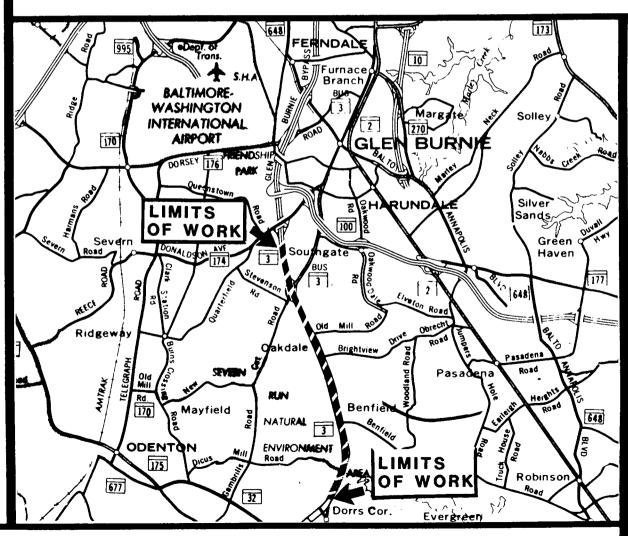
# SUPPLEMENTAL SECTION 4(f) EVALUATION

CONTRACT NO. AA 132-201-572

BALTIMORE ANNAPOLIS TRANSPORTATION CORRIDOR STUDY

(I-97) from Md. Route 178 at Dorr's Corner to South of Md. Route 174 (Quarterfield Road)



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

and
MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

REPORT NUMBER: FHWA MD-84-06-D(S)
FEDERAL HIGHWAY ADMINISTRATION

REGION III

BALTIMORE-ANNAPOLIS TRANSPORTATION CORRIDOR STUDY

SECTION D

ADMINISTRATIVE ACTION

4(f) EVALUATION

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

STATE OF MARYLAND

DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

SUBMITTED PURSUANT TO: 49 U.S.C. 303 (C) and 16 U.S.C. 470

HAL KASSOFF ADMINISTRATOR

1/3/85 DATE neil & Pedersen

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

1/10/85<sup>-</sup>

Federal Highway Administration

Division Federal Highway

Administration

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# SECTION 4(f) EVALUATION BALTIMORE/ANNAPOLIS TRANSPORTATION CORRIDOR STUDY BALTIMORE BELTWAY TO ANNAPOLIS IN ANNE ARUNDEL COUNTY, MARYLAND

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. 303 (C)), requires that the proposed use of any land from a publicly owned park, recreation area or wildlife and waterfowl refuge of significance be given particular attention. Final action requiring the taking of such land must document that there are no feasible and prudent alternatives to its use. Additionally, a full evaluation of measures to minimize harm must be made and documented.

#### I. DESCRIPTION OF PROPOSED ACTION

This 4(f) Evaluation focuses on the upgrading of Maryland Route 3 (from Maryland Route 178 at Dorr's Corner to south of Maryland Route 174) to interstate standards; in particular modifications which require property from the Severn Run Natural Environment Area (NEA).

Existing Maryland Route 3 is a four (4) lane highway with no control of access. This particular section is heavily developed (commercial and residential) in the median and along both sides. This section also has many at-grade intersections, crossovers, and driveway entrances, which combined with the heavy development cause severe safety and operational problems.

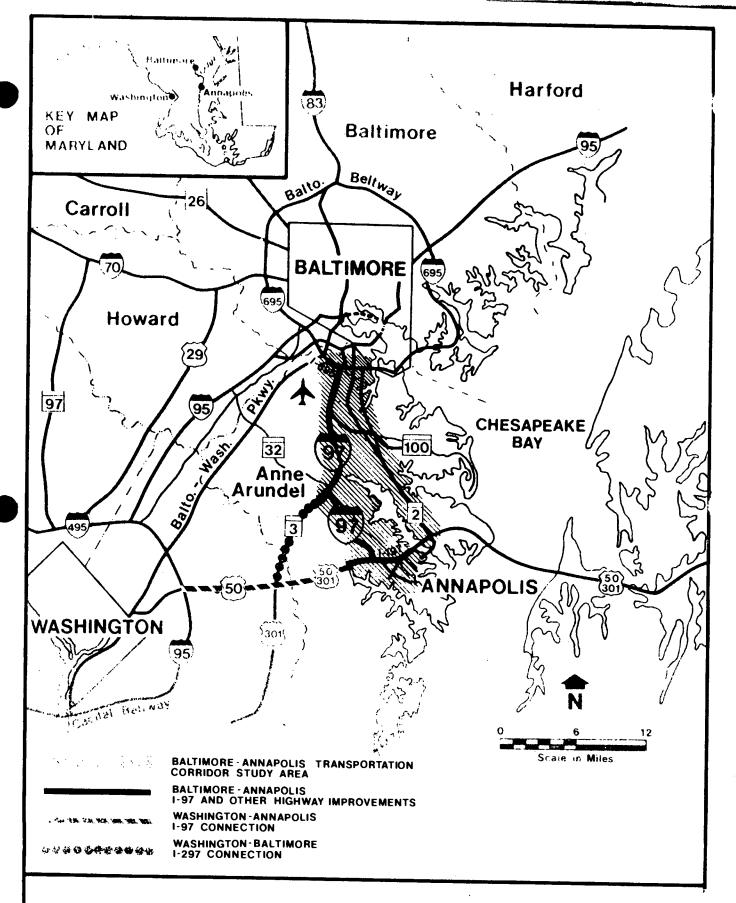
The Baltimore/Annapolis Transportation Corridor Study (BATCS) improvements included the upgrading of Maryland Route 3 (I-97).

This corridor (a 58 square mile area between Baltimore and Annapolis) experiences severe congestion and safety deficiencies which inhibit the safe and efficient movement of traffic (Figure 1). It is a key link in the Statewide Primary Highway System with the primary function of serving trips between Baltimore and Annapolis. It is also an important connection for long distance travel to the Eastern Shore and Central and Western Maryland.

A Draft Environmental Impact Statement/4(f) (DEIS/4(f)) addressing the impacts of improvements in this corridor was approved by the Federal Highway Administration (FHWA) on December 21, 1978. Location Public Hearings were held on January 30, 31, and February 1, 1979. A Final Environmental Impact Statement (FEIS) describing the selected alternate, Corridor Alternative 5 Modified, was prepared and received location approval from the Federal Highway Administration on March 9, 1981. The selected alternate is consistent with local land use and development plans of Anne Arundel County and the Baltimore Regional Planning Council.

