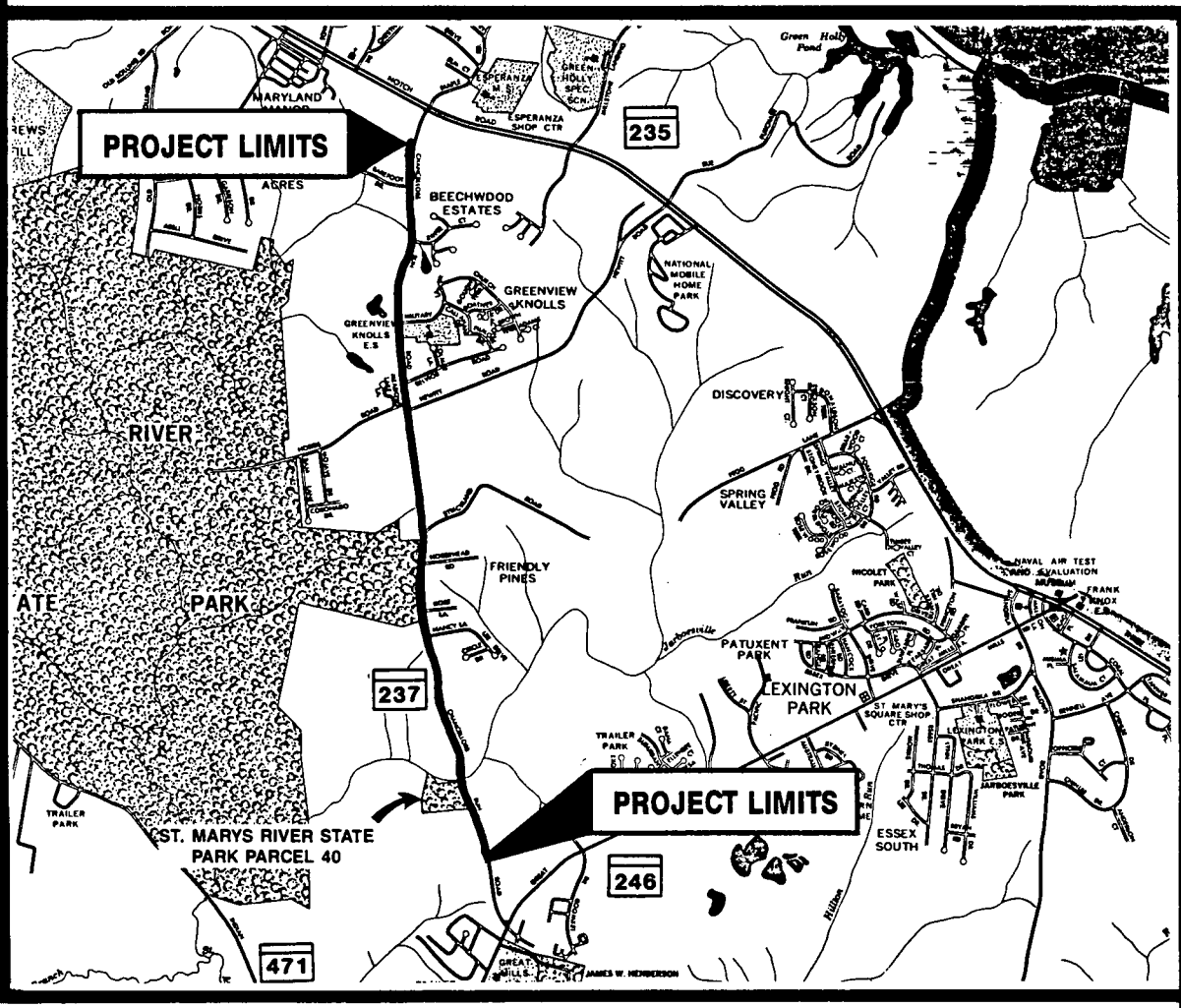
ENVIRONMENTAL ASSESSMENT SECTION 4(f) EVALUATION

CONTRACT NO. SM 757-101-571

Maryland 237 from Maryland 235 to Maryland 246

St. Mary's County, Maryland



prepared by
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

2

November 15, 1990

Contract No. SM 757-101-571
Maryland Route 237 from Maryland Route 235
to Maryland Route 246
St. Mary's County, Maryland
PDMS No. 183053

Environmental Assessment/4(f) Evaluation

Transmitted for your review and comment is a copy of the subject document. The document has been prepared in accordance with the CEQ Regulations, and 23 CFR 771.

You are requested to provide comments on or before December 13, 1990 to:

Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering, Room 506
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

All responses will be considered in developing the final document.

Very truly yours,

Neil J Pedersen

Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering

NJP:tn
cc: Mr. Charles R. Olsen
Mr. Louis H. Ege, Jr.
Ms. Cynthia D. Simpson
Mr. Lee Carrigan

My telephone number is (301)_____

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Contract No. SM 757-101-571
MD 237 from MD 235 to MD 246
Environmental Assessment/4(f) Evaluation

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California, Maryland 20616

Report Number: FHWA-MD-EA-90-06-D

Federal Highway Administration
Region III

Maryland Route 237
from Maryland Route 235 to Maryland Route 246

ENVIRONMENTAL ASSESSMENT
and
SECTION 4(f) EVALUATION

U. S. Department of Transportation
Federal Highway Administration
and
Maryland Department of Transportation
State Highway Administration

SUBMITTED PURSUANT TO: 42 U.S.C. 4332(2)(c), 49 U.S.C. 303(c),
CEQ Regulations (40 CFR 1500 et seq)

10/10/90
Date

Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering

10/29/90
Date

For Federal Highway Administration
Division Administration

Summary

SUMMARY

1. Administration Action

( ) Environmental Impact Statement
(X) Environmental Assessment
( ) Finding of No Significant Impact
(X) Section 4(f) Evaluation

2. Additional Information

Additional information concerning the proposed project may be obtained from:

Mr. Louis H. Ege, Jr.,
Deputy Director
Office of Planning and Preliminary Engineering
State Highway Administration
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Phone: (301) 333-1130
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3. Description of Action

The proposed project consists of upgrading and widening existing MD 237 from MD 235 to MD 246 in St. Mary's County, Maryland. A new structure would also be required over Jarboesville Run. The proposed improvements are necessary to eliminate the poor horizontal and vertical geometry and to accommodate projected traffic demand which will occur as a result of development slated for the area.

4. Summary of Alternates

Alternate 1 (No-Build)

Under the No-Build Alternate, no long range improvements would occur and the current congestion problem would be expected to worsen. Normal maintenance and safety improvements would be performed as they became necessary. This alternate would not offer any improvement in traffic operation, safety or capacity.

Alternate 2A

Alternate 2A would consist of a four-lane divided curbed roadway with a 20-foot raised grass median. Wherever geometric conditions permit, portions of the existing alignment and undeveloped land will be utilized to minimize residential and business relocations. All existing county roads, private entrances and driveways will retain access to the reconstructed roadway, and median crossovers will be provided at various locations throughout the project. The reconstruction begins at the MD 235/MD 237 intersection proceeding in a southerly direction, generally following the existing roadway. At Jarboesville Run, the grades and curves in the road will be reduced to decrease the potential for flooding. The alignment then ties into reconstructed MD 237, as proposed with the MD 246 project currently in design. The MD 237 project ends approximately 500 feet north of the existing MD 237/MD 246 intersection.

Alternate 2B

Alternate 2B follows the same alignment as Alternate 2A and also proposes a 20-foot, raised, grass median. The difference between Alternates 2A and 2B is that Alternate 2B proposes shoulders on the outside of the roadway rather than curbs.

Alternate 3A

Alternate 3A proposes the reconstruction of MD 237 to a four-lane, divided, curbed roadway, with a 20-foot, raised, grass median. Portions of the existing road would be used where possible.

This alignment is the same as the previous Build Alternates until it reaches the vicinity of Greenview Elementary School. At this point, the alignment shifts gradually to the east to avoid impact to the St. Mary's River State Park. The alignment then shifts to the west and generally coincides with the previous Build Alternates. Access to the proposed roadway and median crossovers would be the same as the other alternates described previously. The project's terminus is also the same.

Alternate 3B

Alternate 3B follows the same alignment as Alternate 3A and also proposes a 20-foot, raised, grass median. The difference between Alternates 3A and 3B is that Alternate 3B proposes shoulders on the outside of the roadway rather than curbs.

5. Summary of Impacts

An inventory of the study area was conducted to identify environmentally sensitive areas. The proposed alternates have been evaluated to determine their potential environmental effects. A summary of these potential environmental impacts has been divided into two major categories: socioeconomic and natural environment.

Socioeconomic

The existing land use in the northern portion of the study area is characterized by low to median density residential development (single family dwelling, garden apartments and townhouses).

Alternates 2A and 2B would require one (1) business and nineteen (19) residential displacements. Alternate 3A would displace 34 residential dwellings, and Alternate 3B would displace 34 residences.

The proposed alternates will have no affect on historic resources. Archeological potential for the study area was determined to be moderate. Phase I archeological investigations resulted in the identification of two sites, 18ST608 and the Ebenezer Cemetery. Phase II studies were recommended for 18ST608, the remains of a potentially National Register eligible pre-historic site.

A Section 4(f) Evaluation for St. Mary's River State Park is included as part of this document. Alternate 2A requires the acquisition of approximately 5.68 acres and Alternate 2B approximately 6.18 acres from this park. Alternate 3A, 3B and the No-Build will not require right-of-way from the park.

//

Natural Environment

There are no known populations of threatened or endangered species in the study area. Alternates 2A, 2B, 3A and 3B would require 0.93, 0.92, 1.53 and 1.56 acres of floodplain, respectively. Alternates 2A and 2B would require 1.65 acres of wetlands while Alternates 3A and 3B would require 2.44 acres.

It is not expected that the proposed improvement will impact any Prime Farmland due to the residential zoning status of this area. No violation of the 1-hour or 8-hour S/NAAQS for 1995 or 2015 will occur with either the No-Build or Build Alternates. FHWA Noise Abatement Criteria will be approached or exceeded at five (5) receptor sites under the No-Build Alternate; at eight (8) receptor sites under Alternate 2A and 2B; and at five (5) receptor sites under Alternate 3A and 3B.

COMPARISON OF ALTERNATES

Analysis Item	Alt. 2A	Alt. 2B	Alt. 3A	Alt. 3B
Socioeconomic				
1. Relocation				
a. Residence	19	19	34	34
b. Business	1	1	0	0
c. Farm	0	0	0	0
2. Minorities	0	0	0	0
3. Parkland or recreation area affected (acreage)	5.68	6.18	0	0
4. Consistent with area land use plans	yes	yes	yes	yes
5. Historic Sites affected	0	0	0	0
Natural Environment				
1. Number of stream relocations	0	0	0	0
2. Number of stream crossings	1	1	1	1
3. Affected threatened or endangered species	0	0	0	0
4. Acres of prime farmland affected	0	0	0	0
5. 100-year Floodplain impacted	0.93	0.92	1.53	1.56
6. Wetlands affected	1.63	1.60	2.44	2.44
Noise*				
1. Number NSA's exceeding abatement criteria or increasing 10 dBA or more over ambient	8	8	5	5
Air Quality*				
1. CO violations of 1-hour or 8-hour standards	none	none	none	none
Cost				
Right-of-way	5,300,000	5,800,000	7,000,000	7,400,000
Construction	19,300,000	19,000,000	22,700,000	22,000,000
TOTAL	24,600,000	24,800,000	29,700,000	29,400,000

Contract No. SM 757-101-571
MD 237 from MD 246 to MD 235
PDMS No. 183053

The following Environmental Assessment Form is a requirement of the Maryland Environmental Policy Act and Maryland Department of Transportation Order 11.01.06.02. Its use is in keeping with the provisions of 1500.4 (k) and 1506.2 and .6 of the Council of Environmental Quality Regulations, effective July 31, 1979, which recommend that duplication of Federal, State, and Local procedures be integrated into a single process.

The checklist identifies specific areas of the natural and social-economic environment which have been considered while preparing this environmental assessment. The reviewer can refer to the appropriate sections of the document, as indicated in the "Comment" column of the form, for a description of specific characteristics of the natural or social-economic environment within the proposed project area. It will also highlight any potential impacts, beneficial or adverse, that the action may incur. The "No" column indicates that during the scoping and early coordination processes, that specific area of the environment was not identified to be within the project area or would not be impacted by the proposed action.

ENVIRONMENTAL ASSESSMENT FORM

	YES	NO	COMMENTS
A. Land Use Considerations			
1. Will the action be within the 100 year flood plain?	X		Sect. I.F-5 Sect. IV.F-3
2. Will the action require a permit for construction or alteration within the 50 year flood plain?		X	
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?	X		Sect. IV.F-5b
4. Will the action require a permit for the construction or operation of facilities for solid waste disposal including dredge and excavation spoil?		X	
5. Will the action occur on slopes exceeding 15%?	X		Sect. IV.F-1
6. Will the action require a grading plan or a sediment control permit?	X		Sect. IV.F-3
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	
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?		X	

ENVIRONMENTAL ASSESSMENT FORM
(Continued)

	YES	NO	COMMENTS
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildlife?	X		Sect. IV.D Sect. V.1
12. Will the action affect the use of any natural or manmade features that are unique to the County, State, or Nation?		X	
13. Will the action affect the use of an archeological or historical site or structure?	X		Sect. IV.E-2
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	
15. Will the action require the construction, alteration, or removal of a dam, reservoir, or waterway obstruction?		X	
16. Will the action change the overland flow of storm water or reduce the absorption capacity of the ground?	X		Sect. IV.F-4
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	
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	

ENVIRONMENTAL ASSESSMENT FORM
(Continued)

	YES	NO	COMMENTS
21. Will the action result in any discharge into surface or sub-surface water?	X		Sect. IV-F-4
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		Sect. IV.G-1c
24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?		X	
25. Will the action generate additional noise which differs in character or level from present conditions?	X		Sect. IV.H-2,3,4
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	
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?		X	

ENVIRONMENTAL ASSESSMENT FORM
(Continued)

	YES	NO	COMMENTS
E. Socio-Economic			
31. Will the action result in a pre-emption or division of properties or impair their economic use?	X		Sect. IV-A
32. Will the action cause relocation of activities or structures, or result in a change in the population density or distribution?	X		Sect. IV-A
33. Will the action alter land values?		X	
34. Will the action affect traffic flow and volume?	X		Sect. II-C
35. Will the action affect the production, extraction, harvest or 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		Sect. II-B
38. Will the action affect the employment opportunities for persons in the area?		X	
39. Will the action affect the ability of the area to attract new sources of tax revenue?		X	
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?		X	

ENVIRONMENTAL ASSESSMENT FORM
(Continued)

	YES	NO	COMMENTS
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 deleterious 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	See Note Below

Note: This Environmental Assessment satisfies the requirements of both the National Environmental Policy Act and the Maryland Environmental Policy Act.

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Description of Proposed Action

I. DESCRIPTION OF PROPOSED ACTION

A. Project Location

MD 237 is located in St. Mary's County Maryland (see Figure 1). The project limits extend from the intersections of MD 235 (Three Notch Road) and MD 237 at the northern end to just north of the MD 246 (Great Mills Road) and MD 237 intersection at the southern end. MD 237 is on the secondary roadway system and functionally classified as a major collector.

B. Project Description

The proposed project consists of upgrading and widening existing MD 237 from a two-lane roadway to a four-lane divided highway from its northern most end at MD 235 to approximately 1500 feet of its southern most end at MD 246 (see Figure 2). Replacement of a structure over Jarboesville Run is also proposed. The right-of-way width for the proposed improvement will range from 150 to 190 feet except at Jarboesville Run where the right-of-way approximates 250 feet due to the steep slopes in that vicinity.

C. Description of Existing Environment

1. Social Environment

a. Population Characteristics

According to the Maryland Office of Planning, the population in St. Mary's County increased nearly 26 percent between 1970 (47,388) and 1980 (59,895). In 1990, the Office of Planning estimated the population to be 71,900, an increase of almost 20 percent since 1980, and is projected to increase by 15 percent (82,800) by the year 2000. By the year 2010, it is estimated that the population in St. Mary's County will have increased approximately 10 percent to 90,900 people.

The study area is located within the county's eighth election district, Lexington Park (see Figure 3). The eighth district is the county's most populous with an estimated 1990 population of 25,997 which is 36.7 percent of the total county population. This is mainly due to Lexington Park, which is one of the county's designated development districts. The eighth district also has the second highest average annual percentage of population increase in the

county (3.7 percent). Population increases and commercial growth in the eighth district are a direct result of an increase in manpower at Patuxent Naval Air Station.

An analysis of the 1980 U.S. Census data, most recently available, indicated that 75.9 percent of the population in the eighth election district was White, 18.7 percent was Black, 3.4 percent was of Oriental origin, 0.4 percent was American Indian and 1.6 percent was classified as other. In Election District 8, 3.5 percent of the population is 65 or older.

A racially mixed community was identified at the Greenview Village Apartments off of Military Drive. The Bayside Nursing Center for the elderly is located on MD 246 near Quatman Road. No concentrations of handicapped individuals were identified in the study area.

b. Community Facilities and Services (Figure 4)

A variety of facilities and services is situated in or near the project area.

Schools within the study area include Greenview Knolls Elementary, Great Mills High, Esperanza Middle, Green Holly Special Education, Lexington Park Elementary, and Frank Knox Elementary.

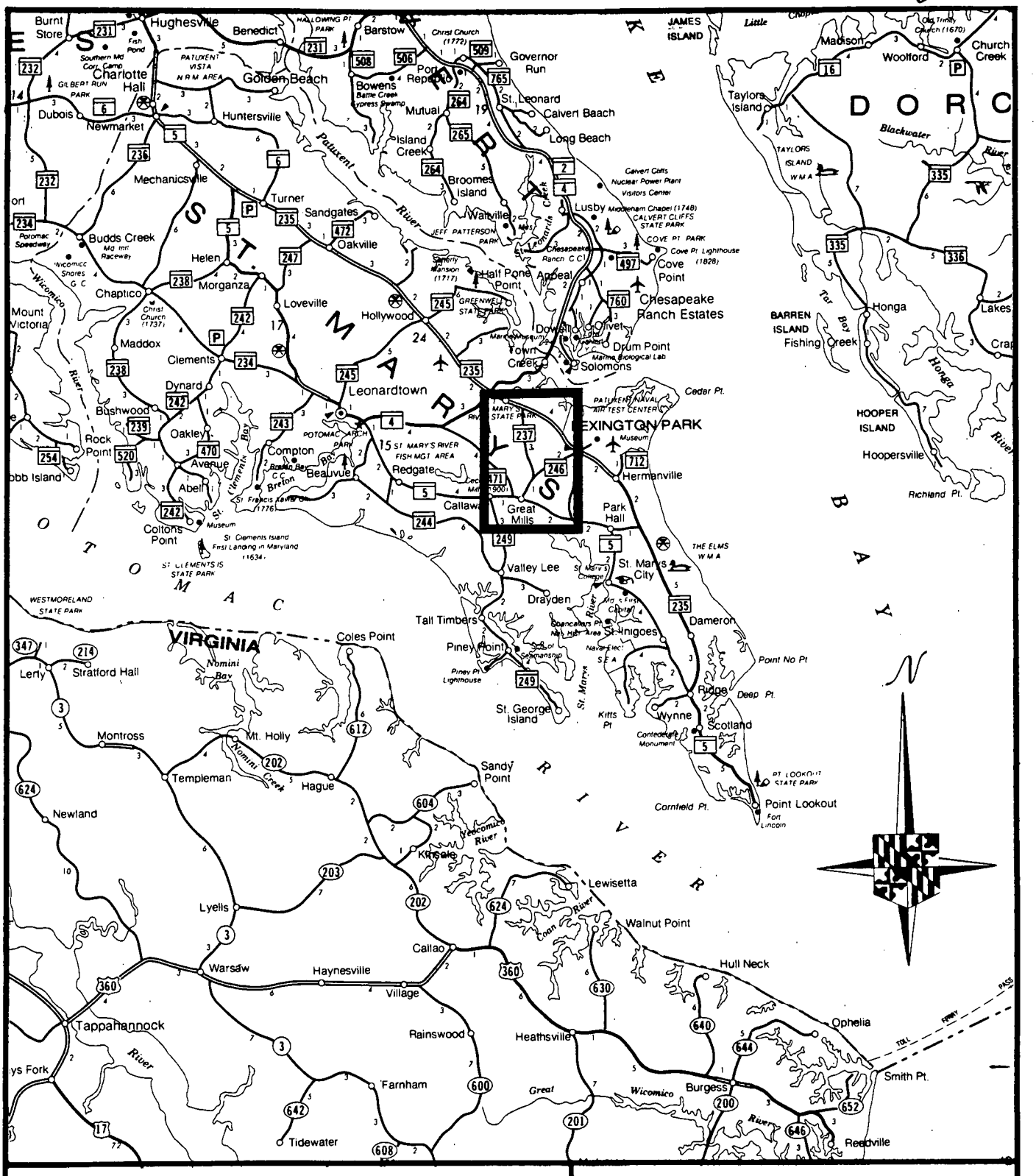
Churches in the study area include Ebenezer Church, Church of the Ascension Episcopal Church and Kingdom Hall of Jehovah's Witnesses.

Other facilities and services located within the study corridor are St. Mary's County Elk's Lodge #2092, Greenview Professional Building, the Southern Maryland Medical Health Association, and the Evergreen Memorial Gardens.

Fire protection is provided by Co. 3 Rescue Fire Company and the Bay District Volunteer Fire Department both located in Lexington Park and include ambulance service. Police protection is provided by the St. Mary's County Sheriff's Department and the Maryland State Police. The Sheriff's Department is headquartered in Leonardtown, and the State Police are barracked in Leonardtown.

The St. Mary's County Public Library is located in Leonardtown. The closest hospital is St. Mary's Hospital in Leonardtown. Medical services for Navy personnel are located on base at the Patuxent USN Air Test Center Hospital in Lexington Park. Local Post Office services are located in Lexington Park and on MD 235 west of MD 237.

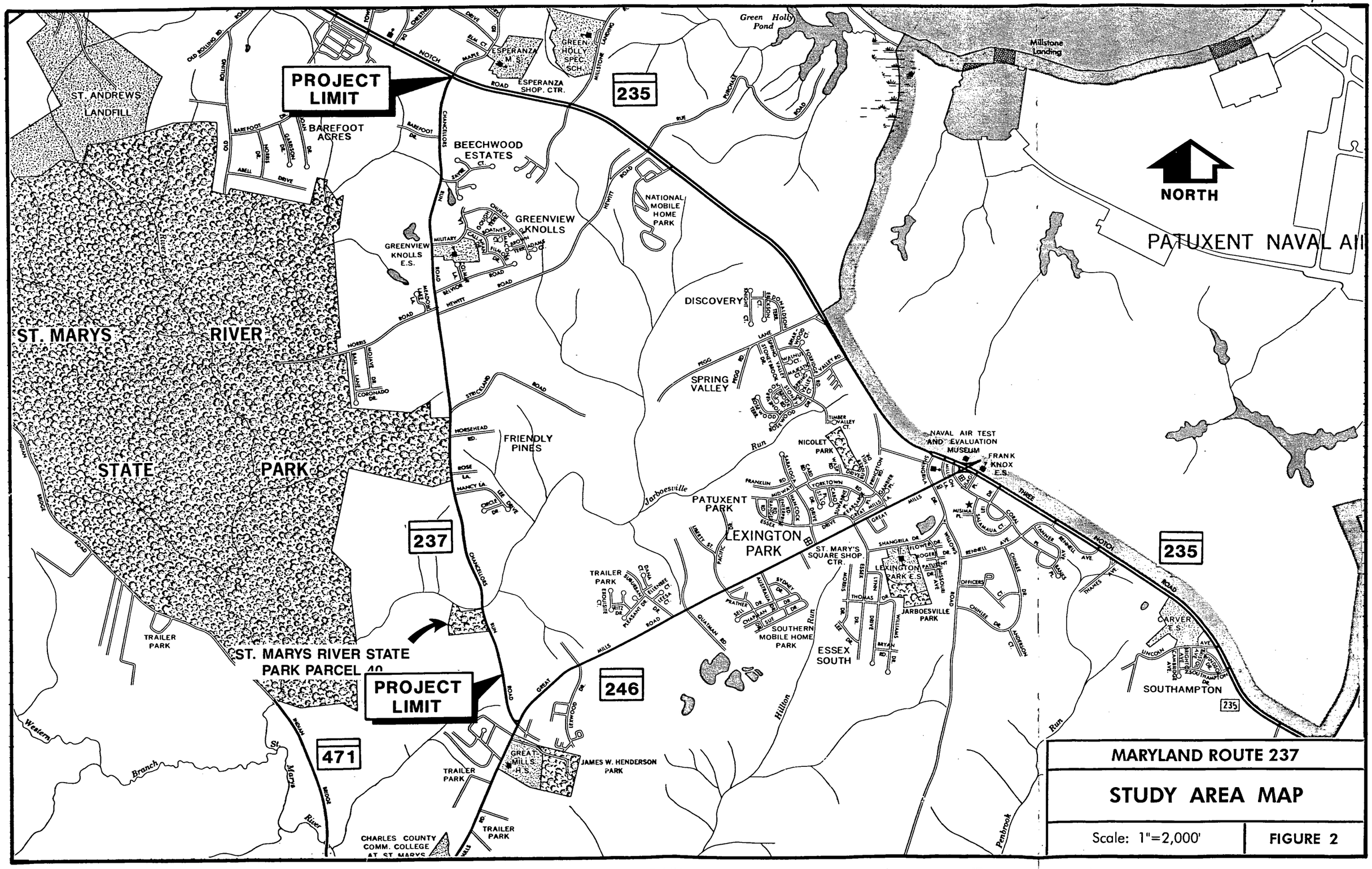
A public sewer system serves approximately 98 percent of the Lexington Park area and, in addition, north of Strickland Road to MD 235 along MD 237. Septic systems serve



