need for the Maryland 115 project will not be lessened to any significant degree by short-term energy shortages or the long-term national response to the energy problem.

RMW:WAW:bap



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

ER-79/572

AUG 9 1979

Dear Mr. Elinsky:

This is in response to a request for the Department of the Interior's comments on the draft environmental/Section 4(f) statement for Maryland Route 115 (Montgomery Village Avenue to Norbeck Road), Montgomery County, Maryland.

GENERAL COMMENTS

The final environmental/Section 4(f) statement should include a more thorough explanation of the interrelationships between the various project alternates and the Intercounty Connector. For example, an analysis should be made to determine whether improvements within the Maryland Route 115 corridor would eliminate the need for the Intercounty Connector.

Section I-C-3

PRELIMINARY SECTION 4(f) COMMENTS

Parkland/Conservation Resources

All build alternates within the study area involve the taking of some potential Section 4(f) properties. The statement indicates that build alternates would take between 6.6 and 52.2 acres of parkland. Additionally, two build alternates would have an impact on up to 8 historic sites.

Alternates 5 and 6-5 were not chosen. See Section II. There will be no impacts to historic sites under Alternate

The statement makes several references to the importance of existing and planned park resources to conserving the area's remaining natural environment. In this regard, the statement points out the prominent role played by the Rock Creek Regional Park. It states that "(t)his strip of parkland provides a vital buffer protecting the remaining undisturbed portions of Rock Creek and its associated floodplain . . . . It also provides a major source of active and passive outdoor recreation (i.e., walking, nature study, quiet contemplation, etc.) that is of great importance to residents of the Washington Metropolitan Area. As such, this park system is unique to this region and is of unestimatable value to its residents and existing natural environment." (p. V-16)

4.

Mr. Emil Elinsky, Baltimore, Maryland

Three of the five build alternates (Alternates 3, 4 and 6) are proposed to be on new location through the Rock Creek Regional Park. These alternates would require the taking of between 19.7 and 52.2 acres from the park. Additionally, these alternates would result in adverse scenic impacts, noise impacts and impacts to park wildlife resources. The deterioration of the Rock Creek Regional Park resource associated with Alternates 3, 4 and 6 contradicts the high conservation value that the project sponsor places on this resource.

Refer to  
Sections  
II-B  
IV-D  
p II-5

The statement identifies on Figure III-1 proposed future parklands within the project area. One of these potential sites involves conversion of the existing Brook Manor Country Club to public parkland and a southward expansion of this site. Alternates 3, 4 and 6, however, all would involve substantial taking from this proposed parkland/conservation area by the right-of-way and major interchange that would occur on this land. (See Figures V-14, V-19 and V-29) *The legend refers to park and open space. Brook Manor Country Club is not being converted to public parkland.*

Because of the potentially severe loss of resource values from existing and planned conservation areas associated with alternates proposed on new location, this Department objects to Section 4(f) approval of Alternates 3, 4 and 6. We believe that transportation improvement decisions should favor the established Maryland Route 115 right-of-way, already developed and presenting significantly fewer impacts to natural resources, and that existing right-of-way alternates are feasible and prudent alternatives to a new location through Rock Creek Park.

Refer to Section  
II for selection  
criteria

Two project alternates, 5 and 6-5, are situated primarily on Maryland Route 115 right-of-way. Roadway widening associated with these alternates would require the taking of 6.6 acres of parkland, considerably less than the takings associated with other build alternates. Alternates 5 and 6-5 would also have the least potential for additional adverse scenic and noise impacts. Comparison of natural and social impacts indicates that, with proper planning, Alternate 5 would provide the needed transportation improvements with substantially less disruption than any of the other identified build alternates. It is also consistent with the stated planning goals for the area as presented on page I-6. Therefore, this Department concurs with Alternate 5 and offers no objection to U.S. Department of Transportation Section 4(f) approval.

Refer to  
Section II-B  
p. II-5

Mr. Emil Elinsky, Baltimore, Maryland

The statement indicates that after selection of a recommended alternate, specific mitigation measures will be developed in close coordination with all appropriate local, state and Federal agencies. The mitigation package should include replacement of lands taken from Section 4(f) properties in order to avoid any reduction of this important resource base. The final statement should contain detailed information on measures to minimize harm to the affected Section 4(f) lands.

*see Section V-D-6*

*Mitigation measures are discussed in Section V*

Cultural Resources

The statement identifies 8 historic sites (H-11, H-21, H-23, H-27, H-28, H-29, H-54R and H-54S) which could be affected by Alternates 5 and 6-5. However, it fails to indicate how many acres would be involved in each taking. The final environmental/Section 4(f) statement should include detailed information on the amount of land that would be taken from individual historic properties. Furthermore, the statement indicates that minor shifts in alignment could avoid impacts to historic sites H-21, H-23, H-54R and H-54S. This Department suggests that every effort be made, through design changes, to minimize impacts to historic sites.

*refer to Section V-C-1*

ENVIRONMENTAL STATEMENT COMMENTS

Recreation Resources

The statement indicates on page II-1 a stated need for pedestrian and bicycle paths in the study area. Although discussion relevant to provision of pedestrian and bicycle paths was not present in the statement, this Department strongly endorses their inclusion in the final environmental statement and project plans. Their construction would complement and enhance the regional transportation network and provide needed recreational facilities.

*See Section V-D-3 III-B-2d V-A-3d*

Fish/Wildlife and Related Resources

The statement adequately describes the existing fish and wildlife resources and general project construction impacts. A consideration of Executive Order 11988 is required because of the potential floodplain involvement. Alternates 5 and 6-5 involve the least encroachment into the 100-year floodplain while Alternates 3, 4 and 6 impact substantially more floodplain.

*Alternate 4 was selected. See Section V-A-1d.*



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Mr. Emil Elinsky, Baltimore, Maryland

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The statement indicates that project implementation will require permits from the Corps of Engineers. The U.S. Fish and Wildlife Service (FWS) will review the permit applications and provide comments and recommendations pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

Based upon information presented in this statement and a site visit by a FWS biologist, the probable position of the FWS on Alternates 5 or 6-5 would be favorable. Alternates 3, 4 and 6, however, would not be viewed favorably by the FWS and they would probably recommend denial of the Corps of Engineers permit.

*A discussion with Mr. Meiroth indicates that no further coordinating with FWS will occur before design stage or permit process.*

SUMMARY COMMENTS

The "Preliminary Section 4(f) Comments" in this letter are provided to give you an early indication of our thoughts about the Section 4(f) information and involvements associated with the alternates for Maryland Route 115. They do not represent the results of formal consultation by the Department of Transportation (DOT), with the Department of the Interior, pursuant to the consultative requirements of Section 4(f) of the DOT Act. Such requirements would be fulfilled only when the Office of the Secretary of this Department comments separately on any Section 4(f) statement which may be prepared and approved by you for circulation.

On the basis of available information, we find that Alternate 5 substantially reduces adverse impacts to natural resources while providing the needed transportation improvements. Therefore, pursuant to U.S. Department of Transportation Order 5610.1B, we are informing the Assistant Secretary for Policy and International Affairs, U.S. Department of Transportation of our objection to Section 4(f) approval of Alternates 3, 4 and 6 on environmental grounds.

As this Department has a continuing interest in this matter, we would be willing to cooperate, on a technical assistance basis, in further project assessment. The field office assigned responsibility for technical assistance about park and recreation matters, and cultural resources and properties, is the Regional Director, Heritage Conservation and Recreation Service, U.S. Department of the Interior,

Mr. Emil Elinsky, Baltimore, Maryland

Federal Building, 600 Arch Street, Philadelphia, PA 19106 (phone: FTS 597-7995). For matters relating to fish and wildlife resources, wetlands, dredge and fill, and channelization, please consult the Area Manager, Delmarva Area Office, Fish and Wildlife Service, U.S. Department of the Interior, 1825 Virginia Street, Annapolis, MD 21401 (phone: FTS 922-2007).

Sincerely yours,

LARRY E. MEIEROTTO

Assistant Secretary of the Interior

Mr. Emil Elinsky  
Division Administrator  
Federal Highway Administration  
The Rotunda, Suite 220  
Baltimore, Maryland 21211

cc: Mr. Eugene T. Camponeschi  
Chief  
Bureau of Project Planning  
Maryland State Highway Administration  
300 West Preston Street  
Baltimore, Maryland 21201

Assistant Secretary for Policy  
and International Affairs  
U.S. Department of Transportation  
Washington, D.C. 20530



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Science and Technology**  
 Washington, D.C. 20230  
 (202) 377-4335

125

August 10, 1979

Mr. Eugene T. Camponeschi  
 Chief, Bureau of Project Planning  
 Maryland State Highway Administration  
 300 West Preston Street  
 Baltimore, Maryland 21201

BUREAU OF PROJECT PLANNING

AUG 14 1979 9 47

Dear Mr. Camponeschi:

This is in reference to your draft environmental impact statement entitled "Maryland Route 115, From Montgomery Village Avenue to Norbeck; Montgomery County, Maryland." The enclosed comments from the National Oceanic and Atmospheric Administration are forwarded for your consideration.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving three (3) copies of the final statement.