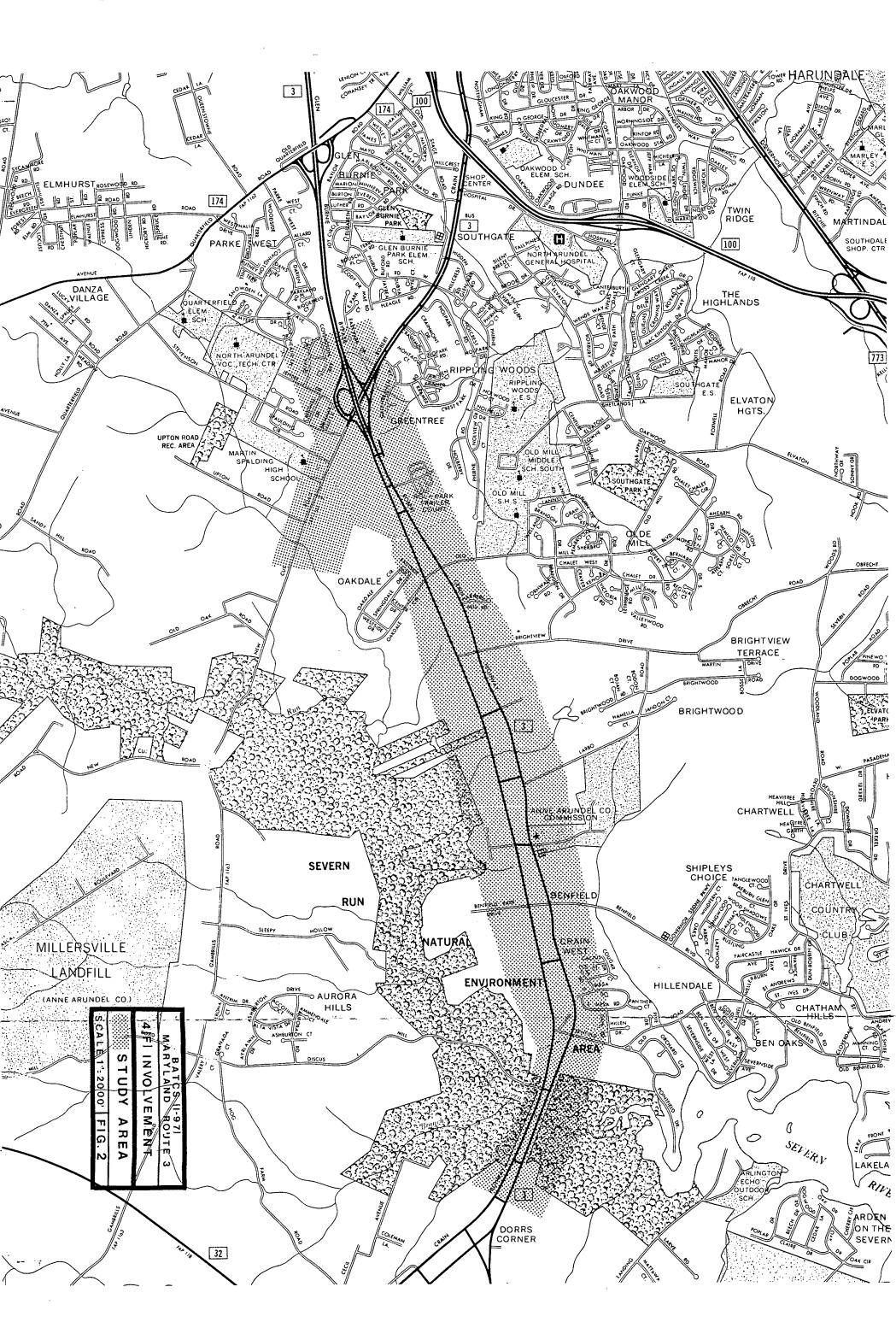
The DEIS/4(f) described several alternates in the Maryland Route 3 area which included continuous east and west frontage roads. (Figure 2) In that document, the proposed continuous west frontage road resulted in 4(f) impacts to the Severn Run NEA.

Additional review and coordination after the Public Hearing resulted in the selection of an alternate (described in the FEIS) in the Maryland Route 3 area which did not impact the NEA. A typical section consisting of two thru lanes with a two lane reversible HOV roadway in the median was proposed for south of Maryland Route 174 to north of Benfield Boulevard. North of Benfield Boulevard, the typical section transitioned from two thru



