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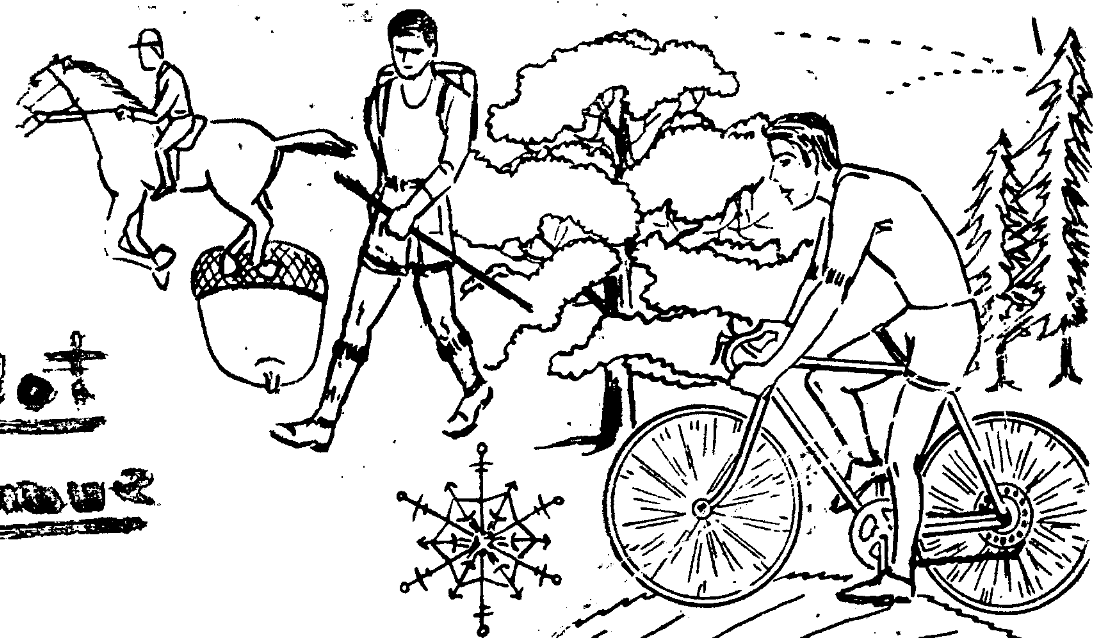
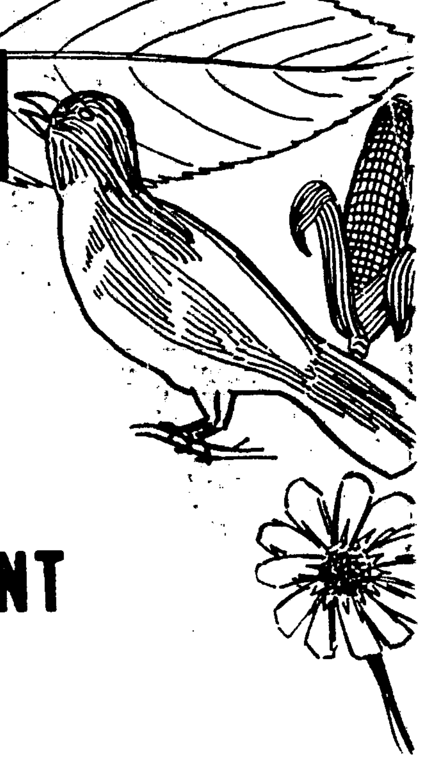
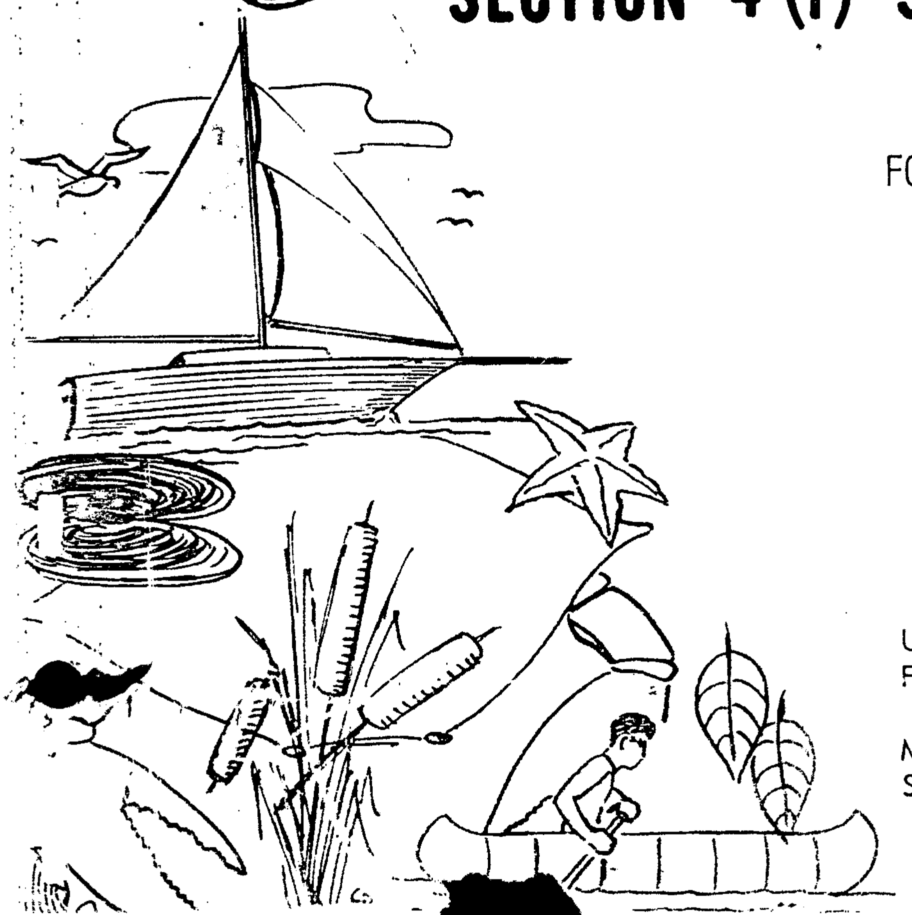


final environmental statement



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: Virgil H. Stevens
Director
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:

Mr. Hal Kassoff, Director
Office of Planning & Preliminary Engineering
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21201
Tel.: (301)-383-4267
8:15 AM - 4:15 PM

Mr. Roy Gingrich
District Engineer
Federal Highway Administration
The Rotunda - Suite 220
711 East 40th Street
Baltimore, Maryland 21211
Tel.: (301)-962-4011
7:45 AM - 4:15 PM

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 acccess 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 existng 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.

* 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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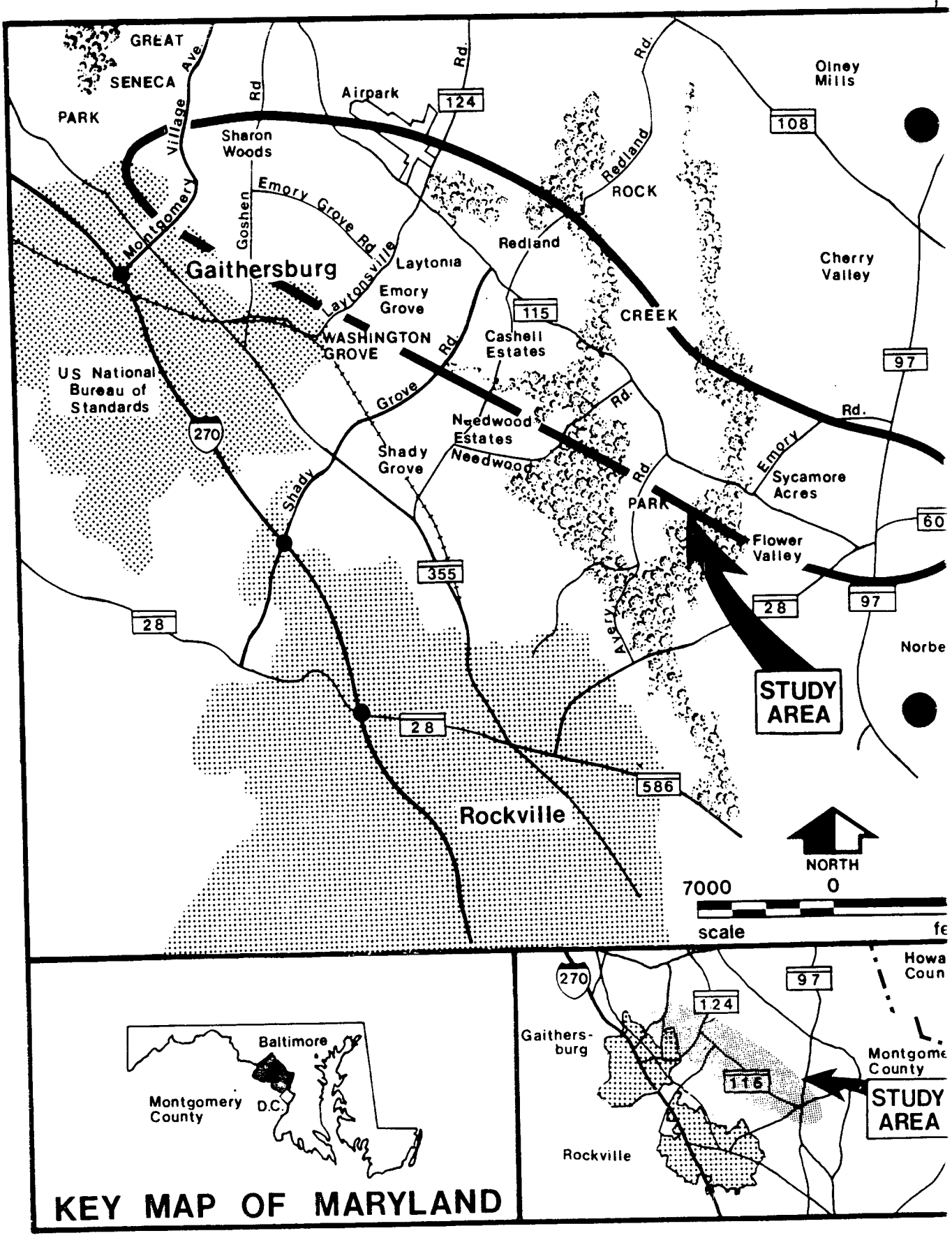
I. NEED FOR THE PROJECT

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.



STUDY AREA LOCATION MA

FIGURE - I

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)[1]. Shoulders are paved in some areas, with widths varying from 3 to 8 feet (full shoulders, 8 to 10 feet wide are desirable)[2]. 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.

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1 Based on AASHTO Standards
2 Ibid

3. Traffic and Operation Conditions

As discussed elsewhere in this document (Sections Bl.), Montgomery County's population has grown 10.6% (between 1 and 1974), and the number of households has grown 19% during t same period. For the nine (9) census tracts in the Study A (listed on Table III-2) during the period between 1970 and 19 population increased 97% and households increased 119%. This ra suburbanization, begun in the early 1950's, is continuing today

Growth in population and households (indicators of amount of travel that residential activities produce), and gro in employment (indicator of the amount of travel that commerc activities attract) are evident in the increasing average da traffic (ADT)[1] volumes in this Study Area. Figure I-3 lists rec State Highway Administration Traffic Counts[2] for the years 1 thru 1978 at 18 locations in or near the Study Area. Between 1 and 1978, traffic volume increases on existing Maryland Route (count locations #11 and #12) ranged between 34% and 64%. Th increases in automobile travel, which are representative of popu tion and employment growth, have occurred concurrently with gasoline shortage of late 1973 and constantly increasing f prices.

Rather than considering only absolute traffic volum more significant analyses of traffic conditions are possible comparing quality of traffic flow on individual roadway l Quality of traffic flow is measured in terms of the "Level of ice"[3] provided by a highway facility. This measure, ranging f L.S. 'A' (best) to L.S. 'C' (minimum desirable) to L.S. (worst), is calculated for each individual roadway segment and dependent upon highway geometry and traffic characteristics.

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

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

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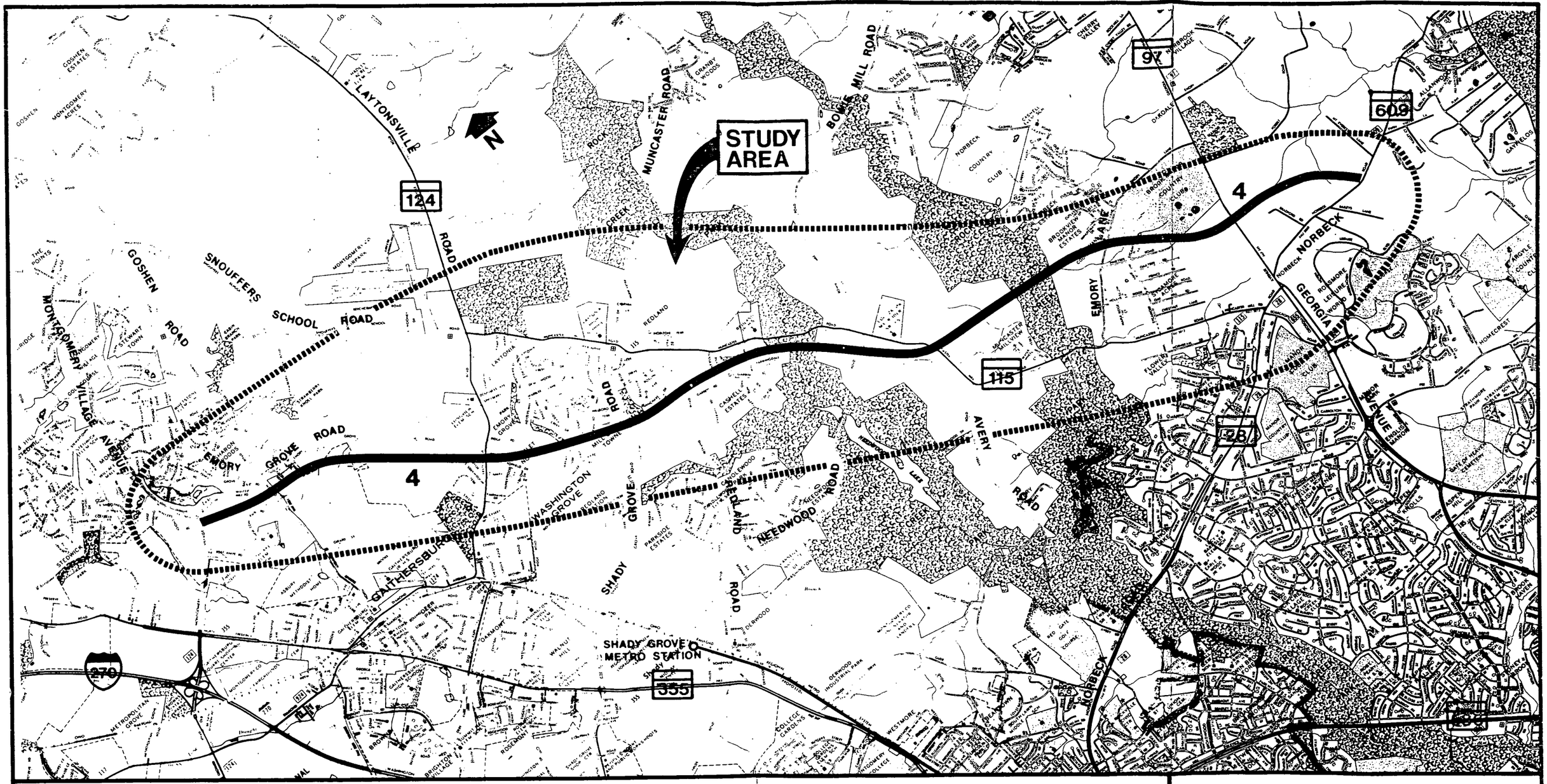
1 See Appendix A, Glossary for Definitions

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

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



SOURCE

MD. DOT, METROPOLITAN MAP SERIES

STUDY AREA BOUNDARY

SELECTED ALTERNATE 4

3500 0 3500 7000
scale feet

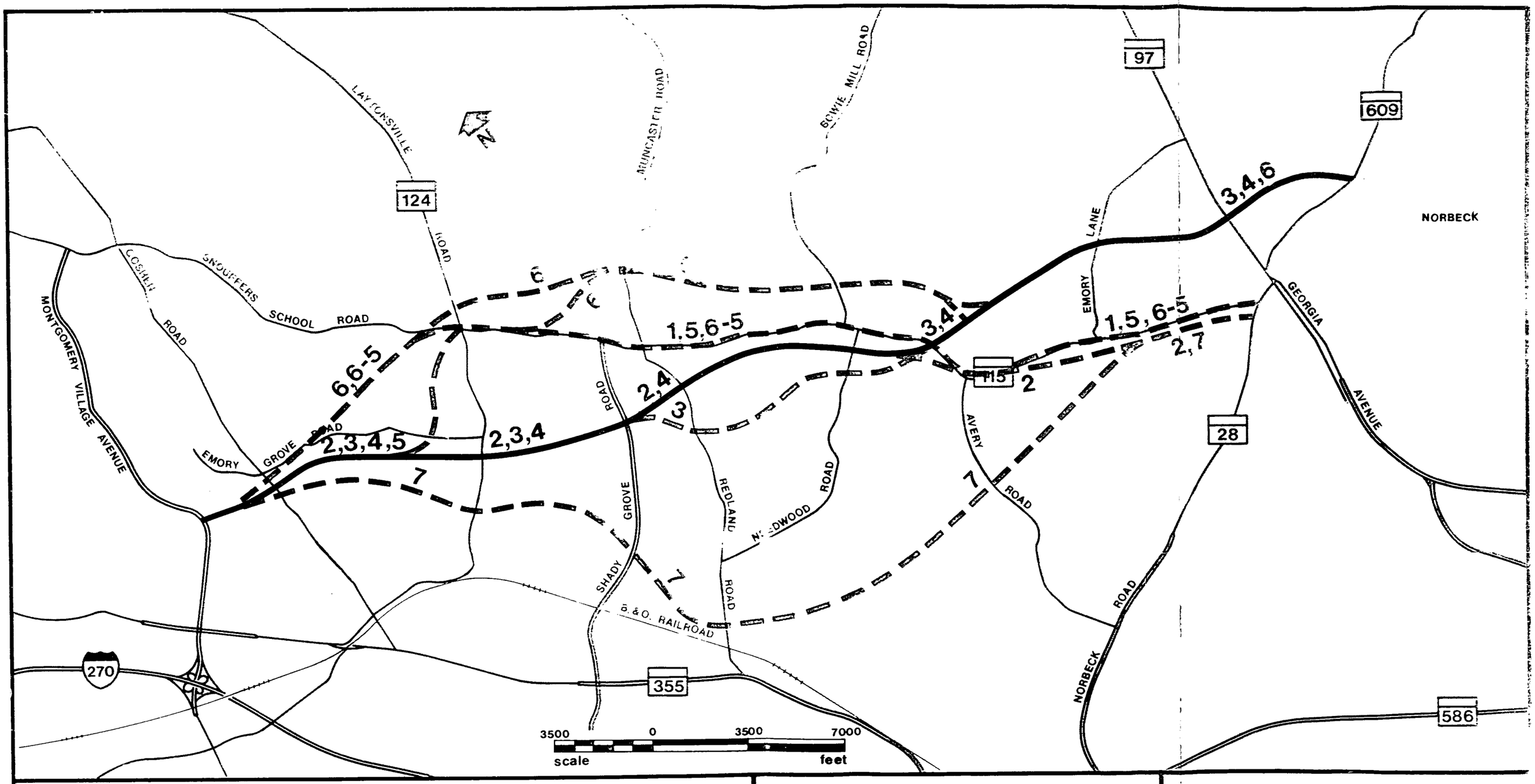
MARYLAND ROUTE 115

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



LEGEND

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

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 wou consist of a 4-lane dual highway with a 70 MPH design speed.