MARYLAND ROUTE 237

PROJECT LOCATION MAP

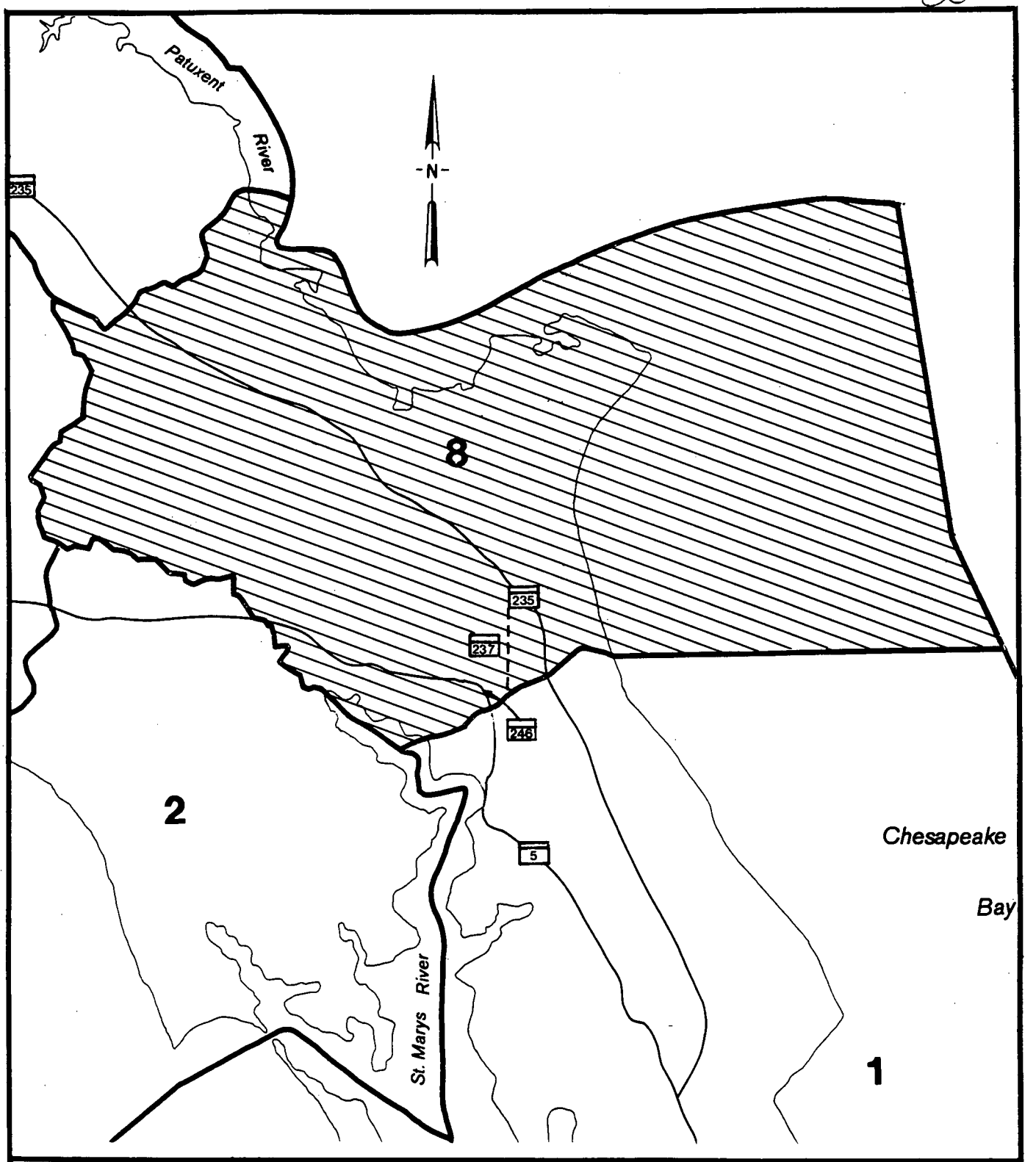
FIGURE 1



MARYLAND ROUTE 237

STUDY AREA MAP

Scale: 1"=2,000' | **FIGURE 2**



LEGEND

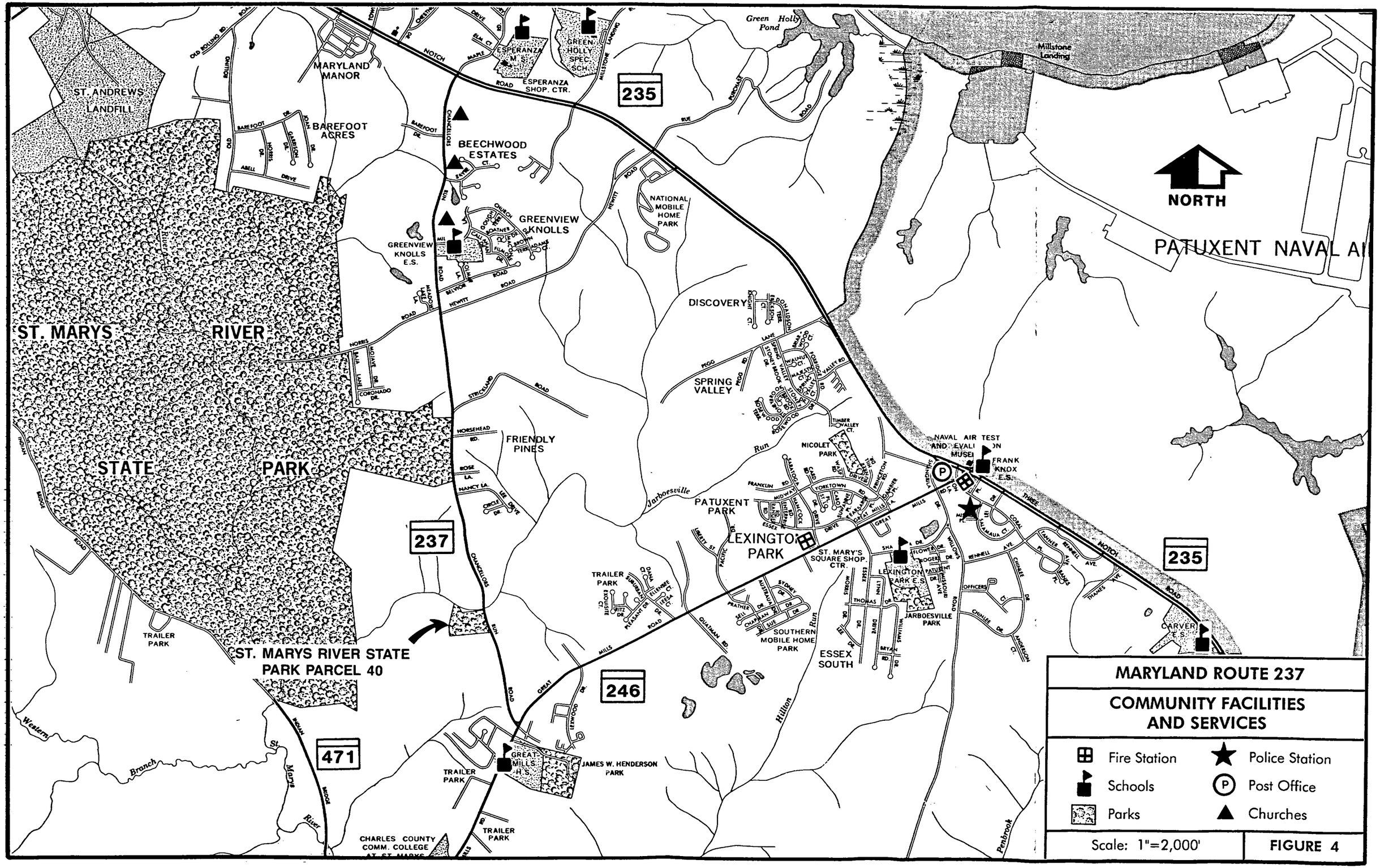
ELECTION DISTRICT 8

MD RTE. 237
From MD RTE. 235
TO MD RTE. 246

ELECTION DISTRICT

NOT TO SCALE

FIGURE 3


ST. ANDREWS LANDFILL
MARYLAND MANOR
BAREFOOT ACRES
BEECHWOOD ESTATES
GREENVIEW KNOLLS
GREENVIEW KNOLLS E.S.
ESPERANZA M.S.
ESPERANZA SHOP. CTR.
GREEN HOLLY SPEC. SCH.
NATIONAL MOBILE HOME PARK
Green Holly Pond
Millstone Landing
235
NORTH
PATUXENT NAVAL AI
DISCOVERY
SPRING VALLEY
NICOLET PARK
NAVAL AIR TEST AND EVALUATION MUSEUM
FRANK KNOX E.S.
PATUXENT PARK
LEXINGTON PARK
ST. MARY'S SQUARE SHOP. CTR.
LEXINGTON PARK E.S.
JARBOESVILLE PARK
SOUTHERN MOBILE HOME PARK
ESSEX SOUTH
CARVER E.S.
TRAILER PARK
ST. MARYS RIVER
STATE PARK
ST. MARYS RIVER STATE PARK PARCEL 40
FRIENDLY PINES
237
246
471
GREAT MILLS H.S.
JAMES W. HENDERSON PARK
CHARLES COUNTY COMM. COLLEGE AT ST. MARYS
Western Branch
St. Mary's River
Jarboesville Run
Hilton Run
Penbrook Run
NOTCH ROAD
GREAT MILLS ROAD
CHANCELLORS RUN ROAD
OLD ROLLING ROAD
HEWITT ROAD
BELVOIR ROAD
STRICKLAND ROAD
MILLSTONE LANDING ROAD
MERCHANT ROAD
PEGG ROAD
QUAKTMAN RD.
MILLS ROAD
INDIAN BRIDGE ROAD
MARYLAND ROUTE 237
COMMUNITY FACILITIES AND SERVICES
Fire Station
Police Station
Schools
Post Office
Parks
Churches
Scale: 1"=2,000'
FIGURE 4

the remaining areas. The county anticipates that within five to ten years this area will be fully on public sewer systems.

c. Parks and Recreation Areas

St. Mary's River State Park is located on the west side of MD 237. This park provides over 2,000 acres of publicly owned open space featuring landscape elements ranging from wetlands to farm fields to mixed hardwood forests. The park serves as a wildlife habitat and provides numerous recreational uses such as fishing, hiking, horseback riding, bird watching and nature studies.

All the park property (see Figure 4), with the exception of a parcel (Parcel 4) located northwest of the study area, was purchased with Program Open Space funds. The Department of Natural Resources leases 82 acres, located adjacent to MD 237 and south of Strickland Road, to the St. Mary's County Department of Recreation and Parks. The county proposes to develop facilities for softball, soccer, swimming, tennis, golf and outdoor concerts in the near future.

Other parks located near the study area include James W. Henderson Park, Jarboesville Park, and Nicolet Park.

2. Economic Environment

In 1984, a detailed economic development program was prepared for St. Mary's County by the Maryland Department of Economic and Community Development. This program addressed the four major factors which predominantly affect the county's economy. These factors include agriculture and commercial seafood activities; the presence of the Patuxent River NAS Complex; tourism; and relative proximity to Washington, D.C.

Historically, agriculture and the commercial seafood industry have been the base elements of the county's economy. However, in recent years, both these activities have been on the decline, especially with conversion of agricultural land for developmental purposes.

The Patuxent River Naval Air Test Center and associated contract firms represent the single most important sector in the county's economy. It is the county's largest employer and is located within the study area at Lexington Park. In 1988, there were 12,901 military, civilian and contractor employees associated with the Patuxent River Naval Air Test

Complex. Other major employers within the study area include McDonnell Douglas Corporation, Tracor, Veda and Bendix.

St. Mary's County has a strong local economy with the majority (74 percent) of the county's resident work force employed within the county. The county also has a 3.2 percent average unemployment rate, lower than the state's 3.7 percent average rate. However, the 1980 unemployment rate of 8.8 percent for Lexington Park was considerably higher than the state's 6.5 percent average rate. This is believed to have improved as a result of new growth in the area since 1980.

According to the 1980 U.S. Census, the predominant occupations of residents in Election District 8 were public administration (22 percent), retail trade (16 percent), educational services (13 percent) and manufacturing (8 percent).

Of the working population in the subject election district, a majority (92.6 percent) worked within the county, predominantly in the Lexington Park area, with the remainder working outside the county and state.

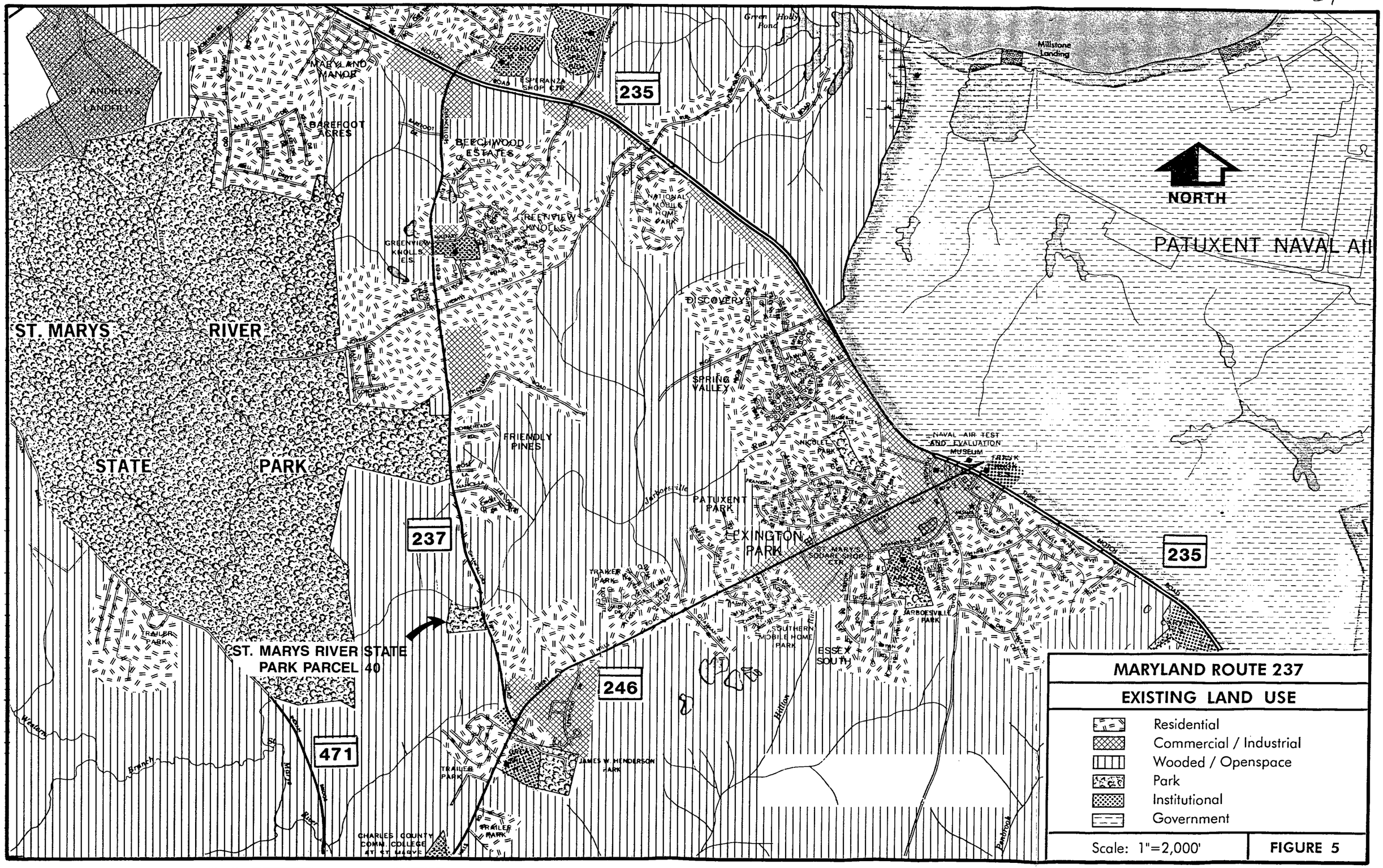
Besides the Patuxent NAS, other economic activity and employment opportunities in the study area consist of concentrated commercial development, located at MD 235/237 including the Hickory Hill Shopping Center and gas stations, as well as industrial development. Other strip commercial areas are located along MD 246 and MD 235 in the Lexington Park area.

The 1985 median income for the county was $28,310, which is very similar to the statewide median of $29,105. Although the 1985 figure is not available for the Lexington Park area, the 1980 median household income was $14,449.

D. Land Use

1. Existing Land Use (Figure 5)

The predominant land uses in the northern portion of the study area are characterized by low- to medium-density residential development (single family dwelling, garden apartments and townhouses), a concentration of commercial/industrial/office development at the intersection of MD 235 and MD 237, and minor agricultural uses.


ST. MARYS RIVER
STATE PARK
ST. ANDREWS LANDFILL
MARYLAND MANOR
BAREFOOT ACRES
BEECHWOOD ESTATES
GREENVIEW KNOLLS
GREENVIEW KNOLLS E.S.
NATIONAL MOBILE HOME PARK
ESPERANZA SHOPPING CTR.
FRIENDLY PINES
DISCOVERY
SPRING VALLEY
PATUXENT PARK
LEXINGTON PARK
ST. MARYS SQUARE SHOPPING CTR.
SOUTHERN MOBILE HOME PARK
ESSEX SOUTH
JARBOESVILLE PARK
NAVAL AIR TEST AND EVALUATION MUSEUM
NICOLET PARK
TRAILER PARK
JAMES W. HENDERSON PARK
CHARLES COUNTY COMM. COLLEGE AT ST. MARYS
ST. MARYS RIVER STATE PARK PARCEL 40
Green Holly Pond
Millstone Landing
PATUXENT NAVAL AIR
NORTH
235
237
246
471
MARYLAND ROUTE 237
EXISTING LAND USE
Residential
Commercial / Industrial
Wooded / Openspace
Park
Institutional
Government
Scale: 1"=2,000'
FIGURE 5

The existing land use in the southern portion of the project area is predominantly woodland, agricultural and low density residential with some commercial establishments at the MD 237/MD 246 intersection.

The proposed St. Mary's River State Park will be centrally located to the west side of MD 237 and will provide recreational uses for county residents.

2. Future Land Use (Figure 6)

Lexington Park and its immediate surroundings, which include the MD 237 corridor, are most suitable for population growth and have been designated as a Development District by the county. This area will function as one of the county's centers for commercial activity as a regional and subregional area and for employment opportunities.

According to the St. Mary's County Comprehensive Plan, adopted October 25, 1988, land use along the MD 237 study corridor is designated for residential and commercial development.

The Department of Plannning and Zoning for St. Mary's County has designated MD 237 as a Host-Zone area, for planned unit development. This development could occur at any open space location in the study area.

E. Cultural Resources

1. Historic Standing Structures

An historic sites reconnaissance of the project area was conducted, and no historic standing structures on or eligible for the National Register were identified in the study corridor. The December 28, 1988 letter from the State Historic Preservation Officer's (SHPO) office to that effect is in the Comments and Coordination Section.

2. Archeological Sites

The Phase I survey resulted in the identification of two sites: a prehistoric site (18 ST 608) located on the north bank of Jarboesville Run and an historic archeological site, the Ebenezer Cemetery. The first site (18 ST 608) represents a short-term encampment and the first prehistoric site recorded on Jarboesville Run. A Phase II site testing program is recommended to determine whether it is eligible for listing in the National Register of

Historic Places. The second site, the Ebenezer Cemetery (SM135), is not eligible for the Register. There were no extant archeological remains in the vicinity of Matthews Folley (SM134).

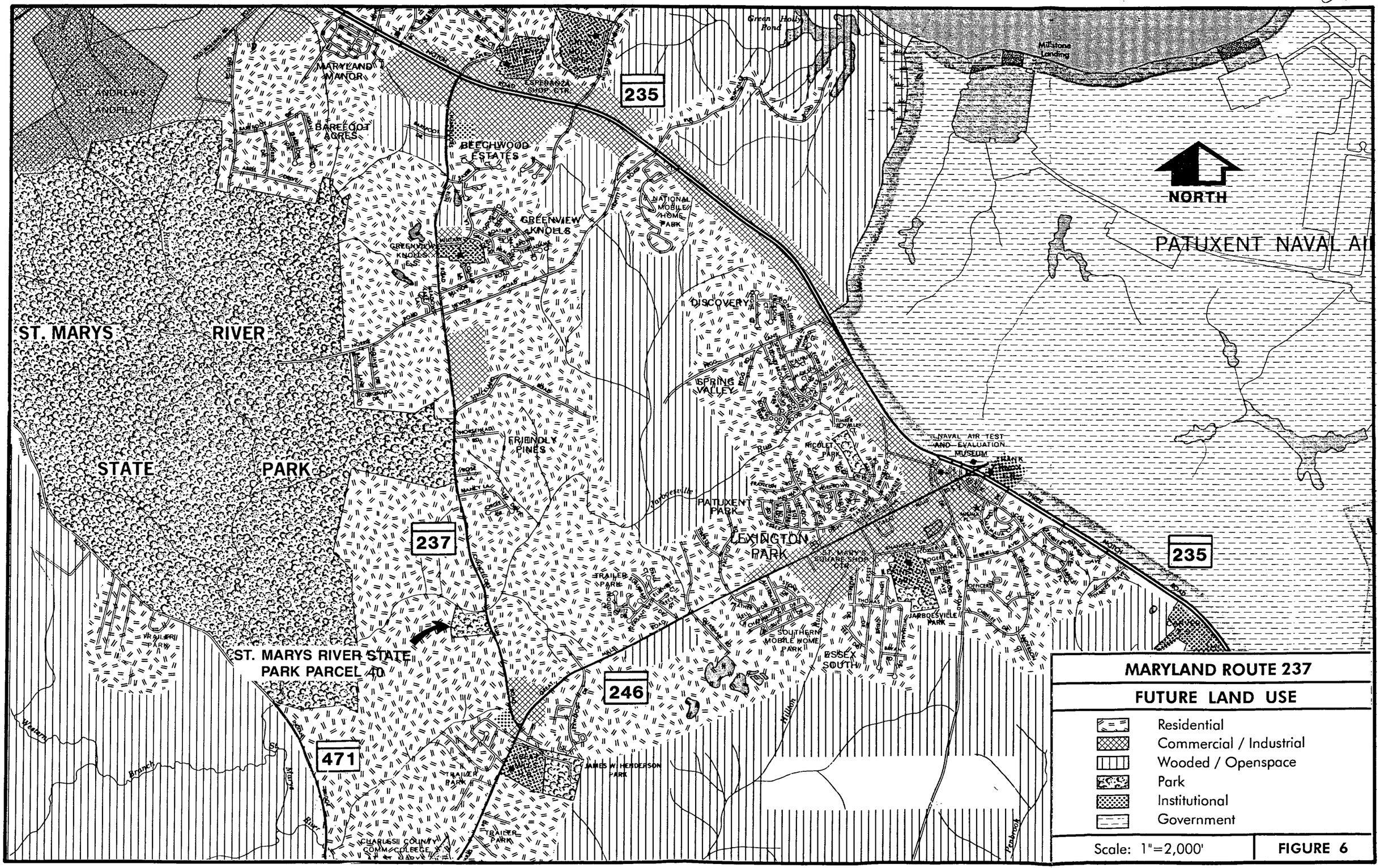
F. Natural Environment

1. Topography

Most of St. Mary's County, including the study area, lies within the Upland Plateau Region of the Atlantic Coastal Plain Physiographic Province. The province extends from Long Island to South Carolina. It is characterized by flat to gently rolling topography and sedimentary deposits consisting chiefly of unconsolidated sand, clay and gravel. The Upland Plateau is a relatively flat region with an elevation of 70 to 170 feet above sea level. This plateau has been extensively eroded by streams and rivers, as in the area east of MD 235. The rest of the county, namely along the Potomac River and the Chesapeake Bay, lies in the flat, low elevation, Lowland Plain Region of the Atlantic Coastal Plain Physiographic Province.

2. Geology

There are two geological formations which outcrop within the project study area and vicinity. The St. Mary's Formation outcrops along both sides of Jarboesville Run. This formation consists of greenish-blue to yellowish-grey sandy clay and fine-grained argillaceous sand. It is up to 80 feet thick and was deposited during the Miocene Epoch (23.7 to 5.3 million years ago). The remainder of the study area is underlain by Western Shore Upland Deposits which are assumed to have been deposited during the Pliocene Epoch (5.3 to 1.6 million years ago). This formation consists of orange to brown, locally cemented sand and gravel with minor amounts of clay, and it ranges from 0 to 50 feet thick. In the study area, the contact between the St. Mary's Formation and the Western Shore Upland Deposits occurs at an elevation of roughly 80 to 100 feet above sea level.



MARYLAND ROUTE 237

FUTURE LAND USE

- Residential
- Commercial / Industrial
- Wooded / Openspace
- Park
- Institutional
- Government

Scale: 1"=2,000'

FIGURE 6

3. Soils

The Maryland State Soil Conservation Service was consulted to determine which soils in the study area are classified as Prime or Statewide Important Farmland Soils. The Prime Farmland Soils in the study area are as follows:

- o Mattapex silt loam, 0-2 percent slopes (MuA)
- o Sassafras loam, 2-5 percent slopes, moderately eroded (SfB2).

The Statewide Important Farmland Soils in the study area are:

- o Beltsville silt loam, 0-2 percent slopes (BlA)
- o Beltsville silt loam, 2-5 percent slopes, moderately eroded (BlB2)
- o Beltsville silt loam, 5-10 percent slopes, moderately eroded (BlC2)
- o Caroline silt loam, 5-10 percent slopes, moderately eroded (CaC2)
- o Chillum loam, 6-12 percent slopes, moderately eroded (ChC2).

4. Surface Water

The study area is drained by Jarboesville Run, a tributary to the St. Mary's River, and three unnamed tributaries (see Alternates Maps). Jarboesville Run flows southwest, crossing the study area approximately 3000 feet north of MD 246. Jarboesville Run has a drainage area of about 2,300 acres (3.6 square miles), roughly bounded by MD 237 to the west, MD 246 to the south and MD 235 to the north and east.

Jarboesville Run in the project area is approximately 15 feet in width, with a depth at the time of survey of one to two feet. The substrate of the stream bottom is unconsolidated, consisting of cobbles, gravel and sand. Streamflow is conveyed under MD 237 via three, 4-foot diameter corrugated metal pipe arches (CMPA's).

The three unnamed tributary streams which provide drainage to the study area are intermittent in flow and cross MD 237 at the following locations:

- o About 750 feet south of MD 235
- o At Sayre Drive
- o About 600 feet north of Strickland Road.

The Maryland Department of Environment has classified all surface waters of the state into four categories, according to desired use. These categories are:

Class I	Water Contact Recreation, Aquatic Life and Water Supply
Class II	Shellfish Harvesting Waters
Class III	Natural Trout Waters
Class IV	Recreational Trout Waters.

All waters of the state are Class I, with additional protection provided by higher classification. All waters in the study area are designated as Class I, Water Contact Recreation, Aquatic Life and Water Supply.

5. Floodplains

The 100-year floodplain associated with Jarboesville Run is shown on the Alternates mapping. The floodplain is based on the Federal Emergency Management Agency Flood Insurance Rate Map (F.I.R.M.). Base flood elevations for Jarboesville Run range from an elevation of 30 feet National Geodetic Vertical Datum of 1929 (NGVD) at the confluence with the St. Mary's River to an elevation of 74 NGVD at the limits of the detailed flood study, located about two miles up stream of MD 237.

6. Ecology

a. Terrestrial

Vegetative cover types located within the project area consist of six (6) distinct vegetative community types. These include maintained grasses associated with residential areas and two (2) memorial parks; cropland; a mixed upland conifer-hardwood association of oak and Virginia pine; a mixed wetland forest association of yellow poplar, sweetgum and loblolly pine; deciduous shrub wetland composed of red maple and sweet pepperbush; and early successional field community. A description of the vegetative communities/locations excluding grasses and croplands follows:

Oak - Pine Association

The mixed oak-pine association occurs primarily on the well-drained slopes and uplands bordering Jarboesville Run and near the northern limit of the project area. This

community is a mature, upland forest dominated by a canopy of red oak, white oak, and Virginia pine. American holly occurs frequently as a lower canopy species.

Yellow Poplar - Sweetgum Association

The poplar-sweetgum lowland forest community occurs on poorly drained soils associated with three riverine systems in the study area. Dominant canopy species include yellow poplar, sweetgum and loblolly pine.

Sweet Pepperbush - Red Maple Deciduous Shrub Community

This wetland shrub-scrub community occurs along the broad floodplain of Jarboesville Run on saturated soils subject to frequent flooding during the growing season. The shrub layer is dominated by sweet pepperbush.

Early Successional Field Community

The early successional field community occupies abandoned farmland and disturbed areas, located mainly west of MD 237. Soils are well-drained, composed of sand and clay and generally acidic in nature.

One tree was identified as eligible for classification as a large or significant tree (see Alternates Map). A white oak, approximately 70 to 80 feet in height and supporting a canopy of 60 to 70 feet in diameter, was identified adjacent to Wetland #6, a forested intermittent stream corridor. This tree is located beyond the right-of-way of all the build alternates and is not impacted.

b. Aquatic Habitat

Wetlands in the study area were identified in accordance with Executive Order 11990. The delineation was performed utilizing the Federal Manual for Identifying and Delineating Jurisdictional Wetlands. Eight wetland areas are located within the proposed project limits. These areas include four impoundments, three riverine systems with associated emergent and forested wetlands, and two intermittent stream corridors. The hydrology, vegetation and soil characteristics of each wetland are discussed briefly below and have been field reviewed by the Army Corps of Engineers and the U.S. Fish and Wildlife Service on June 30, 1990. The approximate location of each wetland is indicated on the Alternates Mapping.

Wetland #1

This wetland is classified as palustrine forested and manmade open water impoundment. The riverine and forested areas are located on the east side of MD 237 approximately 2,000 feet south of MD 235. Overflow from the impoundment is piped from the west side of MD 235 via a concrete pipe into the stream.

Wetland #2

This wetland is a farm pond consisting of impounded open water with no associated wetland vegetation. The pond is located north of Military Lane about 250 feet from the west side of MD 237. The depth of the pond is unknown and the bottom is composed of mud. Boundaries of this open water wetland were identified as the top of the earthen embankment.

Wetland #3

Wetland #3 is classified as riverine, upper perennial with associated emergent vegetation along the low banks. This stream flows west into an open water pond just outside of the study limits. It is located about 500 feet west of MD 237 and 500 feet north of Norris Road.

Wetland #4

Wetland #4 is manmade impoundment of unknown depth. The bottom consists of mud. The pond is located at the south side of the Evergreen Memorial Gardens, approximately 700 feet north of Strickland Road on the east side of MD 237. The pond is surrounded by maintained grass and has gently sloping banks. No wetland vegetation or soils occur at this site. Boundaries of this open water wetland were identified as the top of the earthen embankments.

Wetland #5

Wetland #5 consists of a small open-water impoundment, an intermittent stream and surrounding forested wetland. This wetland is a system supported by an intermittent stream and also a seasonally high water table. The wetland system is located just 50 feet south of Wetland #4, north of Strickland Road. The intermittent stream carries water west eventually to the east branch of the St. Mary's River.

Wetland #6

Wetland #6 is located on the east side of MD 237 about 250 feet north of Rose Lane. It is classified as riverine, intermittent with a sand bottom and is surrounded by palustrine forest. The water within the channel flows southeast as an unnamed tributary to Jarboesville Run.

Wetland #7

This wetland is riverine, upper perennial with an unconsolidated bottom of mud with associated palustrine forested vegetation (PFO-1). In addition, at a broad bend along Jarboesville Run east of MD 237, a large saturated area is dominated by emergent vegetation and fallen snags of loblolly pine and oak.

Wetland #8

Wetland #8 is classified as riverine, intermittent with an unconsolidated bottom of mud. This wetland is located at the southern end of the study area, approximately 350 feet north of MD 246.

7. Endangered Species

Correspondence with the U.S. Fish and Wildlife Service and the Maryland DNR Forest Park and Wildlife Service indicates that there are no known populations of threatened or endangered species in the study area (see Comments and Coordination Section).

8. Existing Air Quality

The MD 237 project is within the Southern Maryland Intrastate Air Quality Control Region. The U.S. Environmental Protection Agency attainment status designation for carbon monoxide (CO) for this region is "cannot be classified or better than national standards."

A detailed microscale air quality analysis has been performed to determine the CO impact of the proposed project which is described in further detail in Section IV-G.

9. Existing Noise Conditions

Twelve noise sensitive areas (NSA) have been identified in the MD 237 study area. Descriptions of the NSA's are provided in Table 1. The locations of the NSA's are shown on the Alternates Mapping (Figures 10a, 10b, and 12a through 14b). A copy of the Technical Noise Analysis Report is available at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

The noise levels in the analysis are expressed in terms of an Leq noise level, which is the energy averaged noise level for a given time period. All ambient and predicted noise levels in this document are Leq exterior noise level unless otherwise noted.