### LOCATION MAP

FIGURE 1

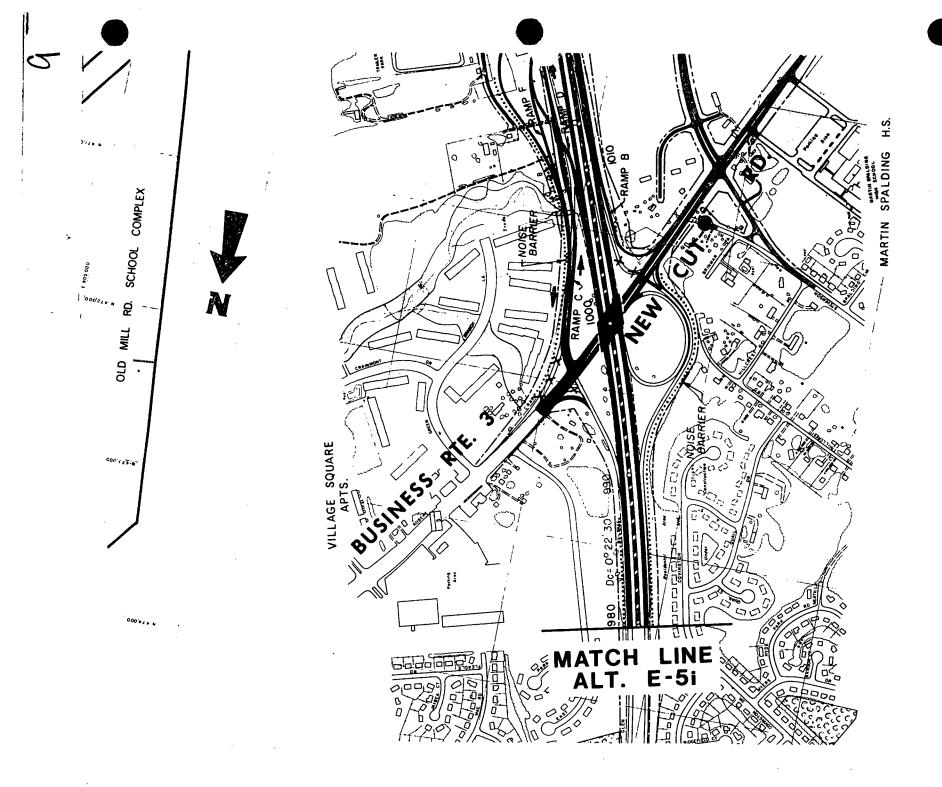


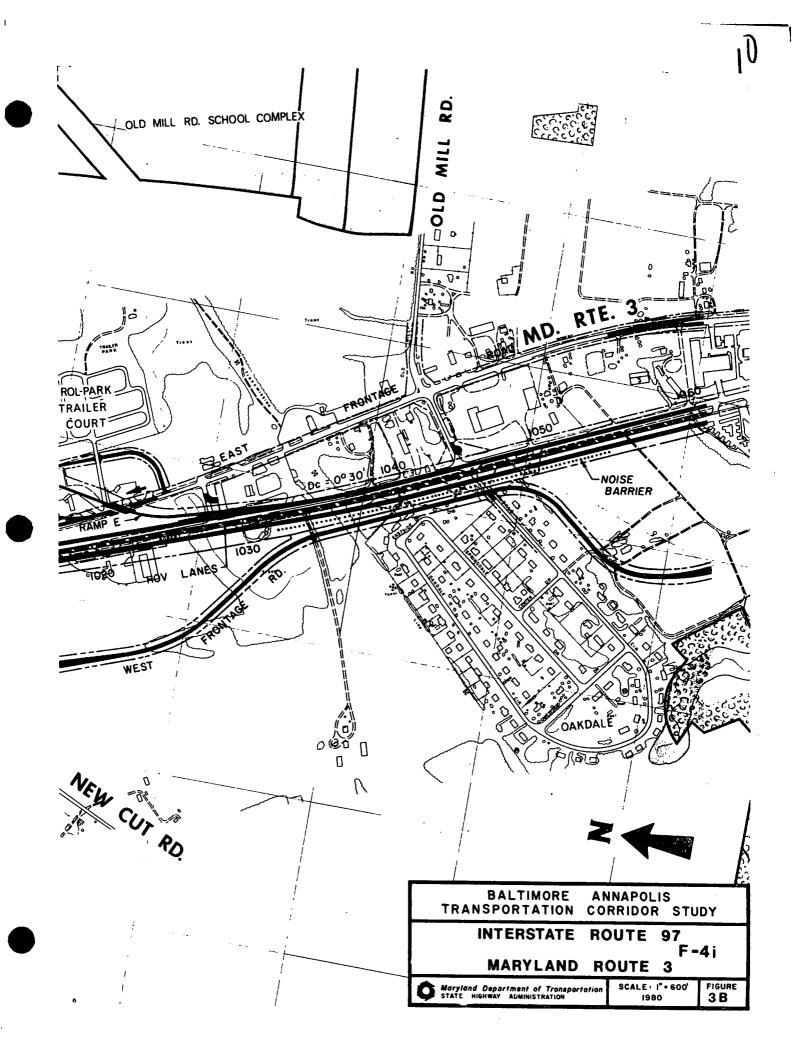
lanes with an HOV roadway to three thru lanes in each direction with a 54' median. The selected alternate, described in the FEIS, also included a segmented west frontage road (See Figure 3). In the FEIS the west frontage road ended approximately 1200' south of Brightview Drive in one section and extended 2100' north of and 3600' south of the proposed Benfield Boulevard interchange. It was not connected at Dicus Mill Road.

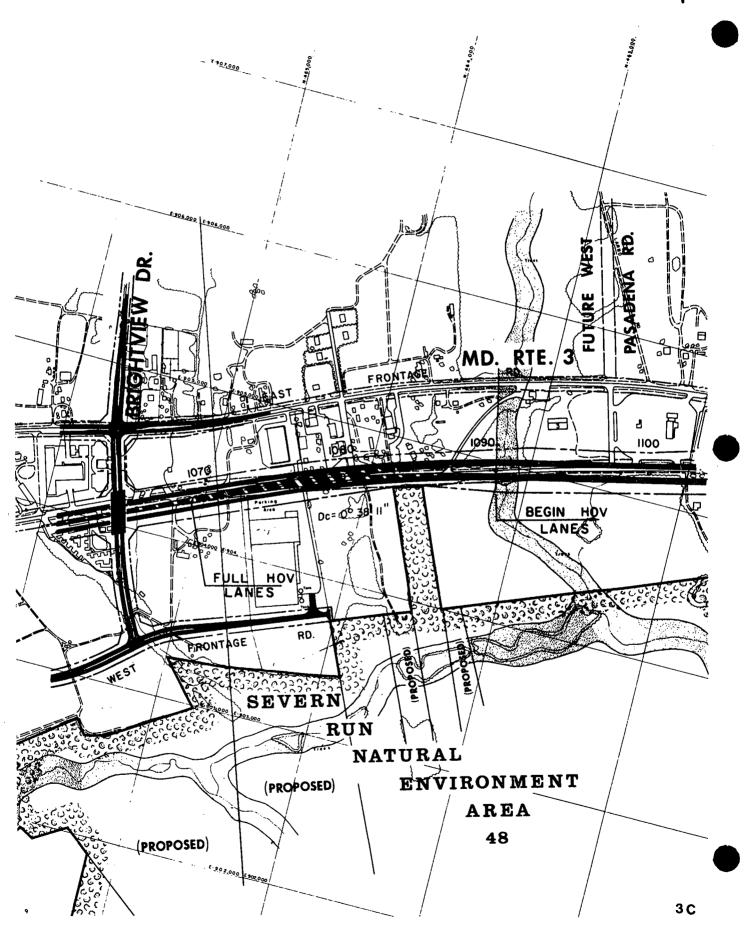
During design studies, the FEIS alternate was modified and now impacts the Severn Run NEA (figure 4). Revised design traffic projections indicated the need for a southbound auxiliary lane (not discussed in the FEIS) to accommodate the high traffic volumes exiting at the proposed Benfield Boulevard interchange.

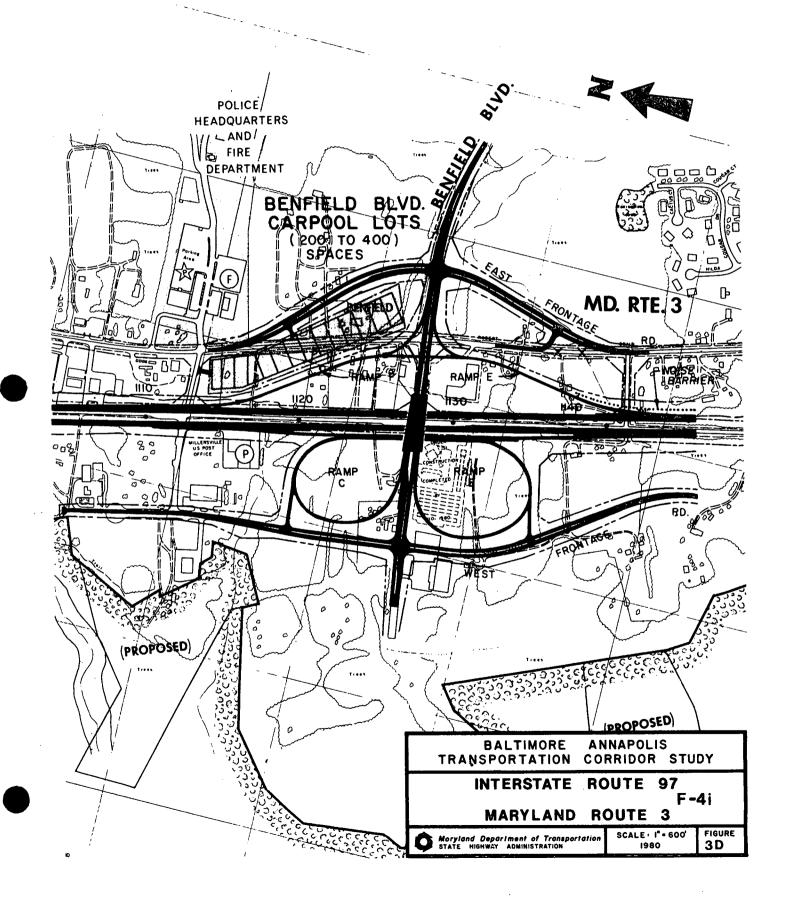
The proposed typical section for mainline I-97 from south of Maryland Route 174 to Maryland Route 178 at Dorrs' Corner consists of two (2) 36' roadways separated by a 60' median. (Figure 5) The Mass Transit Administration's proposed Rapid Transit System would be located in the median.