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

ALTERNATE 7 - Proposed that Relocated Maryland Route 115 be locat in the southern part of the study area. The alignment of Alterna 7 is shown on Figure II-1 in this Statement. Alternate 7 had be dropped from further consideration prior to the Draft EIS becau the alignment is close to the B&O Railroad near Redland Road, pas ing through the County Service Park and the planned Shady Gro Metro Station parking area. In addition, the eastern terminus 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 Alter considered in the Draft EIS for the Maryland Route 115 Study Ar 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 Propo Action is given in Section V. A detailed discussion of the Quality and Noise Analyses are included in that section.

Possible Impacts on Historic Sites are also discussed in Se tion V.

Selection Criteria

Alternate 4 was selected for implementation by the Administ tor 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 d sign speed of 60 MPH, with an anticipated posted speed of 45 MP The roadway improvements would consist of two lanes (24' pavement or three lanes (36' pavement) in each direction, separated by E or 30' wide median (minimum). The 54' median would have a depres ed configuration and be grassed, except for the construction of wide paved shoulders along the edge of each roadway. The 30' m dian would have full width paved shoulders with a double-faced co crete traffic barrier located in the center. The 54' median cou be reduced to 30' in the future by the addition of a third traff lane in each direction. On the right of each roadway, a 10' wi paved shoulder would be constructed, followed by an additional 2 graded on flat (6:1 maximum) slopes to provide a 30' safety r covery area. Excavation or embankment slopes would also be co structed in addition to the necessary drainage ditches for contro ling stormwater runoff. The provision for safety recovery are along each roadway conforms to a nationally recognized criteria minimize accidents and injuries where a vehicle strays from travelway.

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

- Intersecting Roadways -

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

- Service Roads -

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

- Bridge Structures -

Bridge structures will be designed to accommodate HS loading, be in accordance with the standards of the State High Administration and will conform to current AASHTO Specificatio At specified locations, bridges with pedestrian walkways, as quired, are proposed to carry existing and planned streets eit over or under Relocated Maryland Route 115 and major stream cro ings.

- 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 Estate 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

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

D. ALTERNATIVE MODE:

As discussed in Section I-C-4, "Transit", the I-270 Corrid will be well served by the Washington Metropolitan Area Transit A thority's (WMATA) "Red Line" transit service. The Red Line wi extend from the Shady Grove Station (to open in 1983) into the Di trict of Columbia and then north to Glenmont (to open in 1986 This line is one of five transit lines, consisting of subway, su face, and elevated segments, portions of which are either oper tional or under construction. The Shady Grove Station will be l cated between Redland Road and Shady Grove Road, along the Balt more & Ohio Railroad.

Access to the Shady Grove Station will be provided via I-2 (using the new I-370 interstate spur into the Shady Grove Met Station) Maryland Route 355, Shady Grove Road (recently extenc north to Maryland Route 115), and Redland Road. These highwa will provide access for all auto and bus trips oriented towards t transit station.

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

Because the Maryland Route 115 Study Area parallels the trai it line, an improved highway will serve to collect transit orien trips and distribute them to the Station via Shady Grove Road Redland Road. The frequent access points for these transit tr would seem to make provisions for carpools/bus lanes (High Oc pancy Lanes) infeasible. Non-transit oriented trips along Maryl Route 115 tend to vary widely in origin and destination and are 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 $)		
							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

TABLE II -1

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

NOTES: 1. Estimates Provided by SHA Bureau of Relocation Assistance.

2. Access Could be Provided by At-Grade Intersections or Overpasses for Pedestrian-Bicyclist Travel.

MARYLAND ROUTE 115

FROM
MONTGOMERY VILLAGE AVENUE
TO NORBECK

STATE PROJECT NO M758-003 371

FEDERAL AID PROJECT NO US 9441(1)

POSSIBLE SOCIO-ECONOMI
IMPACTS OF MD. ROUTE 11
ALTERNATES

TABLE II-

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	0 / 0	0	0	0	0
3	52.2	115.6	128.2	103.0 / 90.0	2.2	19.1	2250	2000
4	19.7	85.3	118.6	114.0 / 97.0	0	17.3	1250	0
5	6.6	16.1	30.8	49.0 / 44.0	0	14.6	1250	0
6	39.0	93.1	118.5	76.0 / 105.0	0	10.4	1200	0
6-5	6.6	8.5	22.3	47.0 / 58.0	0	3.0	450	0
SELECTED ALTERNATE	13.1	112.8	123.6	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.

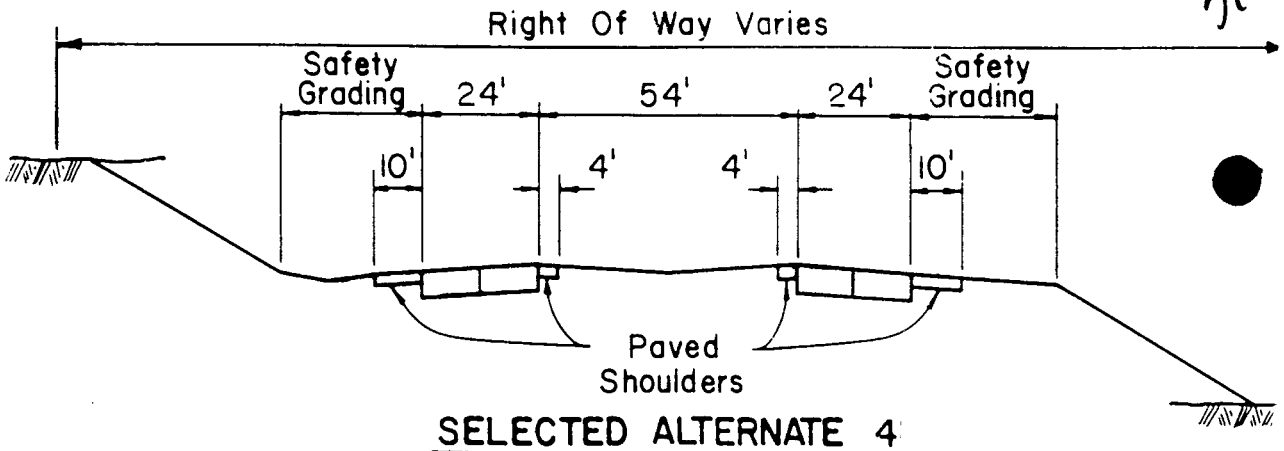
MARYLAND ROUTE 115

FROM
MONTGOMERY VILLAGE AVENUE
TO NORBECK

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

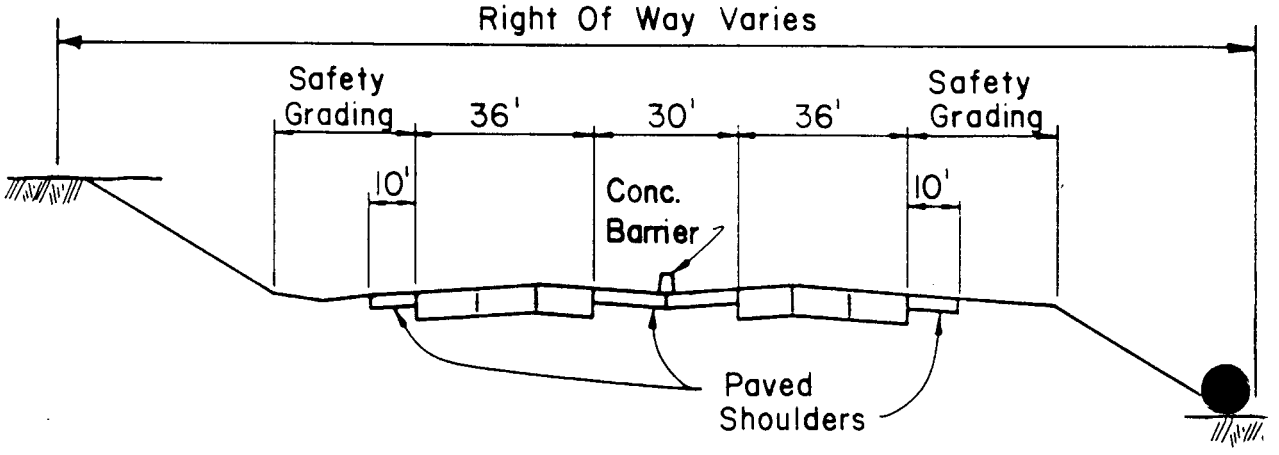
POSSIBLE IMPACTS OF MD. ROUTE 115 ALTERNATES ON THE NATURAL ENVIRONMENT

TABLE II-3



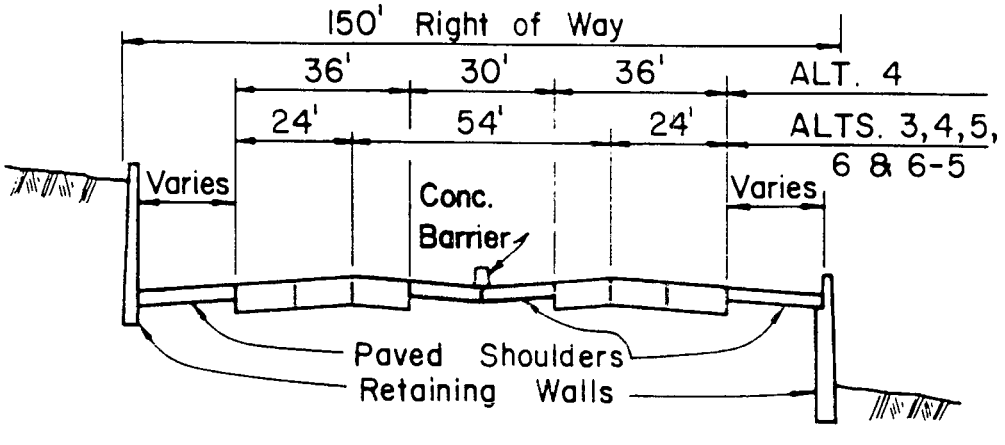
SELECTED ALTERNATE 4

(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)



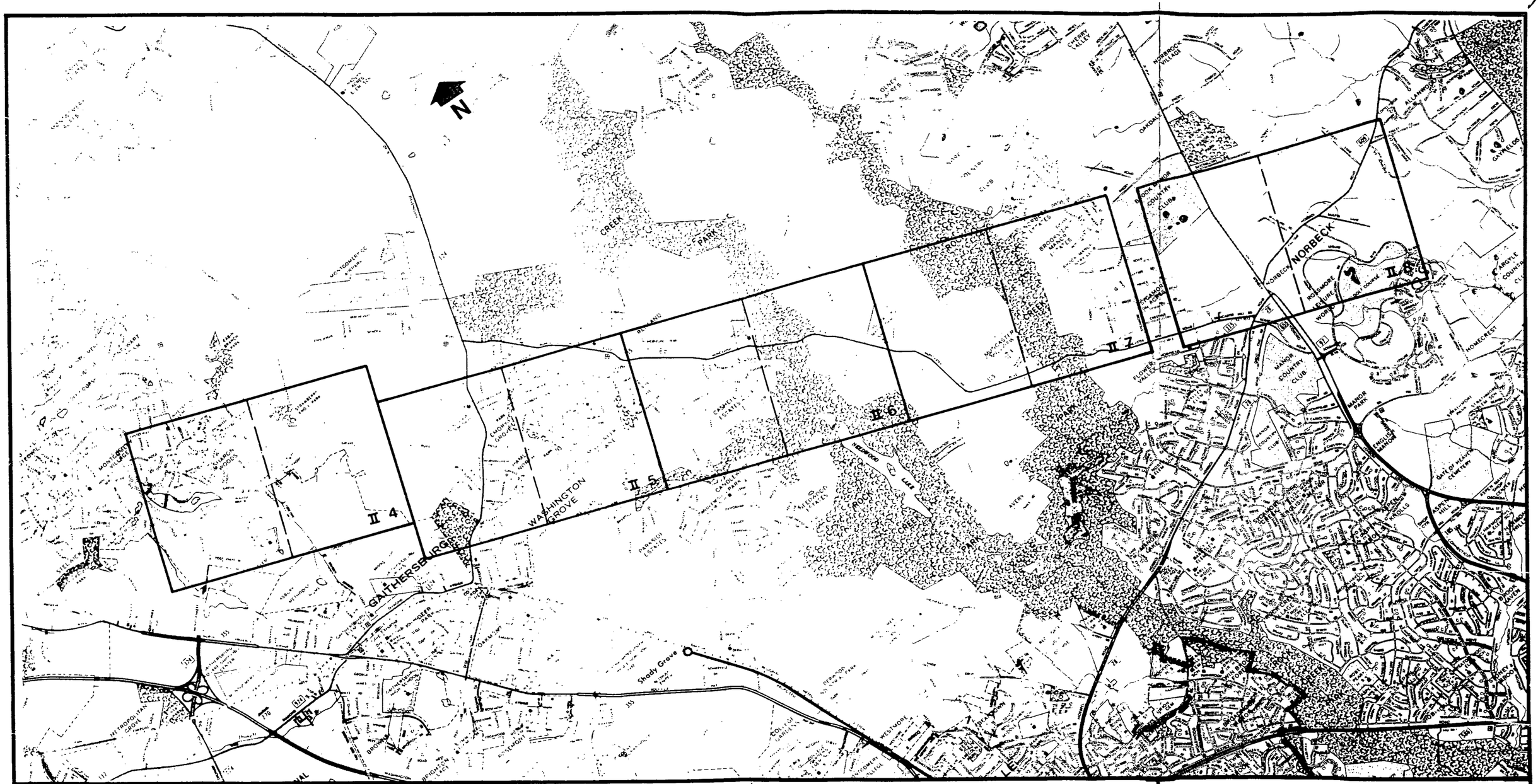
SELECTED ALTERNATE 4

(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 SEC

Figure



MARYLAND ROUTE 115

FROM
MONTGOMERY VILLAGE AVENUE
TO NORBECK

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

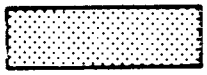
INDEX MAP
ALTERNATE 4

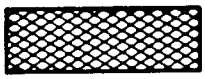
Figure II-3

LEGEND

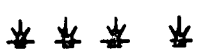

PARKS


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

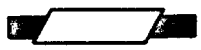
POST OFFICE

FIRE STATION

PUMPING STATION

METERING STATION


NEW OR IMPROVED ROADWAY


NEW OR IMPROVED BRIDGE

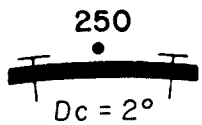

AT GRADE INTERSECTION

PROPOSED RIGHT OF WAY

PROPOSED RETAINING WALL

PROPOSED RETAINING WALL/NOISE BARRIER

PROPOSED NOISE BARRIER



STATIONING (IN FEET)

