## FINAL. ENVIRONMENTALTA IMPACT STATEMEN SECTION (4) E ALUATION CONTRACT NO. AA 682-101~570 MARYLAND ROUTE HO

INTERSTATE ROÜTE 95 © NÁRYLAND ROUUTE 3 (1-97) ANNE ARUNDEL AND $\mathrm{K}^{\circ} \mathrm{MARD}$ COUNTIES x

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

| Etinm | POSSIBLE ROADWAY CONNECTION |
| :---: | :---: |
|  | PROPOSED STRUCTURE |
|  | PROPOSED ROADWAY |
|  | PROPOSED RIGHT OF WAY (APPROX.) |
|  | EXISTIMg RIGHT OF WAY OR PROPERTY LIME |
| $\bigcirc$ | CUL-DE-SAC |
| 170 | State route |
| 4 | U. S. highway |
| 95 | Interstate higmmay |
|  | IMDICATES PROPERTY TO BE ACQUIRED |
| * | RES IDEMCE |
|  | BUSIMESS |
| - | CHURCH |
|  | OTHER |
| S | AIR RECEPTOR/MOISE SENSITIVE AREA |

## SPECIAL PROPERTIES



PARK BOUNDARY

DEPARTMENT OF MATURAL RESOURCES FORESTRY BOUNDARY

HISTORIC BOUNDARY
B.W.I. AIRPORT BOUNDARY

100-YEAR FLOOD PLANF'BOUNDARY.

WETLANDS
BOUNDARY

## LEGEND



```
INUUSTRIAL PAF!:S
InD. -I FRIENDSHIP AIRPARK
I:D. 2 BWI COMMEREE PIRA
IMI. 3 BALTIMORE COTAMONS BUSINESS PARK
IKU. 4 AIRPORT IND!'STRIAL PAFIK
IYO. 5 PARKWAY INDUSTRIAL CENTER I
I:D. G HARKWAY IN. USTRIAL CENT:'R II
IMN. 7 TrLEGRA:H INDUSTRIAL PARK
IMT. R RCUTE IOC INDUSTRIAL PARK
IND. - TLKRIDGE INDUSTRIAL PA?K
IND. 10 HARKOOI INDUSTRIAL PAFK
INI. II iROCXDALI INDIJTRIAL PARK
INJ. 12 DORSEY EUSINESS CENTER
```

PARK: SND REこREATION CEVTERS E3?
R-I FRIEIINSHIF PARK
R-2 QUEENSTOWN PAFK
i.3 SEVERN DANZA fARK
i- -HAPMONS FARK
$\dot{n}-i$ JI:SSUP ANO DCRSEY FARK
r-j fatapsco valley statt park

## CHURCHES

CH-I METROPOLITAN UNITED METHODIST
CH-2 WESLEY GROVE UNITED METHOD IST
CH-3 ST. MARKS UNITED METHOOIST
CH-4 CALVARY CHAPEL
CH-5 ASSEMBLY OF GOD
CH-6 EMMANUEL UNITED METHODIST
CH-7 HARWOOD PARK UNITED METHODIST
CH-8 ROSE OF SHARON BAPTIST
CH-9. TRINITY EPISCOPAL
CH-IO MT. PILGRIM BAPTIST
CH-II FELLOWSHIP PENTECOSTAL
SCHOOLS
S-I WATERLOO MIDDLE SCHODL
S-2 HARMONS ELEM. SCHOOL
S-3 SEVERN ELEM. SCHOOL
3-4 QUARTERFIELD ELEMENTARY SCHOOL
S-5 NORTH ARUNDEL VOC. TECH.

* historic sites
( IIf |ll| |l| ;





## MEMORANDUM

TO:
Mr. Louis H. Eger, Jr.
Deputy Director Project Development Division

ATTN: Mr. Lee Carrigan
Project Manager
FROM: $\begin{aligned} & \text { Cynthia D. Simpson, Chief } \\ & \text { Environmental Management }\end{aligned}$
SUBJECT: Environmental Considerations/Compliance Checklists
Contract No. AA 682-101-570
FAP No. AF 162-1
Maryland Route 100
Maryland Route 3 (Interstate Route 97)
to Interstate Route 95
PDMS No. 022007

Attached are the completed Environmental Considerations and Compliance Checklists for the subject project. Key environmental points found in the Final Environmental Impact Statement are summarized in these forms. Location Approval was received from the Federal Highway Administration on January 12, 1988.

To ensure follow-through on project commitments, both sets of checklists should be attached to the formal transmittal conveying the project from this Division to the Bureau of Highway Design.

The Compliance Checklist delineates those environmental commitments which are a condition of Location Approval. Should any changes be made, an environmental reevaluation must be requested. Proposed changes should be submitted to Environmental Management, Project Development Division, for review.

The Consideration Checklist identifies all environmental concerns relevant to the project and highlights those environmental factors which may require additional study. The rationale for a decision to reject a consideration should be submitted to the Chief, Environmental Management, Project Development Division.