*Included on the mailing list.*

Sincerely,

*Sidney R. Galler*  
 Sidney R. Galler  
 Deputy Assistant Secretary  
 for Environmental Affairs

Enclosure Memo from: Gordon Lill  
 National Ocean Survey  
 National Oceanic and Atmospheric  
 Administration

*Bcc  
 D. Wallace 8/15/79*



Mr. Camporeale 196  
FYI

**MARYLAND**  
**DEPARTMENT OF STATE PLANNING**  
301 W. PRESTON STREET  
BALTIMORE, MARYLAND 21201

**HARRY HUGHES**  
GOVERNOR

August 10, 1979

**CONSTANCE LIEDER**  
SECRETARY

Mr. Hal Kassoff  
State Highway Administration  
201 West Preston Street  
Baltimore, Maryland 21201

**RECEIVED**

AUG 15 1979

**SUBJECT: ENVIRONMENTAL IMPACT STATEMENT (EIS) REVIEW**

**DIRECTOR, OFFICE OF  
PLANNING & PRELIMINARY ENGINEERING**

**Applicant: State Highway Administration**

**Project: Draft EIS - Md. Route 115 From Montgomery Village  
Avenue to Norbeck (Montgomery County) SHA# M758-003-371  
FAP# U 9441(1)**

**State Clearinghouse Control Number: 79-6-1385**

**State Clearinghouse Contact: James W. McConaughay (383-2467)**

Dear Mr. Kassoff:

The State Clearinghouse has reviewed the above project. In accordance with the procedures established by the Office of Management and Budget Circular A-95, the State Clearinghouse received comments from the:

Department of Public Safety & Correctional Services, Department of General Services, Department of Agriculture, Department of Health and Mental Hygiene, Office of Planning and the Environmental Health Administration, Department of Education, Interagency Committee for Public School Construction, and Montgomery County noted that the Statement appears to adequately cover these areas of interests to their agencies.

Department of Economic & Community Development provided comments (copy attached) from their Md. Historical Trust section on the possible need to conduct further archeological surveys for several of the proposed alternative routes. The Federal agency, the applicant, and the Trust need to determine if appropriate historical procedures require additional surveys and if required, the source of funding for such surveys. *No archeological sites will be affected by Alternate 4*

Department of Natural Resources made extensive comments (copy attached) on the wetlands, wildlife habitat, parklands, agricultural land, flood-plains, water quality and other like environmental conditions of the project area and presented recommendations to mitigate adverse impacts on same. *Refer to Section V for impacts.*

Metropolitan Washington Council of Governments indicated they are conducting the regional A-95 review of the project for their agency and the affected local governments and hope to respond to the applicant within the prescribed time period allocated for the review.

Mr. Hal Kassoff  
August 10, 1979  
Page Two

Our Staff reviewed the Statement and noted that the Route 115 improvements lie within the Intercounty Connector/Rockville Facility Study area. The Intercounty Connector/Rockville Facility build alternatives therefore, could have a major effect on travel patterns in the area and the scale of improvements necessary for Route 115 and these effects should be properly considered in the EIS for Route 115. 197  
See Section I for relationship of this project to the transportation corridor.


The Draft EIS does not state which (if any) of the build alternatives for the Intercounty Connector/Rockville Facility were assumed for the 2005 A.D.T. projections. The EIS should indicate if there were any major differences in the 2005 A.D.T. projections for the two extremes of the build alternatives for the Intercounty Connector/Rockville Facility. Refer to Section I-C-3

It is also suggested that an analysis of what the impact of terminating a relocated Route 115 at Montgomery Village Avenue will be on that facility and when some improvement west of Montgomery Village Avenue might be required. *Traffic projections are included for Montgomery Village Avenue in Section V.*

The Staff indicated that the Md. National Capital Park and Planning Commission supports alternative #4 and opposes alternative #6.

We hope that this review is useful in your agency's continuing evaluation of the project and anticipate the referenced comments will be properly considered and documented in the Federal Statement for the project. Thank you for your attention to the A-95 review process.

Sincerely,

  
James W. McConnaughay  
Chief, State Clearinghouse

JWM:BG:mmk

cc: Eugene Camponeschi/Gordon Kamka/Wayne Cawley/Earl Seboda/Edward Pigo/Max Eisenberg/David Ricker/Jeffrey Bresee/Robert Wilson/Walter Scheiber/Lowell Frederick/Thomas Schmidt/

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MARYLAND  
DEPARTMENT OF STATE PLANNING

301 W. PRESTON STREET  
BALTIMORE, MARYLAND 21201

*Mr. Camporeschi  
FYI guidance*

HARRY HUGHES  
GOVERNOR

August 24, 1979

CONSTANCE LIEDER  
SECRETARY

Mr. Hal Kassoff  
State Highway Administration  
201 West Preston Street  
Baltimore, Maryland 21201

RE: State Clearinghouse Project #79-6-1385, Draft EIS - Md.  
Route 115 from Montgomery Village Ave. to Norbeck  
(Montgomery County) SHA #M758-003-371 and FAP #U9441 (1)

Dear Mr. Kassoff:

Subsequent to our August 10, 1979 close out review letter on the referenced project, the State Clearinghouse received additional comments (copy attached) from the Metropolitan Washington Council of Governments noting that the Statement is in general accord with the metropolitan planning process and their adopted policies.

Thank you for your attention to this matter.

Respectfully,

*James W. McConnaughay*  
James W. McConnaughay  
Chief, State Clearinghouse

cc: Walter Scheiber  
COG #79-03-010

BG:pw

PROCESSED  
AUG 27 1979

RECEIVED

AUG 28 1979

DIRECTOR, OFFICE OF  
PLANNING & PRELIMINARY ENGINEERING



DEPT. OF STATE PLANNING RECEIVED	
AUG 24 1979	
REVIEWED	
ANSWERED	20, 1979

A-95 METROPOLITAN CLEARINGHOUSE MEMORANDUM

TO: James W. McConnaughay  
 Md. Dept. of State Planning  
 201 West Preston St.  
 Baltimore, MD 21201

DATE: AUGUST 20, 1979

SUBJECT: PROJECT NOTIFICATION AND REVIEW FOR

PROJECT: Draft Environmental Impact Statement on Md. Rte. 115 from COG NO. 79-03-010  
 APPLICANT: Montgomery Village Ave. to Norbeck--Montgomery County  
 Md. State Highway Administration

The project title, COG number, and applicant's name should be used in all correspondence with COG concerning this project. Correspondence should be addressed to Mr. Walter A. Scheiber, Executive Director. The staff may be reached by telephone at 223-6800

FINAL DISPOSITION

We have concluded review of the above item and have determined that its nature does not warrant metropolitan comments. A copy of this memorandum and attachments should accompany your application to indicate that the Metropolitan Clearinghouse review has been completed.

A copy of the above item has been sent to \_\_\_\_\_ for review and comment, with direct response to be made by \_\_\_\_\_. Copies of any local agency comments which you receive should also accompany your application to the Federal agency.

We have concluded review of the above item and have determined that it is in general accord with the metropolitan planning process and COG's adopted policies. A copy of this memorandum and attachments should accompany your application to indicate that the Metropolitan Clearinghouse review has been completed.

We have concluded review of the above item and submit herewith, the attached Metropolitan Clearinghouse Review Comments. A copy of this memorandum and the attached comments should accompany your application when submitted to the Federal agency to indicate that the Metropolitan Clearinghouse review has been completed.

*W. A. Scheiber*

EXECUTIVE DIRECTOR

WE APPRECIATE YOUR COOPERATION

Clearinghouse review comments will be valid for a period of two years from the date of this A-95 Metropolitan Clearinghouse Memorandum. All projects not submitted to the Federal funding agency within that period must be resubmitted to the Clearinghouse for update of the review comments before formal application is made to the Federal Government.

Office Of The County Executive  
Montgomery County, Maryland

September 24, 1979

RECEIVED

Mr. M. S. Caltrider  
State Highway Administrator  
P. O. Box 717  
300 West Preston Street,  
Baltimore, Maryland 21203

DIRECTOR, OFFICE OF  
PLANNING & RECREATION

Dear Mr. Caltrider:

After a careful analysis of the Md. 115 options and the consequences of each, I wish to notify you of my support for alternatives 3 or 4, and to my opposition to all other alternatives including the no build alternative.

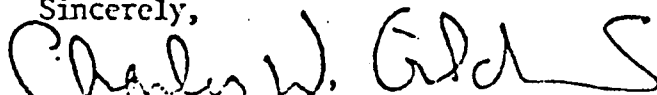
I believe this improvement is necessary to support the growth planned for this area of the County. In addition, the existing road has serious geometric problems which jeopardize the safety of our citizens. For these reasons, I would urge you to move forward on this project as soon as possible.

I am very cognizant of the opposition to this project on the grounds that it may have adverse impacts on adjacent communities. I implore you to make every effort to minimize any adverse impact and suggest the following:

- e The design speed of the project should be lowered from 60 mph to 50 mph, which would make the road more compatible with Shady Grove Road which it crosses and would minimize the impact on adjacent properties. Refer to Section II.
- e The road should be designed to be parkway-like in character; that is to say, the road should be visually attractive with the use of green spaces, plantings and structures that blend into the natural terrain. Coordination with M-NCPPC during Design phase will be maintained to incorporate mitigative measures.
- e Landscaped anti-noise berms should be installed on both sides of the roadway. see above comment and Section I
- e Pedestrian crossovers should be installed at appropriate locations. see section I.

The County would like to participate in the decision-making process in order to assure the needed protections and to assuage citizen concerns.

Sincerely,

  
Charles W. Gilchrist  
County Executive

CWG/slh

cc: Hon. Neal Potter, President, Montgomery County Council  
Dr. Royce Hanson, Chairman, MNCPPC



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THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION  
8787 Georgia Avenue • Silver Spring, Maryland 20907

January 29, 1980

Rummel, Klepper and Kahl  
1035 North Calvert Street  
Baltimore, Maryland 21202

Attention: Mr. Dennis J. Lew

Re: Md. Rt. #115  
Relocation Study  
Alternate '4'  
Montgomery County

COPY	
No.	For
-	AWN, Jr.
-	JLB
1	DJL
Original to file 174-61	

Gentlemen:

We have reviewed the 400 Scale Plan submitted by you on January 17, 1980 for the selected Alternate 4, Proposed Relocation of Maryland Route #115 from Montgomery Village Avenue to Norbeck Road, Montgomery County, Maryland.