DEGREE OF CURVATURE


BOX CULVERT

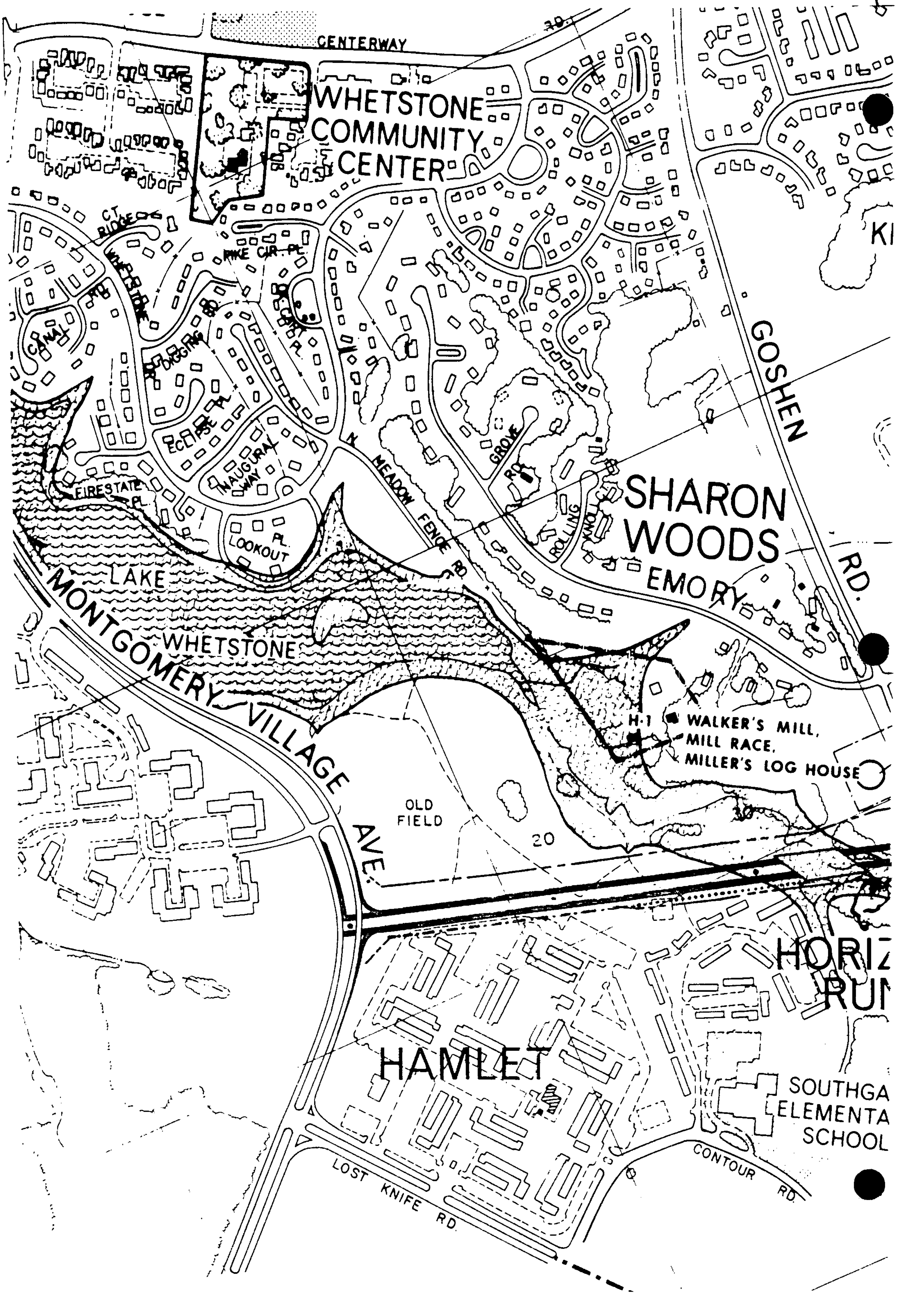
AREA OF POSSIBLE SERPENTINITE OUTCROPS

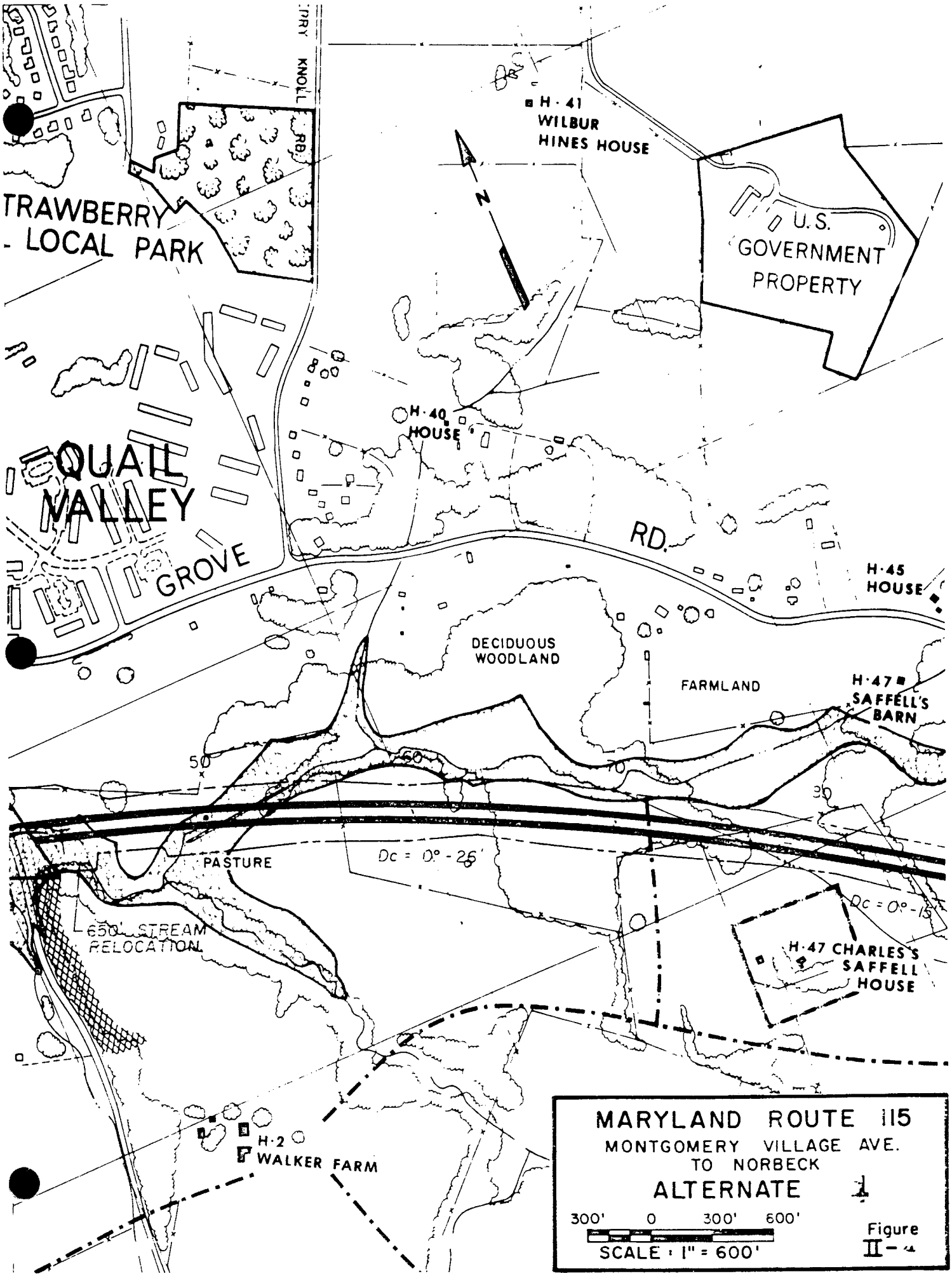
HISTORIC FEATURES

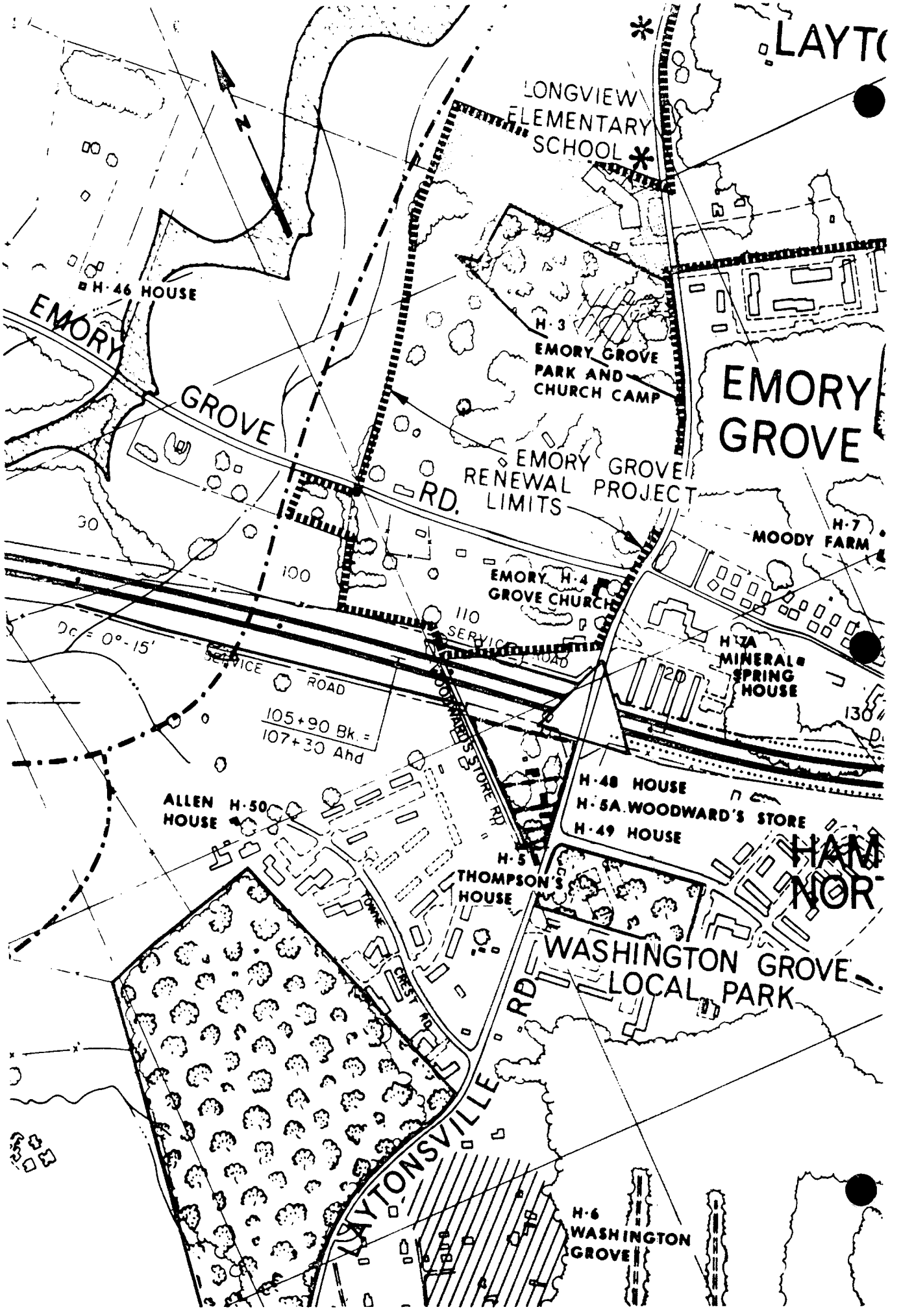

BUILDINGS

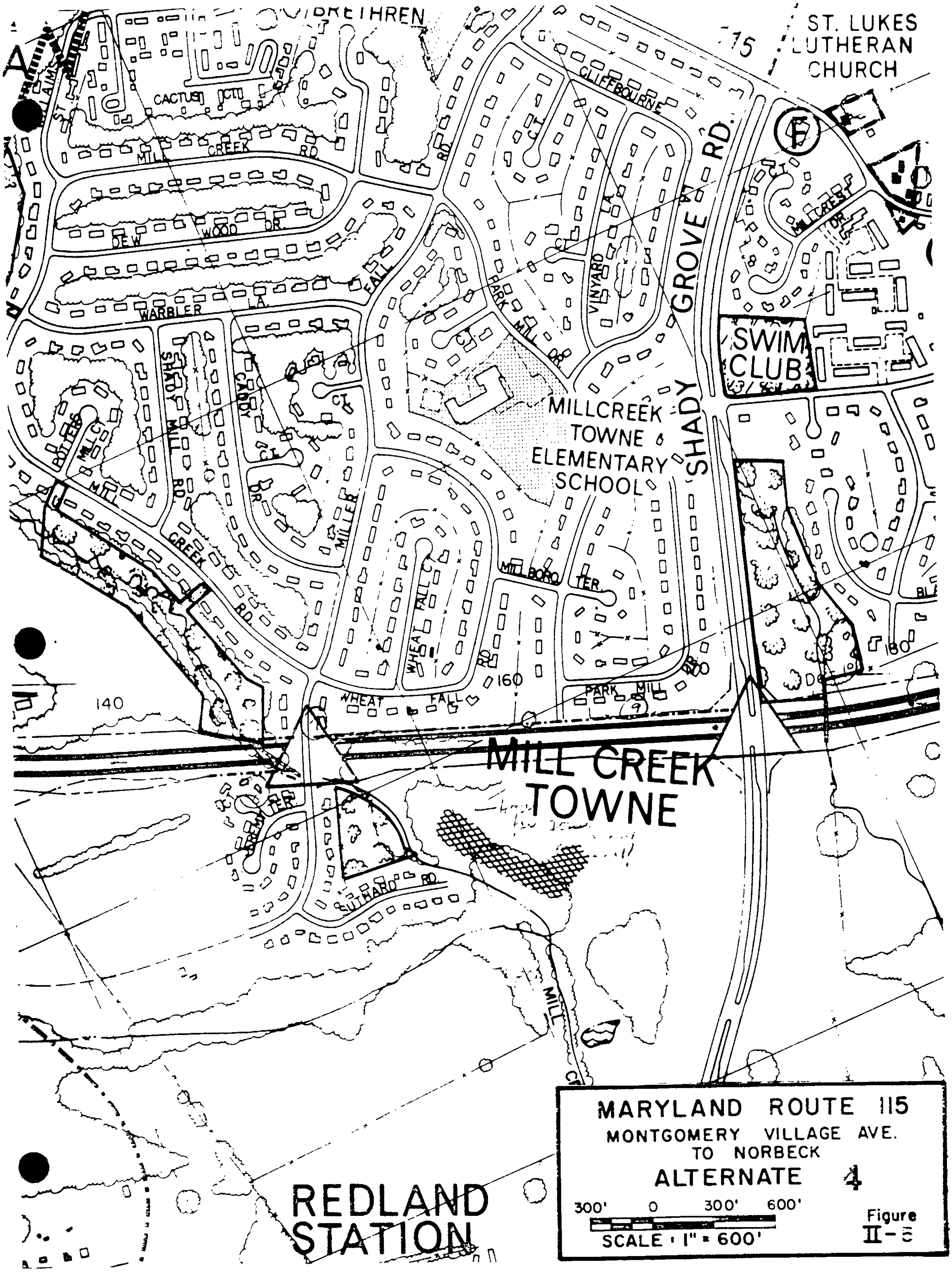

SITES

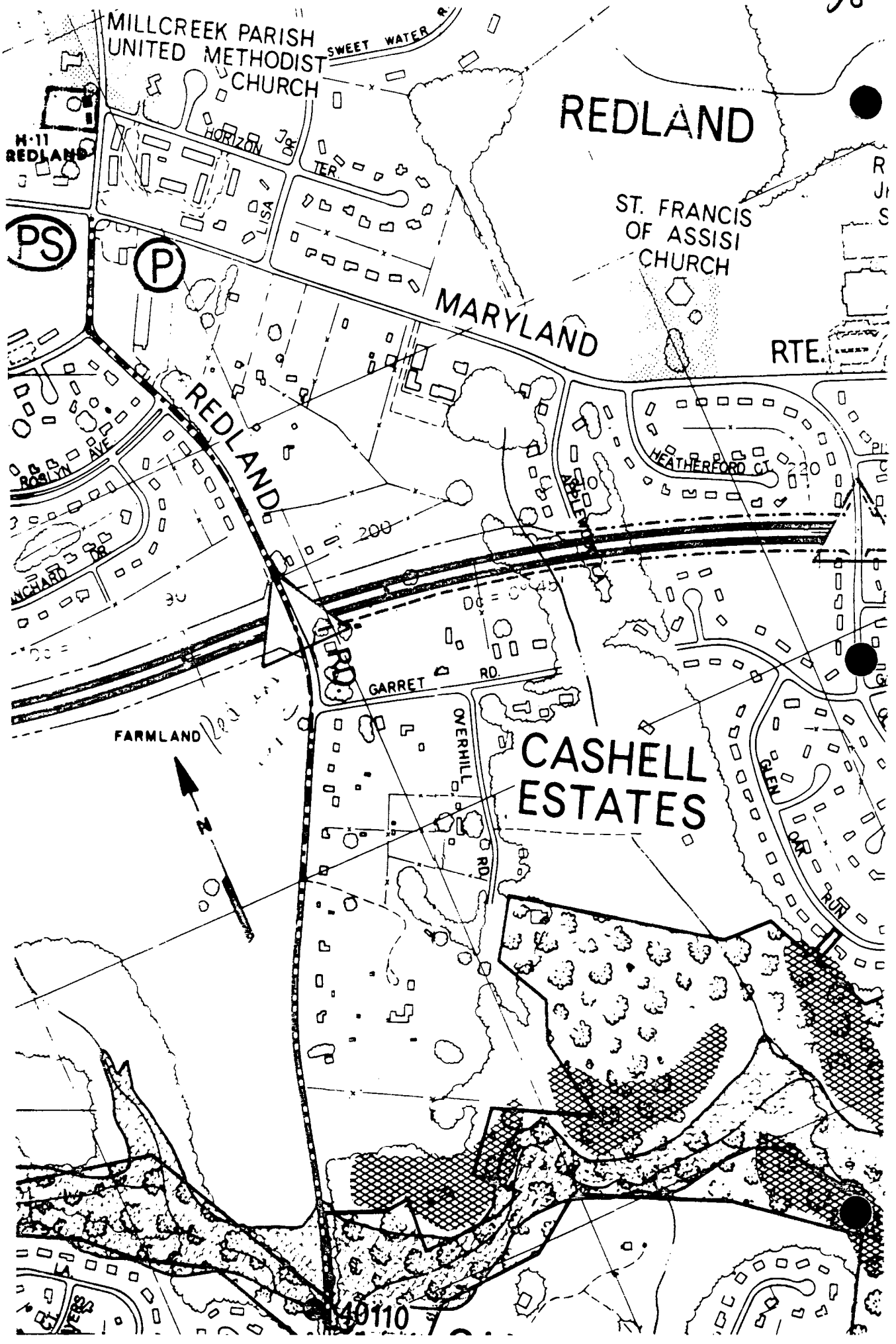

PROPERTY BOUNDARIES

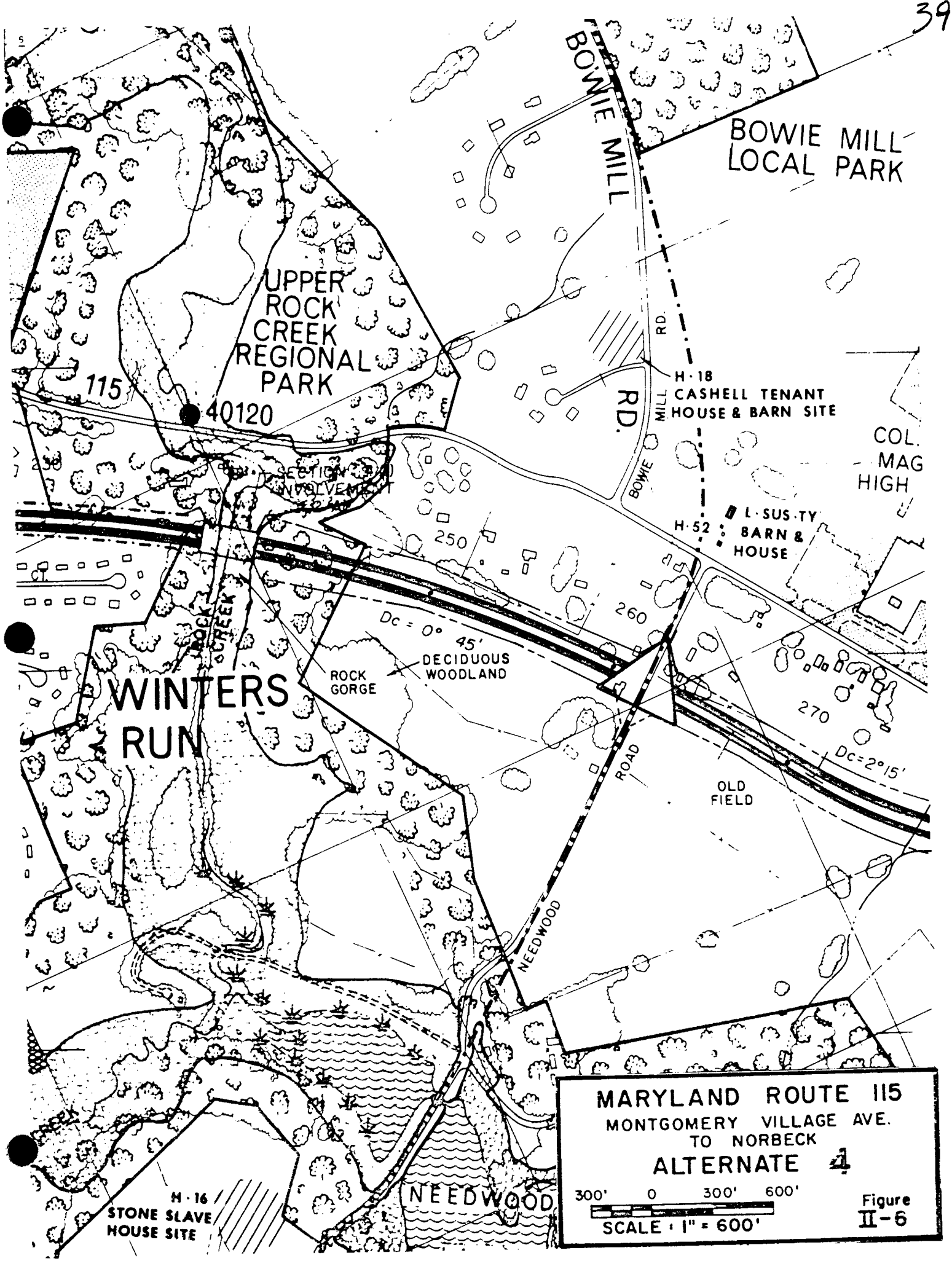

CENTERWAY
RD.
WHETSTONE
COMMUNITY
CENTER
CT
RIDGE
WHETSTONE
RD
PIKE CIR. PL
CANAL
DIGGING
ECLIPSE PL
NAUGURAL WAY
FIRESTATE PL
LOOKOUT PL
MEADOW FENCE RD
GROVE RD
ROLLING KNOLL
SHARON
WOODS
EMORY
GOSHEN
RD.
LAKE
WHETSTONE
MONTGOMERY VILLAGE AVE.
H-1 WALKER'S MILL,
MILL RACE,
MILLER'S LOG HOUSE
OLD
FIELD
20
HORIZ
RUN
HAMLET
SOUTHGA
ELEMENTA
SCHOOL
CONTOUR RD.
LOST KNIFE RD.