## BUREAU OF PROJECT PLANNING <br> ENVIRONMENTAL COMPLIANCE* CHECKLIST

PAGE I OF 3

CONTRACT
NO. AA 682-101-570
PROJECT: Maryland Route 100
TERMINI: I-95 to MD 3 (I-97)
$\qquad$

FEIS APPROVED: $10-27-87$
FONSI APPROVED: $\qquad$
LOCATION APPROVAL: $\underline{1 / 88}$

| ENVIRON- <br> MENTAL <br> FACTOR | MITIGATION <br> COMMITMENT | SOURCE OF <br> COMMITM'T | WHEN <br> SCHEDULED | BUREAU TO <br> CONTACT/ <br> PHONE\# | DATE | COMMENTEM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| RELOCATION | 22 residences 10 of the residential relocations are minority relof cations and ( addl'n comment | FEIS pg.iin iv, IV-2 $22^{3}$ <br> see <br> s) | Phase IV | Bureau of Relocation Assistance 333-1670 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HISTORIC SITES | No adverse ef fect for Ship ley House conf ditional on landscaping plans (see addl'n comment | $\begin{aligned} & \text { FEIS pg.V } \\ & \text { IV } 91, \frac{1}{V} V-7, \\ & 115,378,389 \end{aligned}$ Draft Memp of Agreeme (s) | Phase IV | Bureau of Landscape Architectu 321-3521 Bureay of $333-1370^{1 g}$ | re | Additional mitigation may be re quired pending approval of Smit Farm MOA |
| ARCHEOLOGIC SITES | Phase II archeology at sites I8AN596 18AN580 and 18AN5 79 | $\begin{aligned} & \text { FEIS pg.vi } \\ & \text { TII-58, IV- } \end{aligned}$ | Phase IV | $\begin{aligned} & \text { Environmen. } \\ & \text { tal Manage } \\ & \text { ment } \\ & 333-1184 \end{aligned}$ | $\mathbf{q}^{-}$ | Phase I I complet Phase III requir at 18 AN 579 and 18AN596. Publica tion of arch fin ings may be required per MOA agreement w/ACHD |
| PARKS | Landscape fil slopes throug Friendship Pat ROW required from Friendsh Park will (se¢ addl'n comment | FEIS PG:IV$k$108,9 <br> F$\mathrm{~s})$ | Phase V | Bureau of Landscape Arch $321-3521$ Bureau of Acq. Acti- vities $333-1635$ |  |  |
| PLANNING | If geodetic control survey monuments are disturbed, the National Ocean Service must notified 90 de in advance to see addl'n_en | FIIS $\mathrm{pg}_{2} \mathrm{FI}-316,318$ e ys ments) | Phase IV | highway Design 333-1370 |  | See additional comments |
| WILDLIFE |  |  |  |  |  |  |

"COMPLIANCE WITH A COMMITMENT IS A CONDITION OF PROJECT APPROVAL. CHANGES ARE NOT IN ORDER EXCEPT UNDER EXTRAORDINARY, UNFORESEEN CIRCUMSTANCES. IF CHANGES ARE CONTEMPLATED FOR any reason, the chief of the environmental evaluation section shoulo be notified IMMEDIATELY.

## ENVIRONMENTAL COMPLIANCE CHECKLIST

BUREAU OF PROJECT PLANNING


## BUREAU OF PROJECT PLANNING ENVIRONMENTAL COMPLIANCE CHECKLIST

PAGE 3 OF 3


## Water

|  | All streams are Class I streams and in-stream construction is prohibited from March 1 through June 15 inclusive. Stream areas must be stabilized and rip-rap placed at culvert inlets and outlets. <br> A Sediment and Erosion Control Plan and a stormwater Management Plan must be developed and submitted to the Department of Environment for approval. If Buckingham Forest Tree Mursery remains at its present location, then appropriate stormwater management and drainag\# techniques will be developed to ersure project will not result in exceedances of EPA's criteria for freshwater aquatic life and domestic water supply. |
| :---: | :---: |
| Structures | A separate culvert will be installed approximately 200' west of Sawmill Creek culvert to provide access for equestrian/pedestrian user. This culvert will allow access across haryland Route 100 to either side of Friendship Park. |
| A.1ternates | See FEIS pgs II-12-1A - The Selected Alternat= project design and lccation conmitments are cited in the referencミd pages. <br> pg. VI-358: BridgE over B\&O Re tracks mill b= designed to accomodate the potential ezpansion of 0 Conrer Road. <br> Further coozdination with Howard County Department of Public Norks will be undertaker to minimize impacts and ensure that the entrance to the proposed Troy Eill Busiress Part is compatible with the relocated road. |

All streams are Class I streams and in-stream construction is prohibited from March 1 through June 15 inclusive. Stream areas must be stabilized and rip-rap placed at culvert inlets and outlets.
A Sediment and Erosion Control Plan and a stormNater Management Plan must be developed and submitted to the Department of Environment for approval. If Buckingham Forest Tree Mursery remains at its present location, then appropriate stormwater management and drainag\# techniques will be developed to ersure project will not result in exceedances of EPA's criteria for freshwater aquatic life and domestic water supply. approximately 200' west of Sanmill Creek culvert to provide access for equestrian/pedestrian user. This culvert will allow access across Maryland Route 100 to either side of Friendship Park.

Alternates - See FEIS pgs II-12-1A - The Sel气cted Aiternat project design and location commitments are cited in the referenced pages.
pg. VI-358: Bridge over BíO Re tracks mill be designed to accommodate the potential expansion of O'Conrer Road.