In an acoustical analysis, measurement of ambient noise levels is intended to establish the basis for impact analysis. The ambient noise levels, as recorded, represent a generalized view of present noise levels. Variations with time of total traffic volume, truck traffic volumes, speed, etc. may cause fluctuations in ambient noise levels of several decibels. However, for the purposes of impact assessment, these fluctuations are usually not sufficient to substantially affect the assessment.

It was determined that for most of the NSA's, the most typical noise conditions occur during the non-rush period (9:00 a.m. - 4:00 p.m.). During this time the highest noise levels are experienced for the greatest length of time.

To determine existing noise levels within the project area, an on-site noise monitoring program was conducted on January 17, 1990. Monitoring was performed between 11:00 a.m. and 2:00 p.m.

A total of 12 sites were monitored. Measurements were made for 20 minutes at each location utilizing a Metrosonics db-308 Sound Level Dosimeter/Analyzer, which automatically records and calculates noise exposure in a wide range of formats. The noise descriptor used in this study was the Equivalent Noise Level (Leq) which conforms to the noise abatement criteria established by the Federal Highway Administration (FHWA).

TABLE 1

NOISE SENSITIVE AREAS
AMBIENT NOISE LEVELS, IN dBA
20 MINUTE MEASUREMENTS
JANUARY 17, 1990

NSA	Description/Location	Leq
1	Kingdom Hall Church	60 dBA
2	Lexington Park Church of God	65 dBA
3	Hayden Green Subdivision	55 dBA
4	1-story brick/frame residence, 878 Chancellors Run Road (MD 237)	65 dBA
5	1-story frame residence 871 Chancellors Run Road (MD 237)	63 dBA
5A	Proposed development located along southbound MD 237, south of Norris Road	64 dBA
6*	1-story frame residence 530 Chancellors Run Road (MD 237)	67* dBA
7	Point on right-of-way	65 dBA
8	1-story frame residence 458 Chancellors Run Road (MD 237)	60 dBA
9	Mobile home residence 447-C Chancellors Run Road (MD 237)	59 dBA
10	Fox Chase Village Chancellors Run Road (MD 237)	64 dBA
11	1-story brick residence Chancellors Run Road (MD 237)	63 dBA

*Approaches or exceeds FHWA Noise Abatement Criteria.

Section II

Purpose and Need

II. NEED FOR THE PROJECT

A. Purpose of the Project

The purpose of the project is to develop alternates for the dualization of MD 237 from MD 235 to MD 246, a three-mile section of roadway in St. Mary's County. The proposed widening is necessary to increase capacity and improve the horizontal and vertical geometrics along MD 237. MD 237 is on the secondary roadway system and is functionally classified as a major collector and carries commuter and local traffic.

Existing MD 237 is a 2-lane roadway with minimal shoulders and no safety grading. The geometric design of the existing roadway is substandard consisting of sharp curves and steep grades, particularly in the Jarboesville Run area and needs to be brought up to acceptable standards. Horizontal curves in the 5°30' range and vertical grades up to 6 percent exist at Jarboesville Run. Also, utility poles, drainage ditches, mail boxes, signs and other fixed objects are situated along both sides of MD 237 as close as 10 feet to the edge of the existing roadway. Such features result in inadequate sight distances for the vehicles travelling along this roadway.

This road has no access controls. There are 95 driveways, 12 county roads and three other entrances along existing MD 237 which create entrance and exit conflicts with through traffic, thus increasing the potential for accidents. The number of collisions with fixed objects (poles, mail boxes, signs, etc.) and "rear end" accidents (see Table 3) indicate a very large percentage of accidents resulted from attempts to avoid standing (left-turning) vehicles. Inadequate shoulder widths, the lack of safety grading and inadequate sight distance also are contributing factors in the number of accidents. Upgrading MD 237 would allow for safer ingress and egree for area residents.

This roadway is also an alternative route used by motorists to avoid the Lexington Park area due to the traffic congestion caused at the Patuxent Naval Air Test Center, a major employer in the area, and numerous businesses and residences in that area. The expected influx of approximately 600 families, anticipated on or about October 1990, due to the current expansion of the testing center will cause increased traffic diversion to MD 237. New development along MD 237, consistent with the St. Mary's County Comprehensive Plan, has resulted in increasing traffic congestion. Currently six subdivisions

are approved for construction. Traffic generated by these subdivisions will contribute to the capacity problems experienced along this roadway. Traffic congestion resulting from increasing development in the MD 237 corridor and from additional traffic using it to bypass the Lexington Park area would be alleviated with the proposed dualization.

B. Project History

MD 237 (Chancellors Run Road) was transferred to the state system from St. Mary's County in 1985.

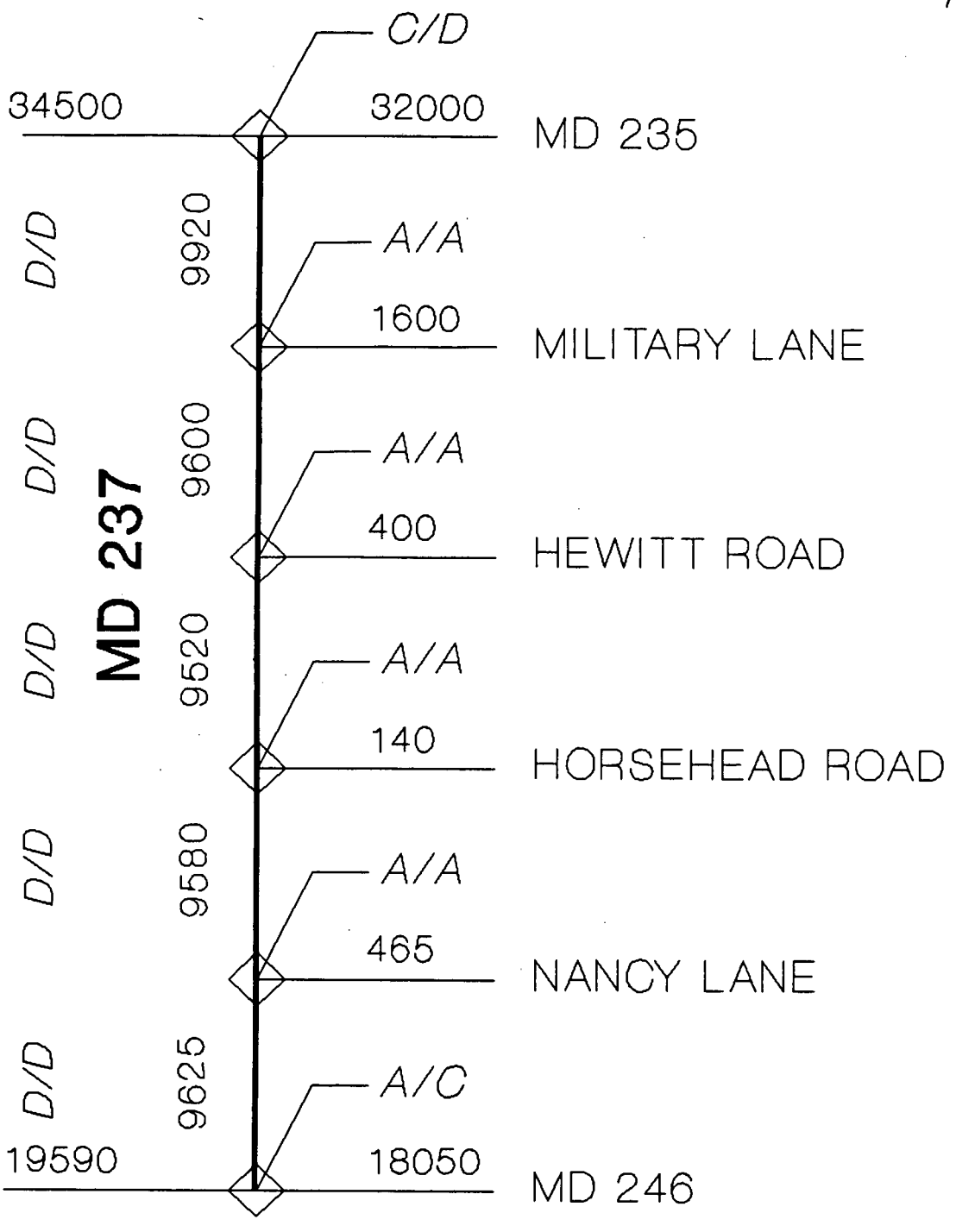
The reconstruction of MD 237 as a divided highway was first identified in the State Highway Administration's 1986 Highway Needs Inventory and was added to the 1988-1993 Secondary Development and Evaluation section of the Maryland Department of Transportation's Consolidated Transportation Program for Project Planning Studies beginning in fiscal year 1989. The proposed project is consistent with the St. Mary's County Comprehensive Land Use Plan and is included on the St. Mary's County elected officials highway priority list (March 1988). It is presently included in the Secondary Development and Evaluation section of the Maryland Department of Transportation's Draft Consolidated Transportation Program for Fiscal Years 1991-1996 for planning only.

C. Traffic Operations

The present two-lane roadway experiences periods of congestion and is incapable of handling peak hour traffic volumes. The congestion is expected to increase due to additional approved and planned residential development.

MD 237 has a current average daily traffic (ADT) in the range of 9,400 to 9,920 vehicles (see Figure 7). The ADT for a roadway is the average number of vehicles traveling a roadway during a 24-hour period. The existing two-lane roadway presently operates at a Level of Service (LOS) D during the peak hours. LOS "D" is characterized as approaching unstable flow with heavy traffic volumes and decreasing speeds.

Planned residential growth within the study limits, consistent with the St. Mary's County Comprehensive Land Use Plan and expansion of the Patuxent Naval Air Test Center, will result in a projected ADT range of 20,000 to 24,000 vehicles by 2015 yielding a peak hour LOS F condition for mainline MD 237 under the No-Build Alternate (see



LEGEND	
9920	1988 AVERAGE DAILY TRAFFIC
D/D	LEVEL OF SERVICE AM/PM
A/C	INTERSECTION LEVEL OF SERVICE AM/PM

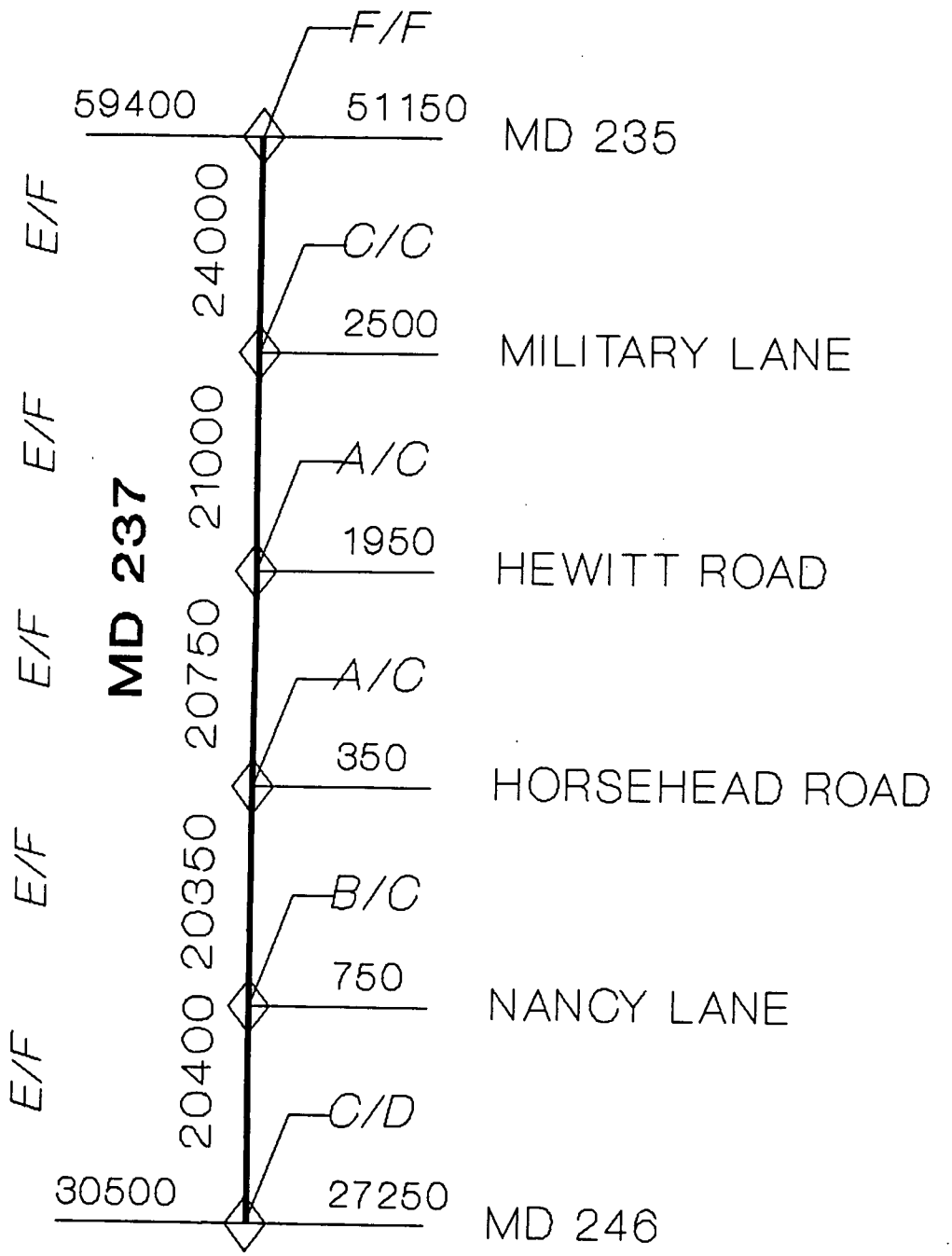
MARYLAND ROUTE 237

MARYLAND ROUTE 235 TO MARYLAND ROUTE 246

1988 AVERAGE DAILY TRAFFIC AND LEVEL OF SERVICE

Maryland Department of Transportation
State Highway Administration

SCALE: NONE	DATE: SEP. 1990	FIGURE: 7



LEGEND	
24000	2015 AVERAGE DAILY TRAFFIC
E/F	LEVEL OF SERVICE AM/PM
A/C	INTERSECTION LEVEL OF SERVICE AM/PM

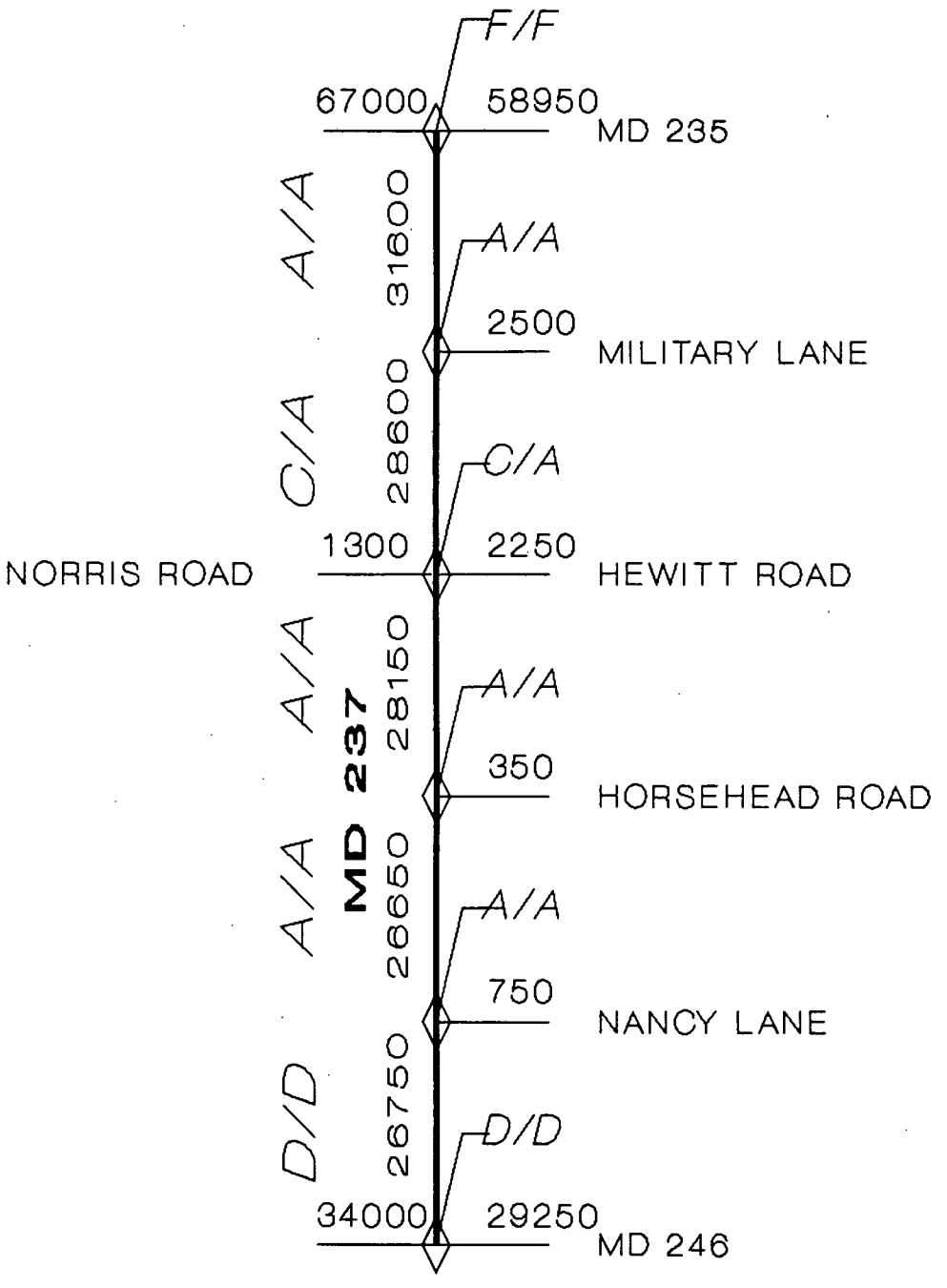
MARYLAND ROUTE 237

MARYLAND ROUTE 235 TO MARYLAND ROUTE 246

2015 NO BUILD AVERAGE DAILY TRAFFIC AND LEVEL OF SERVICE

Maryland Department of Transportation
State Highway Administration

SCALE: NONE	DATE: SEP. 1990	FIGURE: 8



LEGEND	
31600	2015 AVERAGE DAILY TRAFFIC
B/C	LEVEL OF SERVICE AM/PM
D/A	INTERSECTION LEVEL OF SERVICE AM/PM

MARYLAND ROUTE 237

MARYLAND ROUTE 235 TO MARYLAND ROUTE 246

2015 BUILD AVERAGE DAILY TRAFFIC AND LEVEL OF SERVICE

Maryland Department of Transportation
State Highway Administration

SCALE: NONE	DATE: SEP. 1990	FIGURE: 9

Figure 8). Projected 2015 Build ADT ranges between 26,250 and 31,600 vehicles yielding a peak hour LOS B/C condition along MD 237 (see Figure 9).

The analyses for the MD 237/MD 235 intersection, shown on Figures 7, 8, and 9, reflect the intersection improvement on MD 237 that was constructed in 1988. This is a five-lane section on MD 237 with double left turns provided from northbound MD 237 to westbound MD 235.

Projections developed by the Maryland State Highway Administration indicate that traffic volumes at the MD 235/MD 237 intersection in the design year 2015 would be greater under the build conditions (see figure 9 and 10). However, the level of service (LOS) expected to occur at this intersection in the design year 2015 is projected at level of service F/F (AM/PM peaks) for both the Build and No-Build conditions. The cause of this LOS condition is based on no widening improvements occuring on MD 235. There is no planning study proposed to widen MD 235 in the area of MD 237 in our short term plans. MD 235 has been identified in the State Highway Administration 1988 Highway Needs Inventory for widening to six lanes as a long term improvement. Since it is not known when this study would begin, MD 235 was only considered a four lane divided roadway, as it presently exists, for our traffic projections.

The analyses for the MD 237/MD 246 intersection, shown on Figures 8 and 9, reflect the intersection improvement on MD 237 as proposed with the ultimate lane configuration associated with the MD 246 project. This is proposed as a five-lane section on MD 237 with a single left turn lane provided from southbound MD 237 to eastbound MD 246.

The other intersections do operate, and will continue to operate, at a good level of service in the am/pm peak hours (excluding MD 237/MD 235 and MD 237/MD 246) through the design year of 2015. MD 237 functions at an inadequate Level of Service and would continue to do so under the No-Build Alternate. This is because the side streets generally do not have much development, approximately 12 homes or less (see Figures 7 and 8).

An explanation of the various LOS determinations is 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 flow with traffic delays.

The design hour volume (DHV) is 11 percent with a 55 percent directional distribution. The DHV is an hourly volume expressed as a percent for use in design representing traffic expected to use the highway. Trucks are 10 percent of the ADT and 3 percent of the design hour volume.

D. Accident Experience

In the five-year study period (1985-1989), MD 237 from MD 235 to MD 246 experienced a total of 151 accidents.

These accidents resulted in a rate of approximately 321 accidents for every one hundred million vehicle miles of travel (acc/100 mvm). This rate is higher than the statewide average rate of 204 acc/100 mvm for similarly designed highways. These accidents are listed in Table 2 by year, severity and rate. The statewide average rate is also listed for comparison purposes.

TABLE 2
ACCIDENT RATE FOR MD 237 FROM MD 235 TO MD 246

Severity	1985	1986	1987	1988	1989	Total	Rate/ 100 mvm	Statewide Avg. Rate
Fatal Acc.	0	0	0	0	0	0	0.0	3.7
Injury Acc.	11	23	16	19	13	82	174.4*	107.2
Prop Damage	10	9	14	17	19	69	146.7*	93.0
Total Acc.	21	32	30	36	32	151	321.1*	203.9

*Much higher than the statewide average rate

There was one High Accident Section within the study limits (MD 237 from MD 246 to 0.20 mile north of MD 246; 1989 - 6 accidents). There were two locations that met

the criteria for a High Accident Intersection (HAI). These locations are listed below, indicating the total number of accidents and the year in which they qualified as HAI's.

Only 20 percent of the accidents (70) involved vehicles originating from northbound MD 237 entering the intersection. The majority of the accidents involved vehicles traveling eastbound or westbound along MD 235 resulting in left turns, angle and rear end collisions. These accidents may be reduced by eliminating the existing (exclusive/permissive) left turn traffic signal and replacing it with an exclusive left turn traffic signal only. Coordination with the District #5 office of the State Highway Administration to study signal phasing will be initiated.

High Accident Intersections

	1985	1986	1987	1988	1989
MD 237 at MD 235	10 acc.	10 acc.	14 acc.	18 acc.	18 acc.
MD 237 at MD 246	9 acc.	6 acc.	9 acc.		12 acc.

There is no problem concerning trucks for this highway. Only 3 percent of the 151 accidents involved trucks.

Listed in Table 3 are the accidents experienced by type of collision and rate. Also listed is the statewide average rate for comparison purposes.

TABLE 3
ACCIDENT EXPERIENCE BY TYPE OF COLLISION AND RATE FOR MD 237

Collision Type	Number of Accidents	Rate/100 mvm	Statewide Avg. Rate
Angle	26	55.3*	26.3
Rear End	52	110.6*	32.4
Fixed Object	45	99.7*	63.6
Opp. Direction	11	23.4*	14.4
Sideswipe	3	6.4	9.4
Left Turn	2	4.3	10.4
Pedestrian	2	4.3	2.7
Parked Vehicle	2	4.3	4.6
Other Collision	8	17.0	21.1

*Much higher than the statewide average rate

The collision types that exceeded the statewide average rate were the angle, rear end, fixed object, and opposite direction accidents. These types of collisions are generally indicative of intersection and substandard horizontal/vertical curves. These conditions currently exist along the study roadway

Under the No-Build Alternate, these conditions will continue to exist. If the highway remains unchanged, the number of accidents will rise as traffic volumes increase. With traffic projections indicating 220 percent increase in ADT, we anticipate an accident rate for the No-Build Alternate to exceed that of the statewide average rate of 203.9 acc/100 mvm.

With the reconstruction of MD 237 to a four-lane divided highway, we anticipate reductions in the rate of rear-end and fixed object accidents as a result of an additional lane in each direction. By providing median and left turn storage area, where necessary, we also anticipate reductions in the opposite direction and left turn accidents.

With the reconstruction of MD 237 to a four-lane divided highway, we would expect an accident rate of approximately 147 acc/100 mvm. The accident cost resulting from this type of improvement would be approximately $1.6 million/100 mvm and result in an estimated societal saving of approximately $0.1 million/100 mvm over the existing conditions.

Section III

Alternates Considered

III. ALTERNATES CONSIDERED

A. Alternates Presented at the Alternates Public Workshop - June 5, 1989

In addition to the No-Build Alternate, six build alternates were presented at the Alternates Public Workshop.

Alternate 1 (No-Build)

This alternate has been retained for study purposes and is discussed in Section III B.

Alternate 2A

This alternate consisted of the reconstruction of MD 237 to a four-lane divided curbed roadway, with a 20 foot raised grass median. Portions of the existing road would be used where possible. Alternate 2A utilized a portion of St. Mary's River State Park.

Alternate 2B

This alternate followed the same alignment as Alternate 2A and also proposed a 20-foot raised grass median. The difference between Alternate 2A and 2B is that Alternate 2B proposed shoulders to the outside of the roadway rather than curbs.

Alternate 2C

This alternate also followed the same alignment as Alternate 2A, but proposed shoulders on the outside, as in Alternate 2B. The difference between Alternate 2B and 2C is that Alternate 2C proposed a 34-foot depressed grass median rather than a 20-foot raised grass median.

Alternate 3A

This alternate consisted of the reconstruction of MD 237 to a four-lane divided curbed roadway, with a 20-foot raised grass median. Portions of the existing road would be used where possible. Alternate 3A proposed an alignment shift to avoid any impacts to St. Mary's River State Park.

Alternate 3B

This alternate followed the same alignment as Alternate 3A and also proposed a 20-foot raised grass median. The difference between Alternate 3A and 3B is that Alternate 3B proposed shoulders to the outside of the roadway rather than curbs.

Alternate 3C

This alternate also followed the same alignment as Alternate 3A, but proposed shoulders on the outside, as in Alternate 2B. The difference between Alternate 3B and 3C is that Alternate 3C proposed a 34-foot depressed grass median rather than a 20-foot raised grass median.

B. Alternates Considered but Dropped From Further Study

Alternates 2C and 3C have been dropped from further study because of increased impacts caused by the wider median (34 feet vs 20 feet). The deleted alternates provided similar improvements to the existing roadway and traffic conditions as the B alternates. The additional right-of-way required increased residential relocations, wetlands impacts, and impacts to a cemetery and increased the cost of the project. It was determined that these alternates were not viable solutions.

Subsequent to the Alternates Public Workshop, two additional alignments were investigated in response to public comments received at the Alternates Workshop meeting. A western relocation of MD 237 was suggested by numerous citizens who objected to the number of residential displacements associated with the alternates presented at the workshop. This alignment consisting of 4 lanes within 200 feet of right-of-way was studied. A western relocation of MD 237 was not considered feasible for the following reasons:

Park Impact - A western alignment would increase impacts to St. Mary's River State Park which consists of approximately 2,000 acres and extends westerly from MD 237 well beyond the project area along Indian Bridge Road. The western alignment would also cause the park to be divided. This would increase the amount of park property required, 8 and 21 acres, depending on where the alignment crosses St. Mary's River State Park. The park extends approximately 1.9 miles west of MD 237, beyond the project area.

Further, a western alignment could possibly require two crossings of tributaries of the St. Mary's River, impacting associated wetlands and floodplain areas. The western alignment would increase the length of the project and the number of structures required. It is estimated that a 30 percent increase in total project cost would be required to build a western alignment. A western alignment is inconsistent

with the project purpose and need which is to improve safety, add capacity and improve the horizontal and vertical site distance along MD 237 which is currently operating at a Level of Service D and has a projected 2015 No-Build Level of Service F.

An eastern shift was also investigated subsequent to the Alternates Public Workshop. The eastern alignment shift would have less natural environmental impact than the western shift; however, this alignment was dropped for the following reasons:

Any eastern alignment would require a shift of at least 4,500 feet to avoid existing dense residential development and the Southern Maryland Electric Co-op substation.

As with the western alignment, an eastern alignment would not provide a link to a majority of existing and proposed county roads without additional cost to extend these roadways. Numerous relocations would be required with this alignment. The eastern alignment is inconsistent with the purpose and need of the project which is to improve safety, increase capacity and improve the horizontal and vertical geometrics of the existing roadway. MD 237 has a projected 2015 No-Build Level of Service F and the increased traffic burden along with substandard roadway geometrics would increase the potential for accidents.

C. Alternates Retained for Detailed Study

Besides the No-Build Alternate, as previously mentioned, Alternates 2A, 2B, 3A and 3B have been retained for further study. Both the Alternate 2 and 3 alignments were modified where possible to reduce potential impacts to the wetlands, floodplains and St. Mary's River State Park, as well as to land planned and approved for development.

1. Alternate 1 - No-Build

Alternate 1 would not provide any significant improvements to MD 237 within the study limits. Minor improvements would occur as part of normal maintenance and safety operations. The routine maintenance operations would not measurably improve roadway capacity or reduce the high accident rate since many people would continue to use MD 237 as a short cut to avoid the Lexington Park area. The No-Build Alternate is not considered to be a reasonable solution to the safety or capacity problems.