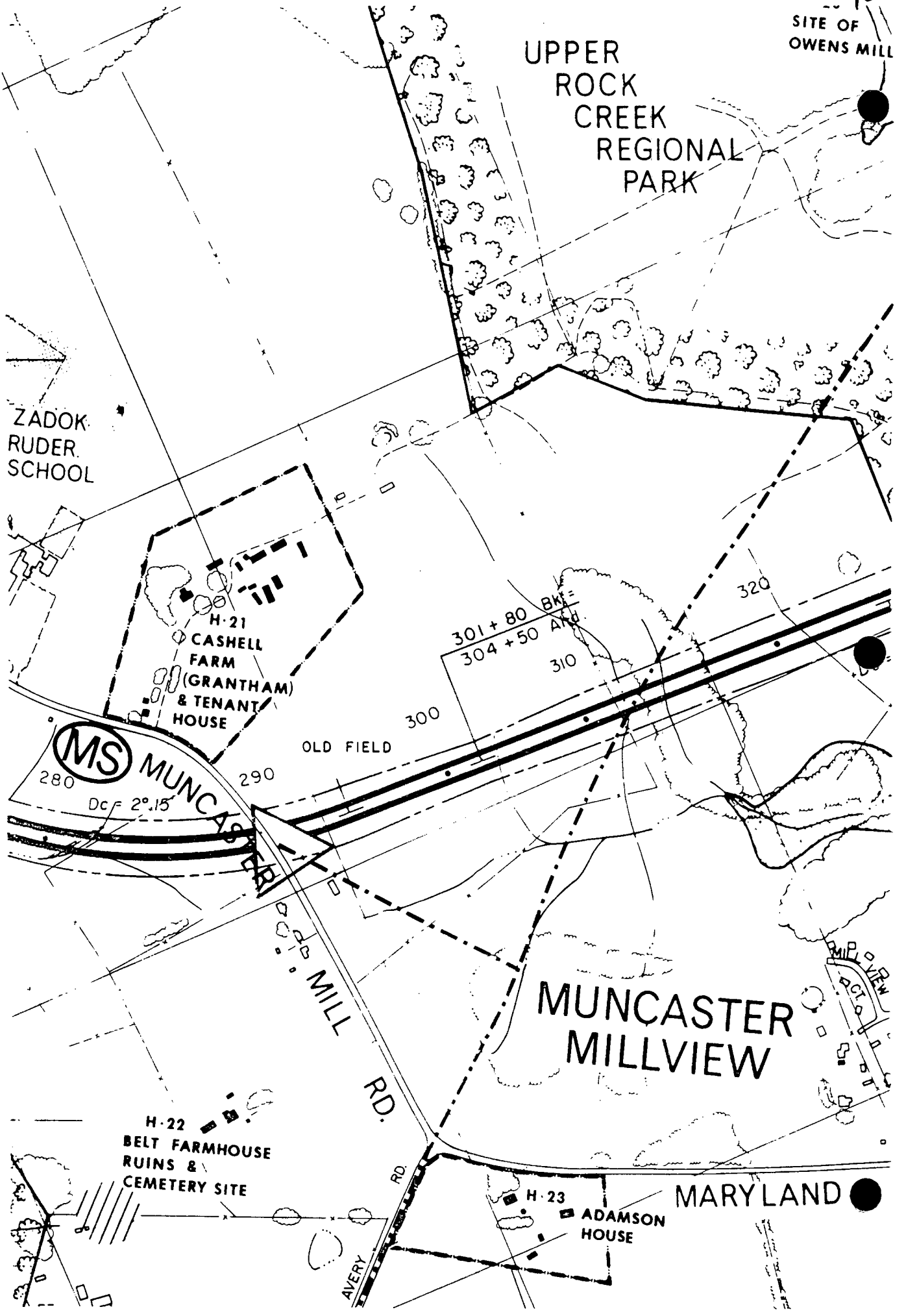

TRY KNOLL RD.
STRAWBERRY
- LOCAL PARK
H-41
WILBUR
HINES HOUSE
N
U.S.
GOVERNMENT
PROPERTY
H-40
HOUSE
QUAIL
VALLEY
GROVE
RD.
H-45
HOUSE
DECIDUOUS
WOODLAND
FARMLAND
H-47
SAFFELL'S
BARN
50
60
70
30
PASTURE
Dc = 0° - 25'
Dc = 0° - 15'
650' STREAM
RELOCATION
H-47 CHARLES S
SAFFELL
HOUSE
H-2
WALKER FARM
MARYLAND ROUTE 115
MONTGOMERY VILLAGE AVE.
TO NORBECK
ALTERNATE 1
300' 0 300' 600'
SCALE : 1" = 600'
Figure
II-4


LAYTO
LONGVIEW ELEMENTARY SCHOOL
H-46 HOUSE
EMORY GROVE RD.
H-3 EMORY GROVE PARK AND CHURCH CAMP
EMORY GROVE
EMORY GROVE RENEWAL PROJECT LIMITS
H-7 MOODY FARM
EMORY GROVE CHURCH
H-4
H-7A MINERAL SPRING HOUSE
SERVICE ROAD
Dc = 0°-15'
105+90 Bk. = 107+30 Ahd
WOODWARD'S STORE RD.
H-48 HOUSE
H-5A WOODWARD'S STORE
H-49 HOUSE
ALLEN H-50 HOUSE
H-5 THOMPSON'S HOUSE
WASHINGTON GROVE LOCAL PARK
CREST RD.
LAYTONSVILLE RD.
H-6 WASHINGTON GROVE

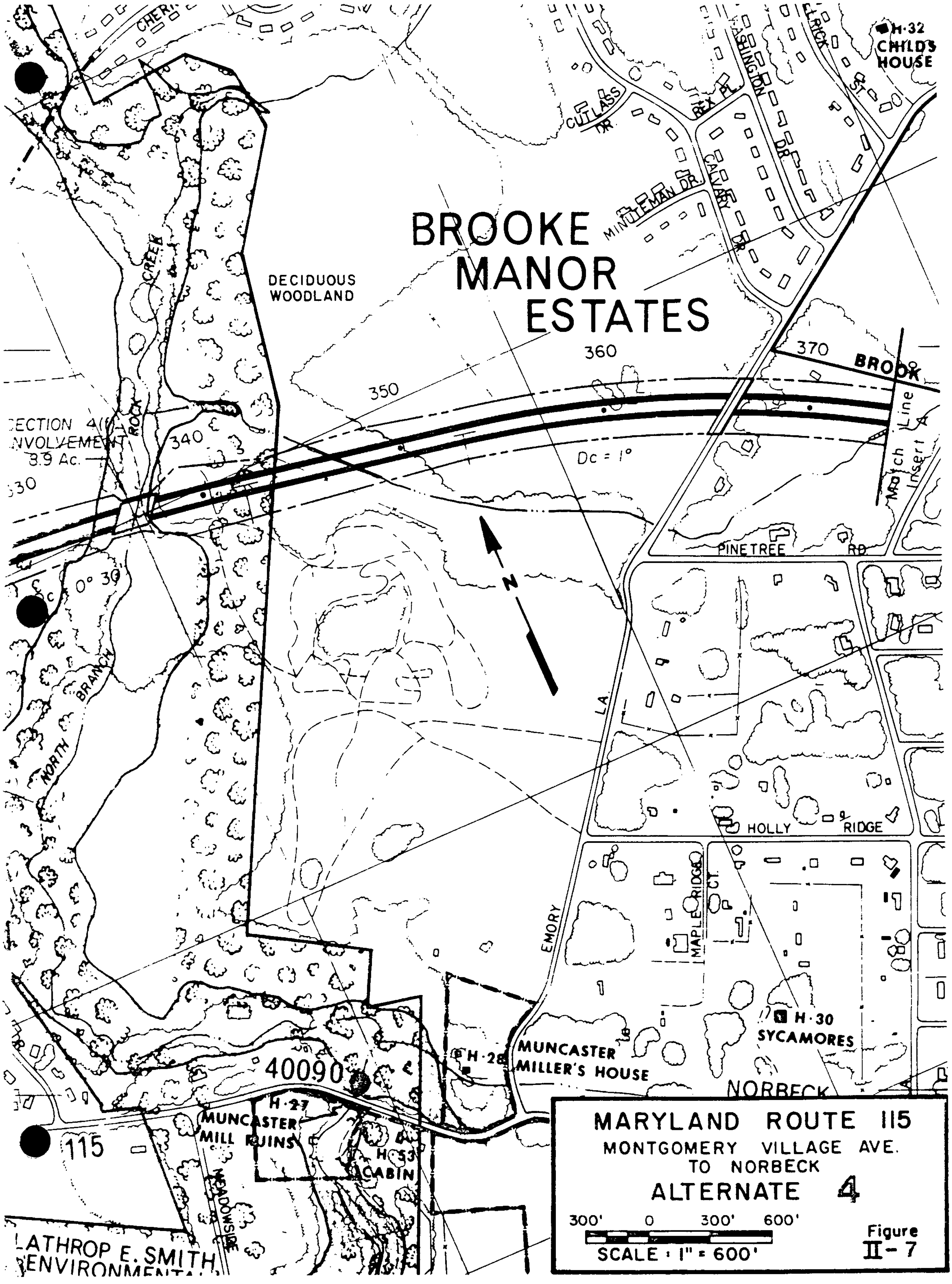

BRETHREN
ST. LUKES
LUTHERAN
CHURCH
115
CACTUS CT.
MILL CREEK RD.
DEW WOOD DR.
WARBLER LA.
CLIFFBOURNE
VINYARD LA.
PARK MILL DR.
SHADY GROVE RD.
SWIM
CLUB
MILLCREST DR.
SHADY MILL RD.
CADDY CT.
POTTERS MILL CT.
MILLER
MILLCREEK
TOWNE
ELEMENTARY
SCHOOL
MILLBORO TER.
WHEAT FALL CT.
WHEAT FALL RD.
PARK MILL DR.
140
160
180
MILL CREEK
TOWNE
GUTHARD RD.
REDLAND
STATION
MARYLAND ROUTE 115
MONTGOMERY VILLAGE AVE.
TO NORBECK
ALTERNATE 4
300' 0 300' 600'
SCALE : 1" = 600'
Figure
II-5


MILLCREEK PARISH
UNITED METHODIST
CHURCH
SWEET WATER
REDLAND
H-11
REDLAND
HORIZON
TER
LISA
DR
PS
P
ST. FRANCIS
OF ASSISI
CHURCH
MARYLAND
RTE.
REDLAND
ROSLYN AVE
HEATHERFORD CT
ABBEY
200
RD
GARRET
RD.
FARMLAND
OVERHILL
RD
CASHELL
ESTATES
GLEN
OAK
RUN
N
40110


BOWIE MILL LOCAL PARK
BOWIE MILL RD.
UPPER ROCK CREEK REGIONAL PARK
115
40120
H-18
CASHELL TENANT HOUSE & BARN SITE
COL. MAG HIGH
H-52
L-SUS-TY BARN & HOUSE
250
260
270
Dc = 0° 45'
DECIDUOUS WOODLAND
ROCK GORGE
WINTERS RUN
ROCK CREEK
Dc=2°15'
OLD FIELD
NEEDWOOD ROAD
NEEDWOOD
H-16
STONE SLAVE HOUSE SITE
MARYLAND ROUTE 115
MONTGOMERY VILLAGE AVE. TO NORBECK
ALTERNATE 4
300' 0 300' 600'
SCALE : 1" = 600'
Figure II-6


SITE OF OWENS MILL
UPPER ROCK CREEK REGIONAL PARK
ZADOK RUDER SCHOOL
H-21 CASHELL FARM (GRANTHAM) & TENANT HOUSE
301+80 BK =
304+50 AHD
320
310
300
290
280
OLD FIELD
MS MUNCASTER
Dc = 2°.15
MILL RD.
MUNCASTER MILLVIEW
MILLVIEW CT.
H-22 BELT FARMHOUSE RUINS & CEMETERY SITE
AVERY RD.
H-23 ADAMSON HOUSE
MARYLAND

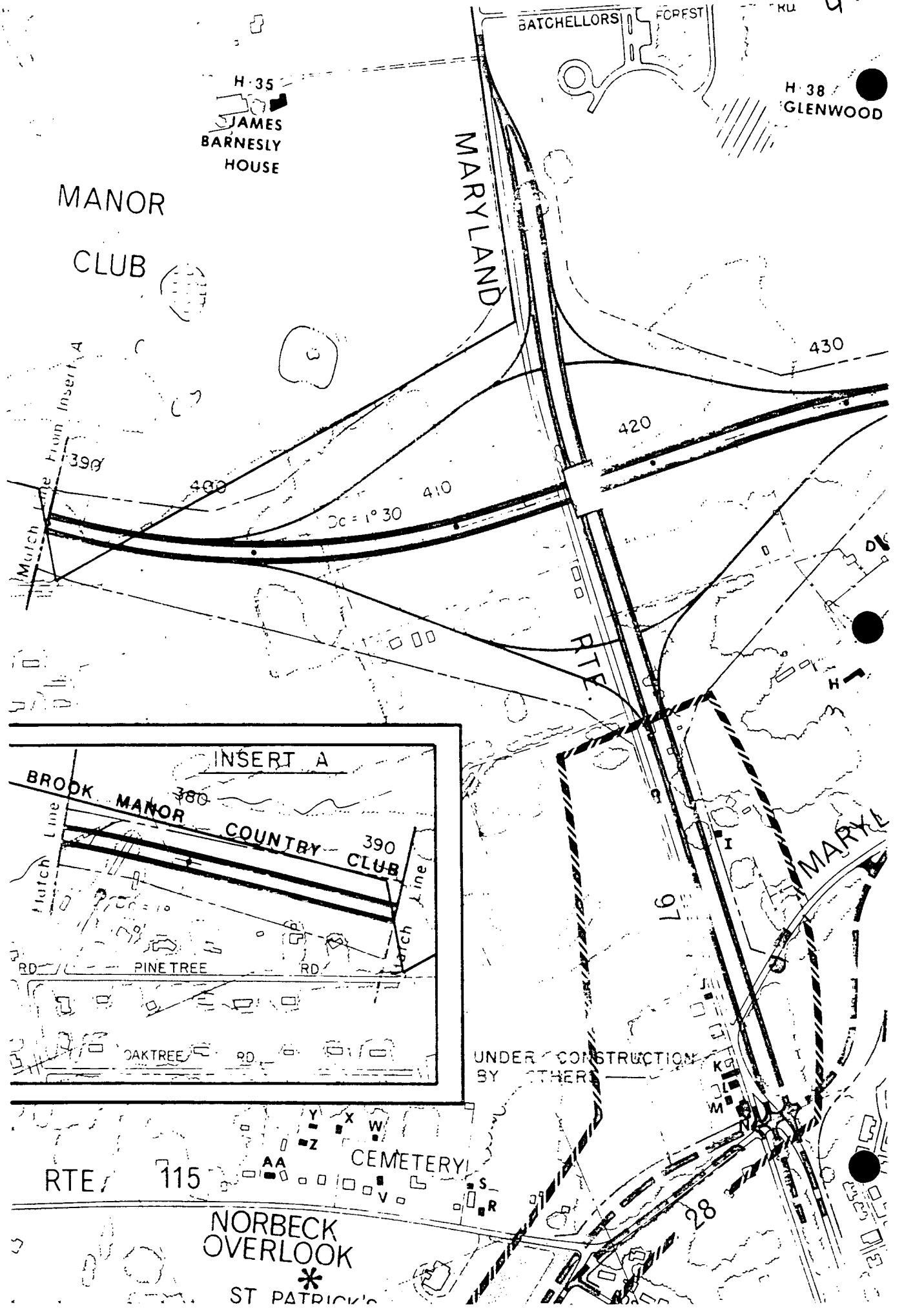
VI

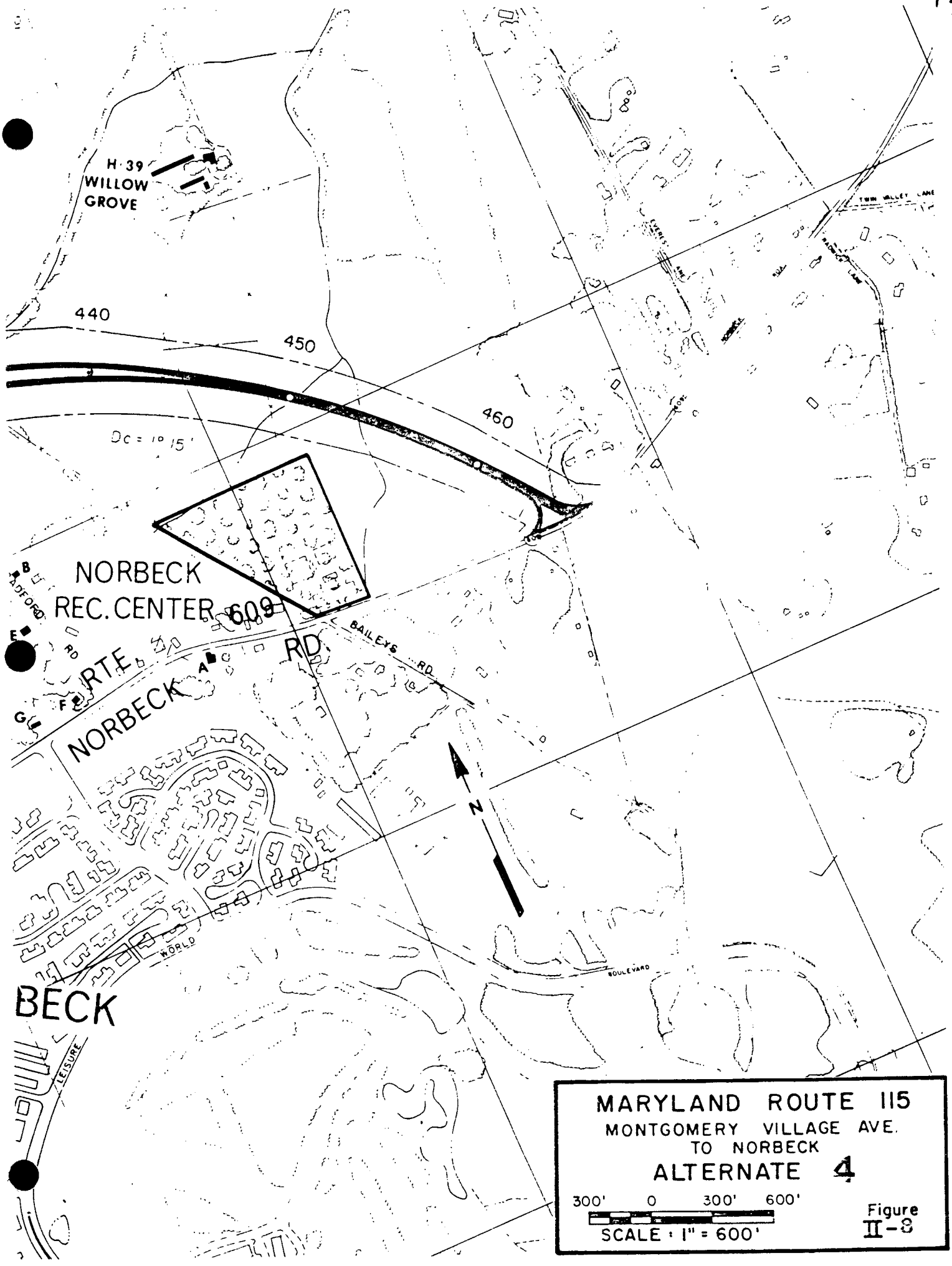


MARYLAND ROUTE 115
MONTGOMERY VILLAGE AVE. TO NORBECK
ALTERNATE 4

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

Figure II-7


BATCHELLORS FOREST RD
H-35
JAMES BARNESLY HOUSE
H-38
GLENWOOD
MANOR CLUB
MARYLAND
430
420
410
400
390
Dc = 1° 30
Match Line From Insert A
INSERT A
BROOK MANOR COUNTRY CLUB
380
390
Match Line
Match Line
RD
PINE TREE
RD
OAKTREE RD
UNDER CONSTRUCTION BY OTHERS
RTE 97
RTE 115
CEMETERY
NORBECK OVERLOOK
ST PATRICK'S
28



MARYLAND ROUTE 115
MONTGOMERY VILLAGE AVE.
TO NORBECK
ALTERNATE 4

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

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, commer were received from associations and individuals. Copies of t original written comments can be obtained from the Bureau of ect Planning, State Highway Administration.

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

Little interest, for or against, was shown in the N Build and Alternates 3 and 4. Some opposition to the Intercour Connector, and using the Intercounty Connector corridor for the r location of Maryland Route 115 was also expressed.

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

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

3. Interim Alternates Report

In September, 1977, the State Highway Administration ci culated the Interim Alternates Report. After careful considerati and overall evaluation of the social, economic and environment aspects of the proposed improvement, and analysis of public inpu the Interim Alternates Report recommended that the following alte nates 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 [illegible]. 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)

Year	Population	Avg. Annual % Increase	Households	Avg. Annual % Increase
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)

Age Group	1960 No.	1960 %	1970 No.	1970 %	1976 Est. No.	1976 Est. %	1986 Est. No.	1986 Est. %
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 Comoosition 1960-1973 (4) (6)

Year	Total Non-White Pooulation	of Total Population
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)

Distribution	Percent Households
$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

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.[1]

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).