Further coordination with Howard County Department of Public Norks will be undertaker. to minimize impacts and ensure that the Part is compatible with the relocated road.

```
Environmental Compliance Checklist
    Comments (continued)
```



Mr. Louis H. Ege, Jr. January 18, 1988
Page 2

Hydrogeologic studies will be conducted to determine project groundwater impacts. If changes to groundwater quantity or quality occur, replacement wells or compensation will be provided.

```
CDS:BG:cd
Attachments (2)
cc: Mr. Emil Elinsky (w/attach-Compliance Checklist only)
    Mr. Paul Wettlaufer (w/attach)
    Mr. Charles Agams (N/attach)
    Mr. Wes Glass (w/attach)
```


## BUREAU OF PROJECT PLANNING ENVIRONMENTAL CONSIDERATIONS*

PAGE 1 OF 3

CONTRACT NO. AA 682-101-570
PROJECT: Maryland Route 100
MANAGER: Mr. Lee Carrigan
ALTERNATE(S): 3 B Modified
PROGRAM STATUS: $\qquad$

DEIS/FEIS APPROVED:5-5-86/10-27-87
EA/FONSI APPROVED: $\qquad$
D4(f)/F4(f) APPROVED: $\qquad$
LOCATION APPROVAL:
RE-EVALUATION DATE: $\qquad$

| FACTOR | LOCATION | MITIGATIVE FEATURE/REFERENCE | $\begin{aligned} & \text { COMMENTS/ } \\ & \text { COORDINATION * } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| RELOCATION <br> 22 DWELLINGS <br> 7 BUSINESSES <br> 1 FARMS | FEIS pg. iii-iv, $\text { IV }-2,5-6,21$ | Every reasonable measure to maintain neighborhood continuity will be considered for minority displacements special efforts will be (see | See Compliance Check list additional comments |
| HISTORIC SITES $\qquad$ _NATIONAL REGISTER ELIGIBLE $\qquad$ INVENTORY | FEIS pg IV-91 | Landscaping to be provided for Shipley House and Smith Farm | See Compliance Checklist |
| ARCHEOLOGICAL SITES <br> 2 IDENTIFIED $\qquad$ POSSIBLE | FEIS pg. IV-92 | Phase III required at sites 18 AN 579 and 18AN596 | See Compliance Checklist |
| PARKS <br> 1 PUBLIC <br> __PRIVATE | FEIS pg IV-108,9 |  | See Compliance Checklist |
| PLANNING | FEIS pg. IV-29-30 | Efforts are to be made to replace the existing park \& ride lot at Dorsey Rd/Wri Road intersection wi a $150 \operatorname{lot} P \& R$ and to replace the infor mal P \& R lot at the | See Compliance Checklist $\begin{aligned} & \text { Ght } \\ & \text { fht } \end{aligned}$ |
| WILDLIFE | FEIS pg. IV-56 | EB MD 100 west <br> There are no known federally listed threatened or endangered species in stu area. |  |
| - an environmental consideration must de examined and a decision made to accept or reject. rationale for the decision should be presented to the chief, environmental EVALUATION SECTION. |  |  |  |




| FACTOR | LOCATION | MITIGATIVE <br> FEATURE/REFERENCE | COMMENTS/ COORDINATION* |
| :---: | :---: | :---: | :---: |
| NOISE | FEIS pg. IV-85,86 | A barrier for NSA28 is being considered under of the constryc tion of I-97. (see addl'n comments) | See Compliance Checklist |
| SOILS | $\begin{aligned} & \text { FEIS pg. iv,v,IV-42 } \\ & \text { VI-322 } \end{aligned}$ | Sediment and Erosion corporated. No prime farmland is requireq. Minor alignment shift will be considered during design to mini mize agricultural | See Compliance Checklist |
| ADDITIONAL COMMENTS** | Relocation - examin to mai <br> Planning <br> Mitigative Feat <br> potential repla <br> Noise - Where barri feasible, p vegetation | land impacts. <br> d including the use of tain, where possible, <br> res - of US 1. (See FE ement site locations). <br> rs are not considered rtial mitigation measu andscaping will be con | Last Resort Housing community ties. <br> IS reference for <br> reasonable or res such as dense sidered. |

Maryland Department of Transportation
State Highway Administration

William K. Hellmam Socrolary

Hal Kassoff Administrator

October 28, 1987
Contract No. AA 682-101-570
Maryland Route 100
from Interstate Route 95 to Interstate Route 97 PDMS No. 022007

FINAL ENVIROMENTAL IMPACT STATEMENT/SECTION 4(f) STATEMENT

Enclosed for your information and files is the approved Final Environmental Impact Statement/Section 4(f) Statement and the appropriate supporting material for the referenced project. This document has been prepared in accordance with the CEQ Regulations, DOT Order 5610.1c, and the revised Federal-Aid Highway Program Manual, Volume 7, Chapter 7, Section 2.

Since the circulation of the Draft Environmental Impact Statement/Section $4(f)$ Statement, written comments have been received from citizens and various review agencies. These comments, along with appropriate responses, have been included in the Final Environmental Impact Statement/Section 4(f) Statement.

The selected alternate is Alternate 3-B (Modified). The selected alternate will improve traffic operations through and within the study area by providing a new east/west highway facility. It will provide adequate access for planned development and relieve existing congestion problems along major routes in the study area.

The selected alternate uses the same mainline alignment as Alternate $3-B$, except in the vicinity of Race Road where the alignment has been shifted slightly south. The modifications include the selection of the option for relocating Dorsey Road at U.S. Route 1, a new configuration for the interchange at Race Road, the selection of the full cloverleaf interchange at Maryland Route 295, providing a bridge over Maryland Route 295 connecting Race Road and $\mathbb{W}$ ight Road, shifting the relocated Ridge Road to avoid Mount Pilgrim Baptist Church, selecting the optional interchange at Ridge Road which has a loop ramp in the southeast quadrant, bridging Harmons Road over Maryland Route 100, selecting the urban diamond interchange at Maryland Route 170, and bridging W.B.\&A. Road over Maryland Route 100.