Build Alternates

The build alternates have been designed using a 50 mph design speed with reduced safety grading, from 16 feet to 9 feet, for the open sections in order to minimize right-of-way impacts. Each Build Alternate proposes partial control of access and is designed to increase safety by improving roadway geometrics compared to those of the existing two-lane facility.

The Norris Road intersection with MD 237 would be shifted approximately 150 feet to the south to intersect MD 237 opposite Hewitt Road (see Figures 10a, 12a, 13a, and 14a). The realignment would create a common median crossover at Hewitt and Norris Roads, provide a safer roadway and eliminate one "U" turn.

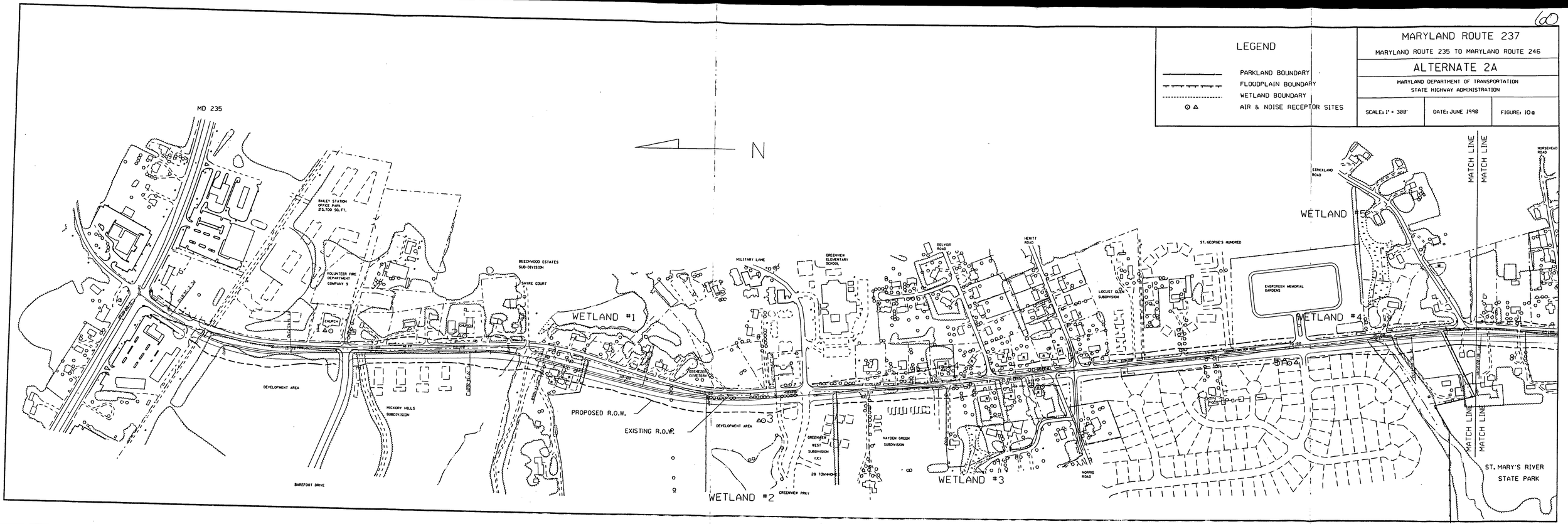
With all of the build alternates, the maximum degree of horizontal curvatures is 4°45' and the maximum percent of vertical grade is 5 percent. Vertical geometry would also be improved, especially in the area of Jarboesville Run where the required right-of-way is approximately 250 feet wide due to steep grades which would require the proposed roadway to be elevated to reduce flooding potential in the area. Elsewhere along the project, the right-of-way ranges from 150 to 190 feet. The right-of-way is variable since the existing ground along the outside edges of MD 237, in some places, has slight hillsides or dips.

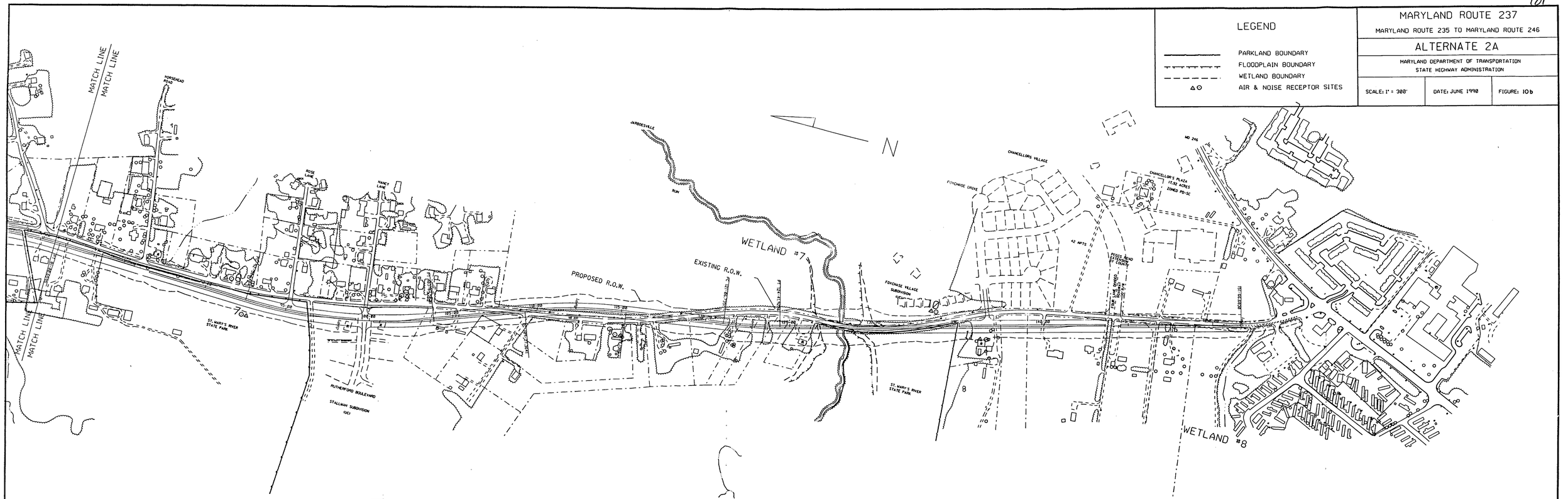
All of the proposed build alternates would provide a minimal design year LOS C along MD 237 except in the area just north of MD 246 where it would provide a LOS D.

2. Alternate 2A (See Figures 10a and 10b)

Alternate 2A proposes the realignment of MD 237 to a four-lane, divided, curbed roadway. The typical roadway section would consist of two, 28-foot roadways, two lanes in each direction, separated by a 20-foot raised grass median. Each roadway would include two, 12-foot lanes with a 2-foot curb offset. Curbs are also proposed on the outside lanes with 10 feet of backing beyond the curbs. This backing would provide pedestrian safety and allow for possible future sidewalks. Portions of the existing road would be used where possible.

The project begins at the intersection of MD 237 and MD 235, where a five-lane curbed roadway for a distance of approximately 400 feet exists today. It then proceeds in a southerly direction transitioning to the proposed four-lane, divided, curbed roadway in the vicinity of the Hickory Hills Shopping Center entrance. The alignment is generally located


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 2A
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1990
FIGURE: 10a
N
MD 235
BAILEY STATION OFFICE PARK 23,700 SQ.FT.
VOLUNTEER FIRE DEPARTMENT COMPANY 9
COURTS
BEECHWOOD ESTATES SUB-DIVISION
SAVRE COURT
DEVELOPMENT AREA
HICKORY HILLS SUBDIVISION
BAREFOOT DRIVE
WETLAND #1
PROPOSED R.O.W.
EXISTING R.O.W.
FRIENDSHIP CEMETERY
MILITARY LANE
GREENVIEW ELEMENTARY SCHOOL
DEVELOPMENT AREA
GREENVIEW WEST SUBDIVISION
28 TOWNHOMES
GREENVIEW PARK
WETLAND #2
BELVOIR ROAD
HEWITT ROAD
HAYDEN GREEN SUBDIVISION
NORRIS ROAD
WETLAND #3
LOCUST GLEN SUBDIVISION
ST. GEORGE'S HUNDRED
EVERGREEN MEMORIAL GARDENS
WETLAND #4
STRICKLAND ROAD
WETLAND #5
MATCH LINE
MATCH LINE
HORSEHEAD ROAD
MATCH LINE
MATCH LINE
ST. MARY'S RIVER STATE PARK


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 2A
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1998
FIGURE: 10b
N
MATCH LINE
MATCH LINE
WORDSDEAD ROAD
ROSE LANE
MARY'S CHAPEL
JARBOESVILLE RUN
WETLAND #7
PROPOSED R.O.W.
EXISTING R.O.W.
CHANCELLORS VILLAGE
FOXCHASE DRIVE
FOXCHASE VILLAGE SUBDIVISION
CHANCELLOR'S PLAZA 17.92 ACRES ZONED PD-SC
MD 246
42 APTS.
ST. MARY'S RIVER STATE PARK
RUTHERFORD BOULEVARD
STALLMAN SUBDIVISION (I/C)
WETLAND #8
7a
8

slightly west of the existing alignment. The alignment uses undeveloped land where possible and minimizes residential and business relocations by utilizing a portion of the St. Mary's River State Park. All existing county roads, private entrances, and driveways will retain access to the reconstructed roadway and median crossovers and left turn storage lanes would be provided at several locations throughout the project. These locations are Barefoot Drive, Sayre Drive, Military Lane, Hewitt/Norris Roads, Evergreen Memorial Gardens, Horsehead Road, Nancy Lane, and Peggs Road. Future access will be limited and determined by future development. In the Jarboesville Run area, the grades and curves in the road will be reduced as will the potential for flooding. A structure will be provided at Jarboesville Run.

The alignment then transitions prior to the MD 246/MD 237 intersection to a reconstructed, four-lane, undivided, curbed roadway as proposed with the MD 246 project currently in Project Planning. The transition between the proposed MD 246 improvements and MD 237 occurs between proposed Peggs Road (County project) and existing MD 246. MD 237 transitions to a five-lane, curbed roadway just before the intersection with MD 246.

Figure 11 shows a typical section for Alternate 2A.

3. Alternate 2B (See Figure 12a and 12b)

Alternate 2B follows the same alignment as Alternate 2A and also proposes the same 20-foot raised grassed median. The difference between Alternate 2A and 2B is that Alternate 2B proposes shoulders on the outside of the roadway rather than curbs. The typical roadway section would consist of two, 26-foot roadways, one in each direction, separated by a 20-foot raised grassed median. Each roadway would include two, 12-foot lanes and a two-foot curb offset (see Figure 11). Ten foot shoulders are proposed to the outside with nine feet of roadside grading which will provide a roadside recovery area.

4. Alternate 3A (See Figure 13a and 13b)

Alternate 3A consists of the upgrading of MD 237 to a four-lane, divided, curbed roadway with the same typical roadway section as Alternate 2A. Portions of the existing road would be used where possible.

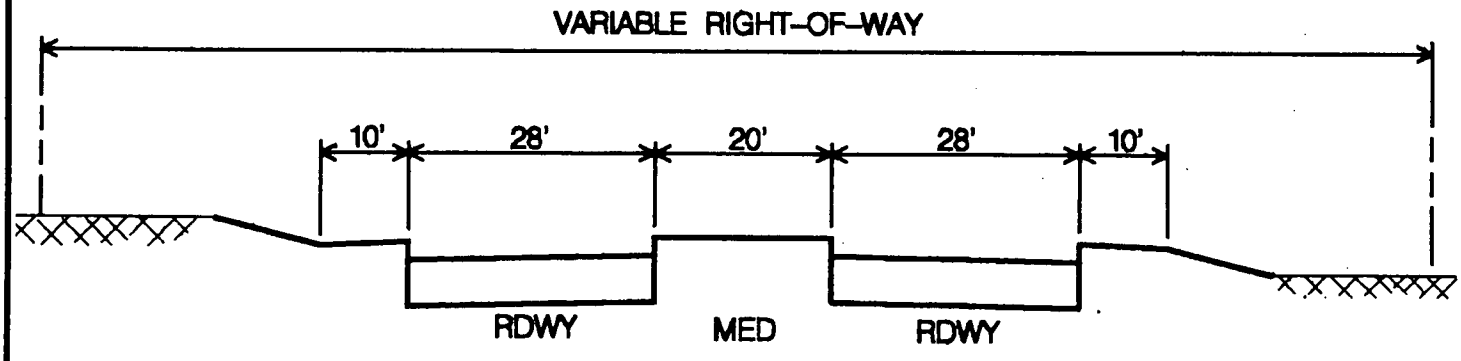
This alignment is the same as the previous build alternates until it reaches the vicinity of Greenview Elementary School. At this point, the alignment shifts gradually to the east to avoid impact to the St. Mary's River State Park. The alignment then continues south on the east side of existing MD 237 until it intersects with the existing roadway at the proposed

Peggs Road intersection with existing MD 237. The alignment then transitions to MD 246 the same as the other build alternates. Access to the proposed roadway and median crossovers would be the same as in Alternates 2A and 2B. The project's termini are also the same. Figure 11 shows a typical section for Alternate 3A.

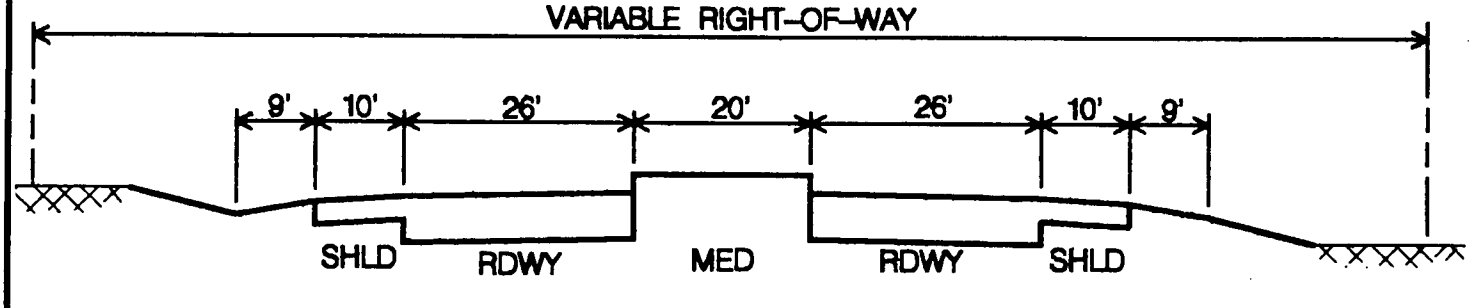
5. Alternate 3B (See Figures 14a and 14b)

Alternate 3B follows the same alignment as Alternate 3A and proposes the same typical roadway section as Alternate 2B. The difference between Alternate 3A and 3B is that Alternate 3B proposes shoulders on the outside of the roadway rather than curbs. Figure 11 shows a typical section for Alternate 3B.

PROPOSED TYPICAL SECTIONS
MARYLAND ROUTE 237



4 LANE DIVIDED CURBED ROADWAY
ALTERNATES 2A & 3A

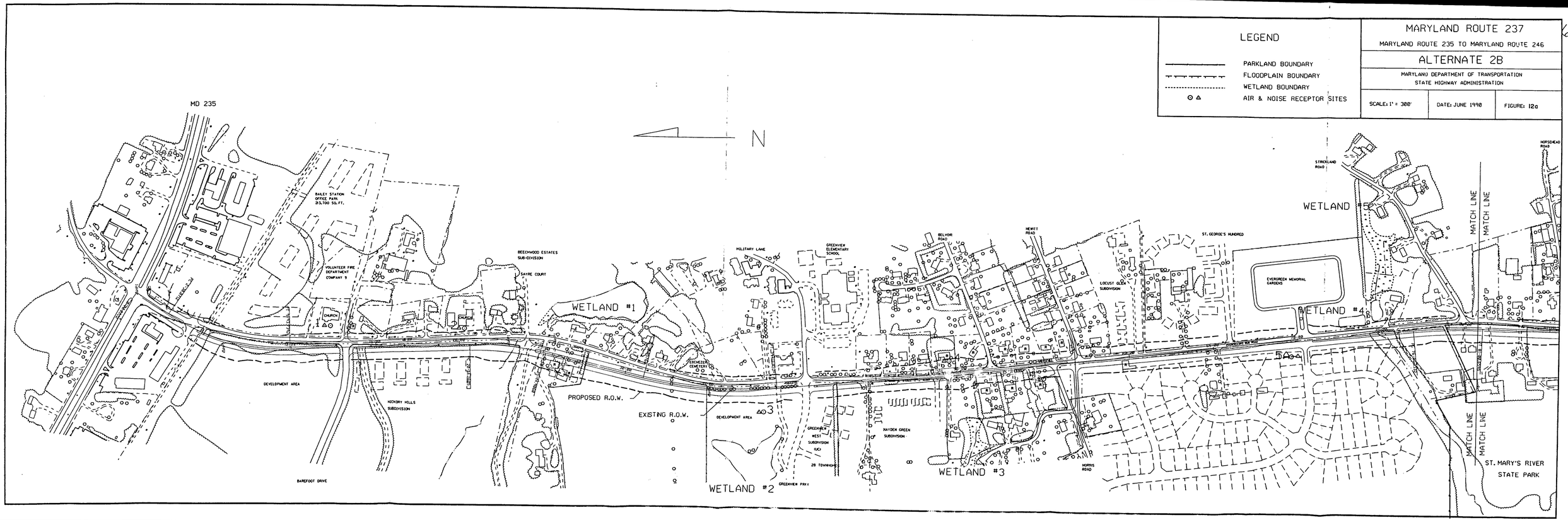


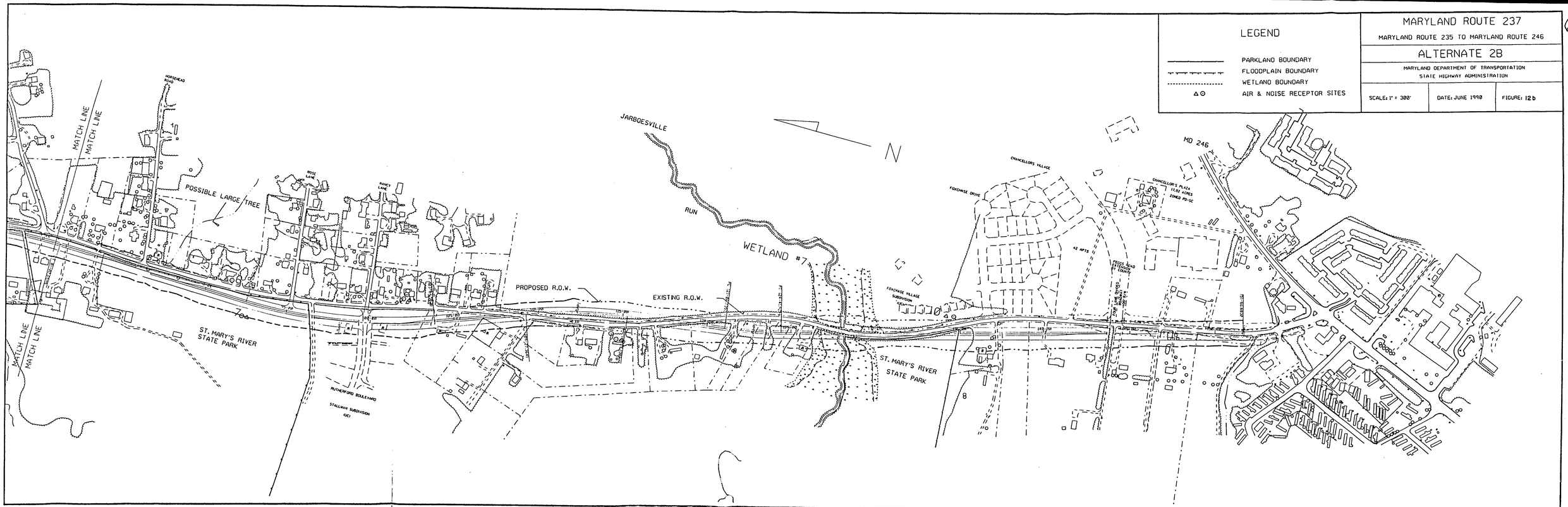
4 LANE DIVIDED ROADWAY
ALTERNATES 2B & 3B

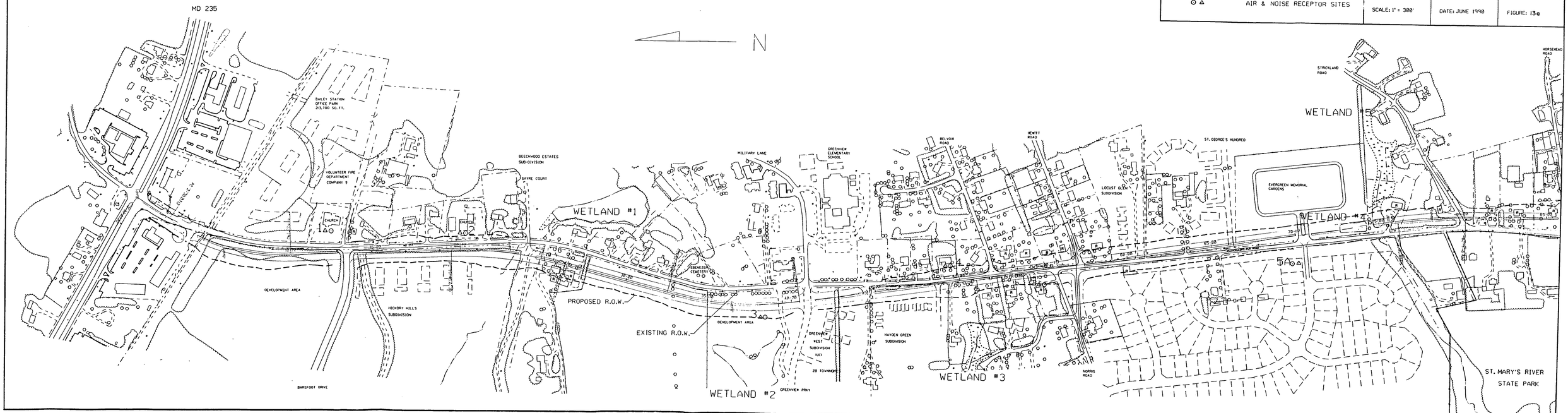
THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

NOT TO SCALE

FIGURE 11


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 2B
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1998
FIGURE: 12a
N
MD 235
BAILEY STATION OFFICE PARK 25,700 SQ.FT.
VOLUNTEER FIRE DEPARTMENT COMPANY 9
BEECHWOOD ESTATES SUB-DIVISION
SAYRE COURT
CHURCH
CHURCH
WETLAND #1
MILITARY LANE
GREENVIEW ELEMENTARY SCHOOL
BELVOR ROAD
MERITT ROAD
ST. GEORGE'S HUNDRED
LOCUST GLEN SUBDIVISION
EVERGREEN MEMORIAL GARDENS
WETLAND #5
STRICKLAND ROAD
HORSEHEAD ROAD
MATCH LINE
MATCH LINE
WETLAND #4
DEVELOPMENT AREA
HICKORY HILLS SUBDIVISION
BAREFOOT DRIVE
PROPOSED R.O.W.
EXISTING R.O.W.
EBENEZER CEMETERY
DEVELOPMENT AREA
GREENVIEW REST SUBDIVISION
20 TOWNHOMES
GREENVIEW PKWY
WETLAND #2
HAYDEN GREEN SUBDIVISION
WETLAND #3
NORRIS ROAD
MATCH LINE
MATCH LINE
ST. MARY'S RIVER STATE PARK


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 2B
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1990
FIGURE: 12b
MATCH LINE
MATCH LINE
HORSEHEAD ROAD
POSSIBLE LARGE TREE
ROSE CEMETERY
NANCY CEMETERY
JARBOESVILLE RUN
WETLAND #7
PROPOSED R.O.W.
EXISTING R.O.W.
ST. MARY'S RIVER STATE PARK
RUTHERFORD BOULEVARD
STALLMAN SUBDIVISION
MD 246
CHANCELLORS VILLAGE
FOXCHASE DRIVE
FOXCHASE VILLAGE SUBDIVISION
CHANCELLOR'S PLATA 17.93 ACRES ZONED PD-3C
42 APTS
FEDEX ROAD FREIGHT CENTER
60



LEGEND

- PARKLAND BOUNDARY
- FLOODPLAIN BOUNDARY
- WETLAND BOUNDARY
- O Δ AIR & NOISE RECEPTOR SITES

MARYLAND ROUTE 237

MARYLAND ROUTE 235 TO MARYLAND ROUTE 246

67

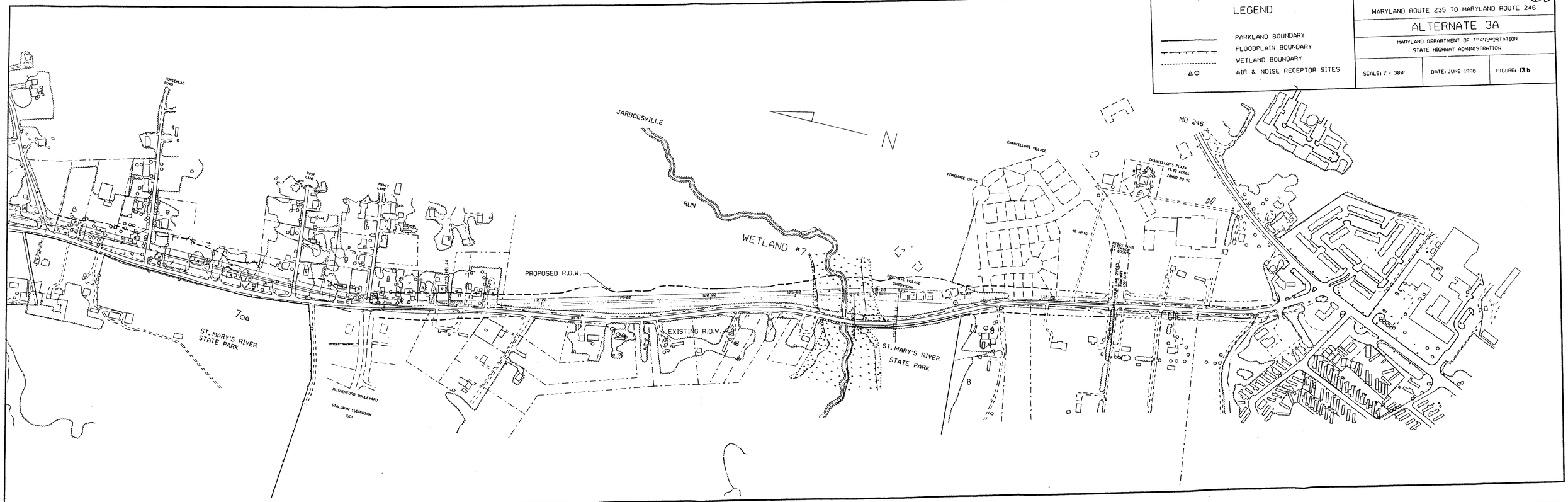
ALTERNATE 3A

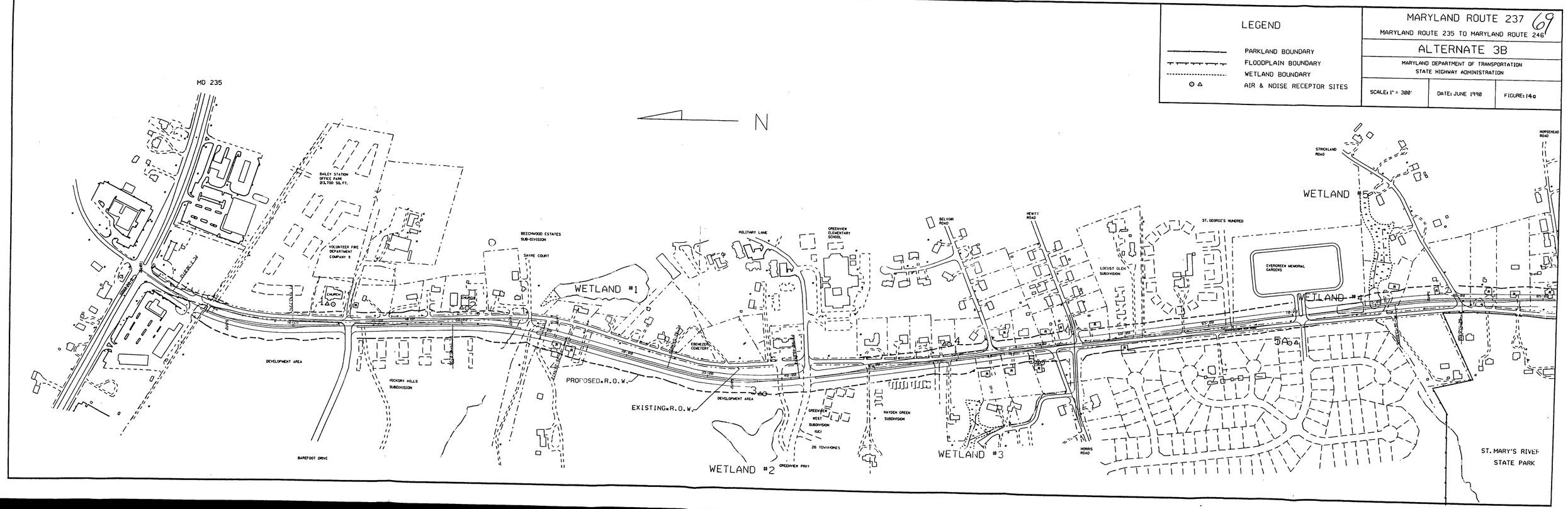
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