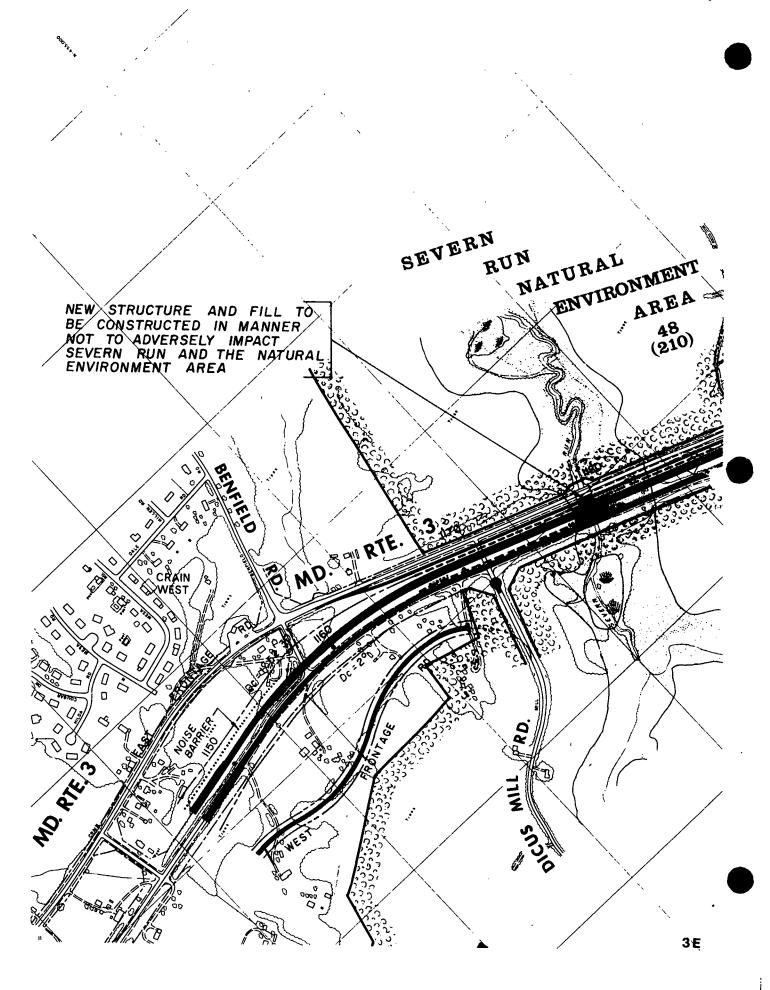
The existing northbound roadway of Maryland Route 3 would be improved to serve as a continuous two-way east frontage road from Dorr's Corner to New Cut Road. To the west of I-97, a continuous two-way west frontage road, rather than a segmented road as described in the FEIS, is proposed from New Cut Road to an at-grade intersection with Dicus Mill Road. Also, the west frontage road has been shifted further west in the vicinity of Brightview Drive to accommodate the J.E. Smith Company's request that the SHA reserve approximately 250' for future expansion of its operations. The typical section for the west frontage road is shown on Figure 5.