Distribution of the Final Environmental Impact Statement is made on behalf of the Federal Highway Administration in accordnance with 23 MFR 771.

Very truly yours,
neil of Yedurew
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering

NJP:tlh
Enclosure
cc: Mr. Louis H. Ese, Jr.
Ms. Cynthia D. Simpson
Mr. Ronald E. Moon

# DISTRIBUTION LIST 

Contract No. AA 682-101-570<br>Maryland Route 100<br>from Interstate Route 95 to Interstate Route 97

FINAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) STATEMENT

## FEDERAL AGENCIES

```
Department of Agriculture
State Conservationist
Soil Conservation Service
432 Hartwick Avenue, Room 522
College Park, Maryland 20740
Mr. Bruce Blanchard, Director
Office of Environmental Project Review
U.S. Department of the Interior
18th and C Streets, N.W.
Washington, D.C. }2024
U.S. Environmental Protection Agency
Region III
Mr. Jeffrey Alper, Chief
NEPA Compliance Section
841 Chestnut Street
Philadelphia, Pennsylvania }1910
Ms. Margaret A. Kengel
Regional Environmental Officer
Department of Housing and Urban Development
Philadelphia Regional Office, Region III
Liberty Square Building
105 South 7th Street
Philadelphia, Pennsylvania 19106-3392
Commander
U.S. Army Corps of Engineers
Baltimore District
P.O. Box }171
Baltimore, Maryland 21201
ATTN: NABOP-F
Division of NEPA Affairs
Department of Energy
Room 4G 064
1000 Independence Avenue, S.W.
Washington, D.C. 20230
```

FEDERAL AGENCIES (cont'd)

Mr. Paul Giordano
Regional Director
Federal Emergency Management Agency
Liberty Square Building
105 South 7th Street
Philadelphia, Pennsylvania 19106
ATTN: Mr. Walter Pierson

ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES

Mr. John J. Shanley, Director
Public Works
1 Harry S. Truman Parkway
Annapolis, Maryland 21401
Mrs. Florence B. Kurdle
Planning and Zoning Officer
Arundel Center
Annapolis, Maryland 21401
Mr. Joseph J. McCann, Director
Recreation and Parks.
Arundel Center
Annapolis, Maryland 21401
Mr. George F. Neimeyer, Director
Public Works
3430 Courthouse Drive
Ellicott City, Maryland 21043
Mr. Thomas G. Harris, Jr., Director
Office of Planning and Zoning
3430 Courthouse Drive
Ellicott City, Maryland 21043

## STATE AGENCIES

```
Mr. Guy Hager, Director
Intergovernmental Assistance Clearinghouse
Department of State Planning
301 W. Preston Street
Baltimore, Maryland 21201
Ms. Kathleen Fay
State Depository Distribution Center
Enoch Pratt Library
400 Cathedral Street
Baltimore, Maryland 21201
```


## STATE AGENCIES

```
Mr. Randy Harrill
Water Resources Administration
Department of Natural Resources
Tawes State Office Building
Annapolis, Maryland 21401
```

MARYLAND DEPARTMENT OF TRANSPORTATION

Director
Public Affairs
Maryland Department of Transportation
B.W.I. Airport, Maryland 21240

Mr. Clyde E. Pyers, Director
Division of Systems Planning and Development
Maryland Department of Transportation
B.W.I. Airport, Maryland 21240

Office of Legal Council
Office of the Maryland Secretary of Transportation
Maryland Department of Transportation B.W.I. Airport, Maryland 21240

Maryland State Law Library
Upper Level Court of Appeal Building
361 Rowe Boulevard
Annapolis, Maryland 21401
OTHERS

```
Colorado State University
Document Librarian
Fort Collins, Colorado 20006
Mr. Arthur Kungle
The Liberty Tree Project
P.O. Box }344
Annapolis, Maryland 21401
Mrs. Sylvia Garrison
Severn Improvement Association
4 1 6 ~ Q u e e n s t o w n ~ R o a d
Severn, Maryland 21144
```


## DISTRIBUTION LIST

```
Contract No. AA 682-101-570
        Maryland Route 100
from Interstate Route 95 to
        Interstate Route 97
```

FINAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) STATEMENT

## FEDERAL AGENCIES

```
Department of Agriculture
State Conservationist
Soil Conservation Service
432 Hartwick Avenue, Room }52
College Park, Maryland 20740
Mr. Bruce Blanchard, Director }7\mathrm{ coples
Office of Environmental Project Review
U.S. Department of the Interior
18th and C Streets, N.W.
Washington, D.C. }2024
U.S. Environmental Protection Agency }/5\mathrm{ Dveuments
Region III
Mr. Jeffrey Alper, Chief
NEPA Compliance Section
841 Chestnut Street
Philadelphia, Pennsylvania 19107
Ms. Margaret A. Kengel}\/2 copies
Regional Environmental Officer
Department of Housing and Urban Development
Philadelphia Regional Office, Region III
Liberty Square Building
105 South 7th Street
Philadelphia, Pennsylvania 19106-3392
Commander 
U.S. Army Corps of Engineers 2copies
Baltimore District
P.O. Box 1715
Baltimore, Maryland 21201
ATTN: NABOP-F
Division of NEPA Affairs}
Department of Energy
Room 4G 064
1000 Independence Avenue, S.W.
Washington, D.C. }2023
```

```
Mr. Paul Giordano/ I copy
Federal Emergency Management Agency
Liberty Square Building
105 South 7th Street
Philadelphia, Pennsylvania 19106
ATTN: Mr. Walter Pierson
ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES
Mr. John J. Shanley, Director
Public Works
Icop\
1 Harry S. Truman Parkway
Annapolis, Maryland 21401
Mrs. Florence B. Kurdle }\checkmark I copy
Planning and Zoning Officer
Arundel Center
Annapolis, Maryland 21401
Mr. Joseph J. McCann, Director \checkmark l copy
Recreation and Parks
Arundel Center
Annapolis, Maryland 21401
Mr. George F. Neimeyer, Director\ \cop\
Public Works
3430 Courthouse Drive
Ellicott City, Maryland 21043
Mr. Thomas G. Harris, Jr., Director
Office of Planning and Zoning . Cop\
3430 Courthouse Drive
Ellicott City, Maryland 21043
```