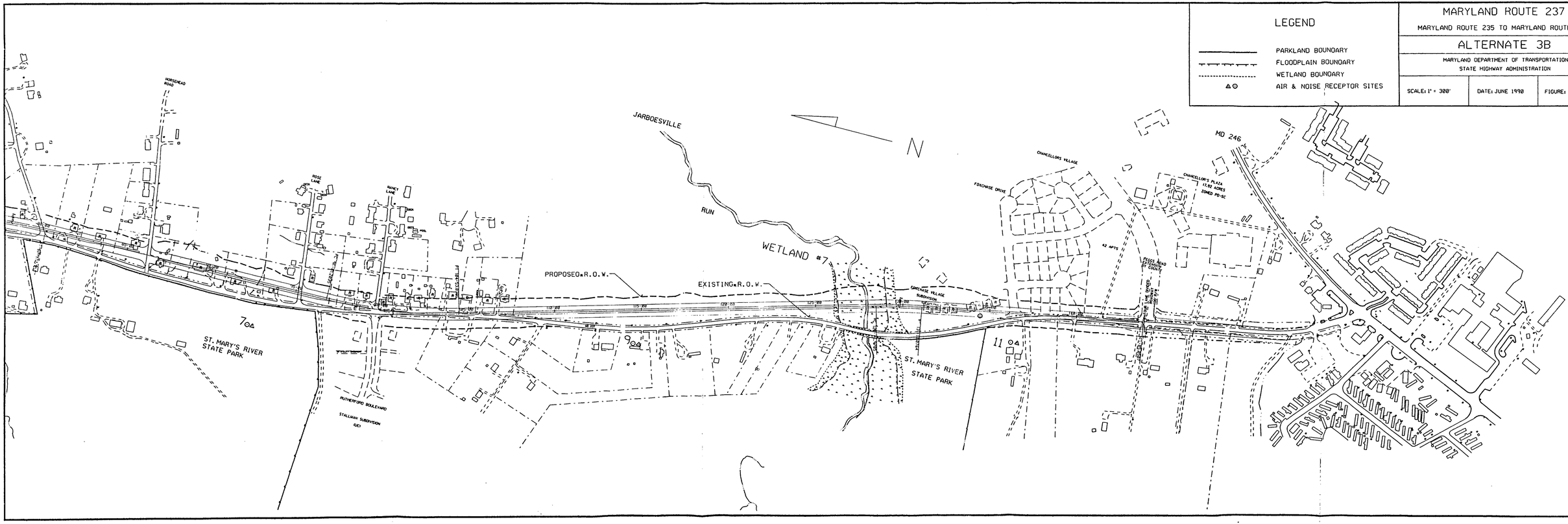
SCALE: 1" = 300'

DATE: JUNE 1990

FIGURE: 13a


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 3A
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1990
FIGURE: 13b
68
N
JARBOESVILLE RUN
WETLAND #7
PROPOSED R.O.W.
EXISTING R.O.W.
ST. MARY'S RIVER STATE PARK
ST. MARY'S RIVER STATE PARK
HORSEHEAD ROAD
ROSE LANE
NANCY LANE
RUTHERFORD BOULEVARD
STALLMAN SUBDIVISION
FOXCHASE DRIVE
CHANCELLORS VILLAGE
FISHERS VILLAGE SUBDIVISION
CHANCELLOR'S PLAZA
11.92 ACRES
ZONED PD-SC
MD 246
42 APTS.
PEDRO ROAD
ST. MARY'S COUNTY
7
8


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 3B
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1990
FIGURE: 14a
69
N
MD 235
BAILEY STATION OFFICE PARK 23,700 SQ. FT.
VOLUNTEER FIRE DEPARTMENT COMPANY 9
BEECHWOOD ESTATES SUB-DIVISION
SAYRE COURT
CHURCH
EBENEZER CEMETERY
MILITARY LANE
GREENVIEW ELEMENTARY SCHOOL
BELVOIR ROAD
HEWITT ROAD
ST. GEORGE'S HUNDRED
LOCUST GLEN SUBDIVISION
EVERGREEN MEMORIAL GARDENS
STRICKLAND ROAD
HORSEHEAD ROAD
WETLAND #1
WETLAND #2
WETLAND #3
WETLAND #4
WETLAND #5
PROPOSED R.O.W.
EXISTING R.O.W.
DEVELOPMENT AREA
HICKORY HILLS SUBDIVISION
BAREFOOT DRIVE
GREENVIEW WEST SUBDIVISION
28 TOWNHOMES
GREENVIEW PKWY
HAYDEN GREEN SUBDIVISION
MORRIS ROAD
ST. MARY'S RIVER STATE PARK


LEGEND
PARKLAND BOUNDARY
FLOODPLAIN BOUNDARY
WETLAND BOUNDARY
AIR & NOISE RECEPTOR SITES
MARYLAND ROUTE 237
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246
ALTERNATE 3B
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
SCALE: 1" = 300'
DATE: JUNE 1998
FIGURE: 14b
70
N
JARBOESVILLE RUN
WETLAND #7
PROPOSED R.O.W.
EXISTING R.O.W.
MD 246
CHANCELLORS VILLAGE
FOXHOUSE DRIVE
CHANCELLOR'S PLAZA
17.92 ACRES
ZONED PD-SC
42 APTS
FOXES ROAD
TO FOXHOUSE DRIVE
CONCHASE VILLAGE SUBDIVISION
HORSEHEAD ROAD
ROSE LANE
NANCY LANE
RUTHERFORD BOULEVARD
STALLMAN SUBDIVISION
ST. MARY'S RIVER STATE PARK
ST. MARY'S RIVER STATE PARK
7
8
9
10
11

Section IV

Environmental Impacts

IV. ENVIRONMENTAL IMPACTS

A. Social

1. Relocations

An analysis of the relocations required by the proposed alternates has been made by the State Highway Administration and is based on preliminary relocations and right-of-way studies. The preliminary right-of-way and relocation reports are available for review at the State Highway Administration District 5 Office of the Office of Real Estate, 138 Defense Highway, Annapolis, Maryland 21401.

Alternate 1 (No-Build) would not result in any residential or business displacements or acquisition of strip right-of-way from the properties within the project area.

Alternate 2A and 2B could require 19 residential displacements. Both options of Alternate 2 will require the relocation of one business. The relocation of this business (small car service operating out of a two-car garage) would not be difficult due to its nature and similar replacement sites in the area.

Alternates 3A and 3B could displace 34 residences. The community should not be greatly affected by either alternate; it is already a roadside community and should not suffer from a moderate increase in road size and/or traffic volume. The community may experience an increase in density due to the increased traffic capacity of Chancellor's Run and from developers following through on development plans for the area. These alternates should not divide any existing communities and the effect on adjacent communities should be negligible due to the homogeneous nature of the surrounding area. The property values along Chancellor's Run Road may experience a slight downturn due to increased traffic volume.

The close proximity of the State Highway Administration's required right-of-way to some of the dwellings will most likely result in relocations. For this reason, the number of proposed relocations has increased from initial estimates presented at the Alternates Public Meeting. Some of these relocations will occur due to impacts to septic systems and drain fields located on properties too small to handle relocation of these items. Additionally, new dwellings are proposed or are under construction in close proximity to existing MD 237 and

may need to be relocated by the time the improvements to MD 237 would be implemented which would increase the number of relocations.

The Chancellor's Run area appears to be a predominantly white community (81.8 percent). The black component of the community could account for approximately 17.6 percent. Alternate 2A or 2B and Alternate 3A or 3B should not greatly impact any minority group. The area surrounding Chancellor's Run appears to have much the same racial make up as mentioned above. There are no foreseeable difficulties in the relocation of any affected minorities. Additionally, there does not appear to be any minority areas that would be separated from a contiguous area by either alternate.

The minority accessibility to, and use of, community facilities should not be greatly changed. There does not appear to be any affect on any minority development, planned or actual, caused by this project.

The housing market, in a survey of the Southern Maryland newspapers classified section, for Southern Maryland should be able to amply support the replacement dwellings necessary. It should be noted that the availability of replacement dwellings could be affected in the immediate future due to the expected influx of approximately 600 families, on or about October 1990, to the Patuxent Naval Air Test Center which could drastically affect both rental and replacement housing availability. There is no discernable need for extensive business replacement sites; the only affected business, as mentioned, is a small operation and should not prove difficult to relocate.

All individuals and families would be relocated in accordance with the provisions of the "Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 and Amendments of 1987." A summary of the State's relocation assistance program is located in Section VII, Appendix, at the end of this document.

All required relocations are expected to be completed in a timely, orderly and humane manner and without any undue hardship to the affected individuals. A reasonable lead time of 18 months would be required to accomplish the relocations.

2. Title VI Statement

It is the policy of the Maryland State Highway Administration to ensure 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, sex, national origin, age, religion, physical or mental handicap in all state Highway Administration 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 may be given to the social, economic, and environmental effects of all highway projects. Alleged discriminatory actions should be addressed to the Equal Opportunity Section of the Maryland State Highway Administration for investigation.

3. Access to Facilities and Services

The No-Build Alternate would not address the increased traffic volumes generated by ongoing residential development at numerous locations along the study corridor. Nor would it address the increased commuter traffic using MD 237 as a short-cut between MD 235 and MD 246 as a bypass of the Lexington Park area on a daily basis.

Under the No-Build Alternate, traffic congestion and safety problems would continue to increase along MD 237 as peak period traffic volumes increase. The No-Build Alternate would not provide the necessary roadway capacity needed for timely access to services and facilities in the project area. The No-Build would not address the numerous access points along MD 237 to allow for safe ingress and egress for residents.

All the build alternates, by providing additional roadway capacity, would help to alleviate the adverse impact of increasing traffic congestion resulting both from increasing development in the MD 237 corridor and from additional through traffic using MD 237 as a bypass of the congested Lexington Park area. The proposed dualization would provide safer and quicker access to services and facilities located in the Lexington Park area.

Emergency vehicle response time and travel time would improve as traffic service and capacity are improved.

B. Economics

The No-Build Alternate would not provide the necessary roadway capacity or safety margins for the existing or planned land use nor would it provide an adequate facility for

delivery of goods and services in the area. Residents would continue to experience delays commuting to employment and commerce areas especially during peak hour traffic periods.

Any of the build alternates would improve access to local businesses in the project corridor and in the Lexington Park area.

The build alternates would provide a vital improvement in the linkage between MD 235 and MD 246 and could also serve to alleviate some of the through traffic congestion in Lexington Park.

One business displacement (a small car service) would be required by Alternates 2A and 2B.

C. Land Use

The No-Build Alternate is inconsistent with County planning efforts for the project area.

The proposed improvements are consistent with the St. Mary's County Comprehensive Plan adopted in 1982, which designates the upgrading of MD 237 (Chancellor's Run Road) as part of the Lexington Park area road improvements. These improvements would accommodate current and planned commercial and residential growth in the corridor. To date, three subdivisions are under construction: Beech Wood consisting of 51 lots; Chancellors Village II consisting of 37 lots; and Fox Chase/Chancellors Village consisting of 134 lots. Additional developments approximating 607 lots have received approval: Chancellors Village Apartments consisting of 42 lots, St. Georges Hundred consisting of 33 lots, Greenview West consisting of six (6) two-story office buildings and 28 townhouse units, Stallman Subdivision and the Heard Subdivision consisting of 26 lots and 114 lots, respectively.

D. Parks and Recreation Areas

St. Mary's River State Park is located adjacent to and west of MD 237. The entire park with the exception of parcel #4 was purchased with Program Open Space Funds. Two areas of the park are adjacent to MD 237 -- parcel #22B which extends from the vicinity of Rose Lane north and parcel #40, a smaller area located immediately south Jarboesville Run across from the Fox Chase Village subdivision. Within the section of park located in

the vicinity of Rose Lane and Horsehead Road, St. Mary's County Department of Recreation and Parks has leased 82 acres from the Department of Natural Resources Capital Programs Administration to develop a St. Mary's County Regional Park.

Approximately 1.25 acres would be required from parcel #40 and approximately 4.43 acres would be required from parcel #22B for a total of 5.68 acres with Alternate 2A. Approximately 1.31 acres would be required from parcel #40 and approximately 4.87 would be required from parcel #22B for a total of 6.18 acres with Alternate 2B. No park property impacts are associated with either Alternates 3A, 3B or the No-Build Alternate. The Section 4(f) evaluation in Section V discusses impacts to this area in more detail.

St. Mary's County Department of Recreation and Parks has reserved approximately 150 feet of park property immediately adjacent to MD 237 as a buffer area to accommodate the proposed improvements to the roadway. The park property is presently undeveloped; however, recreational activities and facilities are planned or designated for this area. Prior to coordination, the proposed MD 237 improvement affected the planned soccer field designated for this area by St. Mary's County Department of Recreation and Parks (see Figure 15a). However, subsequent to coordination, the County designated another site for the soccer field and redesigned the St. Mary's County Regional Park so that the proposed roadway improvements would not encroach on the park (see Figure 15b).

E. Cultural Resources

1. Historic Standing Structures

There will be no effect on historically significant standing structures as none exist in the project corridor (see SHPO letter dated December 28, 1988 in the Comments and Coordination Section).

2. Archeological Sites

Site 18 ST 608, the prehistoric camp site, will be affected by all of the build alternates and will be subject to a Phase II site examination to determine whether it is eligible for inclusion in the National Register. Given the fact that the site may be significant only for the information it contains and does not have to remain in place, data recovery, if

necessary, will mitigate the effect on the site and the provisions of Section 4(f) will not be applicable.

Although the Ebenezer Cemetery is not eligible for listing in the National Register and has minimal value for preservation in place, archeological monitoring will be conducted if Alternate 3B is selected, while limited archaeological testing will be conducted if Alternate 2B is selected in order to identify unmarked graves. This will ensure SHA provisions relating to the disinterment and reinterment of graves will be followed for all affected grave sites. Additional study of Alternate 2B will be undertaken to minimize and possibly avoid the Ebenezer Cemetery by shifting the alignment and modifying the grading. Alternates 2A and 3A both avoid the Cemetery by using curb and gutter sections.

F. Natural Environmental Impacts

1. Topography and Geology

All of the build alternates propose some construction just east of the existing road, where it crosses Jarboesville Run. This area is characterized by slopes of 20-40 percent. Alternate 2B proposes a 300 foot width of disturbance east of Jarboesville Run. This would require a modification to the topography of this somewhat steep area.

Since most of the remaining study area is characterized as flat to gently rolling, the topography should not be seriously impacted.

The geology in the study area consists of widely distributed, flat lying sediments. These sediments are easy to work, and construction upon them would have only a minor and local impact.

2. Prime Farmland Soils

Coordination with the U.S. Department of Agriculture, Soil Conservation Service has been initiated to determine the impact to any Prime Farmland. No impact is anticipated due to the extensive ongoing residential development in the study area (See Comments and Coordination Section VI).

3. Floodplains

The proposed build alternates for the MD 237 project would encroach on the 100-year floodplain associated with Jarboesville Run. Presently, Jarboesville Run is conveyed under MD 237 by three 4 foot diameter corrugated metal pipe arches. The estimated acres of right-of-way required for the proposed alternates within the floodplain are 0.93, 0.92, 1.53 and 1.56 acres for Alternates 2A, 2B, 3A and 3B, respectively. This area is mainly a palustrine forested and scrub-shrub area. The amount of right-of-way affected is based on estimates of structure size. Final determination of structure size and type will be made during final design. Final design will also include an evaluation of the structure in accordance with the requirements of FHPM 6-7-3-2 and Executive Order 11988 to determine the significance of the encroachment and whether a floodplain finding will be required. A significant encroachment would involve one of the following:

- o A significant potential for interruption or termination of a transportation facility needed for emergency vehicles or which provides a community's only evacuation route;
- o A significant risk; or
- o A significant adverse impact on natural and beneficial floodplain values.

It is anticipated that the use of standard hydraulic design techniques for all waterway openings would incorporate structures to minimize upstream flood level increases and approximate existing downstream flow rates. Use of state-of-the-art sediment and erosion control techniques and stormwater management controls would also be employed to minimize the encroachments that would result in risks or impacts to the beneficial floodplain values or provide direct or indirect support to further development within the floodplain. Although the floodplain crossing would be designed to minimize encroachment to the extent possible, preliminary indications indicate that the floodplain crossing would constitute a substantial encroachment. However, the final determination of significance of the encroachment will be made during final design. A Floodplain Finding, if required, will be included in the Final Environmental Document.

4. Surface Water

The proposed build alternates for the MD 237 project require crossing Jarboesville Run. Jarboesville Run is designated Class I-Water Contact Recreation, Aquatic Life and Water Supply. In the vicinity of the proposed project, Jarboesville Run ranges from one to two feet in depth. Instream construction of any kind may be prohibited from March 1 through June 15. This project is being coordinated with the Department of Natural Resources, and a waterway construction permit will be required.

The increase of impervious surface resulting from the proposed improvements would produce a proportionate increase in the amount of roadway runoff carrying vehicle generated pollutants (i.e., oil, coolants, brake lining, rubber, etc.). Stormwater runoff would be managed under the Department of the Environment Stormwater Management Regulations. These regulations will require stormwater management practices in the following order of preference:

- o On-site infiltration;
- o Flow attenuation by open vegetated scales and natural depressions;
- o Stormwater retention structures; and
- o Stormwater detention structures.

It has been demonstrated that these measures can significantly reduce pollutant loads and control runoff in surface or subsurface water.

Final design for the proposed improvements will include plans for grading, sediment and erosion control, and stormwater management, in accordance with State and Federal laws and regulations. The plans will require review and approval by the Maryland Department of Environment.

5. Habitat

a. Terrestrial

Impacts to terrestrial habitat were calculated for each community type within the proposed right-of-way for all build alternates (see Table 4).

Alternates 3A and 3B would require the least amount of terrestrial habitat, including the lowest potential impact to forested wetland and shrub wetland communities. However, Alternates 3A and 3B would potentially require the conversation of 7.9 and 8.5 acres of

TABLE 4

VEGETATIVE COMMUNITY IMPACTS

Community Type	ACRES WITHIN PROPOSED RIGHT-OF-WAY			
	Alternate 2A	Alternate 2B	Alternate 3A	Alternate 3B
Oak-Pine Association Upland Forest	5.1	6.6	7.9	8.5
Mixed Poplar-Sweetgum Association Wetland Forest	1.8	1.8	1.4	1.4
Sweet Pepperbush-Maple Deciduous Shrub Wetland	0.8	0.8	0.8	0.8
Early Successional Field	5.8	5.8	2.0	2.2
Agricultural	7.0	7.9	4.4	4.9
TOTALS	20.5	22.9	16.5	17.8

mature upland forest, respectively. Alternates 2A and 2B would potentially required 5.1 and 6.6 acres of upland forest. Due to the extent of the oak-pine association in the study area, conversion of this acreage to highway use is not anticipated to significantly affect the wildlife carrying capacity of this vegetative community type.

The sweet pepperbush-maple shrub wetland is the richest and least common vegetative community in the project area. Potential impacts to this habitat are comparable for each of the alternates under consideration. Replacement of the current structure spanning Jarboesville Run would affect this wetland community. The approximate displacement impact to the shrub wetland under each alternate would be 0.8 acre.

Table 4 illustrates that Alternates 2A and 2B would require conversion of a large amount of terrestrial habitat, the majority of the affected acreage consists of agricultural land, early successional field and maintained grass/lawn communities. Due to pending residential development of a larger percentage of the early successional field community in the study area, this communities habitat value in the corridor will decrease.

b. Aquatic

Wetland impacts were calculated for all build alternates studied. A summary of these calculations, along with the wetland location and classification, is shown in Table 5. All build alternates would require less than three acres of wetland impacts. Alternates 2A and 2B would have 1.65 acres of wetland take and Alternates 3A and 3B have 2.44 acres of wetland take. Concurrence with wetland boundaries was received during field reviews with representatives from the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service on July 24, 1990 (see Comments and Coordination Section).

The prime area of concern was Wetland #7 which is associated with Jarboesville Run. It was requested that the grades for proposed Alternatives 2A and 2B be increased and the bridge length reduced and a comparison of impacts be made. The following summarizes the findings of that comparison.

The initial Alternate 2 alignment utilized a vertical alignment which was roughly 26 feet above Jarboesville Run and whose grades were 4.7 percent and 3.8 percent. The vertical alignment was designed to minimize impacts to the St. Mary's River State Park

TABLE 5
DESCRIPTION AND CLASSIFICATION OF WETLANDS

Wetland No.	Location	Classification	Dominant Vegetation	Approximate Acreage Impacted	
1	east side of MD 237 1000' south of MD 237	Palustrine forested associated with a riverine. Upper perennial stream and open water impoundment	sweetgum, red maple, yellow poplar arrowwood catbriar, cinammon fern	2A/2B 0	3A/3B 0
2	250' from west side of MD 237	farm pond	no associated vegetation	2A/2B 0	3A/3B 0
3	500' west of MD 237 and 500' north of Norris	riverine, upper perennial with	sensitive fern, soft rush, big bluestem, fowl mannagrass seed box, common day flower	2A/2B 0	3A/3B 0
4	southside of Evergreen Memorial Garden 700' north of Strickland Road on east side of MD 237	manmade impoundment	no wetland vegetation	2A/2B 0	3A/3B .20
5	50' south of wetland No. 4 north of Strickland Road	open water impoundment, intermittent stream and forested wetland	catbriar, loblolly pine, red maple, green ash, sweetgum, Japanese honey-suckle, white oak	2A/2B 0	3A/3B .16
6	east side of MD 237 250' north of Rose Lane	riverine, intermittent, surrounded by Palustrine forest	red maple, yellow poplar sweetgum, loblolly pine, American holly	2A/2B 0	3A/3B 0
7	Jarsboesville Run on west side of MD 237	riverine, upper perennial with associated palustrine forested vegetation	sweet pepperbush, willow oak swamp white oak, sweetgum red maple, sweetbay	2A/2B *	3A/3B *
8	350' north of MD 246	riverine, intermittent	sweetgum, catbriar yellow poplar, common chokecherry	2A/2B 0	3A/3B 0

*See Page IV-8 Aquatic Resources

while not requiring acquisition of apartment buildings under construction on the east side of existing MD 237. Structure costs for the initial Alternate 2 alignment are:

	approximately
1) Box Culvert - 3 cell - 13x10RCBC - 135 foot length	$900,000
2) Bridge - 335 feet long	4,400,000

At the request of the Army Corps of Engineers, the Alternate 2 vertical alignment was changed to approximately 15 feet above Jarboesville Run with grades of 4.9 percent and 4.2 percent. This design incorporates the use of retaining walls to avoid impact to the apartments and also reduces impact to the park by about 0.4 acre. Structure costs for the change in Alternate 2 are:

	approximately
1) Box Culvert - 3 cell - 13x10RCBC - 115 foot length	$650,000
2) Bridge - 160 feet long and retaining walls	2,200,000

A comparison of wetland impacts is as follows:

	Using a Box Culvert	Using a Bridge
Alt. 2A original (6% grade)	= 1.80 acres	0.80 acre
Alt. 2A Army Corps Recommendation (5% grade)	= 1.63 acres	0.63 acre
Alt. 2B original (6% grade)	= 1.75 acres	0.75 acre
Alt. 2B Army Corps Recommendation (5% grade)	= 1.60 acres	0.60 acre
Alt. 3A or 3B (6% grade) (Bridge length 380 feet)	= 2.44 acres	0.64 acre

The vertical alignment suggested by the Army Corps of Engineers will be retained.

No comments were received from this field trip to modify Alternate 3 vertically. Alternate 3 impacts the apartments on the east side of MD 237 while avoiding any impact to the park. Any modification in the vertical alignment would impact the park.

The greatest potential for wetland impacts is associated with crossing Jarboesville Run wetland (Wetland #7). With all of the alternates, at least 1.6 acres of this forested and scrub-shrub wetland would be lost. Construction in this area could create temporary impacts, including soil erosion and sedimentation and resultant turbidity increases

in Jarboesville Run. Another potential impact to Jarboesville Run would be disturbance of the stream bed from machinery operation.

Alternates 3A and 3B would fill the open water Wetland #4 located within the Evergreen Memorial Gardens. Wetlands #1, #2, #3, #6 and #8 are located outside of the impact areas of all of the alternates.

Wetland Avoidance/Minimization

Wetland 4

Alternates 3A and 3B would impact 0.20 acre of Wetland 4. Shifting Alternate 3A or 3B to the east to avoid Wetland 4 would require 0.24 and 0.68 acre of Wetlands 5 and 6, respectively; would cause the Evergreen Memorial Garden Cemetery to be relocated; and would cause the relocation of approximately 20 residences. A western shift in this alignment would result in impacts to approximately 18 lots of an approved residential subdivision and would impact approximately 1.4 acres of St. Mary's River State Park; however, 4 less residential impacts would result.

Wetland 5

Alternates 3A and 3B would impact 0.16 acre of Wetland 5. Shifting the alignment of Alternates 3A or 3B to the east to avoid Wetland 5 could not be done because this wetland system is an intermittent stream which flows beyond the project area.

Wetland 7

Alternate 2A would impact approximately 1.80 acres of wetland using a box culvert for the crossing of Jarboesville Run and 0.80 acres of wetland using a bridge structure. Alternate 2B would impact approximately 1.75 acres of wetland using a box culvert and approximately 0.75 acre with a bridge. Both Alternates 3A and 3B would require approximately 2.44 acres of wetland using a box culvert and approximately 0.64 acre of wetland impact with a bridge (380 feet length).

At the request of the Army Corps of Engineers, the Alternate 2 vertical alignment was lowered to 5 present to reduce the amount of fill required in Wetland 7 and now results in the following impacts: Alternate 2A will require 1.63 acres of wetlands with a box culvert

and approximately 0.63 acre with a bridge, and Alternate 2B will require approximately 1.60 acres of wetland with a box culvert and approximately 0.60 acre with a bridge (see page IV-12).

Although the Army Corps of Engineers made no recommendation for Alternates 3A and 3B, a comparable change in the vertical alignment was investigated. Lowering the vertical alignment for Alternatives 3A and 3B in the Jarboesville Run area to obtain a comparable reduction of 0.1 to 0.2 acre of impact to wetlands would require additional right-of-way from homes on the west side of MD 237 north of Jarboesville Run and from St. Mary's River State Park, if the tie in point was held on the south side of Jarboesville Run to avoid the existing apartments of the Fox Chase Village Subdivision. If the tie in point on the north side of Jarboesville Run was held to avoid St. Mary's River State Park, the improvements to MD 237 would require the relocation of approximately nine (9) apartment buildings associated with the Fox Chase Village Subdivision, would require approximately six (6) lots from the Chancellors Village Subdivision currently under construction, and would require right-of-way from approximately seven (7) other lots. Further, this alignment would require the reconstruction of the MD 246/MD 235 intersection which was part of the MD 246 project from MD 5 to Saratoga Drive. This project received location approval on July 27, 1988 and design approval November 1, 1988.

Due to the east/west flow of the stream perpendicular to the roadway and extending beyond the project study area, avoidance is not possible.

Wetland Mitigation

Preliminary investigation reveals ample opportunity to mitigate wetland impacts within the same watershed in the following order and priority:

1. Immediately down stream at parcel #40
2. Down stream in the same tributary
3. Within the park in the same watershed

A detailed mitigation plan will be developed during final design.

6. Effects on Threatened or Endangered Species

Correspondence with the U.S. Fish and Wildlife Service and Maryland Department of Natural Resources - Wildlife Administration indicates there are no known populations

of federally listed threatened or endangered species along the study corridor to be impacted by any of the build alternates. (See letter in the Comments and Coordination Section.)

G. Air Quality

1. Objectives and Type of Analysis

The objective of this report is to compare the carbon monoxide (CO) concentrations estimated to result from the traffic configurations and volumes of each alternate with the State and National Ambient Air Quality Standards (S/NAAQS). The NAAQS and SAAQS are the same for carbon monoxide: 35 PPM (parts per million) for a maximum 1-hour period and 9 PPM for a maximum 8-hour period.

A microscale carbon monoxide pollutant diffusion simulation analysis, based on free-flow conditions, was conducted. This analysis consisted of calculating 1-hour and 8-hour carbon monoxide concentrations resulting from automobile emissions at various receptor sites. All calculations were performed for 1995 (year of completion) and 2015 (year of design). The emission factors were calculated using the Environmental Protection Agency's (EPA) MOBILE 3 computer program. Line source carbon monoxide dispersion estimates were calculated using the fourth generation California Line Source Dispersion Model, CALINE 3.

a. Analysis Inputs

A summary of the analysis inputs is given below. More detailed information concerning these inputs is contained in the Air Quality Technical Report which is available for review at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

Background Levels

In order to calculate the total concentration of CO which occurs at particular receptor sites during worst-case meteorological conditions, background CO levels are considered in addition to the levels directly attributable to the facility under consideration.

Carbon monoxide concentrations occurring within the immediate vicinity of a street or highway are generally considered to be comprised of two components: (1) a concentration occurring from nearby roadways; and (2) a background component that is

attributable to other emission sources including more distant roadways. The CO background concentration used in this analysis were assumed to be as shown in Table 6 because the project is within an air quality attainment area and there is a lack of ambient monitoring stations in the area.