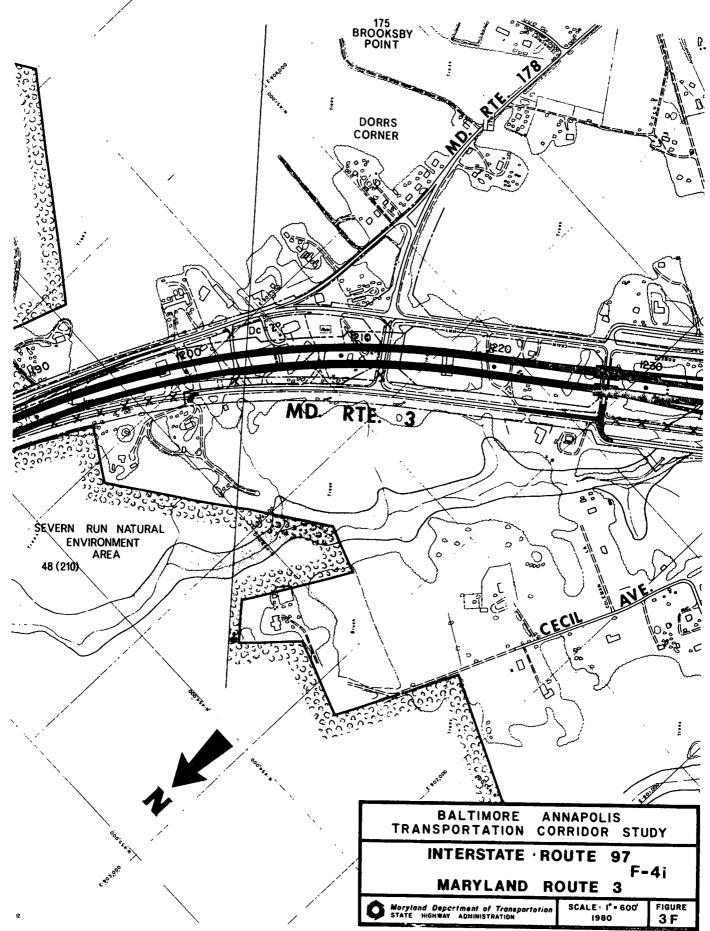




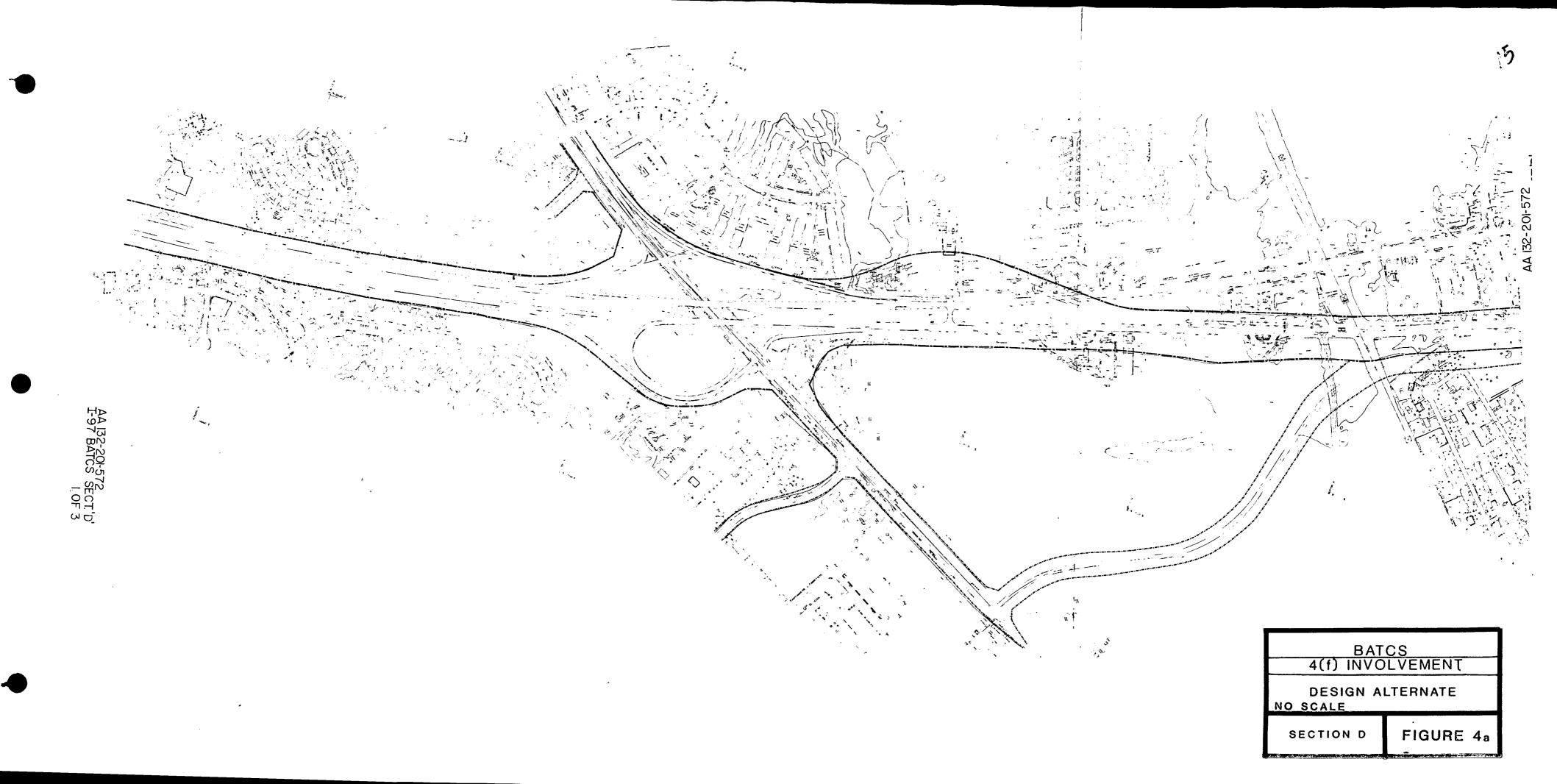


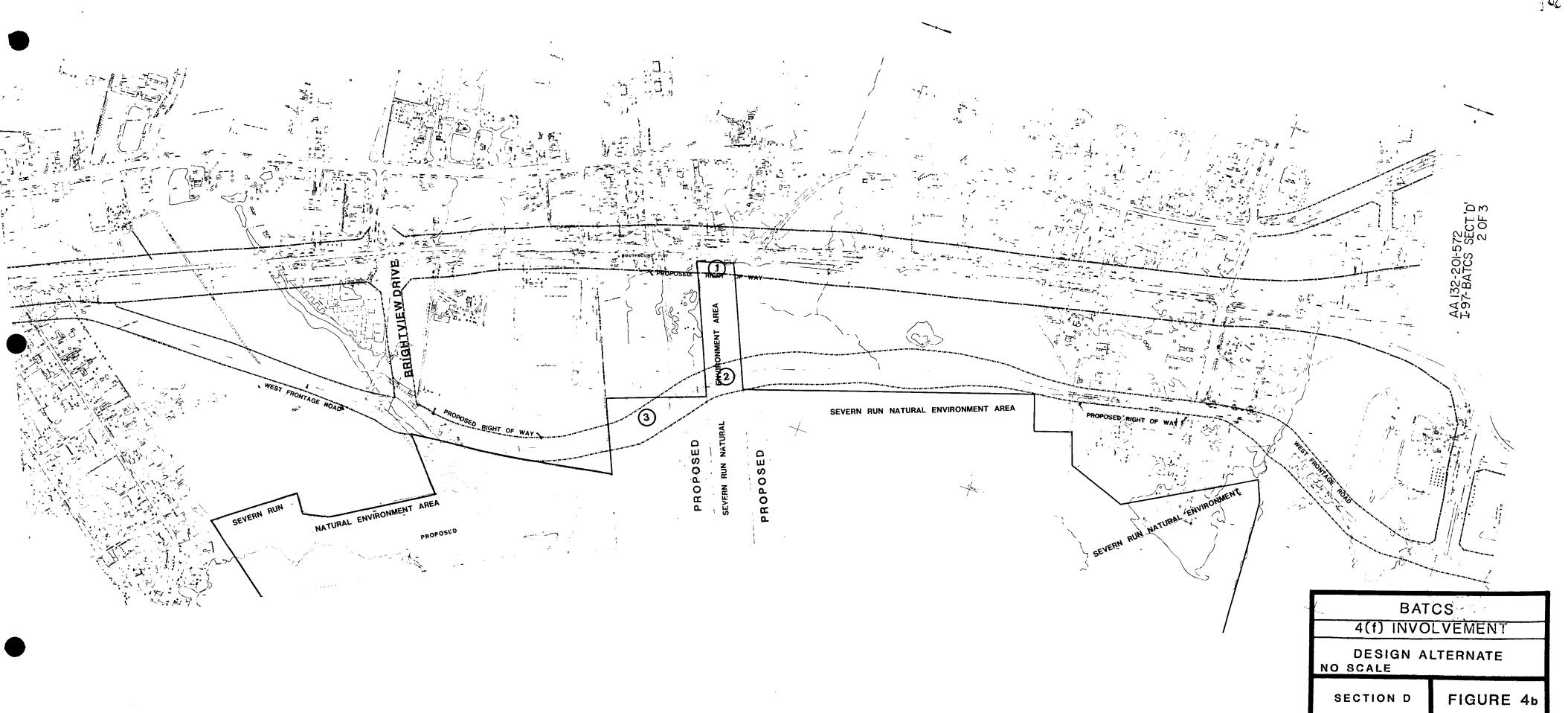


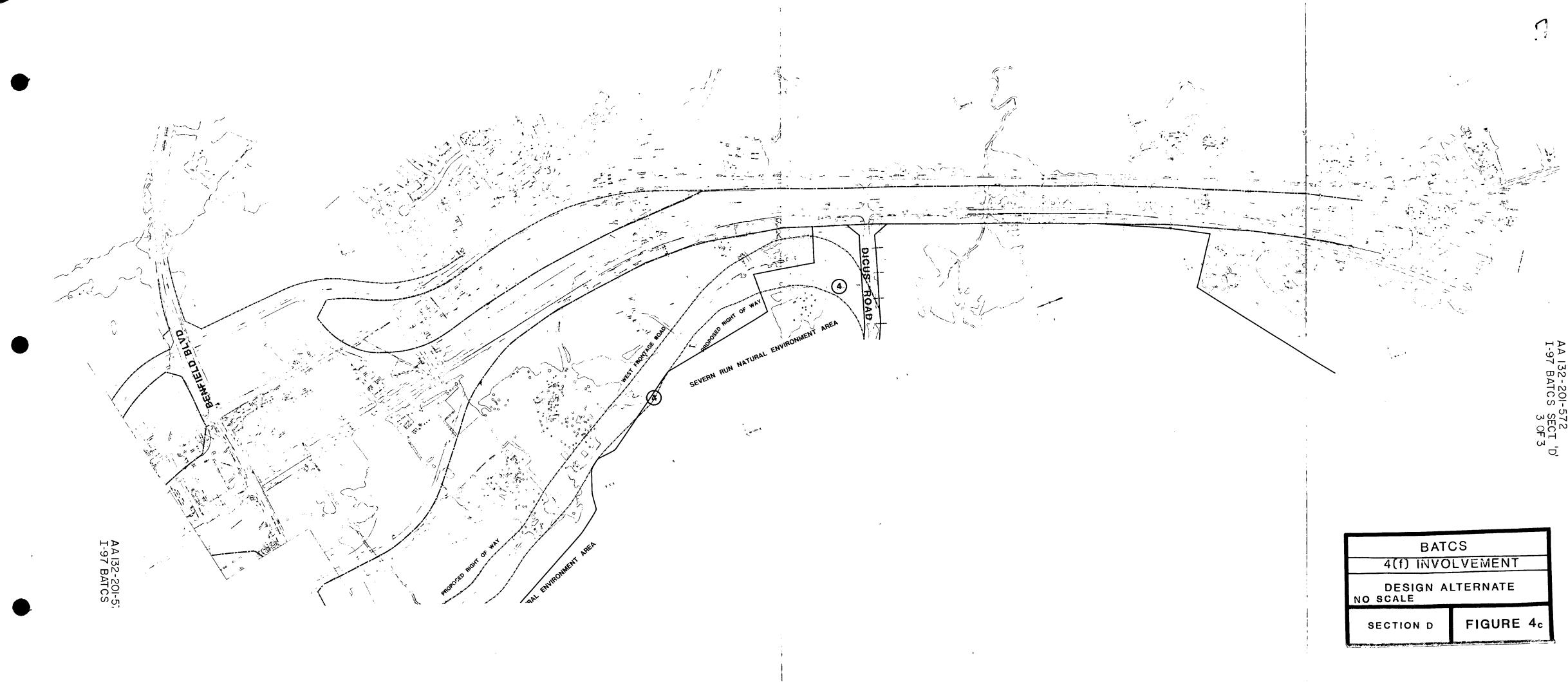


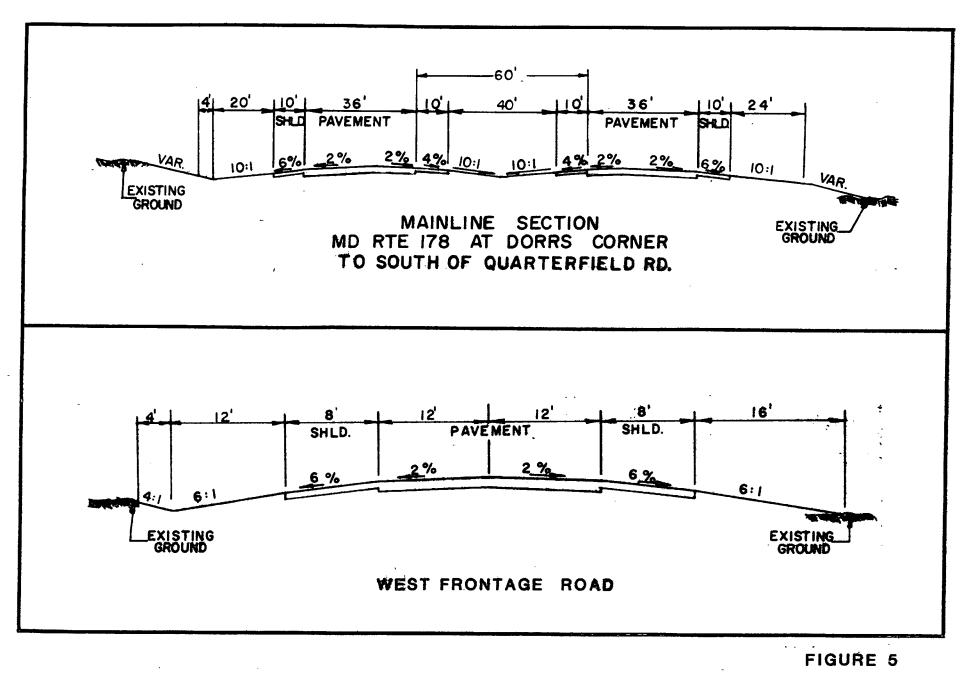


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Anne Arundel County officials have indicated a preference for a continuous west frontage road. They state that the proposal for a segmented west frontage road reflects poor traffic network planning and would create hazards to public safety. Providing a segmented west frontage road during and after the construction of I-97 would contribute to increased traffic and associated congestion on both the east frontage road and existing Maryland Route 3. This increased traffic would contribute to higher accident rates and the probability of road blockage on the east frontage road which could lead to delays in responding to local emergencies. Additionally, they felt that a continuous west frontage road could be used as a detour route for traffic which would normally use the southbound lane of I-97 during construction. Thus construction time could be reduced.

A segmented west frontage road could jeopardize the ability of the fire and police departments to provide effective services to area citizens. It would create several dead end roads, contributing to the potential for emergency vehicles to respond to calls on the wrong segment and having to back track considerable distances with a resulting increase of response time.

According to the Police Department, the "dead end" areas could be used by "kids to hang out" (loitering) making police patrols more time consuming, which could lead to a possible reduction in security. The dead end areas also create the potential for dumping problems in the area.



Closing Dicus Mill Road isolates 10-12 homes leaving them without access to Maryland Route 3 (I-97) or to the west frontage road. The combination of the dead end planned for Dicus Mill Road (in the FEIS) and the removal of the Gambrills Road/Maryland Route 32 intersection would result in emergency vehicles having to travel winding, unsafe New Cut Road to reach Dicus Mill