## STATE AGENCIES

```
Mr. Guy Hager, Director, 20 copips
Intergovernmental Assistance Clearinghouse
Department of State Planning
301 W. Preston Street
Baltimore, Maryland 21201
Ms. Kathleen Fay
State Depository Distribution Center` 20 copres
Enoch Pratt Library
400 Cathedral Street
Baltimore, Maryland 21201
```

```
Mr. Randy Harrill
Water Resources Administration 3 cople
Department of Natural Resources
Tawes State Office Building
Annapolis, Maryland 21401
```

MARYLAND DEPARTMENT OF TRANSPORTATION
Director
Public Affairs
Maryland Department of Transportation
B.W.I. Airport, Maryland 21240

Mr. Clyde E. Pyers, Director
Division of Systems Planning and Development ${ }^{\text {Cofy }}$
Maryland Department of Transportation
B.W.I. Airport, Maryland 21240

Office of Legal Council
Office of the Maryland Secretary of 1 copy Transportation
Maryland Department of Transportation
B.W.I. Airport, Maryland 21240

Maryland State Law Library
Upper Level Court of Appeal Building lopr
361 Rowe Boulevard
Annapolis, Maryland 21401
OTHERS
Colorado State University
Document Librarian $\quad$ loop
Fort Collins, Colorado 20006
Mr. Arthur Kungle
The Liberty Tree Project lerpe
P.O. Box 3446

Annapolis, Maryland 21401
Mrs. Sylvia Garrison
Severn Improvement Association $\mid$ copy $12 / 15 / 97$
416 Queenstown Road
Severn, Maryland 21144

State Highway Administration

William K. Hellman
Secretary
Hal Kassoff
Administrator

October 28, 1987
Contract No. AA 682-101-570
lilaryland Route 100
from Interstate Route 95 to Interstate Route 97
PDMS No. 022007
FINAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) STATEMENT

Enclosed for your information and files is the approved Final Environmental Impact Statement/Section 4(f) Statement and the appropriate supporting material for the referenced project. This document has been prepared in accordance with the CEQ Regulations, DOT Order 5610.1c, and the revised Federal-Aid Highway Program Manual, Volume 7, Chapter 7, Section 2.

Since the circulation of the Draft Environmental Impact Statement/Section $4(f)$ Statement, written comments have been received from citizens and various review agencies. These comments, along with appropriate responses, have been included in the Final Environmental Impact Statement/ Section $4(\mathrm{f})$ Statement.

The selected alternate is Alternate $3-B$ (Modified). The selected alternate will improve traffic operations through and within the study area by providing a new east/west highway facileity. It will provide adequate access for planned development and relieve existing congestion problems along major routes in the study area.

The selected alternate uses the same mainline alignment as Alternate $3-B$, except in the vicinity of Race Road where the. alignment has been shifted slightly south. The modifications include the selection of the option for relocating Dorsey Road at U.S. Route 1, a new configuration for the interchange at Race Road, the selection of the full cloverleaf interchange at Maryland Route 295, providing a bridge over Maryland Route 295 connetting Race Road and Wright Road, shifting the relocated Ridge Road to avoid Mount Pilgrim Baptist Church, selecting the optional interchange at Ridge Road which has a loop ramp in the southeast quadrant, bridging Harmons Road over aryl and Route 100, selecting the urban diamond interchange at Maryland Route 170, and bridging W.B.\&A. Road over Maryland Route 100.

Distribution of the Final Environmental Impact Statement is made on behalf of the Federal Highway Administration in accordrance with 23 CPR 771.

Very truly yours,

## neil f Yedensw

Neil J. Pedersen, Director Office of Pl manning and Preliminary Engineering

## NJP:tin

Enclosure
cc: Mr. Louis H. Ege, Jr.
Ms. Cynthia D. Simpson
Mr. Ronald E. Moon

STATE HIGHWAY ADMINISTRATION
*Deputy Chief Engineer - Highway Development Cover left: Assistant Deputy Chief Engineer - Ilighway Development loopy District Engineerlcopy M+ehan $;$ loopy Clingarv
Bureau of HIghway Design $ل$ Sepia, Cepizi, Attn: Foster
Bureau of Bridge Design $\checkmark$ 3copir
Bureau of Landscape Architecture /coy
Office of Planning and Preliminary Engineering $V$ loopy
Project Development Division
Bureau of Planning and Program Development $ل$ lop
Office of Real Estate l I copy
Bureau of Relocation Assistance $ل$ loopy
Bureau of Requisition Activities $\checkmark$ lop
Federal-Aid Section - Office of Real Estate l/c>,
District Chief - Office of Real Estatelcopy Dirtsilcorffist 7
State Highway Administration Library wicopy
Equal Opportunity Section l copy
Bureau of Highway Statistics $V$ l copy