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

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	—	—

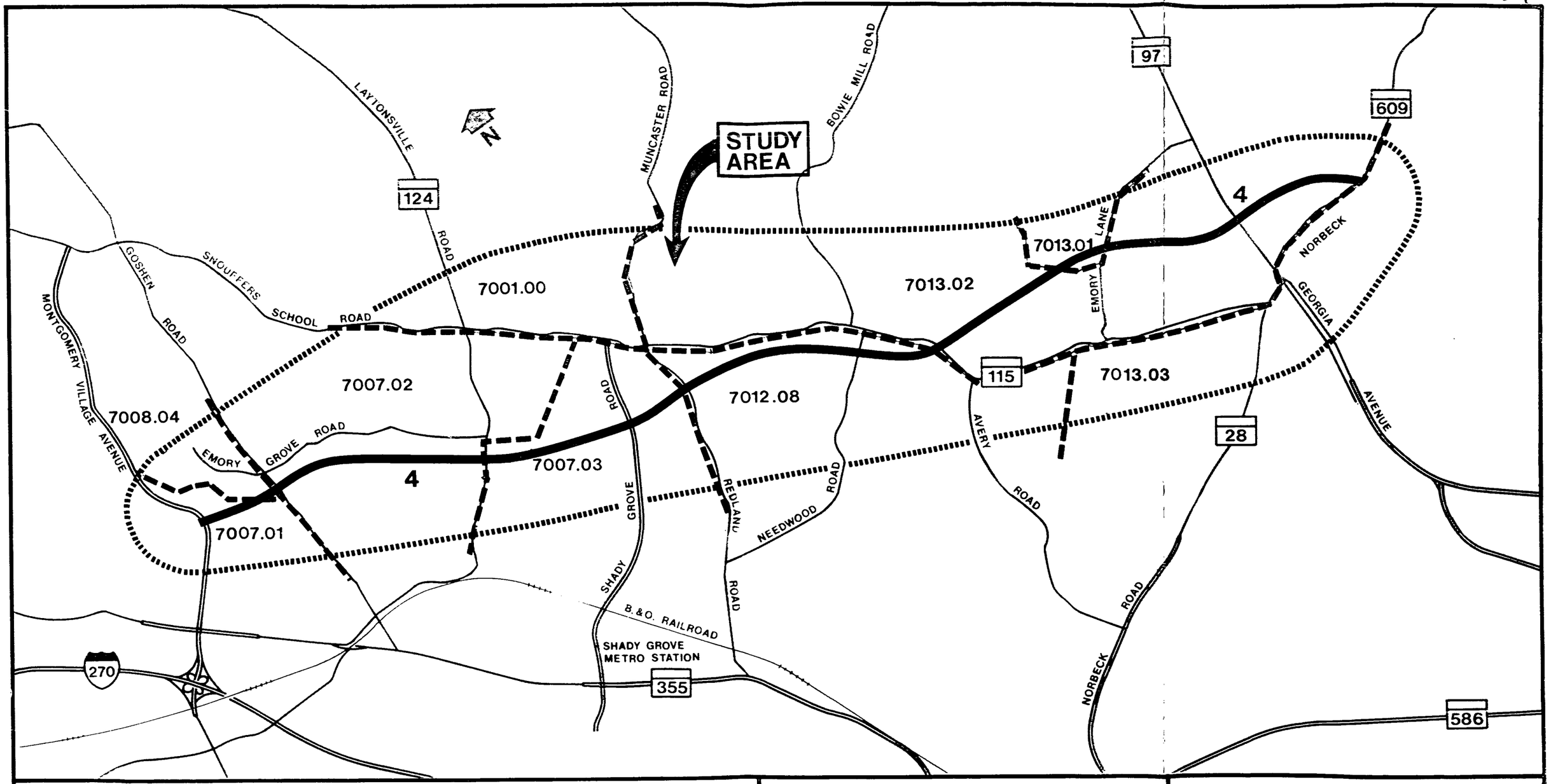
1/ SOURCE: 1970 CENSUS OF POPULATION AND HOUSING, UNLESS OTHERWISE NOTED.

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



LEGEND

CENSUS TRACT BOUNDARY

7013.00 CENSUS TRACT REFERENCE NUMBER

3500 0 3500 7000

scale feet

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

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

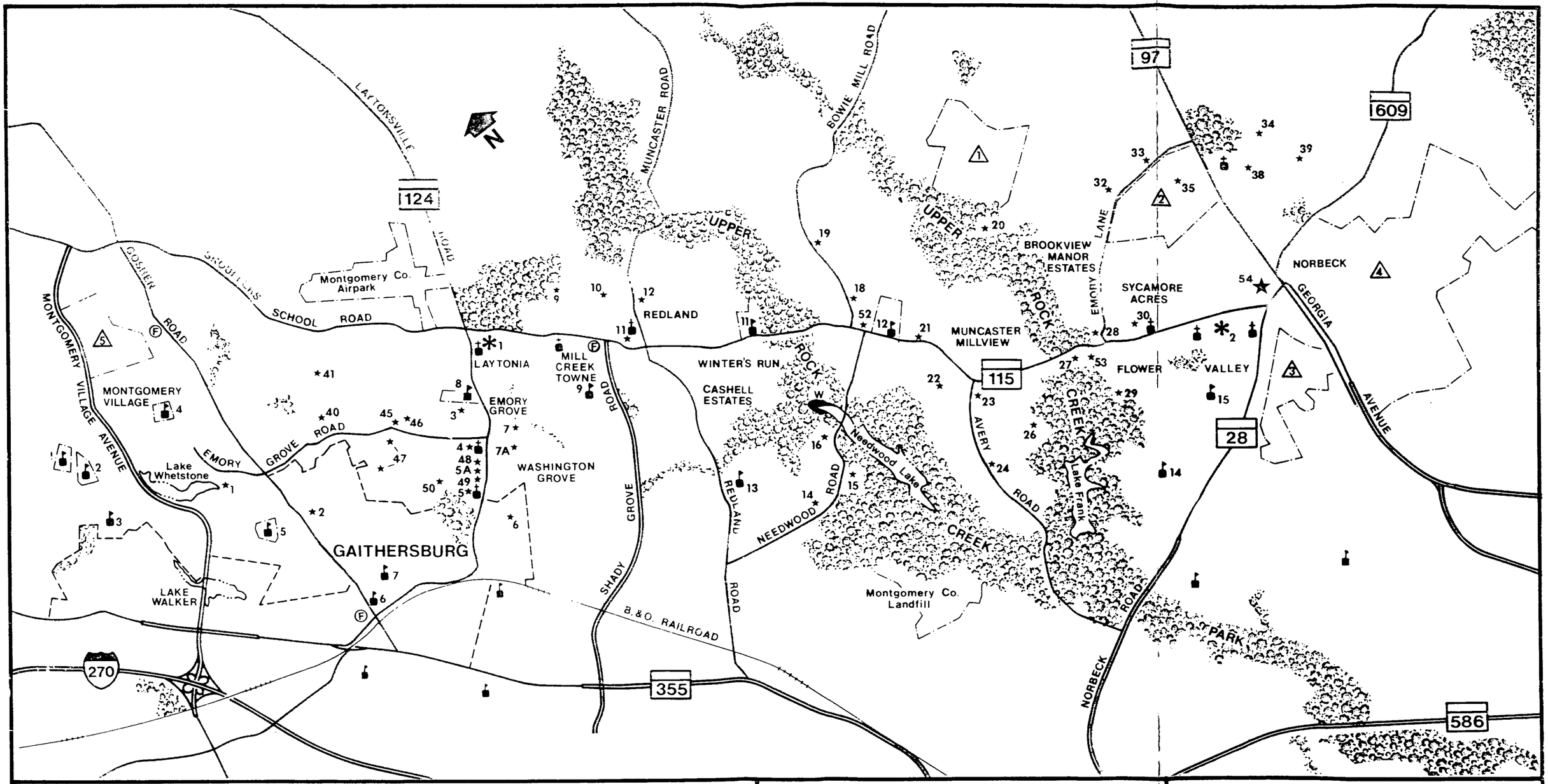
1. Norbeck Country Club
2. Brook Manor Country Club
3. Manor Country Club
4. Rossmoor
5. Montgomery Village Golf Course

* 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

3500 0 3500 7000
scale feet

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(1)

STUDY AREA ENVIRONMENTAL MAP

FIGURE III-2

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.

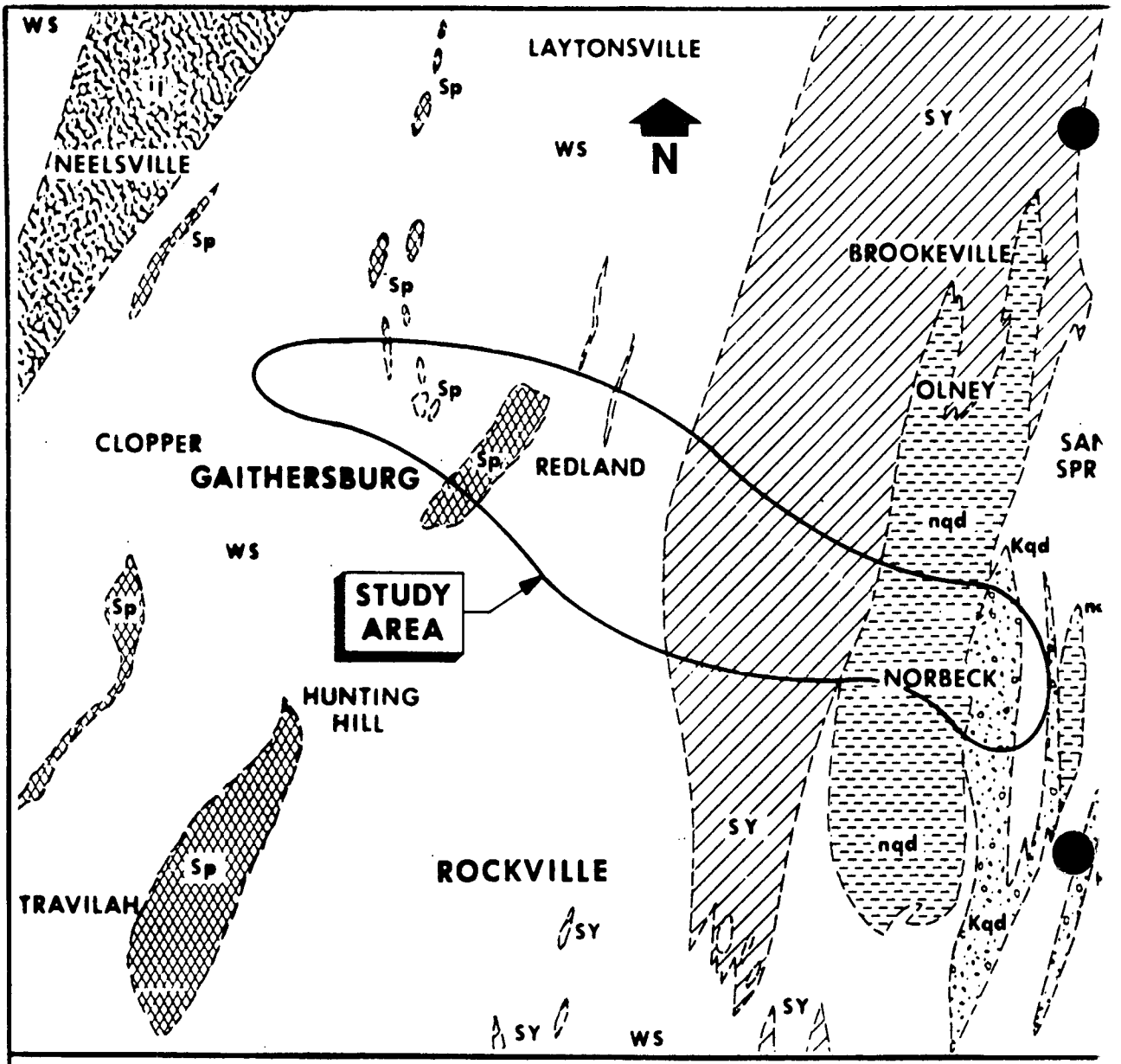
Much of the western half of the Study Area is underlain by the Wissahickon Formation. The Wissahickon Formation is a thick sequence of fine-grained schist and phyllite. These shists tend to alternate between massive, quartzitic layers and thinly foliated, micaceous layers. Generally, the quartz-rich 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^{o} toward an open wall face. In the vicinity of Emory Grove, cleavage dips southeast at 35^{o} to 40^{o}. 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^{o} to 80^{o}. 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.



(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.)

Maryland Department of Transportation

GEOLOGICA FORMATION

FIGURE

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^{o}, 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.

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 Resource 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[1], 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.

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1 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 M land Route 115 Study Area is rich and varied, although conti urban development is reducing the extent of the remaining areas undeveloped land. However, a significant portion of the remaini natural habitat is included within Rock Creek or other parks, a will remain in a relatively natural state.

Detailed lists of the flora and fauna of this area ha been developed by the Maryland-National Capital Park & Planni Commission (Rock Creek Watershed Habitat Survey and Inventory Fauna and Flora, 1977). These lists have not been reproduced here but can be obtained from the M-NCP&PC. The terrestrial habitat the Maryland Route 115 Study Area can be divided into five gener 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 ha itat consisting of mowed lawns, pasture or areas of tall "weed grasses. Unless managed by mowing or grazing, these areas succe to old-field habitat, then to other later successional stage These areas are important to a diversity of animal species, inclu ing many small mammals and birds.

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

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

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

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1 Vegetation Map of Maryland, the Existing Natural Forest 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 ares 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, oppossum, raccoon), and some rodents and insectivores seem to be maintaining their populations, probably due to their ability to adopt 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.

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[1] 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 steambed". 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 turbity 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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1 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 threated or endangered species occur within the Study Area.[1]

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 Washngton, 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.

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1 See Section VII for documentation.

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 Laytonsville 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

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

The Maryland Route 115 Study Corridor passes through portion of the following planning areas; Gaithersburg, Rock Creek, Olne 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 betwen 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.)

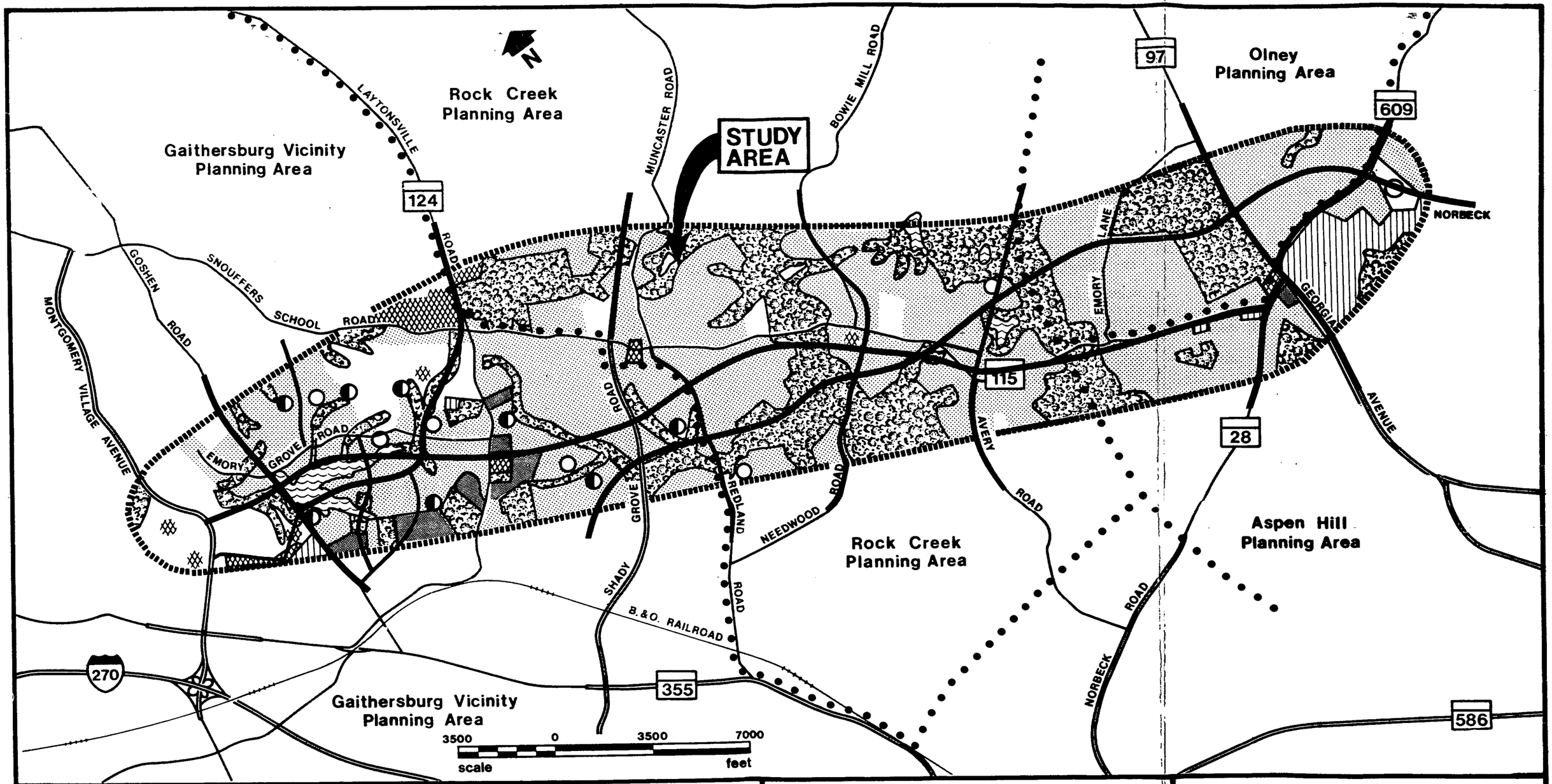
The Olney and Vicinity Planning Area is located east of the Rock Creek Planning Area and north of Aspen Hill. The Master Plan seeks to make Olney a satellite town with an identity of its own. The Olney satellite and the larger Olney community, which comprise the southern half of this planning area, are 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.

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

- LOW DENSITY RESIDENTIAL (5 D.U./Acre Or Less)
- MEDIUM AND HIGH DENSITY RESIDENTIAL
- COMMERCIAL AND INDUSTRIAL
- INSTITUTIONAL
- PARK AND OPEN SPACE
- PROPOSED LAKES
- M-NCP & PC "SPECIAL PLANNING DISTRICT"
- O PROPOSED SCHOOL
- ◐ PROPOSED SCHOOL AND PARK
- ▬ MAJOR HIGHWAY IMPROVEMENTS
- — PRIMARY ROADWAY IMPROVEMENTS
- ●●● PLANNING AREA BOUNDARIES

MASTER PLAN SOURCES

OLNEY (1966), ROCK CREEK (1968)
ASPEN HILL (1970), GAITHERSBURG (1971)

MARYLAND ROUTE 115

FROM
MONTGOMERY VILLAGE AVENUE
TO NORBECK

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

PROPOSED LAND USE PLAN

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
FIRE & RESCUE		
Fire Training Facility Renovation (D12L)	Along Md.Rte.28	Planning
Maintenance & Supply Facility (D11M)	Gaithersburg	Preliminary Planning
POLICE		
Central Property Facility (D11M)	Gaithersburg	Planning & Design
SANITATION		
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
HEALTH & SOCIAL SERVICES		
Medical Center - Phase I (D12L)	Gaithersburg	Construction
CONSERVATION OF NATURAL RESOURCES		
Crabbs Branch Stormwater Management System (D12M)	Gaithersburg	Preliminary
COMMUNITY DEVELOPMENT & HOUSING		
Norbeck Neighborhood Strategy Area (D12Q)	Aspen Hill	Construction

Project Name & County Map CIP Code	Project Location (Planning Area)	Status
MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION		
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 (D12O)	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
WASHINGTON SUBURBAN SANITARY COMMISSION		
Norbeck Pumping Station (D11Q)	Norbeck Vicinity	Design
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 FACILI PLANS:

The Proposed Action is in general conformance with the pr posed land use and public facility plans, as described earlier this section. The concept of an improved highway facility (Rel cated Maryland Route 115) is consistent with and, in fact, is ne essary to support the goals outlined in the County Master Plan a the Master Plans for individual planning areas through which th project passes. Improved highway facilities are part of the ove all objectives of orderly development, and safe, efficient tran portation.