In our opinion, Alternate 4 would be the least disruptive to existing and proposed parks in this area of all the possible alignments which were considered and reviewed by us. It successfully avoids six existing developed local parks, two existing undeveloped local parks, one existing developed major recreational park, and one proposed local park. In addition, it will cross Rock Creek Park and the North Branch of Rock Creek Park at locations which will not interfere with existing park development, and will have the lowest possible environmental impact on both the streams and the other natural physical features of those parks.

Members of the Park Department Staff, who were involved in the study process, included Landscape Architects and Engineers from our Engineering and Design Division, as well as Park Naturalists and Park Managers from our Division of Interpretation and Conservation. This review process was closely coordinated by Associate Director of Parks Robert Young.

Finally, the plans were reviewed and approved by the Montgomery County Planning Board after a thorough evaluation of all the possible alternatives.

While replacement or payment for parkland used by the road relocation remains to be worked out in detail, the Department of Parks is satisfied that the re-location of Maryland Route #115, according to the Alternate 4 Study, is the preferred route of all those considered.

If you have any questions, please feel free to contact me at 565-7490.

**RECEIVED**

JAN 30 1980

Sincerely,

Stanton G. Ernst  
Director of Parks

SGE:eob

**RUMMEL, KLEPPER & KAHL**



# Maryland Department of Transportation

State Highway Administration

October 3, 1980

James J. O'Donnell  
Secretary

M. S. Caltrider  
Administrator

202

## MEMORANDUM OF MEETING

DATE: September 18, 1980 9:30 a.m.

PLACE: Maryland-National Capital Park & Planning  
Commission, Department of Parks Headquarters

PROJECT: Maryland Route 115 Study  
Montgomery Village Avenue to Norbeck  
SHA No. M 758-003-371  
FAP No. U 9441 (1)

SUBJECT: Mitigation Measures to be considered for  
impacts to Rock Creek Regional Park

PRESENT: M-NCP&PC: Stanton Ernst  
Ed Ferber  
Tony Janda  
Joseph Kondis  
Robert Young

FHWA: Fred Skaer

SHA: Andrew Chin  
Walter Hanrahan  
Dan Muser  
Cynthia Simpson  
Charles Wroten

RK&K: Dennis Lew  
David Wallace

The purpose of this meeting was to discuss the specific mitigation measures to be considered for the use of parkland as right-of-way for the relocation of Maryland Route 115 with the Department of Parks, Maryland-National Capital Park and Planning Commission (M-NCP&PC). Selected Alternate 4, including the alignment shift near Whetstone Run, was reviewed.

Mr. Ferber reminded those in attendance that the Montgomery County, Planning Board has concurred with the Department of Parks' support of Alternate 4. The shift to avoid floodplain encroachment near Whetstone Run has also been approved by the City of Gaithersburg. It was also pointed out that plans for the relocation of Maryland Route 115 and Rock Creek Regional Park have been long standing. Master Plans for the park were approved with allowance for the relocation of Maryland Route 115 in the master plan alignment.

My telephone number is 383-4317

MEMORANDUM OF MEETING

October 3, 1980

Page Two (2)

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The State Highway Administration (SHA) is willing to provide suitable replacement land for acreage required for right-of-way. M-NCP&PC recommended permanent easement to SHA for park property taken. M-NCP&PC has identified parcels of suitable land for replacement. The recommended parcel associated with the relocation of Maryland Route 115 is the Woodlawn property, located east of Needwood Road and south of relocated Maryland Route 115. This replacement would be accomplished on a one-to-one basis. The method of payment would be determined during right-of-way acquisition.

Extensive coordination with M-NCP&PC prior to the Final EIS had resulted in the development of mitigation measures to minimize the impact of the proposed highway to Rock Creek Regional Park. These measures, which were presented in the Final EIS, on Pages V-39 and V-40, were discussed in more detail as follows:

- M-NCP&PC emphasized their desire to create a parklike atmosphere along the roadway, particularly where it crosses the park. Although natural rock facades on the bridge facings would be desirable, park officials indicated that several design alternatives should be developed and evaluated by SHA/FHWA/M-NCP&PC during the design phase. They did, however, express preference for weathering steel for aesthetics for both bridge members and guardrails.
- Storm drainage from the bridge will be diverted away from the bridges and streams to prevent bank erosion and avoid direct input of stormwater runoff into the stream system. Bridge span lengths and pier placement will be designed to allow full access under the bridges for pedestrians, bicyclists, and park maintenance vehicles; as well as access for any future park development. Bridge piers will be placed with sufficient setback from the stream to provide adequate space for sediment control measures to prevent adverse impact to the stream. It was also noted that the footings of the bridge piers would probably be inundated by the 100-year flood. Mr. Young inquired whether gabions could be placed in the streambed to provide an instream catch basin for sediment, and it was agreed that these gabions would be considered during final design.
- The roadway right-of-way will be landscaped to blend with the natural scenery. This landscaping will also incorporate vegetated areas and roadway appurtenances to minimize erosion and pollutant loads in stormwater runoff. Any special fencing to prevent access to the roadway will be designed after consultation with park officials.

MEMORANDUM OF MEETING

October 3, 1980

Page Three (3)

- During final design, coordination with M-NCP&PC will be maintained to ensure the interests of the Department of Parks are included in design considerations. Inspectors from M-NCP&PC will be present during construction to ensure that all measures are being taken to minimize impact to the park.

Mr. Janda expressed concern over future highway related noise levels at Lack Needwood. It was explained that L<sub>10</sub> noise levels will exceed 70 dBA to approximately 70 feet from the edge of roadway pavement (in most cases, this is within State right-of-way). L<sub>10</sub> noise levels would exceed 60 dBA to about 225 feet from edge of pavement. Noise increases over present ambient levels will occur to 500-550 feet. It was felt that noise impacts to Lake Needwood would not be significant and the improvements may decrease noise levels due to grade changes.

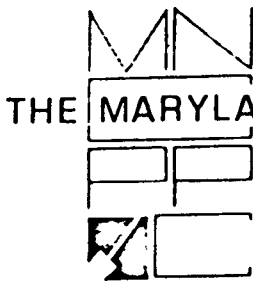
It was agreed that the Final EIS had adequately addressed the concerns and desired mitigation measures discussed at this meeting. M-NCP&PC believed further coordination during final design and construction phases of this project would assure their needs are met to mitigate impacts to park property. Mr. Ferber agreed to submit this memorandum to the County Planning Board for their concurrence with the specific mitigation measures cited.

See MNCPEPC  
LETTER DATED  
NOV. 7, 1980

by: Walter L. Hanrahan  
Walter L. Hanrahan  
Project Manager

WLH:dd

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THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION  
8787 Georgia Avenue • Silver Spring, Maryland 20907

November 7, 1980

Mr. Hal Kassoff, Director  
Office of Planning and  
Preliminary Engineering  
Maryland Department of  
Transportation  
State Highway Administration  
P. O. Box 717  
300 W. Preston Street  
Baltimore, Maryland 21203

Re: Contract #M758-3-371  
Md. Rt. #115  
From Montg.Village Ave.  
to Norbeck

Dear Mr. Kassoff:

During its regular meeting yesterday, the Montgomery County Planning Board reviewed the memorandum of our meeting of September 18, 1980, concerning mitigation measures to be considered for impacts to Rock Creek Regional Park. **SEE SECTION VII**

Following discussion of the memorandum, the Planning Board indicated its concurrence with the specific mitigation cited, as you requested in your letter of October 27, 1980.

We appreciate your cooperation in this matter, and will continue working with you through the various phases of design.

Sincerely,

Stanton G. Ernst  
Director of Parks

SGE:eob

cc:Mr.David W.Wallace  
Mr.Eugene T. Camponeschi  
Mr.Edward Ferber  
Mr.Richard Krolak

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Commission No.: 174-61

MEMORANDUM OF CONFERENCE

Date: November 12, 1980

Place: Maryland State Highway Administration

Project: Maryland Route 115 Study  
 Montgomery Village Avenue to Norbeck  
 SHA No. M 758-003-371  
 FAP No. U 9441(1)

Present: DOI: Heritage Conservation & Recreation Service  
 Barbara Becker  
 Bob Gift

FHwA:  
 Kathy Laffey  
 Steve Rapley

SHA:  
 Walter Hanrahan  
 Dick Krolak  
 Jim Wynn

RK&K:  
 Dennis Lew  
 David Wallace

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The purpose of this meeting was to discuss the U. S. Department of the Interior's comments on the Draft EIS and their objections to Selected Alternate 4 of the referenced project on Section 4(f) grounds (reference their letter dated August 9, 1979).

Mr. Wallace briefly reviewed the history of the project, the alternates which were considered, and the reasons for the selection of Alternate 4. A point-by-point review of the Department of the Interior's August 9, 1979 letter concerning the Draft EIS was made, elaborating on the replies contained in SHA's September 26, 1980 letter. One of the major concerns expressed by both Ms. Becker and Mr. Gift was the relationship of the Maryland Route 115 project with the Inter-county Connector Study. It was explained that the ICC study



RUMMEL · KLEPPER & KAHL *consulting engineers*

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is an ongoing study and that a Draft EIS is expected near the end of 1981. Mr. Rapley emphasized that the present problem facing the ICC study is defining the level of improvements to be considered. The independence of the Maryland Route 115 and ICC studies was stressed, based on traffic forecasts and the independent functions of the two roadways.

DOI's primary objection to the selection of Alternate 4 is the Section 4(f) involvement with the two areas of Rock Creek Regional Park. Although Selected Alternate 4 requires more park property for right-of-way than Alternates 5 and 6-5, it does not require any property from historic sites. Mr. Gift asked whether alignment shifts could reduce or avoid historic site impacts on Alternates 5 or 6-5. Mr. Wallace explained that although some impacts to historic buildings and property could be avoided by alignment shifts, takings are unavoidable and shifts could have adverse effects on residences and community facilities (i.e., a fire station).