* Cover letter only

REPORT MLMBER: FHNA-MD-EIS-86-O1-F<br>REGION 111<br>MARYLAND ROUTE 100 EXTENDED<br>From Interstate 95 In Howard County to Maryland Route 3/Interstate 97 In Anne Aruncel County<br>FINAL ENVIRONMENTAL IMPACT STATEMENT<br>SECTION 4(f) STATEMENT<br>Submitted Pursuant to 42 U.S.C. $4332(2)(c)$ and 49 U.S.C. $303(c)$<br>CEQ Regulations ( 40 CFR 1500 et seq.)<br>U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIG-NAY ADMINISTRATION AND<br>MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHNAY ADMINISTRATION COPERATING AGENCY<br>U.S. ARMY CORPS OF ENGINEERS

The followling persons may be contacted for additional information concerning the document:

Mr. Edward Terry
Distrlct EngIneer
Federal HIghway AdmInIstration
The Rotunda - Sulte 220
711 West 40th Street
Baltimore, Maryland 21211
PHCNE: (301) 962-4010
HOURS: 7:45 a.m. - 4:15 p.m.
$\frac{8 / 24 / 87}{\text { DATE }}$
$\frac{10 / 27 / 1987}{\text { DATE }}$

Mr. Louls H. Ege, Jr., Deputy Director, Offlce of Planning and Prellminary Eng IneerIng State Highway Adminlstration 707 North Calvert Street Rocm 310 Balt Imore, Maryland 21202
PHONE: (301) 333-1130
HOURS: 8:15 a.m. - 4:15 p.m.
Wie of Pehewen
Director, Offlce of Planning and Prellminary EngIneering


The purpose of the project is to provide an extension of Maryland Route 100 from Interstate 95 In Howard County to Maryland Route 3/Interstate 97 In Anne Arundel County. The project Is compatible wlth local and State plans.

Enviromental Impacts assoclated with the project Include right-of-way acquisition and the displacement of residents and businesses. There are floodplain and wetland involvements.


## 1. AdmInIstrative Action

EnvIronmental Statement
( ) Draft
(X) FInal
(X) Section 4(f) Statement

The following persons may be contacted for additional Information concering this document:


## 3. Description of Selected Action

The selected alternate, Alternate 38 (Modified), Involves the extension of Maryland Route 100 from Interstate 95 In Howard County to Maryland Route 3/Interstate 97 In Anne Arundel County, a distance of approximately 7.5 mlles .

The selected Alternate would Improve traffic operations through and within the study area by providing a new east/west highway facility in the corridor. The primary purpose of this project is to provide adequate access to an area that Anne Arundel and Howard counties have designated for. planned growth and to relieve existing congestion problems along major routes in the study area. The selected alternate is consistent with the General Development Plans and compatible with existing and planned development of Anne Arundel and Howard Counties.

## 4. Alternates Considered

The State Highway Administration has considered numerous preliminary alternates, Including the No-Bulld, for the extension of Maryland Route 100 from 1-95 to Maryland Route 3/1-97. The No-Bulld Alternate, Alternate 2Option A, Alternate 2-option B and Alternate 3-Option A were presented at the Alternates Public Meeting held April 11, 1985. As a result of comments received at the Alternates Public Meeting, meetings with local community organizations and coordination with local elected officials and various state and federal agencies, Alternate 4, Crossover Opt lon and Alternate 3-option B were developed. All of these Alternates were studied In detail and presented
at the Camblned Location/Design Public Hearing on June 12, 1986. As a result of comments recelved at the Publlc Hearing, Alternate 38 (Modifled), the selected alternate, and Alternate $4 / 3 B$ were studled.

## No-Bulld Alternate

The No-Bulld Alternate would provide no major Improvements or Increase In capacity to Maryland Route 176 (Dorsey Road), the exlsting two lane eastwest facility in the project area, other than the recent widening of the existing roadway to four lanes between Maryland Routes 295 and 652 and the planned wldening to four lanes between Maryland Routes 652 and Harmonds Ferry Road. These Improvements are to be considered only as an Inter Im measure for the short-term rellef of traffic congestion, and even with these improvements, the road will not adequately accormodate the future traffic needs of this corridor.

## Alternate 2 - Urban Arterlal

Alternate 2 (Flgure ll-K1) proposes the construction of a curbed section urban arterlal highway on or close to the allgrment of existing Maryland Route 176 (Dorsey Road). From l-95, this alternate proceeds southeasterly, Interchanges with U.S. Route 1, Intersects with Race Road, and continues on to an Interchange with Maryland Route 295 (FIgures $11-1$ to $11-4$ ). East of Route 295, this alternate follows existing Route 176, Intersects with Maryland Route 713 (RIdge Road) and Interchanges with Maryland Route 170 (FIgures II-4 to II6). East of Route 170, thls alternate shlfts north of Dorsey Road to east of Maryland Route 652 where there are two options proposed. Option A curves southeasterly, Intersects with W.B.\&A. Road and then continues to the exlsting Maryland Route 100Maryland Route 3 (1-97) Interchange (FIgures II-7 and II8). Option B contInues easterly from Route 652, remalns north of Route 176 until Just east of McPherson where it curves southerly through the western portion of Frlendship Park and then onto the Route 100/I-97 Interchange (FIgures $\mid l-9$ to $|\mid-11)$.