The improvement in the Maryland Route 115 Study Area is ide tified as M-83 in the County Master Plan and Gaithersburg Mast Plan and as M-1 in the Rock Creek and Olney Master Plans. Servi local traffic, this improvement would be the easternmost arteri 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. Alte nate 4 follows the Master Plan alignment from Montgomery Villa Avenue to the Intercounty Connector, and then along the Master Pl alignment of the Intercounty Connector corridor to the terminus Maryland Route 609. The major circumferencial highway known hi torically as the Outer Beltway, has been renamed as the Intercour Connector and is now planned to extend from I-270 to the Baltimor Washington Parkway (see Section I-C-3).

This project is consistent with all public facility plans, i cluding park and open space plans. Extensive coordinatio taken place with transportation planners at all levels of gover ment, and could result in this project providing needed componer for several highway systems. Improvements in the Maryland Rou 115 Study Area would also provide an important local link in t 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 contruction 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.

All appropriate procedures and controls of the State Highway Admin istration Sediment and Erosion Control Program would be stringentl applied during all construction, to minimize soil erosion. [redacted] impact would be temporary, ceasing when construction has been com pleted and exposed soil surfaces stabilized. No significant perma nent impact is anticipaated.

A significant portion of the study area is compose of "Prime Farmland", as defined by the USDA Soil Conservation Serv ice. Construction would require the conversion of some prime farm land to roadway uses. The amount required would be approximatel 97 acres for the selected alternate. Much of this acreage is no presently being cultivated and most is zoned as low density resi dential property or public open space. In the future, this lan will probably be utilized for residential development or public us age and will not be available for agricultural production. It i important to note that much of the prime farmland in the area ha already been developed for residential use. Construction of th selected alternate is, therefore, not expected to significantly af fect the future agricultural utilization of prime farmland in thi region.

A significant portion of the study area is under ac tive cultivation today, although the acreage has decreased in re cent years. Construction would require the conversion of 114 acre of active farmland to roadway uses (see Table II-3). It is not an ticipated that the loss of this farmland would significantly impai future agricultural production in this region, and no farms w[redacted]l be displaced. Much of this farmland acreage will be lost to a[redacted]i cultural production as this region develops, even if a build al ternate were not selected as part of this project.

No other unique or uncommon soil types or feature are known to occur in the Study Area, and construction would nc preclude or significantly impact any soil use.

c. Surface Water Quality -

Study Area waters already suffer from ongoing silta tion caused by residential construction and agricultural activi ties. Additional siltation will occur during construction. Th Sediment & Erosion Control Program, adopted by the State Highwa Administration in 1970, specifies procedures and controls to b used on highway construction projects. These procedures and cor trols will be stringently applied to limit and control the genera tion and transport of silt. This will be particularly importar where construction will be required on steep slopes of stream val leys or in areas of soil having a high erosion potential. This pla 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 n work, it will not be possible to construct any build alterr without involvement with the 100-year floodplain.[1] The ext this floodplain in the Study Area, as defined by the Mar National Capital Park & Planning Commission, is shown on the tailed plans in Section II.

This project does not have significant encroachm on the 100-year floodplain. Floodplain involvement does occur three sites along the selected alternative. The proposed alignm crosses over the floodplain of Whetstone Run (Figure II-4) bridge to avoid increasing the downstream discharge rate or he water pool elevation upstream. The second crossing is carried c Rock Creek via a bridge, as is the crossing over North Branch. N ther of these crossings would have a significant effect on the tent of the 100-year floodplain. The U. S. Army Corps of Engine has also indicated its belief that there will be no changes to size or extent of the floodplain in the Rock Creek Watershed a result of the proposed activities (see Section VII for documer tion).

The majority of floodplains lie within Rock Cr Regional Park. The Proposed Action would not entail risks to hu activity, would not affect floodplain values, nor support direc indirect development in the base floodplain. In addition, Montg ery County Ordinance prohibits development within the 100-y floodplain.

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

e. Terrestrial Ecology -

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

Downstream sedimentation would be the primary impact to the stre due to construction activities and unstable sediment. This wou only be a temporary condition until the bottom stabilizes. Si from this area would be carried downstream to Lake Whetstone, e water velocity would decrease and silt would settle out of t water column. The DNR - Inland Fisheries Administration has ind cated that relocation should not adversely affect the aquatic eco ogy of Whetstone Run. Specific mitigation measures will be coo dinated with DNR during final design phase.

g. Wetland Involvement -

The only wetland existing within the Study Area is nine-acre tract located at the head of Needwood Lake (Figure II-2 This wetland is divided into two parcels by the service road pr viding access to the Needwood Lake Flocculation plant. The Mar land Department of Natural Resources, Water Resources Administr tion, has determined[1] that six acres of swamp/marsh exist along t west side of Rock Creek, upstream of the access road, and thr acres of marsh exist downstream where Rock Creek widens into La Needwood. These wetlands provide valuable habitat for many speci of wildlife and probably function to help trap sediments carried Rock Creek. The selected alternate will not require any constru tion in this area.

h. Threatened or Endangered Species -

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

i. Conservation of Existing Natural Resources -

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

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

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1 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 unobstrusive, 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[1] -

An analysis of the probable residential displ ce ment that would be caused by the alternate under consideration a been made by the State Highway Administration, Bureau of Relocati Assistance.

- Alternate 4 -

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

- Housing Availability -

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

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

c. Business Displacement -

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

d. Other displacements -

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

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1 This information is taken from the more detailed Conceptu Stage Relocation Report, which is available for examination the offices of the State Highway Administration, 300 We 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 charactersitcs. 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

projected to the U. S. population in general, 29% of the before re spondents expected to experience greater pollution. However, onl 10% of the after group believed such an increase actually occur The percentages of those expecting noise were 45 and 14, resp tively. While 28% of the respondents in the before group expecte a decrease in property values, none of those in the after grou felt that such a decrease occurred.[1]

A study concerning the influence of highway enviror mental effects on residential property values indicates that lowe property values due to proximity cannot always be expected. I some cases, the increase in value due to greater regional accessi bility outweighed decreases due to adverse environmental effects. Thus, the net effect of highway proximity may act to raise propert values as well as decrease them.

b. Access to Community Facilities & Services -

- Schools -

The Study Area is served by numerous primary ar secondary schools (see Section III-B2d). Students presently wa to school or travel by public or private transportation. Construc tion of the selected alternate in this study would not change th existing path of access by Study Area roadways. It could, howeve change the route taken by some students who walk to school toda if the new roadway would block their path through undevel areas. These students would have to walk to intersections to c the new roadway safely. This is not expected to create a signifi cant impact.

Montgomery County Schools provide bus transporta tion for elementary students who live more than one mile fr 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 ar bussed from lesser distances.

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

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1 Anticipation of the Effects of an Urban Highway Improvement the Highway Corridor, by Resource Management Corporation f the Federal Highway Administration, Washington, D. C., 2059(1972.

2 The Influence of Highway Environmental Effects on Residenti Property Values, by Institute for Research on Land and Wat Resources, Pennsylvania State University for Federal Highw 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 p tential or environmental value of the existing Park or its plann development. These parkland impacts are discussed in more de in Section V-C of this Statement.

d. Bikeways -

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

e. Other Community Facilities -

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

f. Community Services -

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

4. Traffic Impacts

a. Introduction -

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

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[1], Number of Lanes, and Levels of Service[2] 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.

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.)

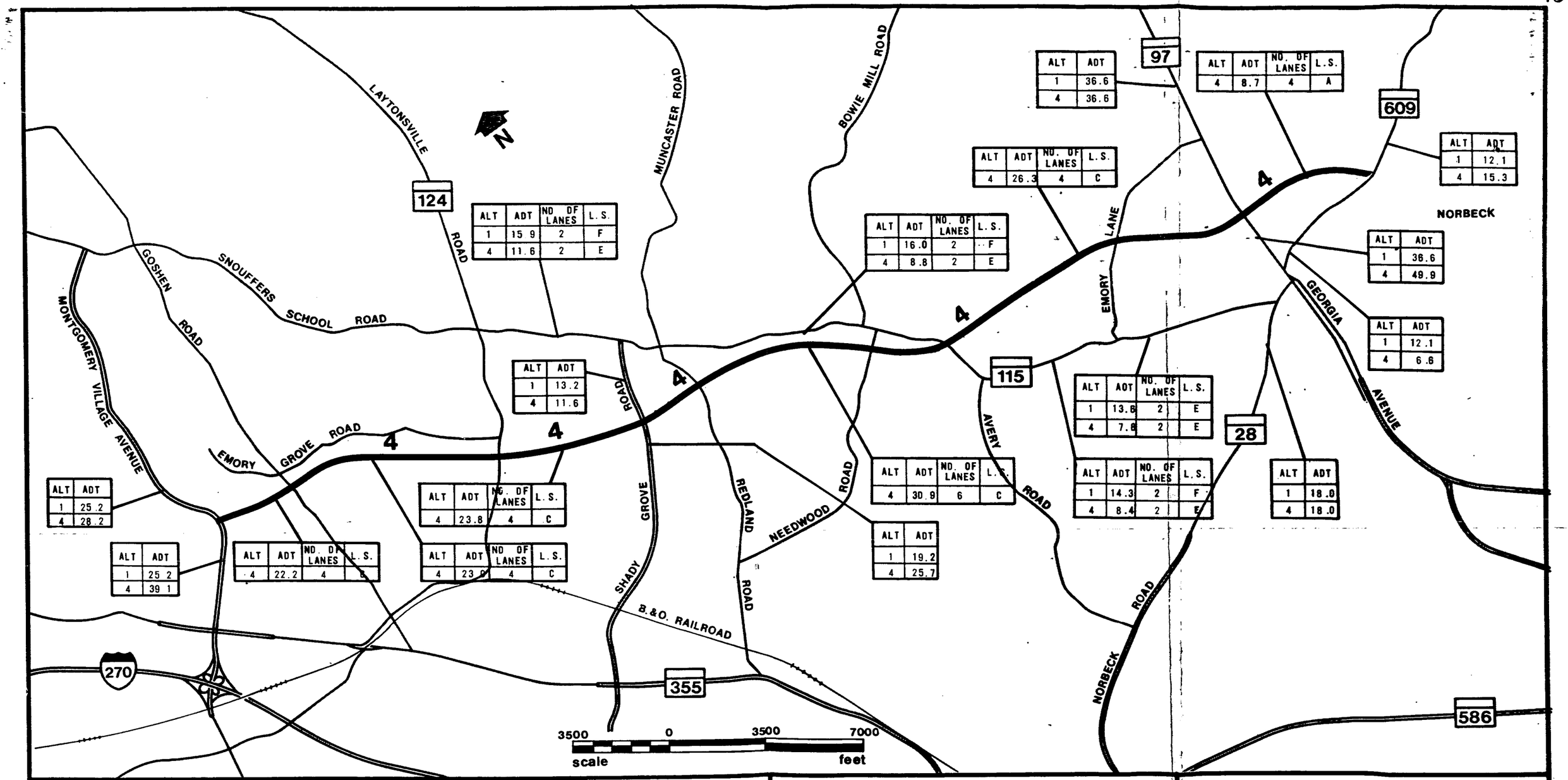
DD = 58% DHV (The directional distribution (DD) of the peak-hour volume is expected to be 58% in the peak direction, and 42% in the non-peak direction.

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 199[illegible] 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 fo each roadway link (i.e., the time it would take a motorist to driv from A to B, assuming no other vehicles on the roadway). Assumin drivers seek out the minimum time path between A and B, the computer re-calculates new travel times for each line as trips are adde to the system. The last 20% of trips added will not have the sam



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(1)

PROJECTED 2005 AVERAGE DAILY TRAFFIC VOLUMES

FIGURE V-1

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.

- 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.

7. Construction Impacts

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

State Highway Administration procedures require the tractor to obtain all required borrow materials and to dispo all waste materials resulting from the construction project accordance with the provisions of Chapter 245 of the Acts of for the State of Maryland, it is also necessary for the Contr to obtain permits from the appropriate County agency for any site work, which includes borrow pits, waste areas and the ment of these during and after completion of the project. County agency will refer the plan for such areas to the Soil servation District for review and approval of the erosion and ment control provisions. The erosion control features instal the Contractor shall be acceptably maintained for the durati the contract.

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

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

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

8. Air Quality Impacts

a. Introduction -

In order to determine the impact which the h will have on air quality, an air quality analysis has been co ed. There was a microscale carbon monoxide (CO) emissio a

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^{o} 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.

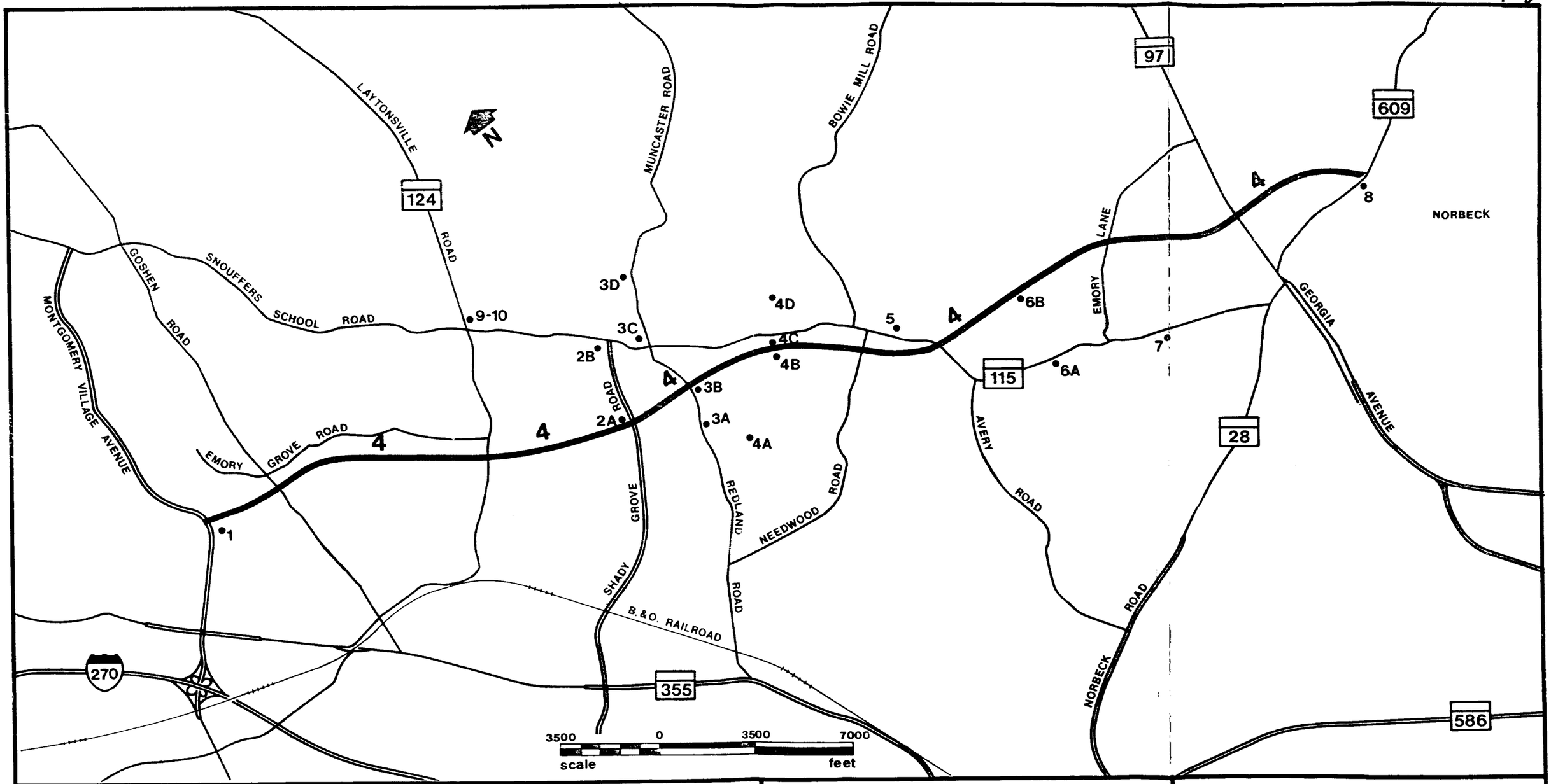
Note: Input did not include Inspection/Maintenance (I/M) which is effective in 1981. This requires a 30% stringency level and mechanic training which would lower vehicle emissions. If this were included, projected CO levels would be lower than those presented in this document, resulting in an overall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

TOTAL CO LEVELS, ppm, FREE-FLOW MODE

	1985		2005	
	1-Hour	8-Hour	1-Hour	8-Hour
NO-BUILD, ALTERNATE 1				
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 centrations 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)

Site	1985		2005	
	1-Hour	8-Hour	1-Hour	8-Hour
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 de termined that for the selected alternate no violation of NAAQS fo carbon monoxide will occur during the completion and design years As a result, this alternate is consistent with the State Implemer tation Plan and the Implementation Plan for the National Capita Interstate Air Quality Control Region (NCIAQCR).

The consistency of the project in relation to cor struction activities was addressed through consultation with th Maryland Bureau of Air Quality and Noise Control. The State High way Administration has established Specifications for Materials Highways, Bridges and Incidental Structures, which specify proce dures to be followed by contractors involved in State work. Thes 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.

L_{10} Change over Ambient	Degree of Impact
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.