The discussion concerning Section 4(f) impacts to Rock Creek Regional Park emphasized that park plans have included the Master Plan alignments for M-83 and the ICC. M-NCP&PC has reserved these areas for highway purposes, and park development has been located away from them. It was reiterated that the Selected Alternate is supported by the M-NCP&PC Parks Department and the Montgomery County Planning Board. The status of the Brook Manor Country Club as privately-owned open space, with no plans to become public, was clarified.

The results of a recent meeting with the M-NCP&PC Director of Parks and staff were discussed. This meeting (September 18, 1980) was held to discuss the specific mitigation measures to be considered for the use of parkland as right-of-way, including replacement of land taken. A copy of the October 3, 1980 memorandum which has been reviewed and approved by M-NCP&PC and the Park Planning Board was distributed.

Due to the planned posted speed limit for the Selected Alternate, a bicycle path will not be feasible along the new roadway. However, sufficient clearance will be provided under the overpasses in Rock Creek Park for pedestrian and bicycle paths.

Subsequent to the Draft EIS, more detailed floodplain mapping was provided by M-NCP&PC. As a result, a re-evaluation of floodplain impacts was made and alignment shifts have reduced impacts for the Selected Alternate. The total amount of floodplain encroachment for Selected Alternate 4 is less than those for Alternates 5 and 6-5.



RUMMEL · KLEPPER & KAHL *consulting engineers*

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Commission No.: 174-61

MEMORANDUM OF CONFERENCE

Date: November 12, 1980

Place: Maryland State Highway Administration

Project: Maryland Route 115 Study  
 Montgomery Village Avenue to Norbeck  
 SHA No. M 758-003-371  
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RUMMEL · KLEPPER & KAHL *consulting engineers*



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Coordination with the Maryland Department of Natural Resources, Inland Fisheries Division has provided no adverse comments concerning the project.

In addition to adverse historic impacts associated with improvements along the existing roadway, several other problems precluded the adoption of any alternate which terminated at Maryland Route 28 (i.e., Alternates 1, 2, 5 and 6-5). Traffic studies undertaken at the intersection of these alternates and Maryland Route 28 indicated that unacceptable traffic queues would be expected during the peak hour, primarily because of heavy left-turn volumes. These traffic queues exceeded those predicted at the intersection of Alternates 5 and 6-5 and Shady Grove Road by approximately 15 percent. Although a "stopped flow" air quality analysis was not performed at the Maryland Route 28 intersection, one could expect that violations would occur because of the air quality violations which were calculated at Shady Grove Road with Alternates 5 and 6-5 (violations of eight-hour CO NAAQS predicted for both 1985 and 2005). Another major adverse traffic impact associated with Alternates 1, 2, 5 and 6-5 is the requirement of a full interchange at Maryland Routes 28 and 97 (1,000 feet east of the Maryland Route 28/115 intersection). The interchange requires the displacement of several homes, businesses and historic sites.

Conclusion

While it was agreed that Alternates 5 and 6-5 had the least natural impacts of all build alternates under consideration, the level of adverse historic, traffic and air quality impacts offset these benefits. Because M-NCP&PC's Park plans include master plan alignments for highways, the adverse impacts of the taking of "parkland" for highway purposes are relatively minor. It was agreed that the mitigation measures developed with M-NCP&PC (and endorsed by their Planning Board) are satisfactory.

By: Dennis J. Lew  
Dennis J. Lew *own*

DJL/jc



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# United States Department of the Interior

## HERITAGE CONSERVATION AND RECREATION SERVICE NORTHEAST REGION

600 Arch Street — Room 9310  
Philadelphia, Pennsylvania 19106

IN REPLY REFER TO:

ER-79/572

JAN 22 1981

Mr. Richard S. Krolak  
Chief, Environmental Management  
Maryland Department of Transportation  
State Highway Administration  
P.O. Box 717  
300 West Preston Street  
Baltimore, Maryland 21203

Dear Mr. Krolak:

This is in response to your agency's request for Heritage Conservation and Recreation Service comments on the revised draft environmental/Section 4(f) statement for Maryland Route 115. Our comments are provided on a technical assistance basis only and should not be construed as reflecting a position on the project or the environmental/Section 4(f) statement by the Secretary of the Interior. Any formal or official comments on this project by the Department of the Interior are to be initiated through the Office of Environmental Project Review, United States Department of the Interior.

①

The November 12, 1980 meeting with the Maryland State Highway Administration and the consultants was helpful in reviewing the project and the current plans. We appreciate this opportunity to comment informally on the project and anticipate that the meeting and this letter clarify our concerns. The minutes of the meeting sent to us November 26, 1980 accurately reflect the discussion of this agency's concerns with the project although we do not necessarily agree that Alternates 5 and 5-6 which have the least natural impacts are offset by their adverse levels of historic, traffic and air quality impacts.

②

③

The Department of the Interior letter of August 9, 1979 focused on the parkland and conservation impacts. The issues discussed remain the prime and largely unresolved concerns of this agency, with regard to alternate choice, particularly Alternate 4, the Selected Alternate. The information presented at the November meeting does not substantially alter our perspective. The lack of specific information on the Intercounty Connector is a significant obstacle to this agency providing a more definitive judgement on the alternate selection for the proposed Maryland Route 115.

④

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The relationship of the Intercounty Connector Study to the Maryland Route 115 study is not addressed to our complete satisfaction. This dissatisfaction is increased by our understanding that Woodlawn, the proposed replacement site for lands impacted in Rock Creek Regional Park, is to be impacted by the Intercounty Connector. Such segmented planning is contradictory to the intent of the National Environmental Policy Act. Further discussion of the relationship of the Intercounty Connector and Maryland 115 is appropriate, including data on Alternate 5 traffic projections with and without the Intercounty Connector.

5

6

The carbon monoxide violations projected for Alternates 5 and 5-6 at the Shady Grove Intersection should be reevaluated given the conflict with other environmental considerations. We would encourage further exploration of traffic control or engineering techniques to lessen the air quality impacts of Alternates 5 and 5-6. Such a discussion should be incorporated into the final statement.

7

Irrespective of the Maryland State Highway Administration contention that the Maryland National Capital Park and Planning Commission has considered Maryland 115 in its planning for Rock Creek, this agency is not supportive of the Selected Alternate which takes 19.7 acres of parkland and segments the recreational resource. As noted in the draft statement (p. V-16) and discussed in the August 1979 letter, Rock Creek is a unique and significant resource. In our opinion that thus far, in the planning process approval of the Selected Alternate would not meet the requirements established by the Supreme Court in Citizens to Preserve Overton Park, Inc., v. Volpe, 401 U.S. 402 (1971). The Court stated that Section 4(f) lands "were not to be lost unless there were truly unusual factors present . . . or the cost or community disruption (for) alternative routes reached extraordinary magnitudes . . .," and by the Second Circuit in Monroe County Conservation Council v. Volpe (1972, 4 ERC 1886), "In other words, a road must not take (Section 4(f) lands), unless a prudent person, concerned with the quality of the human environment, is convinced that there is no way to avoid doing so."

8

The bicycle paths proposed are in the interests of this agency and we endorse their inclusion in the current plans.

Thank you for the opportunity to comment at this stage on the proposed Maryland Route 115. Further comments on cultural and recreational resources depend primarily on the alternatives developed for the Intercounty Connector and as to how this route relates to Maryland Route 115. If you have further questions, I would be pleased to discuss them with you.

Sincerely yours,

Robert F. Gift  
Chief, Federal Services

Responses to U.S.Department of Interior's January 22, 1981 Letter  
Heritage Conservation & Recreation Services

- ① The Final EIS and Section 4(f) Statement will be distributed to the U. S. DOI Office of Environmental Project Review.
- ② See Memorandum of Conference dated November 12, 1980, Section VII.
- ③ U. S. DOI's conclusion is not in agreement with Maryland-National Capital Park & Planning Commission. See Memorandum of Meeting dated October 3, 1980 and M-NCP&PC's concurrence letter dated November 7, 1980.
- ④ Specific information on the Intercounty Connector is provided on pages I-8 and I-9 and in Appendix E of this Statement.
- ⑤ Disagree. The NEPA regulations do not mandate that all actions be simultaneously evaluated, only those that can be implemented.
- ⑥ Projected 2005 ADT's for Alternate 5 are shown on Figure V-35 in the Draft EIS.
- ⑦ While traffic control measures or engineering techniques could be used to lessen the air quality impacts of Alternates 5 and 6-5, traffic and engineering studies completed at the intersections of Md. Route 115 (or Alternates 5 and 6-5) and Md. Route 28, as well as at Md. Route 28 and Md. Route 97, indicate that, short of a grade separation or interchange, any improvement in air quality would be marginal. A grade separation or interchange would displace numerous residences, a church, and possibly a historic site; thereby offsetting these "gains" in air quality.
- ⑧ This conclusion is not an "SHA contention", but rather the considered opinion of M-NCP&PC. In our opinion, the joint planning efforts of State and local jurisdictions to include the crossing of Rock Creek at the Selected Location (Alternate 4) clearly show a prudence in planning and effort. The narrow findings of the cited case are not necessarily relevant to this project. The Selected Alternate does not segment a recreational resource, but follows and fulfills planning objectives for the recreational resource.

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(4910-22)

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

ENVIRONMENTAL IMPACT STATEMENT; MONTGOMERY AND PRINCE GEORGES  
COUNTIES, MARYLAND

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Intent.

SUMMARY: The FHWA is issuing this notice to advise the public that an environmental impact statement will be prepared for a proposed highway project in Montgomery and Prince Georges Counties, Maryland.

FOR FURTHER INFORMATION CONTACT: Roy Gingrich, District Engineer, Federal Highway Administration, The Rotunda - Suite 220, 711 West 40th Street, Baltimore, Maryland 21211, Telephone: (301) 962-4011.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with the Maryland State Highway Administration, will prepare an environmental impact statement on a proposal to provide east-west highway facilities through Montgomery and Prince Georges Counties, Maryland. These facilities are known as the Rockville Facility and Intercounty Connector. The Rockville Facility would begin near Maryland Route 189 west of Interstate Route 270 south of the City of Rockville. It would proceed easterly to a connection with the Intercounty Connector on the east side of the City, a distance of approximately 11 miles. The Intercounty Connector would begin west of Interstate Route 270 and north of the City of Rockville. It would proceed in an easterly direction connecting with the Rockville Facility and continuing to the Baltimore/Washington Parkway, a distance of approximately 22 miles.