## Alternate 3 - Freeway

Alternate 3 (FIgure II-K1) proposes the construction of Maryland Route 100 as a multi-lane freeway with full control of access from 1-95 to 1-97. From 1-95 to Maryland Route 295, Alternate 3 follows the same allgrment as Alternate 2 and has Interchanges with U.S. Route 1, Race Road and Route 295 ( $F$ Igures $11-12$ to $11-14$ ). East of Route 295, this alternate curves southeasterly away from Dorsey Road, Interchanges with Maryland Route 713 and then Interchanges with Maryland Route 170 Just north of Munson Helghts (Figures II14 to II-17). East of Route 170, there are two options proposed. Option A continues easterly, crosses under Queenstown Road south of Jones Road and then Interchanges with I-97 (Figures II-17 to II-19). Option B curves northeasterly from the Route 170 Interchange, crosses under Queenstown Road, curves north of Burleytown and Alberta Helghts, continues east across Friendship Park and then curves southeasterly around Queenstown to the Route 100/I-97 InterChange (FIgures $11-20$ to $11-22$ ). Optlons are proposed for the Interchanges at Route 295, Route 713 and Route 170 and are shown on FIgures 11-23 to 11-25, respectively.

## Alternate 3B (Modlflëd) (Selected Alternate)

This alternate uses the same malnilne allgment as Alternate 3-Option B, except In the vicinlty of Race Road where the allgrment has been shlfted silghtly south. The modiflcatlons Include the selection of the "Optlon" for relocating Dorsey Road at U.S. Route 1 (FIgure II-28), the selection of the full cloverleaf Interchange at Maryland Route 295 (Figure II-29), providing a brldge over Maryland Route 295 connectIng Race Road and Wright Road (FIgure II-30), shlfting the relocated Ridge Road to avold Mt. PIIgrlm Baptlst Church (Figure II-31), selecting the "flrst option" Interchange at Ridge Road which has a loop ramp In the southeast quadrant (FIgure li-31), bridging Harmans Road over Maryland Route 100 (Figure II-32), selecting the urban dlamond Interchange at Maryland Route 170 (Flgure II-33) and brldglng W.B.\&A. Road over Maryland Route 100 (Flgure II-34).

## Alternate 4 - Freeway

This alternate proposes the construction of Maryland Route 100 as a multi-lane freeway with full control of access from l-95 to l-97. This alternate has the same allgrment as Alternates 2 and 3 from l-95 through the U.S. Route 1 Interchange (FIgure II-36). Before the allgrment crosses the B80 Rallroad, It curves northeasterly around the Parkway Industrlal Center I, then curves southeasterly (FIgure II-45) through the Patapsco Valley State Park and Interchanges with Maryland Route 295 (FIgures II-37 and II-38). Alternate 4 then continues southeasterly, Interchanges with an extenslon of New RIdge Road north of the Baltlmore Commons Buslness Park, bridges over AMTRAK and Maryland Route 170 and then crosses through the southwest corner of BWI alrport (Flgures II-39 and II-40). After InterchangIng with Dorsey Road, Alternate 4 follows the same allgment as Alternate 2, Optlon A, to the Route 100/1-97 Interchange (Flgures II-41 and II-42).

## Alternate 4/3B

This alternate is Identical to Alternate 4 from I-95 to the Dorsey Road Interchange (FIgure II-36 through II-41). South of Dorsey Road, this alternate would curve southeasterly (Figure II-45) to Joln the allgment of Alternate 3-Option B at W.B.\&A. Road (FIgure II-21 and II-22).

## Crossover Option (Alternate 3 to Alternate 4)

The Crossover Option utlilzes Alternate 3 from l-95 to Maryland Route 295 (FIgures II-12 to II-14), then crosses northeasterly to the Alternate 4 Interchange wIth the New RIdge Road extensIon (FIgures II-43 and II-44), and then utillzes Alternate 4 to the Route 100/I-97 Interchange (Figures II-39 to II-42). The Crossover Opt Ion proposes the constructlon of Maryland Route 100 as a multl-lane freeway with full control of access as proposed for Alternates 3 and 4.

## 5. Envirormental Consequences

The selected alternate, Alternate 38 (Modified), requires 22 residential relocations. Ten of the relocations are minorlty residentlal relocations. Of the minorlty residential relocatlons, 7 are owner-occupled residences and 3 are tenant-occupled residences. There are 7 business relocations required.

The selected alternate, Alternate 38 (Modifled), would Improve accessibillty to commulty facliltles, parks and public recreation areas In the proJect area by separating local and through trafflc and keepling the existing road network Intact through the use of bridges. Several roads would be rerouted or cul-de-saced In the Race Road and Wright Road areas, causing more circultous travel to reach MD Route 176. However, by ellminating through traffic on MD Route 176, travel along this road Improves due to less trafflc backups and a greater level-of-service. For a more detalled discussion of travel time and distance, see Section IV.

The selected alternate, Alternate 38 (Modifled), would permit the planned expansion of the Industrlal and business section within the study area as called for In the General Development Plans of Howard County and Anne Arundel county by providing greater traffic capacity and Improving access to and from the study area.