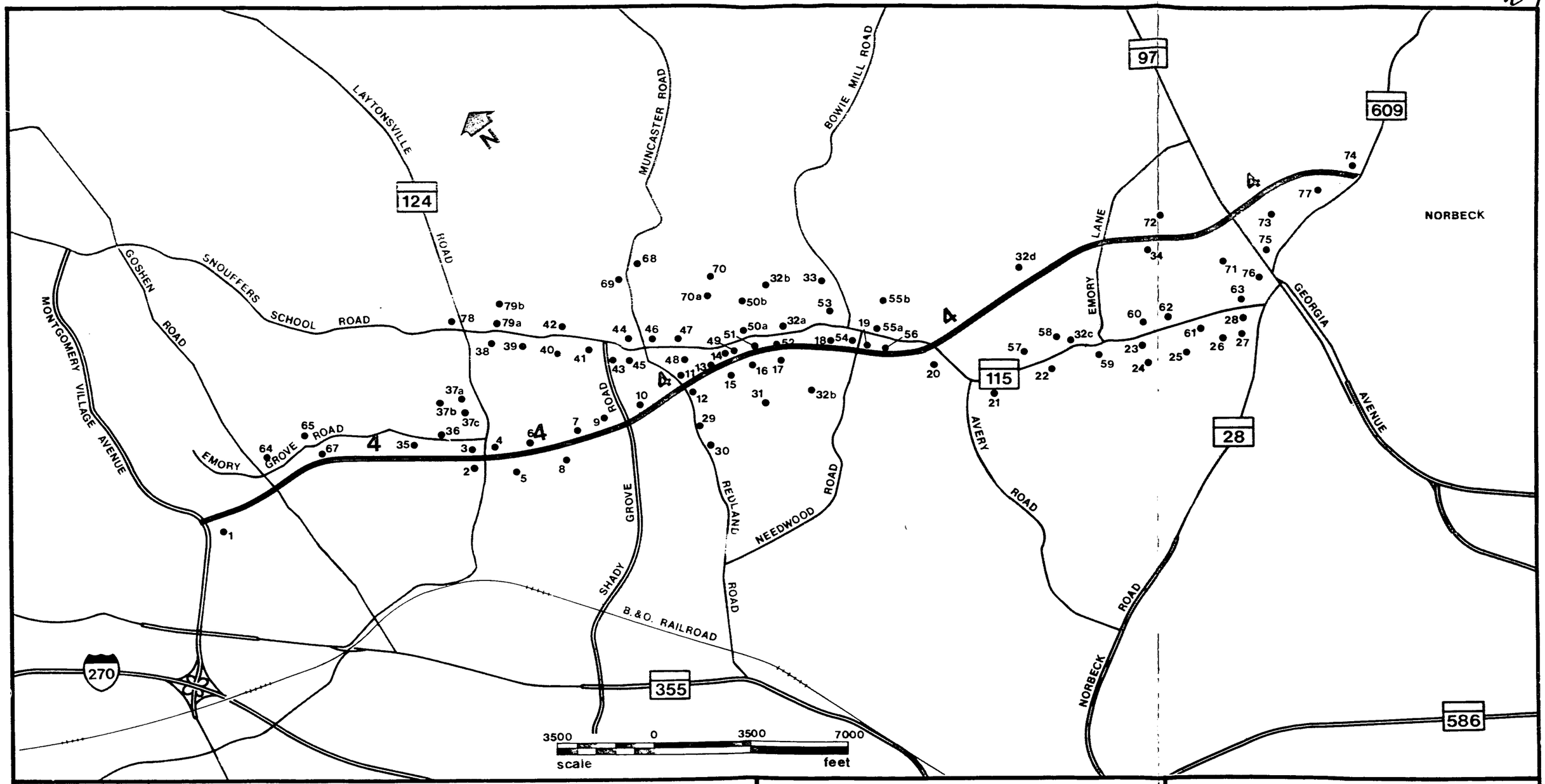
A detailed Noise Report is available for review at the Maryland State Highway Administration, 300 West Preston Street, Baltimore, Maryland, and is summarized as follows:

- TABLE V-1 -

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

Land Use Category	Design Noise Level - L_{10}	Description of Land Use Category
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 o public knowledge of the project, and fo which no known future developed i planned.
E*	55 dBA (Interior)	Residences, motels, hotels, public meet ing rooms, schools, churches, libraries hospitals and auditoriums.

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



LEGEND

Selected Alternate 4

●10 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_{10} dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L_{10} 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		73
9	RESIDENCES ON PARK MILL DRIVE	52		67
10	RESIDENCES ON BEAVVOIR BLVD.	52		66
11	RESIDENCES ON REDLAND 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	HISTORIC 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_{10} dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L_{10} NOISE LEVELS	
AREA NO.	DESCRIPTION		NO BUILD	SELECTED ALTERNATE
23	RESIDENCES IN FLOWER VALLEY	59	59	
24-27				
28	ST. PATRICKS CATHOLIC CHURCH	57	60	
29	RESIDENCE ON REDLAND RD.	63		
30	RESIDENCES ON REDLAND RD.	43		
31	RESIDENCES ON GLEN OAK RUN	49		
32a	LEFT ARM ROCK CREEK PARK, 50' FROM MD. 115	67	67	68
32b	LEFT ARM ROCK CREEK PARK, IN PARK	50		
32c	RIGHT ARM ROCK CREEK PARK, 50' FROM MD. 115	67		
32d	RIGHT ARM ROCK CREEK PARK, IN PARK	50		68
33	RESIDENCES ON WILLOW KNOLL DRIVE	50		
34	RESIDENCES ON PINE TREE RD.	37		64
35	TAVERN ON EMORY GROVE RD.	66		
36	RESIDENCES ON EMORY GROVE RD.	66		
37a	LONGVIEW ELEMENTARY SCHOOL, FRONT OF BLDG.	47		
37b	LONGVIEW ELEMENTARY SCHOOL, PLAYFIELD	40		
37c	EMORY GROVE PARK & CHURCH CAMP	47		
38	RESIDENCES ON MD. RTE. 115	70	70	
39	LAYTONIA DEVELOPMENT	64	64	
40	FLOWER HILL CHURCH OF THE BRETHREN	70	70	
41	RESIDENCES ON MD. RTE. 115	69	69	
42	RESIDENCES ON 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 (CONT.)

[1] NOISE SENSITIVE AREA		1978-79 L_{10} dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L_{10} NOISE LEVELS	
AREA NO.	DESCRIPTION		NO BUILD	SELECTED ALTERNATE
43	RESIDENCE ON 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_{10} dBA (EXTERIOR) AMBIENT NOISE LEVEL	DESIGN YEAR L_{10} 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 MD. RTE. 97	47		61
72	BROOK MANOR COUNTRY CLUB	47		55
73	RESIDENCES ON BRADFORD RD.	40		58
74	RESIDENCES ON MD. RTE. 609	56		63
75	RESIDENCE ON MD. RTE. 97	65		67
76	RESIDENCE ON MD. 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

TABLE V-2 (CONT.)

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_{10} 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_{10} of about 55 dBA. The L_{10} 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 effectivness 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	Appr Cos
II-4	1	South of Reloc. 115, East of Montgomery Village Ave.	2000 l.f.	$200,
II-5	5	South of Reloc. 115, 1200' East of Laytonsville Rd.	1400 l.f.	$140,
II-5	6	North of Reloc. 115, 1800' East of Laytonsville Rd.	1600 l.f.	$160,
II-5	7,9	North of Reloc. 115, Miller Fall Rd. to Shady Grove Rd.	2100 l.f.	$210,
II-5	8	South of Reloc. 115, West of Miller Fall Rd.	500 l.f.	$ 50
II-6	13,14	North of Reloc. 115, West of Applewood Lane to East of Pilgrims Cove	2600 l.f.	$260,
II-6	15,16 17	South of Reloc. 115, Apple-wood Lane to East of Farm-ingdale Ct.	2700 l.f.	$270

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

Noise sensitive areas 32b, 32d and 77b are locat in Rock Creek Park or the Norbeck Recreation Center, and no 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 would not be considered for noise abatement because no more thar residences are clustered at any one sensitive area, and abatem for so few residences would not be cost-effective.

e. Construction Impacts -

As with all major construction projects, are around the construction site are likely to experience varied p iods and degrees of impact from noise. This type of project w probably employ the following pieces of equipment which will lik 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 (*).[1] 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[2] the Selected Alternate will have no effect on any of these sites.

Site Designation	Site Name
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

1 See Section VII for documentation.
2 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 Burris 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 Avenu
-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.

1 See Section VII for documentation.

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)[1] 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.[2] Since no property would be required from either of these facilities by the alternate under consideration, Section 6(f)[3] 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

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

Washington Metropolitan Area. As such, this park system is unique to this region and is of inestimable value to its residents and existing natural environment. Detailed counts of public attendance are not available, but the Lake Needwood area of the park is estimated to serve over 250,000 people per year.

Most portions of the park system consist of undeveloped woodland and scrub regions (generally occupied by an old-field community) that contain, at most, paved roadways or trails. Facilities for active outdoor recreation (golf, baseball) are generally not present outside of the region in and around the Lake Needwood area.

This Study Area includes the portion of the Rock Creek System that is managed as Upper Rock Creek Regional Park (about 3000 acres above Maryland Route 28). The location of the existing parkland within the Study Area is shown on Figure III-2 and its ultimate proposed expansion is shown on Figure IV-1. Portions of this parkland, near the alternate under consideration including details of park facilities, are also shown on the plans in Section II.

Upper Rock Creek Regional Park includes two man-made lakes (Lake Needwood, 74 surface acres; Lake Frank, 54 surface acres). The Lake Needwood area has been developed for public recreation and contains a fishing tackle and bait shop, boat rental, parking areas, trails, golf course, and a replica of a River Boat that provides tours around the lake.

The area at the upper end of Lake Needwood, north of Needwood Road, has been developed as a sediment trapping facility to control sedimentation in the lower portion of the lake, and thus extend its useful life. This facility consists of a chemical flocculation station to encourage incoming sediment to settle out in the portion of the lake above Needwood Road. Periodically, the deposited silt is removed by the Soil Conservation Service. Surrounding this sediment basin and the adjacent floodplain of Rock Creek is approximately nine acres of wetland. Wetland areas are not common in the Piedmont region of Maryland, and this area provides valuable wildlife habitat as well as helping trap incoming sediment.

Two important education facilities, the Meadowside Nature Center and the Lathrop E. Smith Environmental Education Center, are located within the Park, south of Maryland Route 115 along Meadowside Lane. The Meadowside Nature Center is administered by the Maryland-National Capital Park & Planning Commission and provides interpretive programs stressing the natural and human (i.e., heritage, folklore, etc.) history of the region. This facility is available to persons of all ages and serves an estimated 20,000 people a year.

The Lathrop E. Smith Environmental Education Center is operated by the Montgomery County School System and provides daytime 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.

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 detial 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_{10} 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_{10}) 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_{10} 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. Thererfore, 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 Ecxonomic 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

130

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
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ATTENTION: NABOP - F

Mr. Frantz K. Gimmler
Region III, Director
Urban Mass Transportation Administration
Suite 1010
434 Walnut Street
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Director
Division of NEPA Affairs
U. S. Department of Energy
Mail Station E-201, GTN
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Commander
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Portsmouth, Virginia 23703

Associate Administrator for Planning
Management and Demonstration
Urban Mass Transit Administration
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The Honorable Charles McC. Mathias
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The Honorable Michael B. Barnes
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The Honorable Joseph E. Owens
Delegate - Montgomery County
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The Honorable Neal Potter
Member - Montgomery County Council
6801 Brookvale Road
Chevy Chase, Maryland 20015

The Honorable Ruth Spector
Member - Montgomery County Counci
613 Smallwood Road
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Department of Recreation
County Office Building
Rockville, Maryland 20850

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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

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

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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.

A. PUBLIC MEETINGS:

Date	Coordination
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:

Date	Coordination
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

Date		Coordination
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 Wetlands 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

Date		Coordination
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).

C. ARCHEOLOGICAL & HISTORICAL:

Date	Coordination
May 20, 1975	Letter from Department of State Planning referring to natural features and historic sites
August 12, 1975	Letter from Maryland Historical Trust noting historic buildings or sites
August 29, 1975	Letter from Maryland Historical Trust with additional survey information
January 24, 1977	Received results of Archeological and Paleontological Survey for Dr. William Gardner. Copies also forwarded to Dr. Tyler Bastian, Md. State Archeologist and Mr. Leland Gilson, Archeologist with Md. Historical Trust
October 20, 1977	Letter from Maryland Historical Trust transmitting copy of Montgomery County Historic Site Inventory Map
January 6, 1978	Letter from Maryland Historical Trust transmitting preliminary reconnaissance of historic resources for project area
March 8, 1978	Letter from Md. Historical Trust transmitting tentative historic boundaries and level of significance with regard to 4(f) and 106 issues for sites listed in preliminary reconnaissance
May 3, 1978	Letter from US Department of the Interior regarding FHWA request for a determination of eligibility for listing the Norbeck Historic District
April 18, 1979	Maryland Geological Survey, Division of Archeology comments on archeological report
April 24, 1979	* Maryland Historical Trust review of Draft EIS

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 A
to Norbeck. Contract No. M758-003
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. Alternate 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

Shaw House, 21 State Circle, Annapolis, Maryland 21401 (301)269-2212, 269-2438
Department of Economic and Community Development

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Maryland Historical Trust

DEPT. OF STATE PLANNING
RECEIVED
JUL 10 1979
REVIEWED
ANSWERED

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

Date		Coordination
August 10, 1979	*	Maryland Department of State Planning summary of comments on Draf EIS
August 20, 1979	*	Metropolitan Washington, D. C. CO review of Draft EIS
August 24, 1979	*	Maryland Department of State Planning, additional comments on Draf EIS
September 20, 1979	*	Montgomery County Executive lette supporting Draft EIS Alternates 3 o 4

E. GENERAL:

Date		Coordination
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

D. MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION:

Date		Coordination
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.

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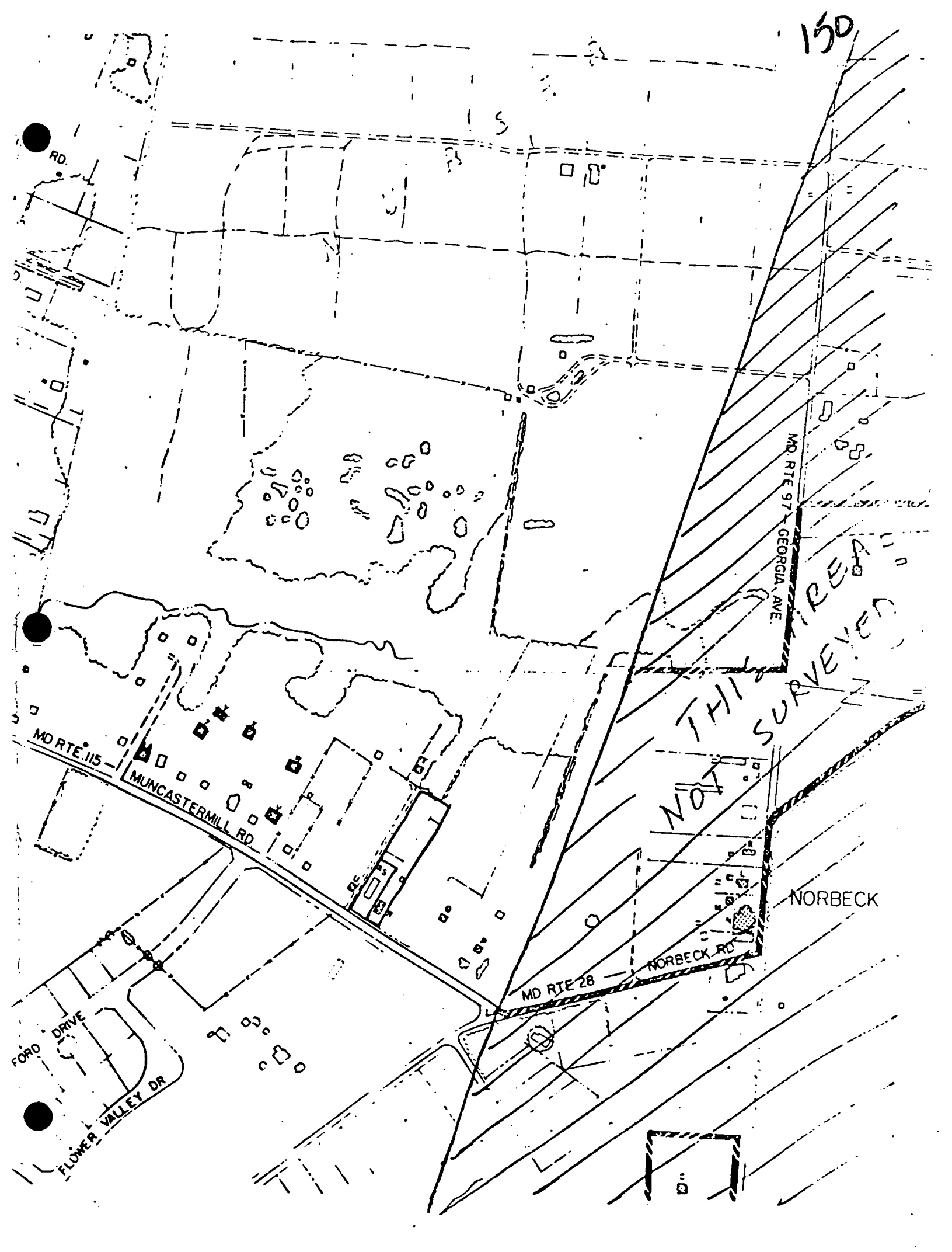
Date		Coordination
May 11, 1979	*	Letter from Md. Historical Trust listing sites eligible for National Register of Historic Places, and providing preliminary determination of no effect to Section 106 sites by any build alternates


150
RD.
MD RTE 97 GEORGIA AVE.
NOT SURVEYED
THIS AREA
MD RTE 115
MUNCASTER MILL RD
NORBECK
NORBECK RD
MD RTE 28
FORD DRIVE
FLOWER VALLEY DR

Memorandum: 15 May 1979

151

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-011A, Washington Metropolitan Drainage Basin.

We have reviewed the subject Draft EIS, made a field survey of the StudyArea 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 distrubance 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

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.

Alternates 5 and 6-5 have been dropped due to NAAQS violations. see Section V

(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. Alternate 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 V.

(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 - 5, 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 SHA highway projects (Maryland Rt. 97 from Bauer Dr. to Rt. 609 and Maryland Route 97 from Rt. 28/609 to Rt. 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 SHA 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, cemetaries etc. will be occuppied by residential and commercial development, although mention is made of some open space provisions consi derably 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) 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 Dietemann, 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 that 1750 legal-sized trout were stocked in the Study Area in 1979. More de

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 Dietemann'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-4

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 9

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 EPA 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 SHA " 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 proceedingsand 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 MFA 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. MFA 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 MFA 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 water 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 real 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 planned 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

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 FEIS 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 EPA 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.)

Thomas C. Ank

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DIREC

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.

Alternati
chosen to
to wetlan

WSS:vst

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HERBERT M. SACHS
DIRECTOR

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

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-leafed 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

160

Thomas C. Andrews
DIRECTOR

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.

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:klf

United States Department of Agriculture
Soil Conservation Service
4321 Hartwick Road
College Park, Maryland
20740

101

July 6, 1979

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

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-

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

162

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

Date: July 18, 1979

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 Nort
(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. X

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 ADMINISTRATIC

HENRY SILBERMANN
ASSISTANT SECRETARY
DEPARTMENT OF NATURAL RESOURCES

164

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

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 to Actions Required by Other Agencies: Md. Dept. of Natural Resources - Storm Water Management Approval. see p i-2

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

M158 ENV

165

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
6TH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

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

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,

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

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.

Refe Section

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 d sanction burden anal all reference to analysis shou deleted from

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.

Predic CC Alterna s assumed dem traffic signa turns, and ot improvements Road. Furthe would only be a wider roac resulting in g 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

164

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

REPLY TO ATTENTION OF:
NABPL-E

7 PM 4 03 August 1979

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

1169

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 bee found in the study area. How during final design, if any a found, the NOS will be notifi immediately to make proper arrangements.

Rec'd PP/EC
AUG 03 1979

Bcc D. Wallace 8/15/79

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

REGION III

170

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

171

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSI
8787 Georgia Avenue • Silver Spring, Maryland 20
(301) 279-1

August 6, 1979

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 st[illegible] recommendation (copy attached) that alternative alignment numbe[illegible] 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 coor
M-NCP & PC
trained during
to provide inp
mitigative m

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

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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.

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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 Avenu Alternate 2 from the original alternates meeting was dropped becau 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 h not been included in the cost estimates contained in the draft sta ment. Alternate 4 was selected, which includes an interchange at this intersect

Alternates 5 or 6-5 severely limit the capability of the transportation network to meet the capacity and safety needs for t 2005 design year and beyond. The ability to expand the facilities 4 or 6 lane divided highway with access control is precluded. For these reasons it is recommended that Alternates 5 or 6-5 be droppe Alternates 5 and 6-5 have NOT been selected

2. Alternate 6 is a non-Master Plan alignment. Numerous pub and private decisions have been made based on the Master Plan alig ment and our recommendation is not to pursue non-Master Plan align ments. In addition, the cost to the County to extend Shady Grove to meet Alternate alignment 6 is not included in the cost estimate Alternate 4 has been selected which utilizes master plan alignments for M-83 and the ICC.