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A full range of alternatives are being considered including (1) taking no action, (2) improving existing facilities, (3) parkway type freeways, (4) controlled access highways, and (5) freeways with full control of access. The range of alternatives will also consider improved transit service and facilities such as high-occupancy-vehicle lanes and park-and-ride lots. The proposal has possible impacts on the 100 year floodplain, public parks and recreation areas, stream crossings and realignments, land use, and may result in the acquisition of homes, apartment buildings, and businesses.

No formal scoping meeting is planned at this time. A series of public meetings will be held as the project develops to obtain comments and suggestions from all interested parties. In addition, a public hearing will be scheduled upon completion of the Draft EIS. A public notice will be given of the time and place of these public meetings and public hearing. The Draft EIS will be available for public and agency review and comment prior to the public hearing.

To ensure that the full range of issues related to this proposal are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposal and the EIS should be directed to the FHWA at the address provided above and to Mr. Hal Kassoff, Director, Office of Planning and Preliminary Engineering,

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Maryland State Highway Administration, 300 West Preston Street,  
Baltimore, Maryland 21203.

Issued on: April 11, 1980

E. ELINSKY

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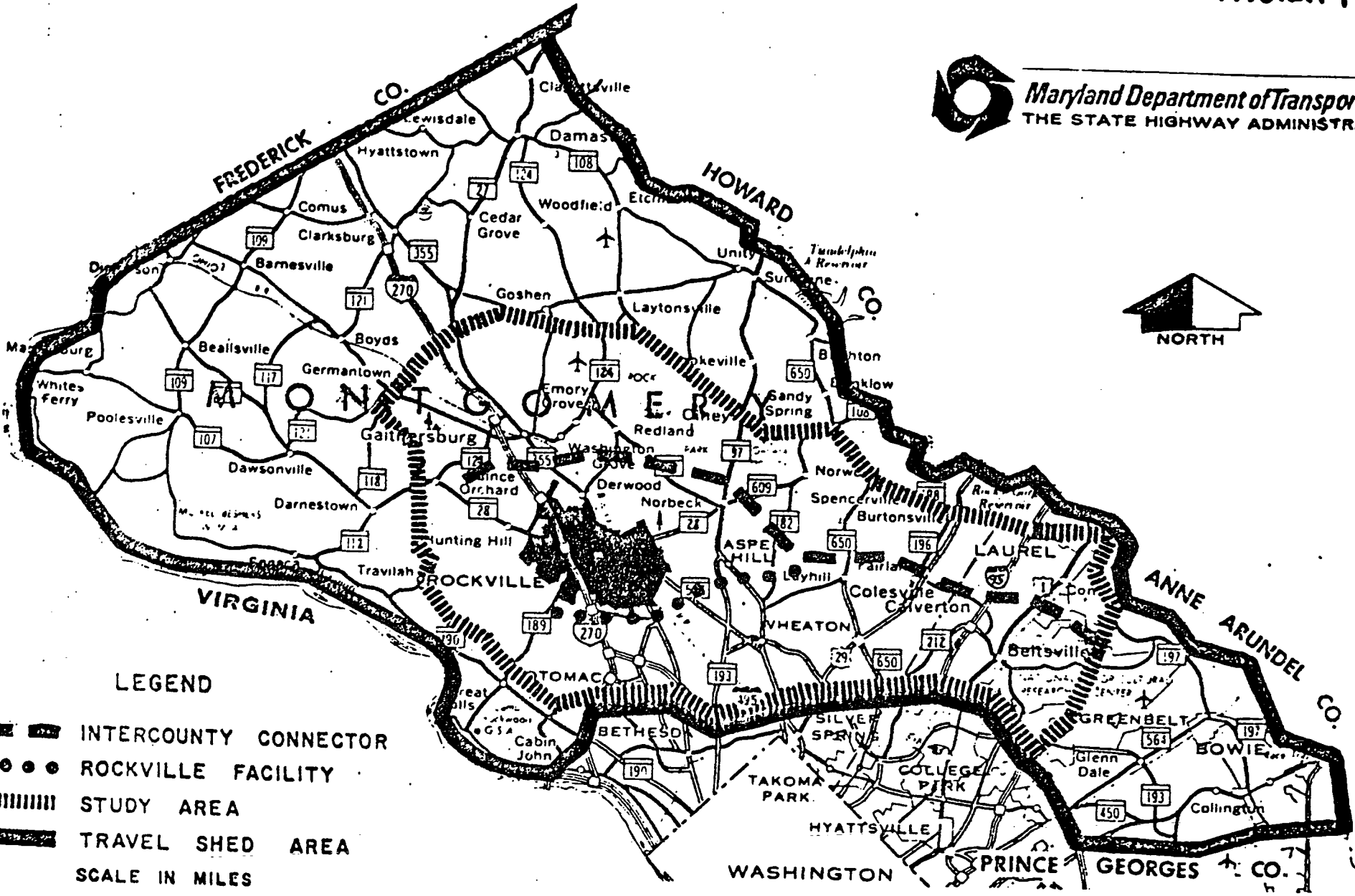
Emil Elinsky  
Division Administrator  
Baltimore, Maryland






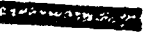
# INTERCOUNTY CONNECTOR ROCKVILLE FACILITY

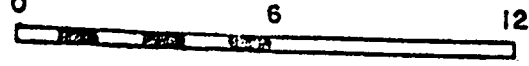


Maryland Department of Transportation  
THE STATE HIGHWAY ADMINISTRATION



## LEGEND

-  INTERCOUNTY CONNECTOR
-  ROCKVILLE FACILITY
-  STUDY AREA
-  TRAVEL SHED AREA



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VIII. LIST OF PREPARERS

This Final Environmental Impact Statement was prepared by the Maryland State Highway Administration, Bureau of Project Planning, with assistance from Rummel, Klepper & Kahl, Consulting Engineers. The following personnel were instrumental in the preparation of this document:

- STATE HIGHWAY ADMINISTRATION -

Mr. Walter L. Hanrahan  
Project Manager  
Bureau of Project Planning

Mr. Richard Krolak  
Environmental Evaluation  
Bureau of Project Planning

Mr. Robert Schneider  
Assistant Project Manager  
Bureau of Project Planning

- FEDERAL HIGHWAY ADMINISTRATION -

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- MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION -

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Transportation Planning

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- CONSULTANT -

RUMMEL, KLEPPER & KAHL

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Mr. Ed. F. Germroth	Drafting
Mr. Scott E. Kick	Drafting
Mr. Dennis J. Lew	Environmental & Socio-Economic Analysis
Mr. Charles E. Moone	Computer Simulation
Mr. Arnold W. Norden	Environmental Analysis
Mr. Larry N. Osterloh	Design
Mr. Stephen D. Rosen	Traffic & Safety
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- SUB-CONSULTANTS -

MESSER ASSOCIATES

Mr. William Articola	Air Quality Analysis
Ms. Marjorie Burger	Air Quality Analysis

MAPS, INCORPORATED

Photogrammetric Mapping

THUNDERBIRD RESEARCH, INC.

Dr. William M. Gardner, PhD.	Archeological Reconnaissance
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IX. APPENDICES

A P P E N D I X    A

GLOSSARY OF TERMS

- GLOSSARY OF TERMS -

(These terms may appear either in the EIS or as noted on the drawings)

Arterial Highway : A highway primarily for thru-traffic, usually on a continuous route.

Aux. Lane : Auxiliary Lane  
The portion of roadway adjoining the traveled way for parking, speed change, or for other purposes supplementary to the thru-traffic movement.

A.D.T. : Average Daily Traffic  
The total volume of auto and truck traffic passing a given point in both directions during a given time period (greater than one day and less than one year) in whole days, divided by the number of days in that time period.

Boulevard : A major highway primarily for the movement of local traffic. May have grade separations, interchanges or at-grade intersections, depending on traffic volume. Generally paralleled by sidewalks, plantings, etc.

Control of Access : Full - Complete restriction of access on a thru facility except at interchanges. Grade separations for all crossings.

Uncontrolled - Access control limited only to safe geometrics. All crossroads, driveways, etc. may have points of ingress or egress.

Design Hour Volume :  
(DHV)  
The percent of average daily traffic (ADT) generally accepted as the criterion used in the geometric design of rural and urban highways. Ideally the 30th highest hourly volume during a year, the DHV is commonly found to vary from 8% to 12% of the ADT.

- Design Speed : A speed selected for purposes of design and correlation of those geometric features of a highway, such as curvature and sight distance, upon which safe vehicle operations is dependent.
- Expressway : A divided arterial highway for thru-traffic with full or partial control of access and generally with grade separations at major highways.
- Freeway : An expressway with full control of access, grade separations at all roadway crossings. Access is permitted only at interchanges.
- Frontage Road : A road contiguous to and generally paralleling an expressway, freeway, parkway or thru-street and so designed as to intercept, collect, and distribute traffic desiring to cross, enter or leave such highway and which may furnish access to property that otherwise would be isolated as a result of the controlled access. (Also referred to as Service Road.)
- 4(f) : See Section 4(f).
- Grade Separation : Bridge structure such as an underpass or overpass that vertically separates two or more intersecting roadways, thus permitting traffic to cross without interference.
- Interstate Freeway : A freeway primarily for thru-traffic with full interchanges for access. Interchange spacing is generally greater than that for a freeway.
- Levels of Service : Levels of Service are a measure of the conditions under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel



time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy and, of course, the volume of traffic.

Levels of Service on expressways and free-ways with uninterrupted flow conditions are ranked from A to F (best to worst) as follows:

Level A - free traffic flow, low volumes; high speeds.