Road. The two area fire companies are located approximately 5 miles from the existing Dicus Mill/Maryland Route 3 intersection. These locations are already at the extreme distances allowed to provide proper fire and life protection to Dicus Mill Road citizens. To provide minimum emergency service requires a response time of no more than five minutes. There would be an increase in the response time to Dicus Mill Road due to the denial of access via Maryland Route 3 as the result of a segmented road.

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#### II. DESCRIPTION OF 4(f) PROPERTY

The Severn Run Natural Environment Area is an undeveloped area consisting of 1301 acres owned by the State of Maryland and administered by the Department of Natural Resources (DNR). It is intended to serve as an ecological reserve which protects the headwaters of the Severn River.1 The Severn River, its headwaters, and adjacent lands are included within the Maryland System of Scenic Rivers. DNR proposes to acquire an additional 317 acres. The majority of the NEA is located parallel to and west of Maryland Route 3 from the crossing of Severn Run to south of New Cut Road. A smaller area is located east of Maryland Route 3 in the vicinity of the Severn Run crossing. Maryland Route 3 crosses the NEA at Severn Run in the vicinity of Dicus Mill Road.

Development of this area is limited to activities such as fishing, hunting, hiking, horseback riding, and nature interpretation. No major recreational facilities are planned.

The Severn Run Natural Environment Area has also been designated by the State as an Area of Critical Concern which means that local and state agencies projects should not degrade the area's natural environment and water quality. 2

<sup>1</sup> Maryland Department of Natural Resources, Maryland Scenic Rivers: The Severn (Baltimore, Maryland: Johns Hopkins University Press, 1982) p. 20.

<sup>2</sup> Ibid., p. 21.



# III. DESCRIPTION OF IMPACTS Impacts to 4(f) Land

Approximately 9± acres of NEA land would be required for the proposed project. These locations are described below and are designated by number on figure 4.