TABLE 6

BACKGROUND CARBON MONOXIDE (CO) PPM

YEAR	1 HR.	8 HR.
1995	2.0	1.0
2015	2.0	1.0

Traffic Data

The appropriate traffic data (dated October and November 1989) were utilized as supplied by the Traffic Forecasting Section of the State Highway Administration.

Emission Factors

EPA low altitudes emission factors were calculated using the EPA MOBILE 3 computer program. No credit for a vehicle inspection and maintenance emission control program was included in the emission calculations. Average vehicle operating speeds used in the analysis ranged from 10 mph to 45 mph.

Additional assumptions used were the MOBILE 3 national averages for Light Duty Vehicles (LDV) age distributions and tampering rates, no anti-tampering program and Federal Test Procedure (FTP) conditions for engine operating modes. The FTP classifies engine operating modes into the following categories:

- Of the non-catalytic converter equipped engines, 20.6 percent are assumed to be cold started, the remainder hot started (warmed-up).
- Of the catalytic converter equipped engines, 20.6 percent are assumed to be cold started, and 27.3 percent are assumed to be hot started, with the remainder being hot stabilized.

Meteorological Conditions

Meteorological conditions used in the analysis are the worst-case conditions as prescribed in the Maryland State Highway Administration Standards for Specifications for Consulting Engineers, Vol. II issued by the Maryland State Highway Administration.

Worst-case meteorological inputs of 1 meter/second (2.2 MPH) wind speed and Pasquill-Gifford Stability Class F (stable conditions) were utilized for all peak hour CO dispersion analyses. For the 8-hour analysis, the above conditions were assumed for the peak hour and hours after 5 p.m. For the portion of the 8-hour period occurring prior to 5 p.m., wind speeds of 2 meters/second and Stability Class D were used.

Since CO emissions are highest when temperatures are coldest, winter temperatures were utilized. Ambient temperatures of 20° F and 35° F were used in calculating emission factors for the peak 1-hour and peak 8-hour periods, respectively. The mixing height used was 305 meters (1000 ft).

The wind direction utilized as part of this analysis was selected in order to produce the maximum CO concentration at any given receptor. Wind directions varied for each receptor and were selected through a systematic scan of CO concentrations associated with worst-case wind directions.

b. Receptor Sites

The receptor sites selected for the microscale carbon monoxide pollutant diffusion analysis are described in Table 7 and are depicted on the Alternates mapping in Section III. Receptors were determined by proximity of roadway, types of adjacent land use, the presence of other augmenting factors, and changes in traffic patterns on the roadway network.

Twelve (12) receptor sites were selected for this analysis and are considered as being indicative of CO concentrations in sensitive areas. The sites chosen consist of nine (9) residences (existing or proposed); two (2) churches and a park. These sites were field verified during study visits.

TABLE 7

RECEPTOR SITE DESCRIPTIONS

Site No.	Description/Location
1	Kingdom Hall Church
2	Lexington Park Church of Christ
3	Proposed Townhouses, Hayden Green Subdivision Edge of right-of-way - Chancellors Run Road
4	Residence, 1 story brick/frame 878 Chancellors Run Road
5	Residence, 1 story frame 871 Chancellors Run Road
5A	Proposed single-family residential (Sta 65-75) Edge of right-of-way - Chancellors Run Road
6	Residence, 1 story frame 530 Chancellors Run Road
7	St. Mary's River State Park Edge of right-of-way
8	Residence, 1 story frame 458 Chancellors Run Road
9	Residence, Mobile Home 447-C Chancellors Run Road
10	Proposed single-family residential Fox Chase Village
11	Residence, 1 story brick Chancellors Run Road

c. Results of Microscale Analysis

The results of the calculations of carbon monoxide concentrations at each of the receptor sites for the No-Build and build alternates are shown in Tables 8 and 9. The values presented consist of predicted carbon monoxide concentrations that would be attributed to traffic on various roadway links plus projected background levels. A comparison of the values with the S/NAAQS shows that no violations are projected to occur for the No-Build or build alternates in 1995 or 2015 for the 1-hour or 8-hour concentrations of carbon monoxide. The projected carbon monoxide concentrations vary between alternates depending on receptor locations as a function of the roadway locations, traffic volumes and emission factors associated with each alternate.

For the 1-hour concentrations, the No-Build Alternate results in higher CO concentrations than the build alternates. For 8-hour concentrations, the build alternates result in slightly higher concentrations than the No-Build Alternate except for Receptor 7 where the build alternates would be located further away from the receptor site thus resulting in lower concentrations.

In conclusion, the No-Build and build alternates will not result in violations of the 1-hour or 8-hour S/NAAQS for 1995 or 2015.

2. Construction Impacts

The construction phase of the proposed project has the potential of impacting the ambient air quality through such means as fugitive dust from grading operations and materials handling. The State Highway Administration had addressed this possibility by establishing Specifications for Materials, Highways, Bridges, and Incidental Structures, which specifies procedures to be followed by contractors involved in state work.

The Maryland Bureau of Air Quality Control was consulted to determine the adequacy of the Specifications in terms of satisfying the requirement of the Regulations Governing the Control of Air Pollution in the State of Maryland. The Maryland Air Management Administration found that the specifications are consistent with the requirements of these regulations. Therefore, during the construction period, all appropriate measures (Code of Maryland Regulations 26.11.06.03 D) will be taken to minimize the impact on the air quality of the area.

TABLE 8

1-HOUR CARBON MONOXIDE CONCENTRATIONS (CO PPM)[a]

Receptor No.	Background	1995 - Alternate					2015 Alternate				
		No-Build	2A	2B	3A	3B	No-Build	2A	2B	3A	3B
1	2.0	3.5	3.0	3.1	3.0	3.0	5.7	3.9	3.9	3.9	3.9
2	2.0	4.2	3.2	3.3	3.1	3.2	7.1	4.2	4.4	4.3	4.3
3	2.0	3.8	3.4	3.5	3.4	3.5	6.0	4.5	4.8	4.7	4.9
4	2.0	5.2	3.2	3.3	3.0	3.0	9.3	4.4	4.4	4.0	4.0
5	2.0	5.0	R	R	R	R	9.1	R	R	R	R
5A	2.0	5.2	3.1	3.3	2.9	2.9	9.3	4.0	4.4	3.8	3.8
6	2.0	4.7	3.1	3.2	R	R	8.1	4.3	4.3	R	R
7	2.0	8.8	3.6	3.4	3.1	3.2	17.2	5.0	4.6	4.1	4.1
8	2.0	4.5	2.9	2.9	R	R	7.7	3.8	3.8	R	R
9	2.0	4.6	3.0	3.1	2.8	2.9	7.9	3.9	3.9	3.6	3.6
10	2.0	3.3	3.0	3.0	R	R	5.2	3.9	3.9	R	R
11	2.0	3.3	R	R	2.8	2.8	5.2	R	R	3.6	3.6

N/SAAQS - 1-HR. 35 ppm
[a] Including Background Concentration.
R = Relocation

TABLE 9

8-HOUR CARBON MONOXIDE CONCENTRATIONS (CO PPM)[a]

Receptor No.	Background	1995 - Alternate					2015 Alternate				
		No-Build	2A	2B	3A	3B	No-Build	2A	2B	3A	3B
1	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3
2	1.0	1.3	1.2	1.2	1.2	1.3	1.4	1.4	1.5	1.4	1.4
3	1.0	1.1	1.2	1.3	1.2	1.3	1.2	1.5	1.6	1.5	1.6
4	1.0	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.5	1.3	1.3
5	1.0	1.2	R	R	R	R	1.2	R	R	R	R
5A	1.0	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.5	1.3	1.3
6	1.0	1.2	1.2	1.3	R	R	1.4	1.4	1.4	R	R
7	1.0	1.5	1.3	1.2	1.2	1.3	1.7	1.6	1.5	1.4	1.4
8	1.0	1.2	1.2	1.2	R	R	1.3	1.3	1.3	R	R
9	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.2
10	1.0	1.1	1.2	1.2	R	R	1.1	1.3	1.3	R	R
11	1.0	1.1	R	R	1.2	1.2	1.2	R	R	1.2	1.2

N/SAAQS - 1-HR. 35 ppm
[a] Including Background Concentration.
R = Relocation

3. Conformity with Regional Air Quality Planning

This project is in an air quality attainment area which does not have transportation control measures in the State Implementation Plan (SIP). This project conforms to the SIP since it comes from a conforming transportation improvement program.

4. Agency Coordination

Copies of the Air Quality Technical Report are being provided to the U.S. Environmental Protection Agency and the Maryland Air Management Administration.

H. Noise Impacts

1. Abatement Criteria and Land Use Relationships

This noise analysis was completed in accordance with the FHWA regulations 23 CFR, Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." (Noise abatement criteria are shown on Table 10). The factors that were considered in identifying noise impacts are:

- o Identification of existing land use;
- o Existing noise levels;
- o Prediction of future design year noise levels; and
- o Potential traffic increases.

The noise impacts of the project were based upon the relationship of the projected noise levels to the FHWA Noise Abatement Criteria and to the ambient noise levels. Noise impacts occur when the Federal Highway Administration noise abatement criteria (Table 10) are approached or exceeded or when the predicted traffic noise levels are substantial or exceed the existing noise levels. Maryland State Highway Administration uses a 10 dBA increase to define a substantial increase. Noise abatement measures or mitigation will be evaluated when a noise impact is identified.

The factors that were considered when determining whether mitigation is reasonable and feasible are:

- o Whether a feasible method is available to reduce the noise;
- o Whether the noise mitigation is cost-effective for those receptors that are impacted - approximately $40,000 per impacted residence;

TABLE 10
NOISE ABATEMENT CRITERIA

Activity Category	$L_{eq}(h)$	Description of Activity Category
A	57 (Exterior)	Lands on 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.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	---------	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Reference: 23 CFR, Part 772.

o Whether the mitigation is acceptable to the affected property owners.

An effective barrier should, in general, extend in both directions to four times the distance between receiver and roadway (source). In addition, an effective barrier should provide a 7-10 dBA reduction in the noise level as a preliminary design goal. However, any impacted noise receptor which will receive a 5 decibel reduction is considered when determining the cost-effectiveness of a barrier.

Cost-effectiveness is determined by dividing the total number of impacted sensitive sites in a specified noise sensitive area, that will receive at least a 5 dBA reduction of noise levels, into the total cost of the noise mitigation. For the purpose of comparison, a total cost of $27 per square foot is assumed to estimate total barrier cost. This cost figure is based upon current costs experienced by the Maryland State Highway Administration and includes the cost of panels, footing, drainage, landscaping, and overhead. The State Highway Administration has established approximately $40,000 per residence protected as being the maximum cost for a barrier to be considered reasonable.

Consideration is based on the size of the impacted area (number of structures, spatial distribution of structures, etc.) the predominant activities carried on within the area, the visual impact of the control measure, practicality of construction, feasibility, and reasonableness.

2. No-Build Alternate

Evaluation of the No-Build Alternate was performed to serve as a base case from which to assess the specific noise level increases resulting from the proposed improvements. The No-Build Alternate assumes that no highway improvements, other than normal maintenance, will occur within the project area.

Under this alternate, 5 of the 12 noise sensitive areas will approach or exceed the FHWA's noise abatement criteria of 67 dBA. None of the areas will exceed the ambient by 10 dBA or more. See Table 11 for prediction results.

TABLE 11

NOISE LEVEL SUMMARY

Site	Ambient	No-Build	Alt. 2A	Alt. 2B	Alt. 3A	Alt. 3B
1	60	63	65	65	65	65
2	65	67*	68*	69*	68*	68*
3	55	60	69*	70*	70*	70*
4	65	65	69*	69*	67*	67*
5	63	64	R	R	R	R
5A	64	66*	69*	69*	66*	66*
6	67*	68*	67*	67*	R	R
7	65/62	61	63	63	60	60
8	60	66*	66*	66*	R	R
9	59	64	66*	66*	64	64
10	64	58	65	65	R	R
11	63	62	R	R	64	64

* Approaches or exceeds FHWA Noise Abatement Criteria
R - Relocation

3. Build Alternates 2A, 2B, 3A, and 3B

With implementation of Alternate 2A, 8 of the 9 sites will approach or exceed the FHWA noise abatement criteria of 67 dBA; however, none of the sites will increase the ambient by more than 10 dBA.

The results of the modeling and abatement analysis for each noise sensitive site under the No-Build and build alternates are contained in Table 12. The noise sensitive areas are shown on the Alternates Maps.

With the implementation of Alternate 2B, 8 of the 9 sites will approach or exceed the FHWA noise abatement criteria of 67 dBA and 1 site will exceed the ambient by 10 dBA or more.

With Alternate 3A, 5 of the 7 sites will approach or exceed the FHWA noise abatement criteria of 67 dBA and 1 site will exceed the ambient by 10 dBA or more.

With Alternate 3B, 5 of the 7 sites will approach or exceed the FHWA noise abatement criteria of 67 dBA and 1 site will exceed the ambient by 10 dBA or more.

4. Abatement Analysis

NSA 1

Noise Sensitive Area (NSA) 1, the Kingdom Hall Church, would be adjacent to all of the build alternates. At NSA 1, a noise level of 65 dBA is projected for all build alternates. The projected 65 dBA noise level represents a 5 dBA increase over ambient levels and does not approach or exceed the FHWA noise abatement criteria. No further analysis is required.

NSA 2

NSA 2, the Lexington Park Church of Christ, would be located adjacent to each of the build alternates. FHWA noise abatement criteria of 67 dBA is exceeded by 1 dBA with Alternates 2A, 3A and 3B. This represents a 3 dBA increase over ambient levels at this site. With Alternate 2B, the FHWA noise abatement criteria of 67 dBA is exceeded by 2 dBA. There is a 4 dBA increase over ambient levels. A noise barrier 1320 feet in length with an average height of 14 feet at a total cost of $498,960 was investigated. This barrier would provide at least a 7 dBA reduction for nine (9) residences (churches are equivalent

TABLE 12A
NOISE ANALYSIS

Site	Location/Description	Noise Level dBA		Alternate 2A								
		Ambient	No-Build	Build Noise Level,dBA	Abated Noise Level,dBA	Insertion Loss dBA	Barrier Length,Ft.	Barrier Ht.,Ft.	Total Cost	Number of Residences Impacted	Number of Residences Protected	Cost per Residence Protected
1	Kingdom Hall Church	60	63	65						1		
2[2]	Lexington Park Church of God	65	67[1]	68[1]	61	7	1,320	14	498,960	9	9	55,440
3	Point on Right-of-Way Hayden Green Subdivision	55	60	69[1]	[3]					-		
4[2]	1-story Brick & Frame Res. (typ.) 878 Chancellors Run Road (MD 237)	65	65	69[1]	62	7	805	12	260,820	3	3	86,940
5	1-story Frame Residence (typ.) 871 Chancellors Run Road (MD 237)	63	64	69[1]	X							
5A	Proposed Development along south-bound MD 237 south of Norris Rd.	64	66[1]	69[1]	61	8	2,160	14	699,840	16	14	49,990
6[2]	1-story Frame Residence (typ.) 530 Chancellors Run Road (MD 237)	67[1]	68[1]	67[1]	60	7	700	12	226,800	3	3	75,600
7	Point on Right-of-way St. Mary's Regional Park	65	72[1]	72[1]	[3]					-		
8[2]	1-story Frame Residence (typ.) 458 Chancellors Run Road (MD 237)	60	66[1]	66[1]	59	7	1,350	14	510,300	11	11	46,390
9[2]	Mobile Home Residence (typ.) 447-C Chancellors Run Rd. (MD237)	59	64	66[1]	59	7	940	12	304,560	5	5	60,910
10	Proposed Development along north-bound MD 237 N of Peggs Rd. Ext.	64	58	65						14		
11	1-story Brick Res. and Auto Serv. Chancellors Run Road (MD 237)	63	62	70[1]	X							

[1] Approaches or exceeds FHWA Noise Abatement Criteria
[2] Unable to provide feasible abatement due to need of ingress/egress from properties onto MD 237
[3] Point on Right-of-way: Abatement analysis not performed
X Site and Area is a "Take" for this Alternate.

TABLE 12B
NOISE ANALYSIS

Site	Location/Description	Noise Level dBA		Alternate 2B								
		Ambient	No-Build	Build Noise Level,dBA	Abated Noise Level,dBA	Insertion Loss dBA	Barrier Length,Ft.	Barrier Ht.,Ft.	Total Cost	Number of Residences Impacted	Number of Residences Protected	Cost per Residence Protected
1	Kingdom Hall Church	60	63	65								
2[2]	Lexington Park Church of God	65	67[1]	69[1]	62	7	1,320	14	498,960	9	9	55,440
3	Point on Right-of-Way Hayden Green Subdivision	55	60	70[1]	[3]					-		
4[2]	1-story Brick & Frame Res. (typ.) 878 Chancellors Run Road (MD 237)	65	65	69[1]	62	7	805	12	260,820	3	3	86,940
5	1-story Frame Residence (typ.) 871 Chancellors Run Road (MD 237)	63	64	69[1]	X							
5A	Proposed Development along south-bound MD 237 south of Norris Rd.	64	66[1]	69[1]	61	8	2,160	14	699,840	16	14	49,990
6[2]	1-story Frame Residence (typ.) 530 Chancellors Run Road (MD 237)	67[1]	68[1]	67[1]	60	7	700	12	226,800	3	3	75,600
7	Point on Right-of-way St. Mary's Regional Park	65	72[1]	69[1]	[3]					-		
8[2]	1-story Frame Residence (typ.) 458 Chancellors Run Road (MD 237)	60	66[1]	66[1]	59	7	1,350	14	510,300	11	11	46,390
9[2]	Mobile Home Residence (typ.) 447-C Chancellors Run Rd. (MD237)	59	64	66[1]	59	7	940	12	304,560	5	5	60,910
10	Proposed Development along north-bound MD 237 N of Peggs Rd. Ext.	64	58	65								
11	1-story Brick Res. and Auto Serv. Chancellors Run Road (MD 237)	63	62	70[1]	X							

[1] Approaches or exceeds FHWA Noise Abatement Criteria
[2] Unable to provide feasible abatement due to need of ingress/egress from properties onto MD 237
[3] Point on Right-of-way: Abatement analysis not performed
X Site and Area is a "Take" for this Alternate.

TABLE 12C
NOISE ANALYSIS

Site	Location/Description	Noise Level dBA		Alternate 3A								
		Ambient	No-Build	Build Noise Level,dBA	Abated Noise Level,dBA	Insertion Loss dBA	Barrier Length,Ft.	Barrier Ht.,Ft.	Total Cost	Number of Residences Impacted	Number of Residences Protected	Cost per Residence Protected
1	Kingdom Hall Church	60	63	65								
2[2]	Lexington Park Church of God	65	67[1]	68[1]	61	7	1,320	14	498,960	9	9	55,440
3	Point on Right-of-Way Hayden Green Subdivision	55	60	70[1]	[3]							
4[2]	1-story Brick & Frame Res. (typ.) 878 Chancellors Run Road (MD 237)	65	65	67[1]	60	7	940	12	304,560	5	5	60,910
5	1-story Frame Residence (typ.) 871 Chancellors Run Road (MD 237)	63	64	69[1]	X							
5A	Proposed Development along south-bound MD 237 south of Norris Rd.	64	66[1]	66[1]	58	8	2,130	14	805,140	16	16	50,320
6	1-story Frame Residence (typ.) 530 Chancellors Run Road (MD 237)	67[1]	68[1]	77[1]	X							
7	Point on Right-of-way St. Mary's Regional Park	65	72[1]	67[1]	[3]							
8	1-story Frame Residence (typ.) 458 Chancellors Run Road (MD 237)	60	66[1]	72[1]	X							
9	Mobile Home Residence (typ.) 447-C Chancellors Run Rd. (MD237)	59	64	64								
10	Proposed Development along north-bound MD 237 N of Peggs Rd. Ext.	64	58	73[1]	X							
11	1-story Brick Res. and Auto Serv. Chancellors Run Road (MD 237)	63	62	64								

[1] Approaches or exceeds FHWA Noise Abatement Criteria
[2] Unable to provide reasonable and feasible abatement due to cost/residency exceeding $40,000 and the need of ingress/egress from properties onto MD 237
[3] Point on Right-of-way: Abatement analysis not performed
X Site and Area is a "Take" for this Alternate.

TABLE 12D
NOISE ANALYSIS

Site	Location/Description	Noise Level dBA		Alternate 3B								
		Ambient	No-Build	Build Noise Level,dBA	Abated Noise Level,dBA	Insertion Loss dBA	Barrier Length,Ft.	Barrier Ht.,Ft.	Total Cost	Number of Residences Impacted	Number of Residences Protected	Cost per Residence Protected
1	Kingdom Hall Church	60	63	65								
2[2]	Lexington Park Church of God	65	67[1]	68[1]	61	7	1,320	14	498,960	9	9	55,440
3	Point on Right-of-Way Hayden Green Subdivision	55	60	70[1]	[3]							
4[2]	1-story Brick & Frame Res. (typ.) 878 Chancellors Run Road (MD 237)	65	65	67[1]	60	7	960	12	311,040	5	5	62,210
5	1-story Frame Residence (typ.) 871 Chancellors Run Road (MD 237)	63	64	69[1]	X							
5A	Proposed Development along south-bound MD 237 south of Norris Rd.	64	66[1]	66[1]	59	7	2,130	14	805,140	16	16	50,320
6	1-story Frame Residence (typ.) 530 Chancellors Run Road (MD 237)	67[1]	68[1]	77[1]	X							
7	Point on Right-of-way St. Mary's Regional Park	65	72[1]	67[1]	[3]							
8	1-story Frame Residence (typ.) 458 Chancellors Run Road (MD 237)	60	66[1]	71[1]	X							
9	Mobile Home Residence (typ.) 447-C Chancellors Run Rd. (MD237)	59	64	64								
10	Proposed Development along north-bound MD 237 N of Peggs Rd. Ext.	64	58	73[1]	X							
11	1-story Brick Res. and Auto Serv. Chancellors Run Road (MD 237)	63	62	64								

[1] Approaches or exceeds FHWA Noise Abatement Criteria
[2] Unable to provide feasible abatement due to need of ingress/egress from properties onto MD 237
[3] Point on Right-of-way: Abatement analysis not performed
X Site and Area is a "Take" for this Alternate.

to five residences for cost effectiveness calculations) with projected levels above 67 dBA, at a cost per residence of $55,440. This mitigation would not be reasonable.

In addition to not being cost effective, an effective noise wall would result in denied driveway access from MD 237 to these properties. A barrier segmented for residential access would not be physically effective. Therefore, noise mitigation is not considered reasonable and feasible at this site.

NSA 3

NSA 3, an edge of right-of-way receptor, would be located adjacent to all of the build alternates. At NSA 3 the FHWA noise abatement criteria of 67 dBA is exceeded by 3 dBA with Alternates 2B, 3A and 3B. This represents a 15 dBA increase over ambient levels. With Alternate 3A, the FHWA noise abatement criteria is exceeded by 2 dBA. This represents a 14 dBA increase over ambient levels. This site represents a housing development (Hayden Greens) which is not approved and for which plans are not available; therefore, abatement analysis was not considered.

NSA 4

NSA 4 would be in the area of all the build alternates. At NSA 4 the FHWA noise abatement criteria of 67 dBA is exceeded by 2 dBA with Alternates 2A and 2B. This represents a 4 dBA increase over ambient levels at this site. With Alternates 3A and 3B, the projected noise level equals the FHWA noise abatement criteria of 67 dBA. This represents a 2 dBA increase over ambient levels with Alternates 3A and 3B.

For Alternates 2A and 2B a barrier 805 feet in length, with an average height of 12 feet, at a total cost of $260,820 was investigated. The barrier would provide at least a 7 dBA reduction to three (3) residences with projected levels above 67 dBA, at a cost per residence of $86,940. This mitigation would not be considered reasonable and feasible due to cost per residence.

For Alternate 3A a barrier 940 feet in length, with an average height of 12 feet, at a total cost of $304,560 was investigated. This barrier would provide at least a 7 dBA reduction to five (5) residences with projected levels equal to 67 dBA, at a cost per

residence of $60,910. This mitigation would not be considered reasonable and feasible due to cost per residence.

For Alternate 3B a barrier 960 feet in length, with an average height of 12 feet, at a total cost of $311,040 was investigated. This barrier would provide at least a 7 dBA reduction to five (5) residences with projected levels equal to 67 dBA, at a cost per residence of $62,210. This mitigation would not be considered reasonable and feasible.

Abatement for this area is not considered reasonable and feasible based on cost effectiveness and because residential driveway access would be eliminated with a barrier along the noise sensitive area. A barrier segmented for residential access would not be physically effective.

NSA 5

This NSA would be relocated for all build alternates; therefore the site was not analyzed.

NSA 5A

NSA 5A is an edge of right-of-way site adjacent to all of the build alternates. At NSA 5A, the FHWA noise abatement criteria of 67 dBA is exceeded by 2 dBA with Alternates 2A and 2B. This represents a 5 dBA increase over ambient levels. With Alternates 3A and 3B, the projected noise level is 1 dBA below the FHWA noise abatement criteria of 67 dBA. This represents a 2 dBA increase over ambient levels at this site.

For Alternates 2A and 2B a barrier 2,160 feet in length, with an average height of 14 feet, at a total cost of $699,840 was investigated. This barrier would provide at least an 8 dBA reduction to fourteen (14) residences with projected levels above 67 dBA, at a cost per residence of $49,990. Abatement for this area is not considered reasonable and feasible based on cost effectiveness.

For Alternates 3A and 3B a barrier 2130 feet in length, with an average height of 14 feet, at a total cost of $805,140 was investigated. The barrier would provide at least an 8 dBA reduction to sixteen (16) residences with projected levels 1 dBA below 67 dBA, at a cost per residence of $50,320. Abatement for this area is not considered reasonable and feasible based on cost effectiveness.

NSA 6

NSA 6, a one-story frame residence at 530 Chancellor's Run Road, would be affected with Alternates 2A and 2B only. For Alternates 3A and 3B, NSA 6 is a displacement. At NSA 6, the FHWA noise abatement criteria of 67 dBA will be equalled. The projected noise levels for Alternates 2A and 2B equal the ambient noise levels. A noise barrier 700 feet in length, with an average height of 12 feet, at a total cost of $266,800 was investigated. This barrier would provide at least a 7 dBA reduction to three (3) residences with projected levels equal to 67 dBA, at a cost per residence of $75,600. This mitigation would not be reasonable and feasible.

Abatement for this area is not considered reasonable and feasible based on cost effectiveness criteria and the denial of residential driveway access along the noise sensitive area. A barrier segmented for residential access would not be physically effective.

NSA 7

NSA 7, St. Mary's Regional Park, is adjacent to all the build alternates. At NSA 7, the FHWA noise abatement criteria of 67 dBA would not be exceeded under any of the build alternates. None of the projected noise levels for any of the build alternates increase over the ambient by 10 dBA. NSA 7 represents the planned active recreational use proposed for the St. Mary's County Regional Park.

NSA 8

NSA 8 would be in the area of impact for Alternates 2A and 2B only. For Alternates 3A and 3B, NSA 8 is a relocation. At NSA 8, the FHWA Noise Abatement Criteria of 67 dBA is approached under Alternates 2A and 2B. The projected noise level for Alternates 2A and 2B will each exceed the ambient levels by 6 dBA. A noise barrier 1350 feet in length, with an average height of 14 feet, at a total cost of $510,300 was investigated. This barrier would provide at least a 7 dBA reduction to eleven (11) residences with projected levels equal to 66 dBA, at a cost per residence of $46,390. This mitigation would not be considered reasonable and feasible.

Abatement for this area is not considered reasonable and feasible based on cost effectiveness criteria and the denial of residential driveway access along the noise sensitive area. A barrier segmented for residential access would not be physically effective.

NSA 9

NSA 9, a mobile home, would be adjacent to all of the build alternates. At NSA 9, the FHWA noise abatement criteria of 67 dBA will be approached for Alternates 2A and 2B. This represents a 7 dBA increase over ambient levels.

For Alternates 3A and 3B, the projected noise level is 64 dBA for each alternate which represents a 5 dBA increase over ambient levels, therefore no further analysis is required for these alternates. For Alternates 2A and 2B a noise barrier 940 feet in length with an average height of 12 feet, at a total cost of $304,560 was investigated. The barrier would provide at least a 7 dBA reduction to five (5) residences with projected levels equal to 66 dBA, at a cost per residence of $60,910. This mitigation would not be considered reasonable and feasible due to cost per residence.

NSA 10

NSA 10, a proposed residence in Fox Chase Village, would be affected by Alternates 2A and 2B only. For Alternates 3A and 3B, NSA 10 is a relocation. At NSA 10, the FHWA noise abatement criteria of 67 dBA will not be approached or exceeded with Alternates 2A or 2B, therefore no further analysis is required.

NSA 11

NSA 11, a one story brick residence at Chancellor's Run Road, would be affected by Alternates 3A and 3B only. For Alternates 2A and 2B, NSA 11 is a relocation. At NSA 11, the FHWA noise abatement criteria of 67 dBA is neither approached nor exceeded by the 64 dBA projected for Alternates 3A and 3B; therefore no further analysis is required.

5. Other Mitigation Measures

In addition to noise walls, other abatement measures were considered. These include:

Traffic Management Measures

Traffic management measures which could be used include traffic control devices and signing for prohibition of certain vehicles (heavy trucks), time use restrictions for certain types of vehicles and modified speed limits. Prohibition of trucks will not be feasible because of the truck traffic utilizing MD 237 to serve Lexington Park and surrounding areas.