Level B - stable traffic flow; some speed restrictions.

Level C - stable flow; increasing traffic volumes.

Level D - approaching unstable flow; heavy traffic volumes, decreasing speeds.

Level E - low speeds; high traffic volumes approaching roadway capacity; temporary delays.

Level F - forced traffic flow at low speeds; low volumes and high densities; frequent delays.

For interrupted flow conditions, such as major highways and arterials with traffic signals, the following Levels of Service apply:

Level A - free flow, no delay at traffic signals.

Level B - occasional delays at traffic signals.

Level C - increasing volumes; moderate delays at traffic signals.

Level D - lower speeds; increasing volumes, frequent delays at traffic signals.

Level E - low speeds; high traffic volumes; signal backups almost to the previous light.

Level F - forced traffic flow; successive backups between signals.

Major Highway : An arterial highway with intersections at-grade and direct access to abutting property, and on which geometric design and traffic control measures are used to expedite the safe movement of thru-traffic.

Median : That portion of a divided highway separating the travelled ways for traffic in opposite directions.

Initial - To be constructed initially  
Ultimate - The configuration subsequent to the future construction.

Outer Separation : A separator between a frontage road or ramp and the roadway (or ramp) of a controlled-access highway.

R/W, R.O.W. : Right-of-Way (Line)  
The outer limits inside which the State owns and maintains for a highway facility.

Section 4(f) : Section 4(f) of the Department of Transportation Act requires that publically-owned land from a park, recreation area, wildlife and/or waterfowl refuge, or historic site (including archeological sites) of national, state or local significance can be used for Federal-Aid Highway projects only if there is no feasible and prudent alternative to its use, and if the project includes all possible planning to minimize harm to "4(f) lands". A Section 4(f) Statement, documenting the considerations, consultations and alternative studies for the determination that there are no prudent and feasible alternatives to the use of such lands, and that all possible planning was done to minimize harm, will be included in the Final Environmental Impact Statement.

Section 6(f) : The Land and Water Conservation Fund Act provides grant-in-aid assistance to states for the acquisition of outdoor recreation or open space land. Section 6(f) of this Act requires that no property purchased or developed with these funds can be converted to other than public outdoor recreation uses without approval from the Secretary, Department of the Interior. Approval for conversion will be given only if it is in accordance with the existing comprehensive statewide outdoor recreation plan and if substitution is made of other recreational properties of "at least fair market value and of reasonably equivalent usefulness and location". Generally, approval also requires that a final Section 4(f) Statement has been approved by the Department of Transportation.

Service Road : See Frontage Road.

Shldr. : Shoulder  
That portion of a highway adjacent and parallel to the travelled roadway for the accommodations of stopped vehicles for emergency use and for lateral support. May or may not be fully paved.

Side Slopes : The slope of earth permissible in given locations, as a ratio of horizontal to vertical measurement. (2:1, 4:1, 6:1).

Vehicle Recovery Area : That portion of ground adjacent to the traveled way that is clear of any fixed obstructions. For safety operation, generally no less than 30 feet from edge of traveled lane.

Wetlands : The term "wetlands" refers to those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does

or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

A P P E N D I X    B

SUMMARY OF THE  
RELOCATION ASSISTANCE PROGRAM  
OF THE  
STATE HIGHWAY ADMINISTRATION  
OF MARYLAND

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"SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE  
STATE HIGHWAY ADMINISTRATION OF MARYLAND"

All State Highway Administration projects must comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (Public Law 91-646) and/or the Annotated Code of Maryland, Article 21, Sections 12-201 thru 12-209. The Maryland Department of Transportation, State Highway Administration, Bureau of Relocation Assistance, administers the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are \$15,000 for owner-occupants and \$4,000 for tenant-occupants. In addition, but within the above limits, certain payments may be made for increased mortgage interest costs and/or incidental expenses. In order to receive these payments, the displaced person must occupy decent, safe and sanitary replacement housing. In addition to the replacement housing payments described above, there are also moving cost payments to persons, businesses, farms and non-profit organizations. Actual moving costs for residences include actual moving costs up to 50 miles or a schedule moving cost payment, including a dislocation allowance, up to \$500.

The moving cost payments to businesses are broken down into several categories, which include actual moving expenses and payments "in lieu of" actual moving expenses. The owner of a displaced business is entitled to receive a payment for actual reasonable moving and related expenses in moving his business, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable moving expenses are limited

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to a 50 mile radius. In both cases, the expenses must be supported by receipted bills. An inventory of the items to be moved must be prepared, and estimates of the cost may be obtained. The owner may be paid an amount equal to the low bid or estimate. In some circumstances, the State may negotiate an amount not to exceed the lower of the two bids. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business's vehicles or equipment, wages paid to persons who physically participate in the move, and the cost of the actual supervision of the move.

When personal property of a displaced business is of low value and high bulk, and the estimated cost of moving would be disproportionate in relation to the value, the State may negotiate for an amount not to exceed the difference between the cost of replacement and the amount that could be realized from the sale of the personal property.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses. If the business is to be reestablished, and personal property is not moved but is replaced at the new location, the payment would be the lesser of the replacement costs minus the net proceeds of the sale or the estimated cost of moving the item. If the business is being discontinued or the item is not to be replaced in the reestablished business, the payment will be the lesser of the difference between the value of the item for continued use in place and the net proceeds of the sale or the estimated cost of moving the item.

If no offer is received for the personal property and the property is abandoned, the owner is entitled to receive the lesser of the value for continued use of the item in place or the estimated cost of moving the item and the reasonable expenses of the sale. When personal property is abandoned without an effort by the owner to dispose of the property by sale, the owner will not be entitled to moving expenses, or losses for the item involved.

The owner of a displaced business may be reimbursed for the actual reasonable expenses in searching for a replacement business up to \$500. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, but such rate may not exceed \$10 per hour.

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In lieu of the payments described above, the State may determine that the owner of a displaced business is eligible to receive a payment equal to the average annual net earnings of the business. Such payment shall not be less than \$2,500 nor more than \$10,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage, the business is not part of a commercial enterprise having at least one other establishment in the same or similar business that is not being acquired, and the business contributes materially to the income of a displaced owner.

Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locations to the displaced business, and the availability of suitable replacement sites are also factors.

In order to determine the amount of the "in lieu of" moving expenses payment, the average annual net earnings of the business is considered to be one-half of the net earnings before taxes, during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State, with approval of the Federal Highway Administration, may use another two-year period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, his spouse, or his dependents during the period. Should a business be in operation less than two years, but for twelve consecutive months during the two taxable years prior to the taxable year in which it is required to relocate, the owner of the business is eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, for the tax years in question.

For displaced farms and non-profit organizations, actual reasonable moving costs generally up to 50 miles, actual direct losses of tangible personal property, and searching costs are paid. The "in lieu of" actual moving cost payments provide that the State may determine that a displaced farm may be paid a minimum of \$2,500 to a maximum of \$10,000 based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive "in lieu of" actual moving cost payments, in the amount of \$2,500.



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A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-profit organizations is available in Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons individually in the future.

In the event comparable replacement housing is not available to rehouse persons displaced by public projects or that available replacement housing is beyond their financial means, replacement "housing as a last resort" will be utilized to accomplish the rehousing. Detailed studies will be completed by the State Highway Administration and approved by the Federal Highway Administration before "housing as a last resort" could be utilized. "Housing as a last resort" could be provided to displaced persons in several different ways although not limited to the following:

1. An improved property can be purchased or leased.
2. Dwelling units can be rehabilitated and purchased or leased.
3. New dwelling units can be constructed.
4. State acquired dwellings can be relocated, rehabilitated, and purchased or leased.

Any of these methods could be utilized by the State Highway Administration and such housing would be made available to displaced persons. In addition to the above procedure, individual replacement housing payments can be increased beyond the statutory limits in order to allow a displaced person to purchase or rent a dwelling unit that is within his financial means.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any person, or proceed with any construction project until it has furnished satisfactory assurances that the above payments will be provided and that all displaced persons will be satisfactorily relocated to comparable decent, safe and sanitary housing within their financial means or that such housing is in place and has been made available to the displaced person.

A P P E N D I X C

SUMMARY OF THE  
EQUAL EMPLOYMENT OPPORTUNITY PROGRAM  
OF THE  
STATE HIGHWAY ADMINISTRATION  
OF MARYLAND

SUMMARY OF THE  
EQUAL EMPLOYMENT OPPORTUNITY PROGRAM  
OF THE  
STATE HIGHWAY ADMINISTRATION  
OF MARYLAND

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"It is the policy of the Maryland State Highway Administration to insure compliance with the provisions of Title VI of the Civil Rights Act of 1964 and related civil rights laws and regulations which prohibit discrimination on the grounds of race, color, religion, national origin, physical or mental handicap in all State Highway program projects funded in whole or in part by the Federal Highway Administration. The State Highway Administration will not discriminate in highway planning, highway design, highway construction, the acquisition of right-of-way, or the provision of relocation advisory assistance. This policy has been incorporated into all levels of the highway planning process in order that proper consideration be given to the social, economic, and environmental effects of all highway projects. Alleged discrimination actions should be addressed to the State Highway Administration for investigation."

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A P P E N D I X D

ENVIRONMENTAL ASSESSMENT FORM

ASSESSMENT OF SIGNIFICANT ENVIRONMENTAL EFFECTS

The following questions should be answered by placing a check in the appropriate column(s). If desirable, the "comments attached" column can be checked by itself or in combination with an answer of "yes" or "no" to provide additional information or to overcome an affirmative presumption.

In answering the questions, the significant beneficial and adverse, short and long-term effects of the proposed action, on-site and off-site during construction and operation should be considered.

All questions should be answered as if the agency is subject to the same requirements as a private person requesting a license or permit from the State or Federal Government.