Approximately 1600' south of Brightview Drive, the right-of-way line of southbound I-97 crosses a 200' wide strip acquired by DNR to provide future access to the NEA. This strip extends from the NEA to the existing southbound roadway of Maryland Route 3. The proposed construction of mainline I-97 and the southbound auxiliary lane requires approximately .3 acre from the eastern end of this strip (#1). Approximately 2.3 acres of this "access strip" would be isolated between mainline I-97 and the west frontage road. The construction of the west frontage road also crosses approximately .8 acre of the western part of this strip (#2).

Just north of the access strip approximately 1.4 acres of the NEA would be required for the construction of the west frontage road (#3). In the same area, approximately 0.4 acres would be isolated.

Additionally, construction of the west frontage road requires the acquisition of approximately 4 acres of NEA at its connection with Dicus Mill Road (#4) and isolates approximately 0.2 acres.

NEA property in these locations was purchased with Section 6(f)

Land and Water Conservation monies.

The land that would be required is undeveloped and densely overgrown. No existing or planned park facilities would be taken or affected, nor would the removal of this land decrease the value of the NEA as a public education or recreational resource or as an



important buffer zone protecting the headwaters of the Severn River.

Erosion and siltation will be a special problem in the Dicus Mill Road area since the land slopes down from existing Maryland Route 3 and Dicus Mill Road to Severn Run, which has been categorized as Class III (Natural Trout Waters) by the Water Resources Administration based on its intended use.

Erosion control procedures will be utilized to minimize or eliminate the generation and transport of sediment within this portion of the drainage basin in accordance with Maryland's "Sediment and Erosion Control Program".

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#### IV. AVOIDANCE ALTERNATES

#### A. The No-Build Alternate

The No-Build Alternate would not affect the Severn Run Natural Environment Area. However, traffic congestion would not be reduced and accident problem locations would not be eliminated.

#### B. Alternates in the area south of Brightview Drive

- 1. In the area south of Brightview Drive, Alternate F-4i, the location approval alternate did not impact the NEA "access strip" or the area north of it. Under this alternate, from Brightview Drive to Benfield Boulevard, the typical section transitioned from two (2) thru lanes in each direction with an HOV lane in the median to three (3) thru lanes in each direction with a 54' median and avoided impacts to the NEA. Alternate F-4i; however, would not provide for the construction of the MTA's Rapid Transit System in the median.
- 2. Relocating mainline I-97 as now proposed with a 60' median farther to the east in the section between Brightview Drive and Benfield Boulevard would avoid impacts to the NEA "access strip". However, additional right-of-way would be required and more businesses would be displaced since both the northbound and southbound roadways would have to be shifted to retain the 60' median width and the southbound auxiliary lane.
- 3. A retaining wall was also investigated to minimize impacts to the NEA "access strip". Even with a retaining wall, 15' 20' of right-of-way would still be required from the NEA. A 500' long, 10' high retaining wall costing \$943,000 would reduce the required NEA right-of-way from 0.3 acres to 0.1 acres.



#### C. Alternates in the Dicus Mill Road area

1. Under Alternate F-4i, the location approval alternate, the proposed west frontage road extended approximately 2100' north of and 3600' south of the Benfield Boulevard interchange, and did not tie into Dicus Mill Road; thereby, avoiding impacts to the NEA. (See figure 3). Alternate F-4i resulted in adverse travel for Dicus Mill Road residents and conditions previously identified in the "Proposed Action" section.

Residents located near the existing Dicus Mill Road/Maryland Route 3 intersection would have to travel west on Dicus Mill Road, then north along Gambrills/New Cut Roads for approximately five (5) miles to I-97 via the New Cut Road/Maryland Business Route 3 interchange. The distance from Aurora Road in the Aurora Hills Development to I-97 at the New Cut Road/Maryland Business Route 3 interchange is approximately four (4) miles.

Presently, Dicus Mill Road residents (including those in Aurora Hills) travel up to one (1) mile to reach existing Maryland Route 3. Under the selected design alternate they would travel approximately one (1) mile along the continuous west frontage road to the Benfield Boulevard interchange.

2. The construction of an underpass connecting Dicus Mill Road to the East Frontage Road would eliminate adverse travel for Dicus Mill Road residents. However, Dicus Mill Road and the East Frontage Road would have to be depressed approximately 24' to accommodate an underpass of I-97. The resulting slopes from the required cuts would necessitate taking right-of-way from the NEA located on the east side of existing Maryland Route 3, as well as require additional right-of-way from the NEA on the west side of



existing Maryland Route 3. Also, the grade and elevation of mainline I-97 cannot be changed because of the Severn Run bridges located south of Dicus Mill Road.



#### V. MITIGATION MEASURES

The proposed construction of I-97 (Section D) requires the acquisition of approximately 7 acres of NEA property.

Section 6(f) requires the substitution of other recreational properties of at least equal fair market value and of reasonable equivalent locations and usefullness when Land and Water Conservation funded lands are converted to other than recreational use. Replacement land will be provided.

A Maryland Department of Natural Resources Program Open Space representative indicated at the October 27, 1983 InterAgency Review, that any area identified for future acquisition within the boundaries of the NEA may be considered as replacement lands.

Mitigation measures will be further explored and coordinated with the concerned state and federal agencies.



#### VI. COORDINATION

This project has been coordinated with the Maryland Department of Natural Resources - Capital Programs Administration.

Possible impacts to the Severn Run Natural Environment Area were discussed as early as June 18, 1982 at a meeting between the Department of Natural Resources and the State Highway Administration representatives. This project was also discussed at Quarterly Inter-Agency Review Meetings held on July 28, 1983 and again on October 27, 1983.

Representatives from the State Highway Administration and Department of Natural Resources - Program Open Space, Natural Heritage, and Land Planning Services met on November 2, 1983 and a field review was held on November 14, 1983.

Copies of this document will be forwarded to the appropriate agencies.



## ANNE ARUNDEL COUNTY POLICE DEPARTMENT

HEADQUARTERS -201 Robert Crain Highway, Millersville, Maryland 21108 (301) 987-4050 867-4050

OL. WILLIAM S. LINDSEY
Chief of Police

September 11, 1984

September 14, 1984 Mr. Zembas: For your attention. RME

Mr. Steve J. Mandras
Project Engineer
Bureau of Highway Design
Maryland Department of Transportation
Room 500 - B
707 N. Calvert Street
Baltimore, Maryland 21202

Dear Mr. Mandris:

Thank you for your invitation to the meeting on September 7, 1984. After conferring with Chief Lindsey and Deputy Chief Wellhan, the continuous west frontage road adjacent to I-97 is the alternative favored by the Anne Arundel County Police Department. Listed below are the reasons for that choice.

- a. Response time would be increased to the Dicus Mill Road area due to the fact that access via Rt. 3 or the segmented access road would be
- b. Segmented roadway would increase response time in that officers responding to calls could respond to the wrong section of the road.
- c. Segmented roadway would increase the traffic on the northern access road which could result in an increased number of accidents.
- d. During construction of 1-97, if the present southbound lane is used for traffic, accidents will increase resulting in less of life and property damage. If the continuous access road is used this could be used to handle the traffic, leaving the southbound lane free for construction.
- e. The segmented road would create "dead ends". This area is not well populated and could provide an area for kids to "hang out", be used as a dump and some sections could be used for speed contests.

Thank you for the opportunity for the Police Department to have some input into this project. If I can be of any further assistance, please contact my office at 987-4050, extension 282.