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

Surveys and research have reviewed how people here in th United States responded to the energy crisis of 1973/1974. One o basic responses was for people to reduce their discretionary trav such as shopping and social trips, to a greater degree than reduc automobile travel for work related purposes. This resulted in th being larger percentage decreases in daily travel than peak perio travel, Recent news releases from the USDOT on national traffic trends shows that there has been a similar response to the curren gasoline shortage. From this observation, one could conclude tha while short term responses to energy shortages would be decreases ADT the peak hour requirements would still require the full capac 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 cuased 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 o 30% during the AM peak period hours. The limitations of transit capacity to absorb increased ridership is also dependent upon the mo 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 loose 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 trip (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 whic 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 a similar general issues. The Office of Technology Assessment of the Congress of the United States this past spring released their two ye study on Changes in the Future Use and Characteristics of the Auto-mobile 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 conc that there are several policy options regarding the use of alternat fuels to gasoline, the production of synthetic gasoline from oil sh coal, or tar sands that could be in sufficiently large productions the early 1990's to generally keep pace with the projected demands our mobility and automobile utilization. Further, there are other

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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.

RMW:WAW:bap

Item =
8/2/7

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
8787 Georgia Avenue • Silver Spring, Maryland 2

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

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Background

On July 23, 1979, the State Highway Administration of the Maryla Department of Transportation held their location public hearing for t improvement of Maryland Route 115 from Montgomery Village Avenue to Norbeck Road (see attached informational brochure). Staff of the a ning Board attended this hearing as well as the previous public meeti over the past several years related to this project. All of the loca tion alternatives under consideration have impacts upon various parkl which is under the jurisdiction of the Maryland-National Capital Park and Planning Commission. A separate request has come in from the Sta Highway Administration for comments from the Planning Board regarding the parkland impact in accordance with Section 4f of the Federal High Act. Staff is requesting that the Planning Board transmit its commer directly to the State Highway Administration for the public hearing record. The recommendations should also be sent to the Montgomery Co 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

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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. <u>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.</u> 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.

<u>Summary of Environmental, Community and Transportation Impacts</u>:

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.

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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 for the roadway has been established and planned for in the subdivis process. The maximum impacts would occur on the non-Master Plan Alternate 6 and Alternates 5 and 6-5 which try to accommodate a majo highway within the right-of-way for an arterial roadway on an existi poor geometric alignment.

3. A critical issue that was raised at the July 23 public hear on the draft environmental statement was whether the roadway was nee 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 tha 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 roadwa cross sectional requirements. Also, increased cost of energy will b offset by the mandated and market trend to more energy efficient car 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 one of its functions. In summary, available evidence and widespread professional judgment indicates the need for the Maryland 115 projec 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

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ER-79/572

AUG 3 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 4.

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)

Mr. Emil Elinsky, Baltimore, Maryland

Refer to Sections II-B IV-D p II-5

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.

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.

Refer to II for se criter

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 Section p.

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.

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 Sections 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.

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. Meirotto indica that no further coord. with FWS will occur before design sta 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

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UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230
(202) 377- 4335

August 10, 1979

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

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 mailing list

Sincerely,

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. Campomenchi 186
F Y I

MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201

HARRY HUGHES
GOVERNOR

CONSTANCE LIEDER
SECRETARY

August 10, 1979

RECEIVED
AUG 1979
DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

Mr. Hal Kassoff
State Highway Administration
201 West Preston Street
Baltimore, Maryland 21201

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT (EIS) REVIEW
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. McConnaughhay (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 those 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, floodplains, 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.

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. See for of this the

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

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 II.

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 property considered and documented in the Federal Statement for the project. Thank you for your attention to the A-95 review process.

Sincerely,

James W. McConnaughhay
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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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

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:

- 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.
- 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-NCP&PC during Design phase will be maintained to incorporate mitigative measures.
- Landscaped anti-noise berms should be installed on both sides of the roadway. see above comment and Section X
- Pedestrian crossovers should be installed at appropriate locations. see section X.

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

COPY	
No.	For
-	AWN,
-	JLB
1	DJL
Original to file 174-61	

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

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 stream 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 Yo

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

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Mr Camposeschi
FYI - guidance

MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201

HARRY HUGHES
GOVERNOR

CONSTANCE LIEDER
SECRETARY

August 24, 1979

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. McConnaughhay
Chief, State Clearinghouse

cc: Walter Scheiber
COG #79-03-010

BG:pw

RECEIVED

AUG 28 1979

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

TELEPHONE: 301-383-2451
OFFICE OF SECRETARY

metropolitan Washington
COUNCIL OF GOVERNMENTS
1225 Connecticut Avenue, N.W., Washington, D. C. 20036 223-6

A-95 METROPOLITAN CLEARINGHOUSE MEMORANDUM

DATE: August 24, 1979

TO: James W. McConnaughhay
Md. Dept. of State Planning
201 West Prestion St.
Baltimore, MD 21201

SUBJECT: PROJECT NOTIFICATION AND REVIEW FOR

PROJECT: Draft Environmental Impact Statement on Md. Rte. 115 from Montgomery Village Ave. to Norbeck--Montgomery County
COG NO. 79-03-010

APPLICANT: 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 natu does not warrant metropolitan comments. A copy of this memorandum and at ments should accompany your application to indicate that the Metropolitan Cl inghouse 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 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 pol. A copy of this memorandum and attachments should accompany your application indicate that the Metropolitan Clearinghouse review has been completed.

☐ We have concluded review of the above item and submit herewith, the attache Metropolitan Clearinghouse Review Comments. A copy of this memorandum and tached comments should accompany your application when submitted to the Fe agency to indicate that the Metropolitan Clearinghouse review has been comp

EXECUTIVE DIRECTOR

WE APPRECIATE YOUR COOPERATION

Clearinghouse review comments will be valid for a period of two years from the of this A-95 Metropolitan Clearinghouse Memorandum. All projects not submitted Federal funding agency within that period must be resubmitted to the Clearing update of the review comments before formal application is made to the Federal

Maryland Department of Transportation
State Highway Administration

James J. O'Donnell
Secretary

M. S. Caltrider
Administrator

October 3, 1980

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

P.O. Box 717 / 300 West Preston Street, Baltimore, Maryland 21203

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 meausures 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 asethetics for both bridge members and guardrails.

- Storm drainage from the brige 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 consultantion with park officials.

- 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_{10} 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_{10} 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 coordiantion 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 MNCP&PC LETTER DATED NOV. 7, 1980

by: Walter L Hanrahan
Walter L. Hanrahan
Project Manager

WLH:dd

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

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

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 Intercounty Connector Study. It was explained that the ICC study

is an ongoing study and that a Draft EIS is expected near th end of 1981. Mr. Rapley emphasized that the present proble facing the ICC study is defining the level of improvements t be considered. The independence of the Maryland Route 115 an ICC studies was stressed, based on traffic forecasts and th independent functions of the two roadways.

DOI's primary objection to the selection of Alter nate 4 is the Section 4(f) involvement with the two areas c Rock Creek Regional Park. Although Selected Alternate 4 re quires more park property for right-of-way than Alternates and 6-5, it does not require any property from historic sites Mr. Gift asked whether alignment shifts could reduce or avoi historic site impacts on Alternates 5 or 6-5. Mr. Wallace ex plained that although some impacts to historic buildings an property could be avoided by alignment shifts, takings are un avoidable and shifts could have adverse effects on residence and community facilities (i.e., a fire station).

The discussion concerning Section 4(f) impacts t Rock Creek Regional Park emphasized that park plans hav included the Master Plan alignments for M-83 and the ICC. M NCP&PC has reserved these areas for highway purposes, and par development has been located away from them. It wa reiterated that the Selected Alternate is supported by th NCP&PC Parks Department and the Montgomery County Planni Board. The status of the Brook Manor Country Club privately-owned open space, with no plans to become publi was clarified.

The results of a recent meeting with the M-NCP&P Director of Parks and staff were discussed. This meeti (September 18, 1980) was held to discuss the specif mitigation measures to be considered for the use of parkla as right-of-way, including replacement of land taken. A co of the October 3, 1980 memorandum which has been reviewed a approved by M-NCP&PC and the Park Planning Board w distributed.

Due to the planned posted speed limit for the S lected Alternate, a bicycle path will not be feasible alo the new roadway. However, sufficient clearance will be pr vided under the overpasses in Rock Creek Park for pedestri and bicycle paths.

Subsequent to the Draft EIS, more detailed floo plain mapping was provided by M-NCP&PC. As a result, a r evaluation of floodplain impacts was made and alignment shif have reduced impacts for the Selected Alternate. The tot amount of floodplain encroachment for Selected Alternate less than those for Alternates 5 and 6-5.

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

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. (2) 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. (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. (4) 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.

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.

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.

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."

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

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 prudency 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.

(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.

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,

Maryland State Highway Administration, 300 West Preston Street,

Baltimore, Maryland 21203.

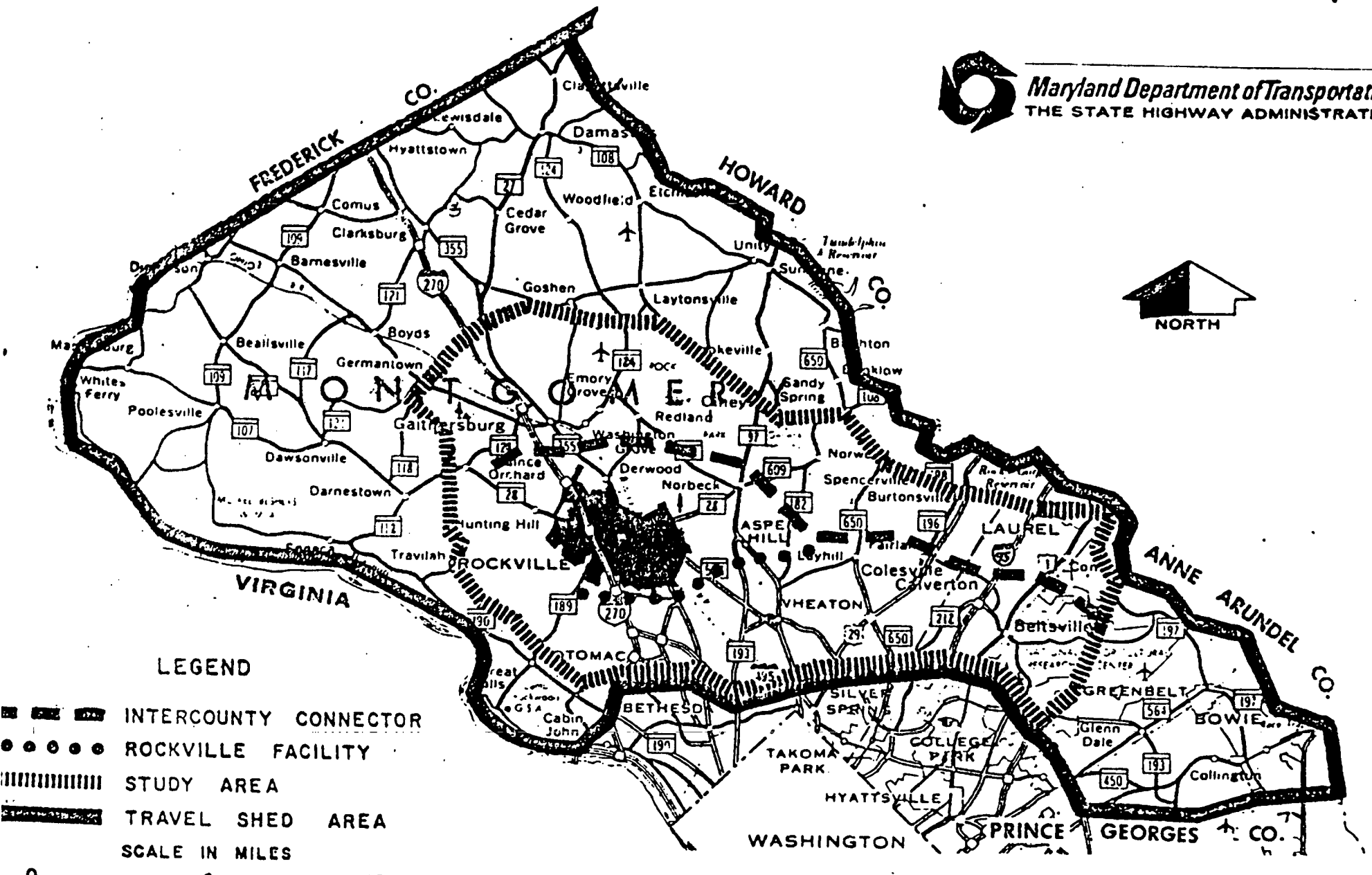
Issued on: April 11, 1980

E. ELINSKY

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

SCALE IN MILES

0 6 12

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 -

Mr. Roy D. Gingrich
District Engineer

Mr. Dennis L. Merida
Environmental Engineer

- MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION -

Mr. Ed Ferber
Transportation Planning

- CONSULTANT -

RUMMEL, KLEPPER & KAHL	AREA OF INPUT
Mr. Henry J. Bankard	Drafting
Mr. John L. Bell, P.E.	Partner-in-Charge
Mr. Joseph A. Crivello, Jr.	Design
Mr. Ernie G. Disney	Drafting
Mr. Ed. F. Germroth	Drafting
Mr. Scott E. Kick	Drafting
Mr. Dennis J. Lew	Environmental & Socio-Enconic Analysi
Mr. Charles E. Moone	Computer Simulation
Mr. Arnold W. Norden	Environmental Analysis
Mr. Larry N. Osterloh	Design
Mr. Stephen D. Rosen	Traffic & Safety
Mr. David W. Wallace, P.E.	Project Manager

- SUB-CONSULTANTS -

MESSER ASSOCIATES	
Mr. William Articola	Air Quality Analysis
Ms. Marjorie Burger	Air Quality Analysis
MAPS, INCORPORATED	Photogrammetric Mappin
THUNDERBIRD RESEARCH, INC.	
Dr. William M. Gardner, PhD.	Archeological Reconnaissance

IX. APPENDICES

time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy and, of course, the volume of traffic.

Levels of Service on expressways and freeways 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 oudoor 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.

APPENDIX B

SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE STATE HIGHWAY ADMINISTRATION OF MARYLAND

"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

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.

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.

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.

APPENDIX C

SUMMARY OF THE EQUAL EMPLOYMENT OPPORTUNITY PROGRAM OF THE STATE HIGHWAY ADMINISTRATION OF MARYLAND

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SUMMARY OF THE EQUAL EMPLOYMENT OPPORTUNITY PROGRAM OF THE STATE HIGHWAY ADMINISTRATION OF MARYLAND

"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."

APPENDIX 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 preseumption.

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 ag ency is subject to the same requirements as a private person requesting a license or permit from the State or Federal Government.

	Yes	No	Comments Attached
A. Land Use Considerations			
1. Will the action be within the 100-year floodplain?	X		V-A-1-d
2. Will the action require a permit for construction or alteration within the 50-year floodplain?	X		
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?		X	V-A-1-g
4. Will the action require a permit for construction or operations of facilities for solid waste disposal including dredge and excavation spoil?		X	
5. Will the action occur on slopes exceeding 15%?	X		III-C-1
6. Will the action require a grading plan or a sediment control permit?	X		
7. Will the action require a mining permit for deep or surface mining?		X	
8. Will the action require a permit for drilling a gas or oil well?		X	
9. Will the action require a permit for airport construction?		X	

	Yes	No	Comments Attached
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?	___	X	___
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?	X	___	V-C-5
12. Will the action affect the use of any natural or man-made features that are unique to the county, state or nation?	___	X	___
13. Will the action affect the use of any archeological or historical site or structure?	___	X	V-D-1
B. Water Use Considerations			
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?	X	___	V-A-[illegible]f
15. Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?	___	X	___
16. Will the action change the over-land flow of stormwater or reduce the absorption capacity of the ground?	X	___	V-A-1-a
17. Will the action require a permit for the drilling of a water well?	___	X	___
18. Will the action require a permit for water appropriation?	___	X	___
19. Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?	___	X	___

	Yes	No	Comments Attached
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?	___	X	___
21. Will the action result in any discharge into surface or subsurface water?	X	___	V-A-1-a,c
22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?	___	X	___
C. Air Use Considerations			
23. Will the action result in any discharge into the air?	X	___	___
24. If so, will the discharge affect ambient air quality parameters, or produce a disagreeable odor?	X	___	V-A-8
25. Will the action generate additional noise which differs in character or level from present conditions?	X	___	V-A-9
26. Will the action preclude future use of related air space?	___	X	___
27. Will the action generate any radiological, electrical, magnetic, or light influences?	___	X	___
D. Plants and Animals			
28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?	___	X	___
29. Will the action result in the significant reduction or loss of any fish or wildlife habitats?	X	___	V-A-1-e, f & g

	Yes	No	Comments Attached
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?	___	X	___
E. Socio-Economic			
31. Will the action result in a preemption or division of properties or impair their economic use?	X	___	V-A-2
32. Will the action cause relocation of activities, structures or result in a change in the population density or distribution?	X	___	V-A-2
33. Will the action alter land values?	X	___	V-A-3
34. Will the action affect traffic flow and volume?	X	___	V-A-4
35. Will the action affect the production, extraction, harvest of potential use of a scarce or economically important resource?	___	X	___
36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?	___	X	___
37. Is the action in accord with federal, state, regional and local comprehensive or functional plans - including zoning?	X	___	IV-D
38. Will the action affect the employment opportunities for persons in the area?	X	___	V-A-6
39. Will the action effect the ability of the area to attract new sources of tax revenue?	X	___	V-A-6
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?	___	X	___

	Yes	No	Comments Attached
41. Will the action affect the ability of the area to attract tourism?	___	X	___

F. Other Considerations

42. Could the action endanger the public health, safety or welfare?	___	X	___
43. Could the action be eliminated without deleterius effects to the public health, safety, welfare or the natural environment?	___	X	___
44. Will the action be of statewide significance?	X	___	___
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:	___	X	___
46. Will the action require additional power generation or transmission capacity?	___	X	___

G. Conclusion

47. This agency will develop a complete environmental effects report on the proposed action.	X	___	___

APPENDIX 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.

(OVI.R)

The purpose of this notice is to inform the public that the Office of Planning a Preliminary Engineering, with the assistance of the consultant firm of Henningson, Durham Richardson (HDR), has begun environmental and engineering activities for these proje Coordination with State and County agencies and officials will be maintained throughou study process to insure consistency with regional and local planning.

Various "Build" alternates, as well as the "No-Build" alternate will be developed a evaluated. All environmental impacts including air quality and noise levels will be stud and documented. Subject to further consideration, including citizen and agency comments is anticipated that the following facility concepts may be included in the study: 1) Freeway the Master Plan Alignment; 2) Controlled Access Highway on the Master Plan Alignment. Freeway on alignment (s) other than the Master Plan Alignment; 4) Jointly Develop Highway/Parklike Facility; 5) Upgrading, spot-improvement, and construction of miss connections between Existing Facilities; and 6) the "No-Build" Alternate. Also all freev alternates developed for the Intercounty Connector will be studied as to what additi and/or revisions would be needed if the facility were financed as a Toll Road. The range alternates will also include consideration of appropriate transit service and facilities such 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, right of way requirements, will be determined by the Project Planning studies.

Public meeting (s) to display all previously developed alternate alignments and descr their advantages and disadvantages, with recommendations to further study the most feas alternates, will be held this Fall. Following the initial public meeting (s), deta environmental and engineering studies will begin for the remaining alternates. Additio 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 invited to submit writtten comments and attend the public meetings to express their vi 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 ma submitted to Mr. Hal Kassoff, Director, Office of Planning and Preliminary Engineering, Highway Administration, 300 West Preston Street, Baltimore, Maryland 21201.

M. S. Caltrider
State Highway Administrator

MARYLAND #115 - APPENDIX E UPDATE

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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.

Intercounty Connector/Rockville Facility (ICC/RF)
Project Planning Study

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:

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.

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 commited 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:

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 alernates may emerge at any stage during the study process.

3. Full freeway option (to highest standards) has been dropped.

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