Acquisition of Real Property or Property Rights to Establish Buffer Zones

Existing residential development immediately adjacent to the project area will not allow the acquisition of right-of-way to establish buffer zones.

6. Earth Berms

Earth berms were investigated for all NSAs that approached or exceeded the noise abatement criteria. Earth berms are not feasible in any of these areas. The reasons for this conclusion are there is limited room between the roadway and right-of-way to place a berm and the need to maintain ingress and egress movements for the residences does not allow for reasonable and feasible berm system.

Section V

4(f) Evaluation

V. SECTION 4 (f) EVALUATION

1. Introduction

Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303(c), requires that the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge, or any significant historic site as part of the project for a federally funded or approved transportation project is permissible only if there is no feasible and prudent alternative to the use. Final action requiring the taking of such land must document that there are no feasible and prudent alternatives to the use of land from the property, and that the proposed action includes all possible planning to minimize harm to the property.

2. Description of Proposed Action

The project consists of dualizing the existing two-lane section of MD 237 from MD 235 to MD 246 in Saint Mary's County, Maryland.

The purpose of the project is to increase capacity and improve safety along MD 237 by removing the sharp curves and steep slopes in the vicinity of Jarboesville Run. This two-lane roadway has no shoulders and numerous access points which contribute to unsafe travelling conditions. Increasing development will cause these conditions to worsen in the future. Currently, MD 237 operates at a level of service D and has a projected 2015 No-Build level of service F.

A detailed description of the alternates under consideration can be found in Section III of this document.

3. Description of 4(f) Resource (Figure 15)

St. Mary's River State Park (two areas) is located directly adjacent to existing MD 237. The park is owned by the Department of Natural Resources (DNR) and consists of over 2,000 acres of publicly-owned, open space featuring a mosaic of landscape elements ranging from bottomland wetlands, to farm fields, to gently rolling hills, to upland mixed hardwood forest. The park serves as the habitat for a diversity of plant, animal and bird species and provides areas for a variety of multi-recreational uses such as picnicking;

horseback riding; hiking; hunting; fishing; and nature study. This park property, with the exception of Parcel 4 located west of the study area, was purchased with Program Open Space Funds. Therefore, replacement property must be provided.

To help meet the existing and anticipated needs of the local community for active recreation, the St. Mary's County Commissioners in January, 1987, leased 82 acres of this Park, composed of open fields and farmland, from the Department of Natural Resources. The County Department of Recreation and Parks proposes to develop facilities for softball, soccer, swimming, tennis, golf and outdoor concerts on this site in the near future.

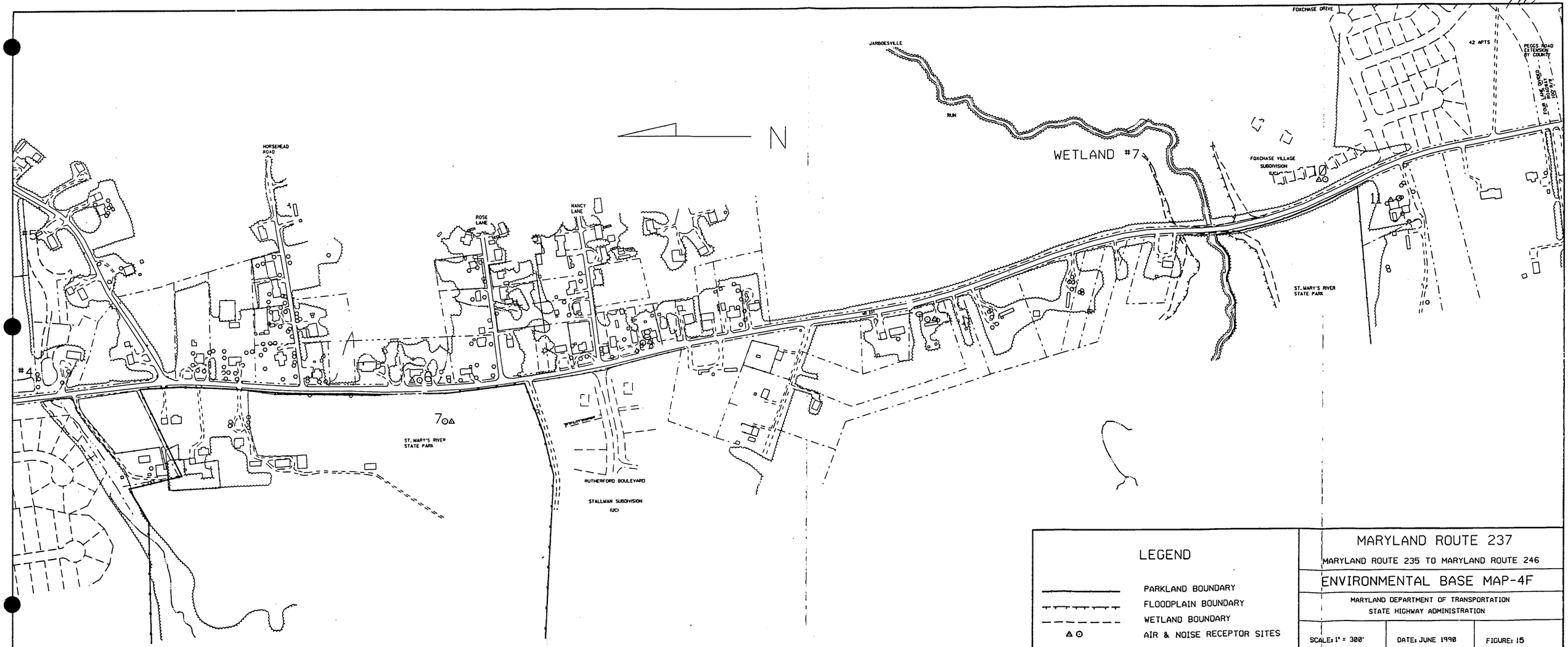
4. Impacts to 4(f) Property

Property would be required from the 82-acre section of St. Mary's River State Park leased to St. Mary's County Department of Recreation and Parks. This area has been designated St. Mary's County Regional Park (see Figures 16A and 16B) by St. Mary's County to distinguish it from the larger Department of Natural Resources (DNR) park. St. Mary's County may make improvements reasonably necessary to this 82-acre property provided DNR reviews and provides written approval of the use.

The lease agreement is for a period of 50 years beginning on the first day of December, 1986, and ending on the 30th day of November, 2036. The lessee may renew this lease agreement for one additional term of 50 years by giving the lessor written notice of intent at least 90 days before the expiration of the original term.

The lessee shall use the premises only as a public recreational area with any and all utilities service being supplied underground. The lessee may make any alterations, additions or improvements of the property that is reasonably necessary for its use as a public recreational area, provided prior review and written approval of the use, as well as design and construction drawing, is obtained from the lessor.

Proposed Alternate 2A would require the acquisition of approximately 5.68 acres, and proposed Alternate 2B would require the acquisition of approximately 6.18 acres. Presently the parkland is unimproved, consisting of vacant farmland and open fields. Initially, the proposed improvement would have adversely affected the planned soccer field designated for this area by St. Mary's County Department of Recreation and Parks (see Figure 16A). However, after a meeting with St. Mary's County park officials (see memo dated January 4, 1990), the county revised their proposed recreational area plans and designated another



LEGEND

- PARKLAND BOUNDARY
- FLOODPLAIN BOUNDARY
- WETLAND BOUNDARY
- AIR & NOISE RECEPTOR SITES

MARYLAND ROUTE 237

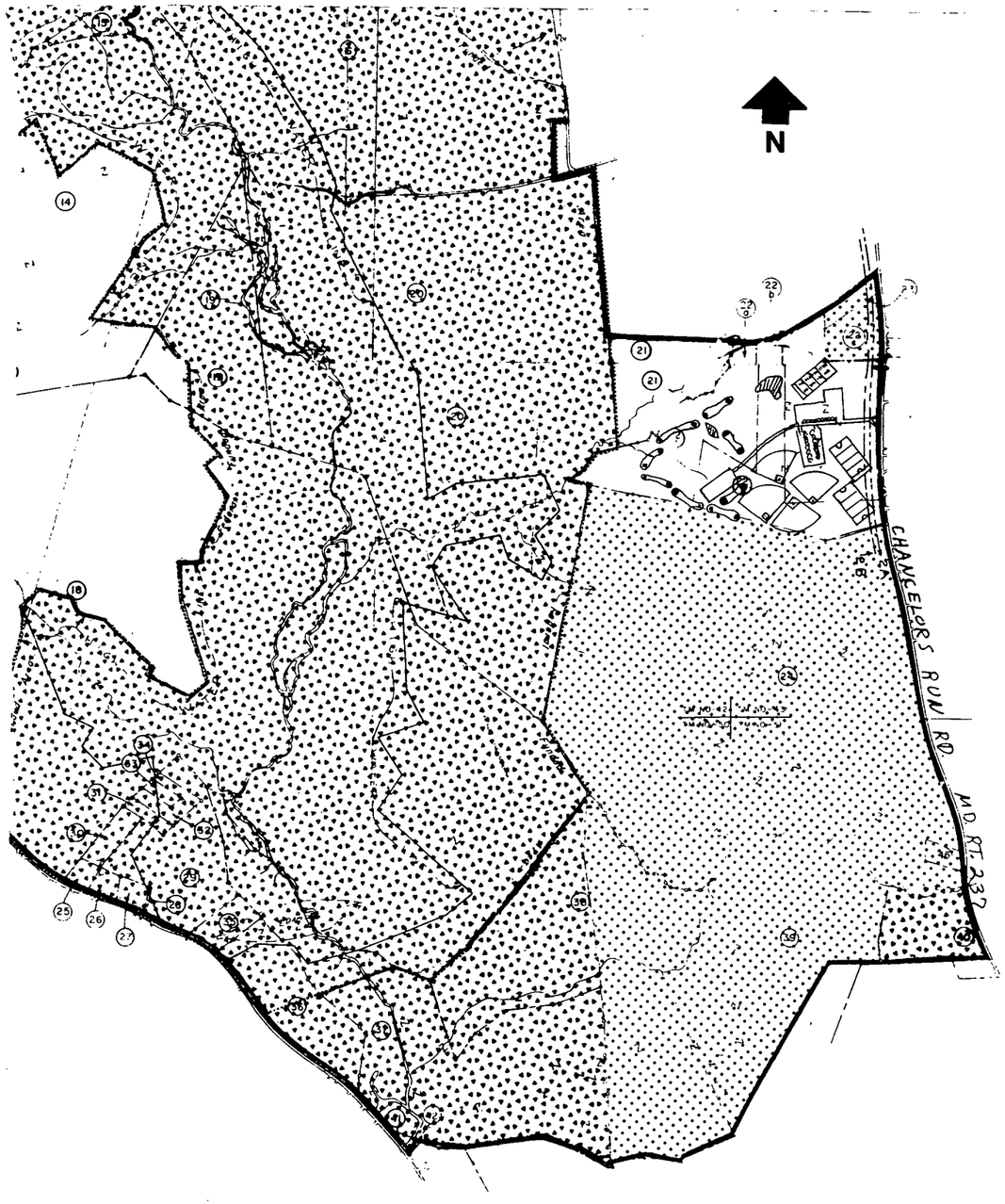
MARYLAND ROUTE 235 TO MARYLAND ROUTE 246

ENVIRONMENTAL BASE MAP-4F

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

SCALE: 1" = 300'	DATE: JUNE 1990	FIGURE: 15

ST. MARY'S RIVER STATE PARK



LEGEND

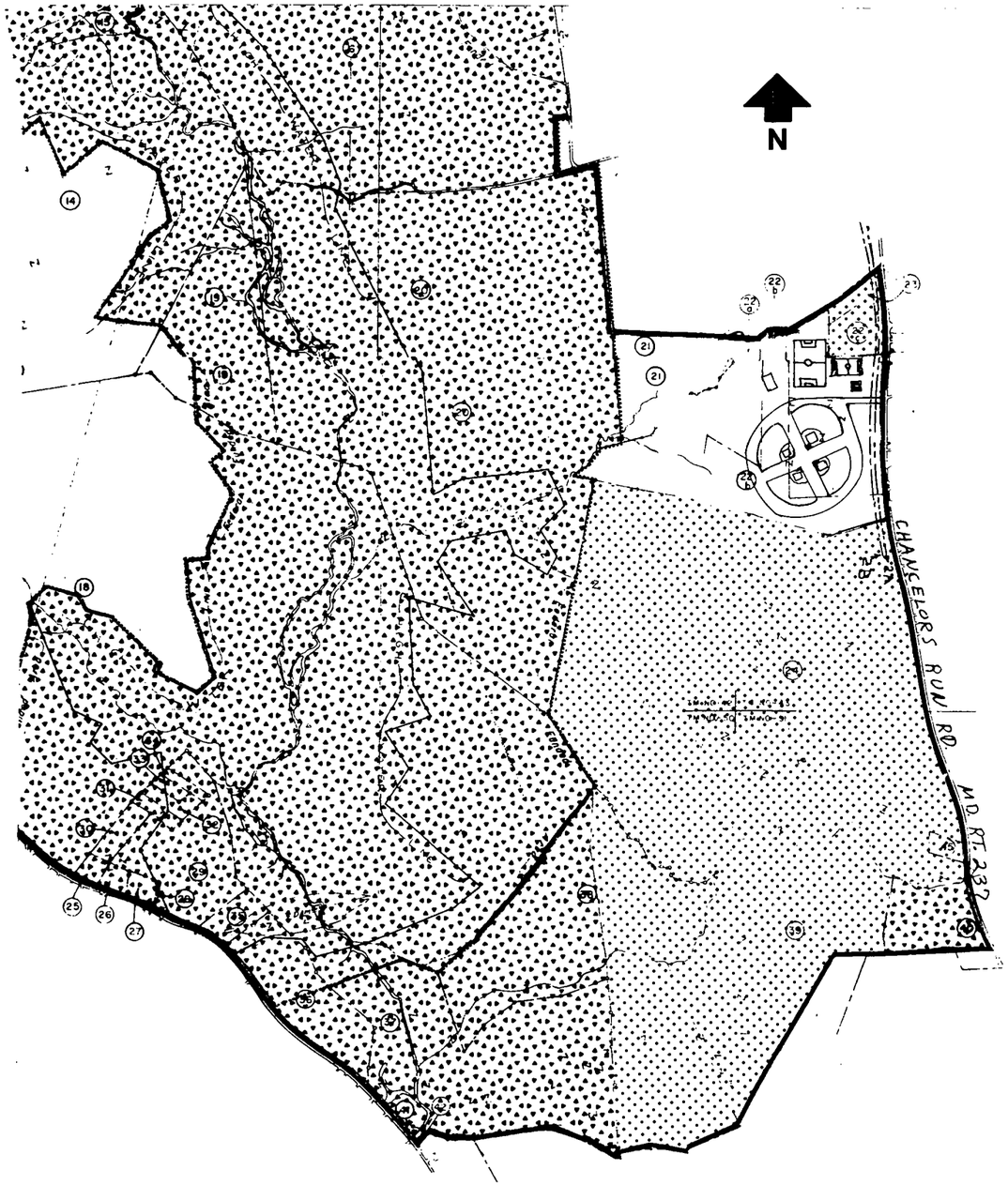
PROPERTY ACQUIRED IN FEE SIMPLE

PROPERTY TO BE ACQUIRED IN FEE SIMPLE

AREA LEASED TO ST. MARY'S COUNTY DEPARTMENT OF PARKS AND RECREATION

Fig. 16 A

ST. MARY'S RIVER STATE PARK



LEGEND

PROPERTY ACQUIRED IN FEE SIMPLE

PROPERTY TO BE ACQUIRED IN FEE SIMPLE

AREA LEASED TO ST. MARY'S COUNTY DEPARTMENT OF PARKS AND RECREATION

Fig. 16 B

site for the soccer field and purposely reserved approximately 150 feet of park property immediately adjacent to MD 237 as a buffer area to accommodate the proposed improvement to the roadway (see Figure 16B and Page VI-13 in Comments and Coordination).

A noise and air analysis for this area has been completed. The ambient Leq noise level for the noise sensitive site representative of this area (NSA 7) is 65 dBA. The modeled design year Leq noise level is 71 dBA, a difference of 6 dBA. An air analysis was performed in this area using a representative site (NSA 7). It revealed only a minor increase over existing carbon monoxide concentrations.

5. Avoidance Alternates

The No-Build Alternate avoids impacts to the park since there would be no widening of the existing roadway. Under the No-Build Alternate, only minor roadway improvements to MD 237 are planned. Even with these minor improvements, MD 237 would function at level of service "E" by design year 2015. Safety conditions would diminish considerably with the projected increase in traffic volumes. Due to the lack of added capacity, the No-Build Alternate does not meet the purpose and need of the project.

Avoidance and Minimization Alternates

Alternates 3A and 3B would completely avoid St. Mary's River State Park. Both alternates would transition to the east side of the existing roadway to avoid the park. Alternates 3A and 3B would require 34 residential relocations adding $11,600,000 to the cost of the project to avoid the park.

Studies to minimize impacts to the park were considered using the same typical section described in the Alternates Section. The study included shifting Alternates 2A and 2B easterly approximately 25 feet to avoid the residential relocations and simultaneously reduce the amount of park property required; however, septic systems located along the front of the houses were crossed, which if impacted would require relocating approximately 20 residences. Due to the small size of the parcels, the septic systems cannot be relocated.

Shifting the proposed Alternates 2A and 2B approximately 2 miles to the west would avoid the section of St. Mary's River State Park in the vicinity of Horsehead Road (Figure 17). It would use the alignment of MD 471 and tie into MD 4. However, the

capacity of MD 237 would still be inadequate and because it is an uncontrolled access road with substandard geometrics, safety would remain an issue along MD 237, which is undergoing rapid development.

Further, a western alignment shift to avoid St. Mary's River State Park would impact the St. Andrews Landfill and require approximately 3 crossings of tributaries of the St. Mary's River. The smaller portion of St. Mary's River State Park in the vicinity of Jarboesville Run will also be impacted. This smaller parcel is unimproved and there are no plans for the development of this parcel. An alignment to the west around this parcel would avoid impact; however, it would require a new crossing over Jarboesville Run impacting its associated wetlands and floodplain.

Alternate 3A and 3B represent the eastern alignment which avoids St. Mary's River State Park. Alternate 3A and 3B would require 34 residential relocations and impact approximately 2.44 acres of wetlands.

6. Mitigation Measures

The property adjacent to St. Mary's River State Park is in the acquisition plan of the Department of Natural Resources (DNR). Presently, this property has not been acquired. As part of the mitigation process, for Alternates 2A and 2B the State Highway Administration (SHA) will consider using property identified in the acquisition program which is contiguous with the existing park as replacement property. This property is expected to equal the acreage of parkland impacted. Access to the entrance would be designed to coincide with roadway median crossover to accommodate access from the north or south along MD 237. Further, SHA will provide adequate landscape screening along the roadway and Park boundary and continue coordination with St. Mary's County and DNR to address future concerns.

7. Consultation and Coordination

Coordination has been initiated with St. Mary's County and the Department of Natural Resources to identify replacement park land (see Section VI - Comments and Coordination).

St. Mary's County has revised their park development plans to provide a setback which would accomodate the proposed widening of MD 237. The Department of Natural Resources has agreed that the proposed project would not adversely affect this recreational resource (see August 10, 1990 letter in Comments and Coordination Section).

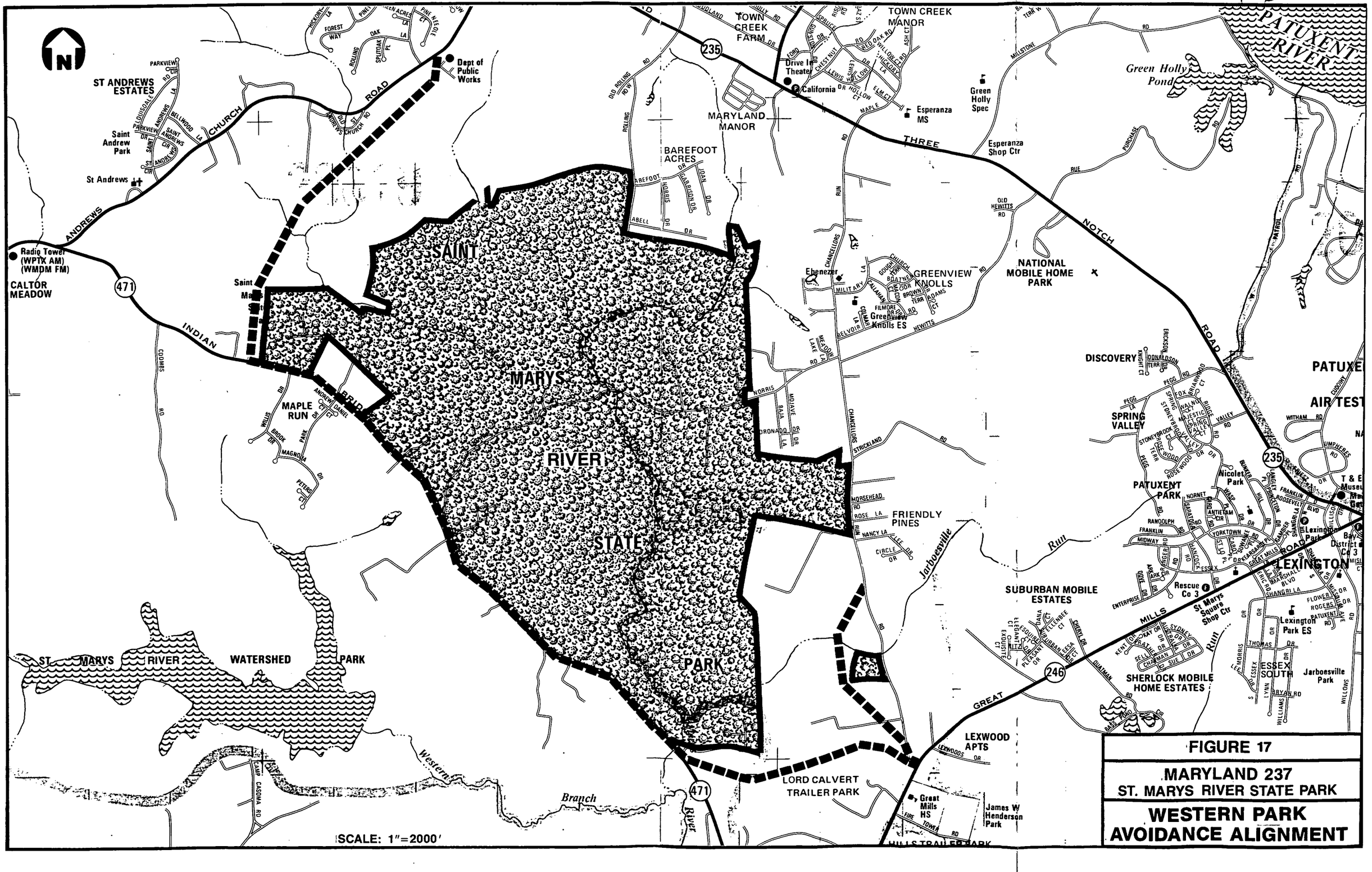


FIGURE 17

MARYLAND 237
ST. MARYS RIVER STATE PARK

WESTERN PARK AVOIDANCE ALIGNMENT

Section VI

Comments and Coordination

118

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

REPLY TO ATTENTION OF:
Operations Division

06 SEP 1990

Subject: CENAB-OP-RR(MD SHA - MD 237)90-04053-1

Maryland State Highway Administration
Attn: Ms. Cynthia Simpson
707 North Calvert Street
Baltimore, Maryland 21202

Dear Ms. Simpson:

I am replying to your request dated June 18, 1990 for a jurisdiction determination and verification of the delineation of Waters of the United States, including jurisdictional wetlands, on MD Route 237, in St. Marys County, Maryland.

A field inspection was conducted on July 24, 1990. A copy of our report of this inspection is enclosed. This inspection indicated that the delineation of Waters of the Unites States, including jurisdictional wetlands, on the enclosed map is accurate as modified in accordance with the notations on the map and as reflected by our field inspection report. This verification is valid for three years from the date of this letter.

You are reminded that any grading or filling of Waters of the United States, including jurisdictional wetlands, is subject to Department of the Army authorization.

At the field inspection, it was noted that a box culvert is proposed at Jarboesville Run, and that the grade of the road was being raised from 6% to 4%. In an effort to reduce wetlands impacts, the Corps recommended that two options be considered:

a. Revise the grade to 5%, instead of 4%, to reduce the encroachment of the fill slopes into the wetlands; and

b. Calculate the cost of a 100-foot long bridge option.

In the interest of resolving the issues of avoidance and minimization during the NEPA phase, instead of during the 404 permit phase, we request that these options be considered in the environmental document.

If your have any questions concerning this matter please call Mr. Paul Wettlaufer at (301) 962-3477.

Sincerely,

Cheryl A. Smith
Chief, River Basin Permits Section

Enclosures

cc: Herman Rodrigo, FHWA

McCormick, Taylor & Associates, Inc.
CONSULTING ENGINEERS AND PLANNERS
MELLON INDEPENDENCE CENTER, SUITE 6000 • 701 MARKET STREET • PHILADELPHIA, PENNSYLVANIA 19106
215-592-4200

August 27, 1990

Cynthia Simpson, Assistant Division Chief
Project Planning Division
Maryland Department of Transportation
State Highway Administration
Room 503
707 North Calvert Street
Baltimore, Maryland 21203-0717

ATTENTION: Mr. Howard Johnson

REFERENCE: Maryland Route 237
Maryland Route 235 to Maryland Route 246
St. Mary's County, Maryland
SM 757-101-571
Agency Wetland Field Meeting

Dear Mr. Johnson:

Enclosed for your review is a copy of our revised minutes of the agency wetland field meeting for the Maryland Route 237 project, held on July 24, 1990. A set of the field meeting wetland maps, which have been revised in accordance with the discussions from the meeting were previously included with the draft minutes.

The revisions to the minutes were made in response to comments made by Paul Wettlanfer, U.S. Army Corps of Engineers.

Very truly yours,

McCORMICK, TAYLOR & ASSOCIATES, INC.

Dennis K. Burgeson
Senior Scientist

DKB:mta:1781a

Enclosure: As Stated

Agency Wetland Field Meeting
Maryland Route 237
Maryland Route 235 to Maryland Route 246
St. Mary's County
SM 757-101-571

July 24, 1990

Field Meeting Minutes

Attendees	Representing	Phone Number
Paul Wettlaufer	U.S. Army Corps of Engineers	301-962-3477
Bill Schultz	U.S. Fish and Wildlife Service	301-269-5448
Wayne Drury	State Highway Administration	301-333-4582
Howard Johnson	State Highway Administration	301-333-1179
Dennis Burgeson	McCormick, Taylor & Associates, Inc.	215-592-4200
Jill Kulig	McCormick, Taylor & Associates, Inc.	215-592-4200

The purpose of the field meeting was to receive agency concurrence on the wetland/upland boundaries. Wetland field investigations of the project study area were performed in two phases. The first phase, a June, 1989 investigation, was conducted as a corridor-wide wetland survey to identify the approximate location and extent of wetlands. This initial survey was largely based on available mapped data (i.e. USDA, SCS Soil Survey, project mapping, etc.), with limited field work. The second phase, performed in January, 1990, entailed an actual field delineation, including marking of the upland/wetland boundaries with flagging. It should be noted that the January investigation was conducted outside of the growing season and that soil saturation and ponding was evident in virtually all identified wetland areas.

A subsequent field visit to the project area was made in early June, 1990, to reflag as necessary, the wetland/upland boundaries in preparation for the agency field meeting.

Following is a summary of the field view discussions by wetland. Attached are copies of the project alternates mapping (Scale: 1"=200') with the revised wetland/upland boundaries indicated.

Wetland #1

The agencies were in agreement with the wetland/upland boundaries of the palustrine, open water wetland, situated east of Maryland Route 237.

The agencies determined that the forested area to the west of Maryland Route 237, identified as a palustrine forested wetland in the January investigation, was not a regulated wetland. This determination was based on the absence of hydric soils. This site exhibited predominantly facultative vegetation and very strong hydrologic indicators.

Wetland #2

This wetland, a palustrine open water area, is situated beyond the project impact area, and was therefore not evaluated.

Wetland #3

This wetland, a palustrine emergent area, is situated beyond the project impact area, and was therefore not evaluated.

Wetland #4

Wetland #4, located east of Maryland Route 237 and consisting of one (1) open water wetland, was confirmed by the agencies for location of wetland/upland boundaries.

Wetland #5

The agencies determined that the forested area to the west of Maryland Route 237, identified as a palustrine forested wetland in the January investigation, was not a regulated wetland. This determination was based on the absence of hydric soils. Wetland vegetation and hydrology indicators of this area were similar to those noted in the Wetland #1 site (west of MD 237). The palustrine open water area at Wetland #5 was confirmed by the agencies for location of wetland/upland boundaries.

Wetland #6

The western extreme of this area, identified as a palustrine forested wetland in the January survey, lies within the project area of Alternate 3B only. The agencies determined that this area was not a regulated wetland, due to the absence of hydric soils. Wetland vegetation and hydrology indicators were similar to those noted in the Wetland #1 and Wetland #5 areas (west of MD 237).