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
<b>A. <u>Land Use Considerations</u></b>			
1. Will the action be within the 100-year floodplain?	<u>X</u>	_____	<u>V-A-1-d</u>
2. Will the action require a permit for construction or alteration within the 50-year floodplain?	<u>X</u>	_____	_____
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?	_____	<u>X</u>	<u>V-A-1-g</u>
4. Will the action require a permit for construction or operations of facilities for solid waste disposal including dredge and excavation spoil?	_____	<u>X</u>	_____
5. Will the action occur on slopes exceeding 15%?	<u>X</u>	_____	<u>III-C-1</u>
6. Will the action require a grading plan or a sediment control permit?	<u>X</u>	_____	_____
7. Will the action require a mining permit for deep or surface mining?	_____	<u>X</u>	_____
8. Will the action require a permit for drilling a gas or oil well?	_____	<u>X</u>	_____
9. Will the action require a permit for airport construction?	_____	<u>X</u>	_____

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	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?	—	<u>X</u>	—
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?	<u>X</u>	—	<u>V-C-5</u>
12. Will the action affect the use of any natural or man-made features that are unique to the county, state or nation?	—	<u>X</u>	—
13. Will the action affect the use of any archeological or historical site or structure?	—	<u>X</u>	<u>V-D-1</u>
<b>B. <u>Water Use Considerations</u></b>			
14. Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?	<u>X</u>	—	<u>V-A-1-f</u>
15. Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?	—	<u>X</u>	—
16. Will the action change the over-land flow of stormwater or reduce the absorption capacity of the ground?	<u>X</u>	—	<u>V-A-1-a</u>
17. Will the action require a permit for the drilling of a water well?	—	<u>X</u>	—
18. Will the action require a permit for water appropriation?	—	<u>X</u>	—
19. Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?	—	<u>X</u>	—

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
20. Will the project require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?	_____	<u>X</u>	_____
21. Will the action result in any discharge into surface or subsurface water?	<u>X</u>	_____	<u>V-A-1-a,c</u>
22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?	_____	<u>X</u>	_____
<u>C. Air Use Considerations</u>			
23. Will the action result in any discharge into the air?	<u>X</u>	_____	_____
24. If so, will the discharge affect ambient air quality parameters, or produce a disagreeable odor?	<u>X</u>	_____	<u>V-A-8</u>
25. Will the action generate additional noise which differs in character or level from present conditions?	<u>X</u>	_____	<u>V-A-9</u>
26. Will the action preclude future use of related air space?	_____	<u>X</u>	_____
27. Will the action generate any radiological, electrical, magnetic, or light influences?	_____	<u>X</u>	_____
<u>D. Plants and Animals</u>			
28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?	_____	<u>X</u>	_____
29. Will the action result in the significant reduction or loss of any fish or wildlife habitats?	<u>X</u>	_____	<u>V-A-1-e, f &amp; g</u>

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	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?	_____	<u>X</u>	_____
<b>E. <u>Socio-Economic</u></b>			
31. Will the action result in a pre-emption or division of properties or impair their economic use?	<u>X</u>	_____	<u>V-A-2</u>
32. Will the action cause relocation of activities, structures or result in a change in the population density or distribution?	<u>X</u>	_____	<u>V-A-2</u>
33. Will the action alter land values?	<u>X</u>	_____	<u>V-A-3</u>
34. Will the action affect traffic flow and volume?	<u>X</u>	_____	<u>V-A-4</u>
35. Will the action affect the production, extraction, harvest of potential use of a scarce or economically important resource?	_____	<u>X</u>	_____
36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?	_____	<u>X</u>	_____
37. Is the action in accord with federal, state, regional and local comprehensive or functional plans - including zoning?	<u>X</u>	_____	<u>IV-D</u>
38. Will the action affect the employment opportunities for persons in the area?	<u>X</u>	_____	<u>V-A-6</u>
39. Will the action effect the ability of the area to attract new sources of tax revenue?	<u>X</u>	_____	<u>V-A-6</u>
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?	_____	<u>X</u>	_____



	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
41. Will the action affect the ability of the area to attract tourism?	_____	<u>X</u>	_____
<b>F. <u>Other Considerations</u></b>			
42. Could the action endanger the public health, safety or welfare?	_____	<u>X</u>	_____
43. Could the action be eliminated without deleterious effects to the public health, safety, welfare or the natural environment?	_____	<u>X</u>	_____
44. Will the action be of statewide significance?	<u>X</u>	_____	_____
45. Are there any other plans or actions (federal, state, county, or private) that, in conjunction with the subject action, could result in a cumulative or synergistic impact on the public health, safety, welfare or environment:	_____	<u>X</u>	_____
46. Will the action require additional power generation or transmission capacity?	_____	<u>X</u>	_____
<b>G. <u>Conclusion</u></b>			
47. This agency will develop a complete environmental effects report on the proposed action.	<u>X</u>	_____	_____

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A P P E N D I X E

INTERCOUNTY CONNECTOR STUDY

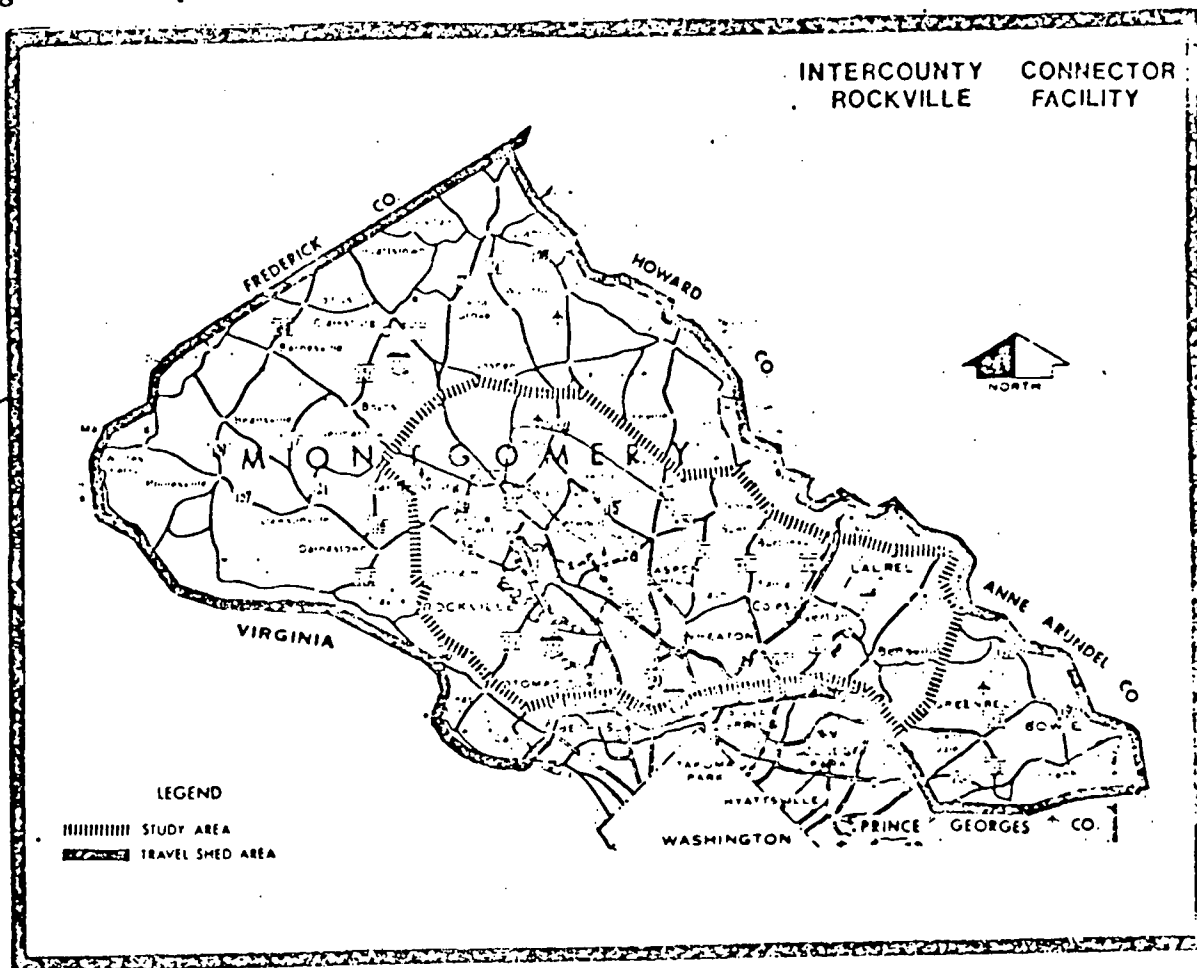
PUBLIC NOTICE

MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

HAS INITIATED

PROJECT PLANNING STUDIES FOR THE PROPOSED  
INTERCOUNTY CONNECTOR/ROCKVILLE FACILITY (ICC/RF)  
AND INTERSTATE ROUTE 370 (I-370) HIGHWAY RELATED PROJECTS  
IN MONTGOMERY AND PRINCE GEORGE'S COUNTIES

The purpose of the (ICC/RF) Project Planning study is to determine the need for improved east-west highway service in Montgomery and Prince George's Counties, to develop and evaluate alternates to address these needs, and to fully assess and document the impacts of each of the alternates developed. The purpose of the I-370 study is to analyze the feasibility of constructing a spur from I-270 to provide additional access to the Shady Grove Metro Station, to develop and analyze alternates, and document impacts. These studies are being undertaken simultaneously due to their close proximity and to assure sound decision making without duplication of study tasks.



Please note that "Study Area" as shown on the map identifies project limits as now conceived. Information developed during the study may make it desirable to adjust these limits.

The ICC/RF project is currently in the Department's Consolidated Transportation Program (1979-1984) for Project Planning. No other activity is scheduled during the program period. The I-370 project is included in the Department's Comprehensive Work Schedule (1979-1983) for Project Planning, Design, and Right of Way. Construction activity (if any) is projected beyond the program period.