Sincerely,

Sergeant D. K. Rowland

Commander,

Traffic Safety Section

#### ANNE ARUNDEL COUNTY, MARYLAND

RECEIVEL

BUR, OF HWY, DECREE



987-4010

# FIRE DEPARTMENT HEADQUARTERS P.O. BOX 276 MILLERSVILLE, MARYLAND 21108

September 19, 1984

September 24, 1984 Mr. Zembas: For your attention. AK

Mr. Steve J. Mandras
Project Engineer
Bureau of Highway Design
State Highway Administration
Room 500-B
707 N. Calvert Street
Baltimore, Maryland 21202

Dear Mr. Mandras:

The Anne Arundel County Fire Department has reviewed the tentative proposal to close Dicus Mill Road at Md. Route 3. This action, coupled with the segmented service road that is planned for the west side of the new U.S. I-97, is in its entirety an unacceptable design.

The nearest tire departments to this area are (1) Engine and Paramedic Company 26 located at Crain Highway (Md. Business Rt. 3) and Hidden Brook Drive in Glen Burnie; and (2) Engine, Ladder, and Paramedic Company 28 located on Rt. 175 in Odenton. These two companies are located approximately five miles from the Dicus Mill Road and Rt. 3 intersection. This places these companies at the extreme distance for proper fire and life protection to the citizens in this area of Dicus Mill Road. In order to effectively provide fire and emergency medical service in a time frame that will be beneficial to extinguishing fires when they are small and saving the lives of heart attack and other serious injury time incidents, the fire department requires a response time of no more than 5 minutes. As can be readily noted, the intersection and surrounding area are just barely above that length of response time now. Any action which removes the expressway response capability to that area will seriously jeopardize our ability to render effective service to these citizens.

The projected dead-end planned for Dicus Mill Road, coupled with the removal of the intersection of Gambrills Road and Rt. 32 will require that Company 28 (Odenton) will have to travel a winding, unsafe, two-lane road (New Cut Road) to reach the eastern portion of Dicus Mill Road. In

Mi. Steve Mandras Page 2 September 49, 1984

addition, the response of the second and third, etc., units will be required to drive inordinate distances to reach the scene. Since manpower required at the scene of a dwelling fire requires that at least four to five companies are dispatched, the time to get to the emergency is greatly increased. Increases in response time often creates additional fire service and civilian injuries.

The projected segmenting of the western service road will increase response time to any tires or life threatening emergencies. In several cases, the fire department and medical service vehicles will have to pass the emergency to gain access to the problem area. There is also an increased chance of emergency vehicles responding to the wrong side of a segmented area and having to travel considerable distance (with the resulting loss of time) to get to the incident scene.

Due to the responsibility of the fire department in properly protecting life and property of the citizenry, we cannot support the segmented service road that has been proposed.

We must recommend that that western service road for f-97 be continuous from Crain Highway on the north through and connected to Dicus Mill Road on the south. The lives and property of the citizens of Anne Arundel County cannot be unduly jeopardized.

If I can be of further service, please contact me at your convenience.  $\ensuremath{^{\Lambda}}$ 

Sincerel

Joseph M. Connell Fire Administrator

JMC/phf



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1984 SEP 31 A 9 50
BUR. OF HWY. DESIGN



# ANNE ARUNDEL COUNTY ANNAPOLIS. MARYLAND 21401

OFFICE OF PLANNING AND ZONING

September 25, 1984

Mr. Leonard Zembas, Bureau of Highway Design State Highway Administration 707 N. Calvert Street Baltimore, MD 21203

October 1, 1984 Mr. Zembas: For your attention.

Re: 1-97, West Parallel Service Road

Dear Mr. Zembas:

We have reviewed the alternatives for the I-97 West Parallel Service Road, for a continuous or non-continuous design. It is our conclusion that a non-continuous, or segmented design would not only be poor network planning but would create several hazards to public safety.

If traffic is unable to travel uninterrupted along the west service road it will sharply increase the traffic load and congestion on the east service road. Since traffic congestion statistically results in higher accident rates, the probability of road blockage on the east in responding to local emergencies in the area without an alternate detour for local traffic. Even though I-97 could function as a bypass off from access, including the County Police and Fire Headquarters facilities.

Another problem with discontinuous road segments is the potential for errors in the response of emergency vehicles going to the wrong section of road and having to backtrack. This is not only a waste of critical time but adds to the risk of emergency personnel in responding to calls.



Mr. Leonard Zembas September 25, 1984 Page 2

The creation of several dead end roads instead of a continuous service road would make police patrols more time consuming and less efficient resulting in either a reduction in security or a waste of public funds.

Elimination of access to Dicus Mili Road at Maryland Route 3 (I-97) would add several minutes travel for any emergency response. This condition could be seriously compounded by the possibility of Dicus Mill Road being closed by the flooding of Severn Run Stream. This has occurred in the past and is likely to occur again. Without access to Md. Route 3 or the future west service road, approximately 10 to 12 homes could be completely isolated with no alternate route. To eliminate the flooding potential, would require a new bridge and roadway over Severn Run at a higher elevation. Such a project would not be cost effective and would result in a much greater negative environmental impact to Severn Run than the service road connection near the ridgeline.

It should be noted that some of the proposed right-of-way for the west service road that is not yet park land is more environmentally sensitive than that which has been acquired. We strongly recommend that the road be designed to minimize disturbance to primary vegetation and unique natural habitats. Field inspection revealed that some dumping has occurred in the natural area from isolated access points. We believe the use of cul-de-sacs would add to the potential dumping problem in the future. A continuous road would add more visibility through traffic and patrols. Experience has shown that dead end roads attract "party" groups who litter the area with trash. This would not be compatible with good open space management and would add to the security burden.

In conclusion, Anne Arundel County recommends that a continuous west service road be constructed from Dicus Mill Road to New Cut Road as part of the I-97 project, rather than a segmented road. Not only would this alternative be safer and provide for more efficient distribution of traffic in the area but, it would minimize unnecessary vehicle travel and the related additional air-pollution.

If you have any questions regarding the above comments, we are available to discuss them.

Best regards,

Filorence Beck Kurdle

Planning and Zoning Officer

FBK/RD/jls

cc: Steve Mandras, Highway Design, State Highway Administration

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FRED L. ESKEW

ASSISTANT SECRETARY FOR CAPITAL PROGRAMS



( )

TORREY C. BROWN, M.D. SECRETARY

JOHN R. GRIFFIN

#### STATE OF MARYLAND DEPARTMENT OF NATURAL RESOURCES

#### **CAPITAL PROGRAMS ADMINISTRATION**

TAWES STATE OFFICE BUILDING ANNAPOLIS, MARYLAND 21401

June 8, 1984

Cynthia Simpsons Room 314 707 North Calvert Street Baltimore, Maryland 21203

Dear Ms. Simpsons:

As you requested during our telephone conversation of June 8, 1984, I checked to see if there had been federal participation in areas of concern to you. These areas were identified as DNR reference numbers 28, 43, and 59 on the Severn Run N.E.A. Project Boundary Line Map. All three of these areas have received federal reimbursement and therefore are subject to federal procedures and restrictions in regard to conversion of use.

If I can be of further assistance, please advise.

Sincerely

Chip Price

District Coordinator

CP:sa