Wetland #7

The agencies determined that the field located wetland/upland boundaries of this area were accurate, with the exception of the portion south of Jarboesville Run and east of Maryland Route 237. This boundary was relocated to the approximate elevation of 56 feet. This relocation was based on the presence of hydric soils (i.e. sulfur odors and low matrix chromas) and soil saturation near the surface (i.e. less than 10 inches).

Wetland #8

This wetland was not evaluated as it is presently not within the project impact area.

General Comments

The agencies requested that SHA evaluate costs and wetland impacts for two alternates for crossing Jarboesville Run: a box culvert and a bridge with a 100 foot span. In addition, consideration of construction of the roadway at a 5 percent grade for these alternates was agreed to. The present roadway design calls for a 4 percent grade in the vicinity of Jarboesville Run. These evaluations are to be incorporated into the environmental document.

The revised impact acreages for the project alternates 2A, 2B, 3A and 3B are as follows.

	Acres Within Proposed Right-of-Way			
Wetland/Area	Alternate 2A	Alternate 2B	Alternate 3A	Alternate 3B
Wetland #1	0	0	0	0
Wetland #2	0	0	0	0
Wetland #3	0	0	0	0
Wetland #4	0	0	0.20	0.20
Wetland #5	0	0	0.16	0.16
Wetland #6	0	0	0	0
*Wetland #7	1.65	1.65	2.08	2.08
Wetland #8	0	0	0	0
Totals	1.65	1.65	2.44	2.44

* Right-of-Way involvement based on use of a box culvert for crossing Jarboesville Run.

Reported by:

Dennis K. Burgeson

DKB:mta:1788a

McCormick, Taylor & Associates, Inc.
CONSULTING ENGINEERS AND PLANNERS
MELLON INDEPENDENCE CENTER, SUITE 6000 • 701 MARKET STREET • PHILADELPHIA, PENNSYLVANIA 19106
215-592-4200

August 7, 1990

Cynthia Simpson, Assistant Division Chief
Project Planning Division
Maryland Department of Transportation
State Highway Administration
Room 503
707 North Calvert Street
Baltimore, Maryland 21203-0717

ATTENTION: Mr. Howard Johnson

REFERENCE: Maryland Route 237
Maryland Route 235 to Maryland Route 246
St. Mary's County, Maryland
SM 757-101-571
Agency Wetland Field Meeting

Dear Mr. Johnson:

Enclosed for your review is a copy of our draft minutes of the agency wetland field meeting for the Maryland Route 237 project, held on July 24, 1990. Included with the draft minutes is a set of the field meeting wetland maps, which have been revised in accordance with the discussions from the meeting.

Please review the minutes and call me with any questions or comments you may have. Necessary copies of the final minutes will be forwarded to you for distribution to the appropriate agency personnel.

Very truly yours,

McCORMICK, TAYLOR & ASSOCIATES, INC.

Dennis K. Burgeson
Senior Scientist

DKB:mta:1781a

Enclosure: As Stated

Agency Wetland Field Meeting
Maryland Route 237
Maryland Route 235 to Maryland Route 246
St. Mary's County
SM 757-101-571

July 24, 1990

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The revised impact acreages for the project alternates 2A, 2B, 3A and 3B are as follows.

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Wetland #3	0	0	0	0
Wetland #4	0	0	0.20	0.20
Wetland #5	0	0	0.16	0.16
Wetland #6	0	0	0	0
*Wetland #7	1.65	1.65	2.08	2.08
Wetland #8	0	0	0	0
Totals	1.65	1.65	2.44	2.44

* Right-of-Way involvement based on use of a box culvert for crossing Jarboesville Run.

Reported by:

Dennis K. Burgeson

DKB:mta:1788a

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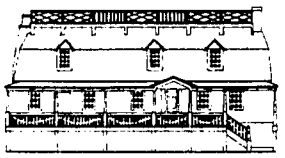
MARYLAND HISTORICAL TRUST



PROJECT DEVELOPMENT DIVISION
SEP 7 10 25 AM '90

William Donald Schaefer
Governor

Jacqueline H. Rogers
Secretary, DHCD

September 5, 1990

Ms. Cynthia D. Simpson
Assistant Division Chief
Project Planning Division
State Highway Administration
707 North Calvert Street
Baltimore, MD 21203-0717

Re: Draft Report for Phase I Archeological Investigations of Maryland Route 237 between Maryland Route 235 and Maryland Route 246, St. Mary's County, Maryland
Contract No. SM 757-101-571

Dear Ms. Simpson:

Thank you for sending us a copy of the above-referenced report for our review and comment. The document was prepared by Berger Burkavage, Inc.

The report presents an adequate discussion of the investigation's goals, methods, and results; it is well written, clearly illustrated, and meets the standards outlined in the "Guidelines for Archeological Investigations in Maryland" (McNamara 1981). A well defined and appropriate research design added to the quality of the work. The level of background research and field survey was sufficient to identify the range of archeological resources located within the proposed 3 mile long rights-of-way.

Berger Burkavage's survey identified one prehistoric archeological site and one historic cemetery within one or both alternative corridors. The historic Ebenezer Cemetery, associated with the former Ebenezer Church as Site SM135, will be affected more through the construction of Alternate 2B Modified than by Alternate 3B. The building of Alternate 2B Modified would necessitate the reinterment of at least 17 burials, while selection of 3B would not likely impact any graves. We concur that construction of Alternate 3B would be preferable. Archeological monitoring would be warranted for

3B to ensure that unmarked graves are not disturbed; however, prior to any construction of 2B Modified, further subsurface archeological testing should be performed to identify unmarked graves in this relatively undocumented section of the cemetery. We request to be informed of the choice of Alternate at your earliest convenience.

Prehistoric site 18ST608 evidenced temporally non-diagnostic lithic artifacts in an area approximately 260 feet long by 75 feet wide. While prior construction has disturbed a section of this resource, a major portion of 18ST608 appears to retain integrity. Site 18ST608 will be affected by the construction of either Alternate 2B Modified or 3B. In our opinion, 18ST608 has the potential to contribute important information to the following prehistoric period themes: subsistence, settlement, and technology, as defined in The Maryland Comprehensive Historic Preservation Plan (Weissman 1986). Further Phase II archeological investigations are necessary to determine the site's eligibility for the National Register of Historic Places.

This office recommends that Phase II archeological research be conducted of 18ST608. The purpose of the investigations is to: a) identify the site's vertical and horizontal boundaries; b) interpret the site's cultural affiliations, functions, and significance; c) evaluate the site's integrity; d) conclusively determine the site's eligibility for the National Register; and e) define the need for further archeological work. The investigations should be undertaken by a qualified archeologist and performed in accordance with the "Guidelines for Archeological Investigations in Maryland." Based on the investigation's results, we will be able to determine whether or not the project will have an effect on National Register eligible archeological resources, and make appropriate recommendations. Implementation and review of the Phase II research should be closely coordinated with our office, and we will be happy to provide guidance on the recommended work.

We have a few minor comments concerning the report itself, and suggested revisions should be incorporated into the final document:

1) For organizational purposes, the very thorough Historical Background should refer to the historic contexts listed in The Maryland Comprehensive Historic Preservation Plan.

2) Figure 12 requires Survey Area D in its caption and appropriate labeling of Alternate 3B.

3) Plate 2's caption should refer to site SM135.

4) The Results should describe the artifacts recovered from 18ST608 with respect to encountered soils; a representative soil profile from a shovel test pit would be helpful.

5) The report should include a new archeological site inventory form to document Ebenezer Church and Cemetery; this form will supplement the standing structures inventory form and will record the razed condition of the church.

We look forward to receiving a copy of the final report, when it is available. If you have any questions or require further information, please contact Dr. Gary Shaffer at (301) 974-5007.

Thank you for your continued cooperation and assistance.

Sincerely,

Elizabeth J. Cole

Elizabeth J. Cole
Administrator
Archeological Services
Office of Preservation Services

EJC/GDS
cc: Dr. Ira Beckerman
Dr. John Hotopp
Dr. Ralph E. Eshelman
Mrs. Samuel M. Bailey, Jr.
Ms. Patricia McGuire

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ST. MARY'S COUNTY GOVERNMENT

Department of Recreation and Parks

P. O. BOX 653 • GOVERNMENTAL CENTER • LEONARDTOWN, MARYLAND 20650-0653

(301) 475-4571

January 4, 1990

Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning &
Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, MD 21203-0717

Dear Mr. Ege:

In reference to your contract number SM 757-101-571 as it pertains to the state's take-line on Rt. 237, and its impact on St. Mary's County Regional Park, this is to advise that we have reviewed the plats showing the proposed take-line, and have ascertained that that would create no problem to the park.

Following an early meeting in Baltimore, we designed the Park as to leave a buffer for a future take-line for the SHA. The proposed take-line is within the buffer anticipated by this department. We did show one soccer field in that take-line which we had planned to put in there simply as an interim playing area since it could be easily removed. However, after talking to the Technical Evaluation Committee in the county, we have removed that soccer field on the plat. You will find that we will be very cooperative in the SHA's acquisition of the line as outlined on your plat.

We plan to start construction of the Park early spring and we'll be looking forward to working with you concerning cross-overs if you dualize Rt. 237. We have moved the entrance road of the Park to conform with your cross-over as requested at the meeting with the Highway Administration in Baltimore.

If I can be of further help or answer additional questions, please do not hesitate to contact me.

John V. Baggett

John V. Baggett
Director

c: Mr. E. Meehan
Mr. H. Johnson
St. Mary's County Dept of Public Works
St. Mary' County Dept of Planning & Zoning
Greenhorne & O'Mara

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PROJECT DEVELOPMENT DIVISION
AUG 15 1 50 PM '90

William Donald Schaefer
Governor

Maryland Department of Natural Resources

Capital Programs Administration
2012 Industrial Drive
Annapolis, Maryland 21401

Torrey C. Brown, M.D.
Secretary

Michael J. Nelson
Assistant Secretary
for Capital Programs

August 10, 1990

Mr. Louis H. Ege, Jr.
Office of Planning and
Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21203

RE: MD Rte. 237 at St. Mary's River State Park
Contract No. SM 757-101-571
(90-LPS-59)

Dear Mr. Ege:

On April 10, 1990, you requested that the Department of Natural Resources (DNR) review this project and provide an assessment of its impact on St. Mary's River State Park. Although detailed plans are not yet available, it is apparent that this proposed widening will require a strip of parkland approximately 115 feet wide along the existing roadway, for a total park property take of approximately four acres.

As you know, this portion of the park has been leased to St. Mary's County for future recreational development. The preliminary site plan for the proposed county park provides sufficient buffer area along MD Rte. 237 to accommodate the 115-foot right-of-way, if the Junior Soccer Field is removed from the plan. Since the County is willing to remove the soccer field (reference: John Baggett's letter of January 4, 1990), the roadway improvements may not adversely affect the proposed recreational development. However, it should be noted that removal of the buffer strip between the roadway and the portion of the park where ball fields are to be constructed will increase the chance that balls will be hit onto the roadway and may strike passing vehicles. In addition, the reduced buffer strip may limit the space for landscape screening in the buffer area. A condition of the lease

between the County and DNR is that "the County agrees to ensure that all boundaries of the leased premises are planted with vegetative screening."

Other concerns may develop when DNR has the opportunity to review final plans. However, assuming that SHA will replace the parkland, maintain suitable access, provide adequate landscape screening along the roadway and park boundary, and work with us to mitigate other impacts that may be identified as detailed plans are finalized, I can concur with you that the use of the park buffer area should not impact the availability of this property to meet the recreational needs of the community or alter the function of this area as a recreational facility.

Sincerely,

Gene F. Cheers

Gene F. Cheers
Capital Improvements and
Environmental Review

cc: Jim Burtis
Bernard Wentker
Ethel Locks
John Baggett

GFC:pg

William Donald Schaefer
Governor

Maryland Department of Natural Resources
Capital Programs Administration
Program Open Space
2012 Industrial Drive
Annapolis, Maryland 21401

Torrey C. Brown, M.D.
Secretary

John R. Griffin
Deputy Secretary

Michael J. Nelson
Assistant Secretary for Capital Programs

William A. Krebs
Director for Program Open Space

September 19, 1989

Ms. Cynthia D. Simpson
Project Planning Division
State Highway Administration
Maryland Department of Transportation
707 North Calvert Street
Baltimore, Maryland 21203-0717

Re: St. Mary's River State Park
Contract No. SM757-101-571
MD 237 from MD 246 to MD 235
PDMS No. 183053

Dear Ms. Simpson:

Your letter of July 7, 1989, requesting information concerning St. Mary's River State Park has been referred to me for response.

I will answer your questions in the order in which they were presented in your letter.

Question #1. Yes; With the exception of parcel #4 (highlighted on the attached map) all of St. Mary's River State Park was purchased with Program Open Space funds.

Question #2. No; The Federal assistance in St. Mary's River State Park was provided by the Soil Conservation Service. I have outlined the federally assisted area on the attached map.

Question #3. Yes; St. Mary's River State Park is located in the area of St. Mary's County which contains the most dense population and is planned for more growth in the future. This park provides over 2,000 acres of publicly owned open space featuring a mosaic of landscape elements ranging from bottomland wetlands to farm fields to gently rolling hills to upland mixed hardwood forests. Complementing these attributes are scenic views and corridors of accessibility which make

this park well suited for environmental education programs and recreational use. The park serves as the habitat for a diversity of plant, animal and bird species and provides areas for a variety of multi-recreational uses; such as picnicking, horseback riding, hiking, hunting, fishing and nature study. To help meet the existing and anticipated needs of the local community for active recreation, the Department of Natural Resources leases 82 acres to the St. Mary's County Department of Recreation and Parks. The County proposes to develop facilities for softball, soccer, swimming, tennis, golf and outdoor concerts on this site in the near future.

If you require further information, please do not hesitate to contact me.

Sincerely,

George K. Forlifer
Regional Administrator

GKF:mls
Attachment
cc: Ethel Locks-Bynum

135

Maryland Department of Natural Resources

Capital Programs Administration
2012 Industrial Drive
Annapolis, Maryland 21401

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

Michael J. Nelson
Assistant Secretary
for Capital Programs

July 1, 1988

Mr. Louis H. Ege, Jr.
Deputy Director
Project Development Division
State Highway Administration
Maryland Department of Transportation
707 North Calvert Street
Baltimore, Maryland 21203-0717

Re: St. Mary's River State Park
Your Contract No. SM757-101-571
MD 237 from MD 246 to MD 235
PDMS No. 183053

Dear Mr. Ege:

This letter is in response to your June 8, 1988 request for information concerning St. Mary's River State Park.

Attached is a copy of our maps showing properties acquired and proposed to be acquired for St. Mary's River State Park. Acquired properties are shaded in. The two areas where the park adjoins MD 237 are parcels 22b and 40 on Sheet 3 of our maps. These properties were purchased with funds from Program Open Space.

Parcel 22b is in the process of being leased to St. Mary's County for intensive recreation development, however, any request for additional right-of-way must still come through the Department of Natural Resources.

Parcel 40 is referred to in your letter as "an unnamed park in the area of Jarboesville Run," but is actually a part of St. Mary's River State Park. It is currently undeveloped and there are no plans for development at this time.

Telephone: 974-7231
DNR TTY for Deaf: 301-974-3683

The existing recreational uses of the park include, but are not limited to, hunting, fishing, hiking, horseback riding, bird watching, and nature studies. Our Land Planning Services is in the process of developing a Master Plan for park facilities and should be consulted about any improvements to MD 237. Ms. Ethel Locks-Bynum is the appropriate contact and she can be reached at 974-7656.

If you require further information, please contact George Forlifer of my staff.

Sincerely,

William A. Krebs
Director, Program Open Space

WAK:GF:mrw
Attachment

cc: Ethel Locks-Bynum
Pat Bright
John Baggett

137.

Maryland Department of Natural Resources

Capital Programs Administration
2012 Industrial Drive
Annapolis, Maryland 21401

PROJECT DEVELOPMENT DIVISION

SEP 20 9 56 AM '88

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

Michael J. Nelson
Assistant Secretary
for Capital Programs

September 13, 1988

Ms. Marcia Smith
Maryland State Highway
707 N. Calvert Street
Baltimore, Maryland 21202

Dear Ms. Smith

Attached as requested are the preliminary conceptual plans for the St. Mary's River State Park.

DNR has leased approximately 80 acres to St. Mary's County for local recreational uses. I have taken the liberty to also include the County's preliminary schematic drawing.

If I can be of further assistance, please do not hesitate to call.

Sincerely,

Ethel Locks

Ethel Locks

EL/sab

enclosures

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PROJECT
DEVELOPMENT
DIV.

Maryland Department of Natural Resources

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218
Telephone: (301) 554-5500

JUN 16 2 29 PM '88

Division of Archeology
(301) 554-5530

15 June, 1988

Mr. Louis H. Ege, Jr.
Deputy Director
Division of Project Development
State Highway Administration
P.O. Box 717/707 North Calvert Street
Baltimore, Maryland 21203-0717

RE: PDMS No. 183053
MD 237 from MD 246 to MD 235
Contract No.SMK 757-101-571

Dear Mr. Ege:

As requested, we have asessed the archeological resource potential of the subject project area. There are no known archeological sites in the project area. Maryland Route 237 crosses two drainages: a first order stream, and Jarboesville Run, a second order tributary of the St. Mary's River. It also crosses flat, well-drained uplands between the streams. The physiographic setting indicates a moderate potential for prehistoric archeological resources. The Abert and Kearney St. Mary's County maps of 1824 and 1857 depict no historic structures in the right-of-way. However, Kearney's 1823 Map of St. Mary's County shows a church or cemetery along Maryland Route 237, and the area is expected to have a moderate potential for historic archeological resources.

Please feel free to contact me at 554-5537 if I can be of further assistance.

Sincerely,

Richard Ervin
Archeologist

RE:cab

Enclosure

cc: Cynthia Simpson
Rita Suffness

Maryland Department of Natural Resources

Tidewater Administration
Tawes State Office Building
580 Taylor Avenue
Annapolis, Maryland 21401

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PROJECT DEVELOPMENT DIVISION

JUN 9 3 25 PM '88

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

June 8, 1988

Memorandum

To: Cynthia Simpson, State Highway Administration

From: Larry Lubbers, Tidewater Administration

Subject: Contract No. SM 757-101-571, MD 237

The following fish species are found in the streams in the subject area. White perch and American shad have been caught downstream of this area.

LL:swp

Telephone: (301) 974-3061
DNR TTY for Deaf: 301-974-3683

Table____

22 Species Caught in St. Mary's Watershed (includes 2 from Lake)

American Brook Lamprey, Lampetra lamottei

American Eel, Alosa sapidissima

Brown Bullhead, Ictalurus nebulosus

Tadpole Madtom, Noturus gyrinus

Chain Pickeral, Esox niger

Redfin Pickeral, Esox americanus

Eastern Mudminnow, Umbra pygmaea

Pirate Perch, Aphredoderus sayanus

Creek Chubsucker, Erimyzon oblongus

Golden Shiner, Notemigonus crysoleucas

Ironcolor Shiner, Notropis chalybaeus

Redbreast Sunfish, L. auritus

Blue Spotted Sunfish, Enneacanthus gloriosus

Tesselated Darter, Etheostoma olmstedi

Common Shiner, Notropis cornutus

Roseyface Shiner, N. rubellus

Blacknose Dace, Rhinichthys atratulus

Margined Madtom, Noturus insignis

Pumpkinseed, Lepomis gibbosus

Bluegill, Leopomis macrochirus

Green Sunfish, L. cyanellus

Largemouth Bass, Micropterus salmoide

Flier, Centrarchus macropterus (Found in lake; not stocked; found in stream)

Black Crappie, Pomoxis nigramaculatus (Found in lake; not stocked; not found in stream)

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
DIVISION OF ECOLOGICAL SERVICES
1825 VIRGINIA STREET
ANNAPOLIS, MARYLAND 21401

PROJECT DEVELOPMENT DIVISION
JUN 13 10 02 AM '88

June 7, 1988

Ms. Cynthia D. Simpson
Maryland Department of Transportation
707 North Calvert Street
Baltimore, MD 21203-0717

Dear Ms. Simpson:

This responds to your recent requests for information on the presence of species which are Federally listed or proposed for listing as endangered or threatened within the following project areas:

Bridge # 15020 MD 118 over Great Seneca Creek, Montgomery Co.

Contract No. P 917-101-371 MD 4 from I-95 to AA Co. Line, Prince George's Co.

Contract No. SM 757-101-571 MD 237 from MD 246 to MD 235, St. Mary's County

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation is required with the Fish and Wildlife Service (FWS). Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to endangered species under our jurisdiction. It does not address other FWS concerns under the Fish and Wildlife Coordination Act or other legislation.

Thank you for your interest in endangered species. If you have any questions or need further assistance, please contact Judy Jacobs of our Endangered Species staff at (301) 269-5448.

Sincerely yours,

G. A. Mason

for Glenn Kinser
Supervisor
Annapolis Field Office

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Maryland Department of Natural Resources

Forest, Park and Wildlife Service
Tawes State Office Building
Annapolis, Maryland 21401

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

Donald E. MacLauchlan
Director

June 21, 1988

Mr. Louis H. Ege, Jr.
Deputy Director
MD Dept. of Transportation
State Highway Administration
707 North Calvert Street
Baltimore,Maryland 21203-0717

RE: Contract No. SM 757-101-571
MD 237, From MD 246 to MD 235 PDMS
No. 183053

Dear Mr. Ege:

This is in response to your request of May 26, 1988 for information regarding the above referenced project. There are no known Federal or State threatened or endangered plant or wildlife species present at this project site.

If you have any questions regarding this matter please feel free to call me.

Sincerely,

James Burtis, Jr.
Assistant Director

JB:epm

cc: Therres
McKnight

Telephone: _____
DNR TTY for Deaf: 301-974-3683

MARYLAND HISTORICAL TRUST

William Donald Schaefer
Governor

Jacqueline H. Rogers
Secretary, DHCD

December 28, 1988

Ms. Cynthia D. Simpson, Chief
Environmental Management
Maryland Department of Transportation
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21203-0717

Re: Contract No. SM 757-101-571
MD 237 from MD 246 to MD 235
PDMS No. 183053

Dear Ms. Simpson:

Thank you for your letter of November 1, 1988 concerning the above referenced project.

This office concurs with your opinion that there are no historic standing structures, eligible for listing in the National Register of Historic Places, located in the project area. However, our survey maps show two sites (SM 134 - Matthew's Folley and SM 135 - Ebenezer Church and Cemetery) which may be eligible for National Register listing as archeological resources.

We would suggest that you provide this office with information pertinent to these two sites as well as your opinion regarding their National Register eligibility. You may direct that information to Dr. Ethel Eaton of our staff.

Should you have any questions, please contact Michael Day at 974-5000 or Dr. Eaton at the same number.

Sincerely,

George J. Andreve
Project Review and
Compliance Administrator
Office of Preservation Services

GJA/meh
cc: Ms. Rita Suffness
Dr. Ethel Eaton
Dr. Ralph Eshelman
Ms. Patricia McGuire

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PROJECT PLANNING DIV.

ST. MARY'S COUNTY GOVERNMENT

Department of Recreation and Parks
P. O. BOX 653 • GOVERNMENTAL CENTER • LEONARDTOWN, MARYLAND 20650-0653
(301) 475-4571

JAN 8 10 16 AM '90

January 4, 1990

Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning &
Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, MD 21203-0717

Dear Mr. Ege:

In reference to your contract number SM 757-101-571 as it pertains to the state's take-line on Rt. 237, and its impact on St. Mary's County Regional Park, this is to advise that we have reviewed the plats showing the proposed take-line, and have ascertained that that would create no problem to the park.

Following an early meeting in Baltimore, we designed the Park as to leave a buffer for a future take-line for the SHA. The proposed take-line is within the buffer anticipated by this department. We did show one soccer field in that take-line which we had planned to put in there simply as an interim playing area since it could be easily removed. However, after talking to the Technical Evaluation Committee in the county, we have removed that soccer field on the plat. You will find that we will be very cooperative in the SHA's acquisition of the line as outlined on your plat.

We plan to start construction of the Park early spring and we'll be looking forward to working with you concerning cross-overs if you dualize Rt. 237. We have moved the entrance road of the Park to conform with your cross-over as requested at the meeting with the Highway Administration in Baltimore.

If I can be of further help or answer additional questions, please do not hesitate to contact me.

John V. Baggett

John V. Baggett
Director

c: Mr. E. Meehan
Mr. H. Johnson
St. Mary's County Dept of Public Works
St. Mary' County Dept of Planning & Zoning
Greenhorne & O'Mara

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Dete Of Land Evaluation Request 6/6/90
Neme Of Project MD RT 237	Federel Agency Involved FHWA
Proposed Land Use	County And Stete St. Mary's County, Maryland
PART II *(To be completed by SCS)*	Date Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply – do not complete additional parts of this form).*	Yes ☐	No ☒	Acres Irrigated N/A	Average Farm Size N/A
Major Crop(s) N/A	Fermable Land In Govt. Jurisdiction Acres: N/A %		Amount Of Farmlend As Defined in FPPA Acres: N/A %	
Name Of Land Evaluetion System Used None	Name Of Local Site Assessment System None		Date Land Evaluation Returned By SCS 8/22/90	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating 2 Site A	2Site B	3A Site C	3B Site D
A. Total Acres To Be Converted Directly	39.39	44.03	42.73	43.69
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	39.39	44.03	42.73	43.69
PART IV *(To be completed by SCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0	0	0	0
B. Total Acres Statewide And Local Important Farmland	0	0	0	0
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0	0	0	0
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	0	0	0	0
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criterie *(These criteria are expleined in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	5	5	5	0	0
2. Perimeter In Nonurban Use	0	0	0	0	0
3. Percent Of Site Being Farmed	0	0	0	0	0
4. Protection Provided By State And Local Government	0	0	0	0	0
5. Distance From Urban Builtup Area	0	0	0	0	0
6. Distance To Urban Support Services	0	0	0	0	0
7. Size Of Present Farm Unit Compared To Average	0	0	0	0	0
8. Creation Of Nonfarmable Farmland	0	0	0	0	0
9. Availability Of Farm Support Services	0	0	0	0	0
10. On-Farm Investments	0	0	0	0	0
11. Effects Of Conversion On Farm Support Services	0	0	0	0	0
12. Compatibility With Existing Agricultural Use	0	0	0	0	0
TOTAL SITE ASSESSMENT POINTS	160	5	5	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	5	5	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	5	5	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection:

(See Instructions on reverse side)

Form AD-1006 (10-83)

Section VII

Appendix

Attachment for Environmental
Impact Documents
Revised: July 28, 1989
Relocation Assistance Division

"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 Public Law 100-17) and amendments as published in the Annotated Code of Maryland entitled Real Property Article Subtitle 2, Relocation and Assistance Sections 12-201 to 12-212. The Maryland Department of Transportation, State Highway Administration, Relocation Assistance Division, administers the Transportation 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 $22,500 for owner-occupants and $5,250 for tenant-occupants. Certain payments may also be made for increased mortgage interest costs and/or incidental expenses, provided that the total of all housing benefits does not exceed the above mentioned limits. 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 expense payments to persons, businesses, farms and non-profit organizations up to 50 miles. Actual moving expenses for residences include actual moving costs or a schedule moving expense payment, up to $1,050.

The moving cost payments to businesses are broken down into several categories, which include actual moving expense payments, fixed payments "in lieu of" actual moving expenses, limited to $20,000 and reestablishment expenses, limited to $10,000. 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, limited to $1,000, for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Payments for the actual reasonable expenses are limited to a 50 mile radius unless the agency determines a longer distance is necessary. The expenses claimed for actual cost commercial moves must be supported by firm bids and receipted bills. An inventory of the items to be moved must be prepared in all cases. In self-moves, the State will negotiate an amount for payment, usually lower than the lowest acceptable bid obtained. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business' own vehicles or equipment, wages paid to persons who physically participate in the move, the cost of actual supervision of the move, replacement insurance for the personal property moved, costs of licenses or permits required, and other related expenses.

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 elects to move or discontinue it's operation the payment shall consist of the lesser of:

The fair market value of the item for continued use at the displacement site, less the proceeds from its sale; or

The estimated cost of moving the item, but with no allowance for storage.

They are also entitled to reasonable cost incurred in attempting to sell an item that is not to be relocated.

If an item of personal property which is used as part of a business or farm operation is not moved but is promptly replaced with a substitute item that performs a comparable function at the replacement site, the displaced person is entitled to payment of the lesser of:

The cost of the substitute item, including installation costs at the replacement site, minus any proceeds from the sale or trade-in of the replaced item; or

The estimated cost of moving and reinstalling the replaced item but with no allowance for storage.

In lieu of the payments described above, the business may elect to receive a payment equal to the average annual net earnings of the business. Such payment shall not be less than $1,000 nor more than $20,000. 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 more than three other establishments in the same or similar business that is not being acquired, and the business contributes materially to the income of a displaced owner during the two taxable years prior to displacement. The business is not operated at the displacement site or dwelling solely for the purpose of renting such dwelling or site to others.

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 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, the owner of the business may still be 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, or certified financial statements, for the tax years in question.

For displaced farms and non-profit organizations, the 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 from a minimum of $1,000 to a maximum of $20,000, based upon the net income of the farm, provided that the farm has been relocated or the partial acquisition caused a substantial change in the nature of the farm. 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, a payment in the amount of $1,000 to $20,000 based on gross annual revenues less administrative expenses.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms and non-profit organizations is available in the "Your Land and Highway" brochure 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 must be completed by the State Highway Administration before "housing as a last resort" can be utilized.

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 persons, 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.