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The purpose of this notice is to inform the public that the Office of Planning and Preliminary Engineering, with the assistance of the consultant firm of Henningson, Durham & Richardson (HDR), has begun environmental and engineering activities for these projects. Coordination with State and County agencies and officials will be maintained throughout the study process to insure consistency with regional and local planning.

Various "Build" alternates, as well as the "No-Build" alternate will be developed and evaluated. All environmental impacts including air quality and noise levels will be studied and documented. Subject to further consideration, including citizen and agency comments, it is anticipated that the following facility concepts may be included in the study: 1) Freeway on the Master Plan Alignment; 2) Controlled Access Highway on the Master Plan Alignment; 3) Freeway on alignment (s) other than the Master Plan Alignment; 4) Jointly Developed Highway/Parklike Facility; 5) Upgrading, spot-improvement, and construction of missing connections between Existing Facilities; and 6) the "No-Build" Alternate. Also all freeway alternates developed for the Intercounty Connector will be studied as to what additions and/or revisions would be needed if the facility were financed as a Toll Road. The range of alternates will also include consideration of appropriate transit service and facilities such as priority high occupancy vehicle lanes, improved transit service, and park and ride lots.

The ultimate type and location of highway related facilities (if any), typical section, and right of way requirements, will be determined by the Project Planning studies.

Public meeting (s) to display all previously developed alternate alignments and describe their advantages and disadvantages, with recommendations to further study the most feasible alternates, will be held this Fall. Following the initial public meeting (s), detailed environmental and engineering studies will begin for the remaining alternates. Additional Public Meetings will be held prior to all major decision points during the study process.

WHAT YOU CAN DO:

Citizen involvement in the planning process is encouraged. All interested persons are invited to submit written comments and attend the public meetings to express their views and suggestions. Notice of these meetings will be provided in the press and on radio.

CONTACT:

Written comments and requests to be included on the project mailing list may be submitted to Mr. Hal Kassoff, Director, Office of Planning and Preliminary Engineering, State Highway Administration, 300 West Preston Street, Baltimore, Maryland 21201.

M. S. Caltrider  
State Highway Administrator

As of July 1981, the environmental studies for the Intercounty Connector/Rockville Facility (ICC/RF) are approximately 50% complete. Of the original 12 alternates presented at the 5 Interim Alternates Public Workshops in August, 1980, 9 were dropped. The remaining 3 alternates have been incorporated into the 7 alternates now being considered. (See attachment 1). The most significant point is that the alternatives are being scaled down and all full freeway type alternatives have been dropped. The new alternates will provide a lesser degree of traffic service to the public than originally envisioned.

Over the years, properties impacted by Master Plan Alignments have been acquired by the Maryland SHA for hardship reasons as well as protective buying. This is particularly true along the Rockville facility portion. Currently SHA has acquired approximately 416 acres along the ICC/Rockville Master Plan Alignments. The R/W requirements for the new alternates (B thru G) range from 223 acres to 946 acres. The percent acquired for the new alternates ranges from 0% to nearly 35%.

Under current scheduling the Draft Environmental Impact Statement for the ICC/RF would be made available to the public in Summer 1982, prior to the formal corridor public hearing. Based on current scheduling, a request for location approval would be made by Maryland SHA in late 1983.

In regard to the Route 115 proposal and as reflected in the following attachment, only three of the revised alternates (E, F & G) for the ICC/RF study would directly utilize a portion of the Route 115 alignment, described in this FEIS. All studies for the ICC/RF alternates consider the completion of Route 115 as shown in this FEIS. Alternate E is an upgrading alternate which extends northerly and easterly from the termini of Route 115. Alternate F utilizes proposed I-370, part of Shady Grove Road, a portion of MD. 115, and the ICC/RF Master Plan alignment. Alternate G also uses proposed I-370, the Master Plan alignment for the ICC, and a portion of MD. 115. However, Alternate G does not include the Rockville facility. Both Alternates F & G are envisioned as four lane divided highways (not freeways). The downscaling of the ICC/RF is reflective of public and agency concerns and will lessen any additional impacts along Route 115 if selected.

After location approval for MD. 115, design work will begin on the western section from Montgomery Village Avenue to Shady Grove Road. Completion of this segment will facilitate travel to the Shady Grove Metro Station (opening in 1983). The 1981 Washington Metropolitan Area Transportation Improvement Program (T.I.P.) programs funding for right-of-way acquisition for this section in 1982-85. Construction funding for the section west of Shady Grove Road will likely be programmed before 1985. The advancement of sections of Route 115 east of Shady Grove Road are not scheduled and, based on the current funding situation, cannot be projected at this time. Both the T.I.P. and the 1981-1986 C.T.P. (Maryland Department of Transportation's Consolidated Transportation Program) include additional work for the section west of Shady Grove Road only.

In summary, a ICC/RF decision will not lessen the need for Route 115 and SHA will select a ICC alternate before requesting design approval of any sections east of Shady Grove Road for Route 115.

RF  
Intercounty Connector/Rockville Facility (ICC/RF)  
Project Planning Study

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ALTERNATES PROPOSED FOR STAGE II DETAILED STUDIES

As a result of meetings and correspondence with local elected officials and members of County planning and transportation agencies, the Interim Alternates Public Workshops, all written correspondence received, staff review meetings, and a careful evaluation of all data, the State Highway Administration has directed the consultant to proceed with detailed studies (Stage II) on the alternates described herein. The seven (7) alternates proposed for Stage II studies are identified by letters 'A' through 'G' and include three (3) general categories; TSM (Transportation System Management), Upgrade Existing, and New Location. Stage II alternates are identified by letters in lieu of numbers to avoid confusion with the Stage I alternates presented at the August, 1980 Workshops. This was done since, with the exception of the 'No-Build' alternate, proposed Stage II alternates, while being similar to some Stage I alternates, are new alternates. For comparison and clarification purposes, the following information is provided:

- Alternates 'A' (No-Build) and 'B' involve minor and major TSM, respectively. Proposed Alternate 'B' is a new alternate and would involve upgrading existing problem intersections within the study area.
- Proposed Alternates 'C', 'D', and 'E' would involve upgrading existing highways. Alternate 'C' is similar to Stage I Alternate 12, and Alternate 'E' is similar to Stage I Alternate 8. Proposed Alternate 'D' is a new alternate and would involve upgrading existing east-west roads within a central corridor. This alternate was added to the study in response to numerous citizen requests that additional corridors and existing roads be studied for possible upgrading.
- Proposed Alternates 'F' and 'G' would involve new highways constructed within the Intercounty Connector and/or Rockville Facility County Master Plan Corridors. Alternate 'F' is similar to Stage I Alternate 5, and Alternate 'G' is similar to Stage I Alternate 4.

Stage II alternates as now proposed are as follows:

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Alternate A: No-Build - Minor TSM (signals, etc.) plus committed projects.

Alternate B: Major TSM - Upgrade existing facilities to increase capacity, safety, and operation by the use of signals, channelization, intersection reconfigurations, signing, etc.; but not to include extensive widening or connection of missing roadway links.

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Alternate C: Southern Corridor Upgrading - Major TSM along Montrose Road and Randolph Road (possible grade separation of B&O Railroad, possible widening of Randolph Road from New Hampshire Avenue to U.S. Route 29), upgrade the connection to the existing I-95/Maryland Route 212 interchange (possible new link) no additional construction east of I-95.

UPGRADE EXISTING

Alternate D: Central Corridor Upgrading - Reconstruct Bel Pre Road, Bonifant Road, Good Hope Road, Briggs Chaney Road; construct new I-95 interchange and connection to Muirkirk Road; reconstruct Muirkirk Road and construct interchange at Baltimore/Washington Parkway. Reconstruct Briggs Chaney Road and Norwood Road from Good Hope Road to Maryland Route 28 for northwest access. (Retain option to use upgraded Fairland Road.)

Alternate E: Northern Corridor Upgrading - Begin at I-270 near Maryland Route 118 interchange and construct new link to Maryland Route 115 as committed, reconstruct Maryland Route 28 from proposed Maryland Route 115 to Maryland Route 182, construct new link connecting Maryland Route 28 to Maryland Route 198, reconstruct Maryland Route 198 to U.S. Route 29, use committed section of Maryland Route 198 to the Baltimore/Washington Parkway.

NEW LOCATION

Alternate F: Compact Parkway/HOV Arterial - Construct I-370. Along Rockville Facility right of way, construct a four lane divided highway with a minimum raised median. From the Rockville Facility to the Baltimore/Washington Parkway along the Intercounty Connector Master Plan Alignment, construct a four lane divided highway with a minimum grassed median. Extend Maryland Route 115 to connect to the Intercounty Connector Master Plan Alignment for northwest access. Provide at-grade intersections (or tight diamond interchanges where feasible at certain major crossings) with new interchanges along I-370, and at I-95, U.S. Route 29, and the Baltimore/Washington Parkway. This alternate will include a natural and landscaped buffer area which may contain recreational facilities maintained by the Maryland National Capital Park and Planning Commission. Also, this alternate will limit peak hour use of the Rockville Facility segment to buses and HOV's, with no trucks.

Alternate G: Controlled Major Arterial - Construct I-370; connect to a new, four-lane divided highway with a reduced median along the Intercounty Connector Master Plan Alignment; no Rockville Facility. Provide for compact interchanges at all major crossings with the possibility of initial at-grade intersections at certain locations.

Notes:

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1. Two analysis options have been requested.

- The first will consider the feasibility and merit of a light rail line in the Rockville Facility corridor and the eastern portion of the Intercounty Connector corridor.
- The second will consider the feasibility and merit of both the Intercounty Connector and Rockville Facility alignments currently shown in the adopted County Master Plan, but to the lesser standards of Controlled Major Arterials.

Although not study alternates, both of these analyses are important to the County's long range planning efforts.

2. Various combinations of these alternates may emerge at any stage during the study process.
3. Full freeway option (to highest standards) has been dropped.



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