Local businesses that depend on drlve-by trafflc (l.e., restaurants, motels, etc.) might experlence same loss of activity under the selected alternate since a large portion of the through trafflc would be moved away from the Maryland Route 176 corrldor. However, the new allgrment would reduce congestion along Route 176 and facilltate access to these establistments, especlally during the peak trafflc hours, through the use of Interchanges and service roads. The selected alternate, Alternate 38 (Modified), Includes several provisions for malntalning the existing road network so that local residences can access the businesses.

The selected alternate, Alternate 38 (Modifled), would have a positive effect on the tax bases of Howard and Anne Arundel Countles since it would acconmodate the efficient expansion of proposed development in the study corrldor.

The transportation requirements of the study area (as shown in figures IV-1 through IV-10) reveal that the selected alternate would provide both greater capacity through the area and higher levels of service on the existing road network than the No-Bulld Alternate. The accident rate within the study area would decrease under the selected alternate even though higher capacltles would be attalned.

Generally, geologic and soll features of the study area pose no signlficant difflculty to roadway construction If careful and detalled analysis and design are undertaken.

The Impact to surface water from highway Improvements and the accompanyIng development would be minimized by designing the project In accordance with the Maryland Stormwater Management Act, following the sediment and erosion
control program of the S'tate HIghway Administration and Incorporating other stormwater management practices.

Since the selected alternate, Alternate 38 (Modifled), would cross one or more streams and thelr 100 year flood plalins, detalled hydrologic and hydraullc studles wlll be conducted to minlmize impacts due to any floodplaln encroachment. Prellminary analysis, In accordance with Executive Order 11988, Indicates that no signiflcant flocdplain Impacts are expected to occur as a result of the selected alternate.

The selected alternate, Alternate 38 (Modifled), would adversely Impact some wetlands. The use of stringent sediment control measures would minimize these impacts. Wetland mitigations, such as enhancement, reconstruction or replacement will be coordinated with the U.S. Army Corps of Englneers, MD Department of Natural Resources and other agencles.

Correspondence with the U.S. FIsh and WIIdilfe Service and Maryland Department of Natural Resources - Wildilife Adminlstration Indlcates that there are no known populations of federally ilsted threatened or endangered specles along the study corrldor to be Impacted by the selected alternate.

An alr quallty analysis of 30 receptor sites (see FIgure IV-11) within the study area reveals no violations of State and Natlonal Amblent Alr Quallty Standards (S/NAAQS) for elther the maximm one-hour perlod or maximum consecutive elght-hour perlod In the design year (2010) and the estlmated year of completion (1990) for the selected alternate, Alternate 38 (Modifled).

A nolse impact analysis was conducted using 29 receptor sites (see Figure IV-11) wIthin the study area. Nolse measurements at each nolse sensitive area (NSA) were made and design year (2010) nolse levels at each slte were predicted using methodology developed by the Federal HIghway Adminlistration (see Table IV-4 and IV-5). Trafflc nolse Impacts would cocur when the predicted traffic nolse levels would exceed the FHWA nolse abatement criterla of 67 dBA Lea or Increase by 10 dBA or more above the current amblent nolse levels excluding alrcraft.

The selected alternate, Alternate 38 (Modified) would cause nolse Impacts to 10 NSA's and at one of these sites, (NSA 28), nolse abatement measures were considered reasonable and feasible (see Table IV-9). Nolse abatement measures at. the Impacted site, NSA 28, are belng consldered under the upgrading of Maryland Route 3.

Seventeen (17) historlcal sites are located within the study area; two are sltes for National Reglster ellgibllity (Shlpley House and Smlth Farm) and the remalning 15 sites are not eliglble, but are of Maryland Inventory QualIty. The State HIstorIc Preservation Officer has determlned that the selected alternate, Alternate 38 (Modifled), wlll not have an adverse effect on the Shlpley House or the Smith Farm conditional on landscaplng plans which are revlewed by the Maryland Historical Trust. No property is required from the Shipley House. The selected alternate does require acqulsition of some of the Smlth Farm property, but would not directly Impact any bulldings or the cemetery on the property. MItigation measures will be coodinated with the SHPO.

Four sltes Identlfled by the Maryland Geological Survey as potentlally ellglble for the Natlonal Reglster of HIstor IC Places would be Impacted by the selected alternate, Alternate 38 (Modifled). Phase II archeologlcal studles will be undertaken on three of these sltes and this work will be coordinated with the State HIstorlc Preservation Officer.

## 6. Areas of Controversy/Unresolved Issues

Communlty groups In the area are opposed to Alternates 2A, 2B, 3A, 3B and 4 based on disruptlon to thelr commultles and the traffic Impacts assoclated with Maryland Route 100 trafflc travelling through the commulties.

The Maryland State Avlation Adminlstration and the Federal Avlation Administration were opposed to Alternates 2A, 2B, 4/3B and 4 due to confllcts with the planned expansion of Baltimore/Washlngton International Alrport. The MD SAA and the FAA are not opposed to the selected alternate, Alternate 38 (Modified).

The Maryland Department of Natural Resources Is opposed to Alternate 4 since it would Impact the Patapsco Valley State Park. This agency is also opposed to Alternate 3, Optlons A \& B slnce both of these alternates Impact the Buck Ingham Forest Tree Nursery. Coordinatlon with the MD. D.N.R. has been on-golng throughout the prellminary planning stage to minimlze the impacts to the nursery.

Opposed to Alternate 3B Is the State Chapter of the Natlonal Assoclation for the Advancement of Colored People (NAACP).

The Maryland State HIghway Admlnistratlon finds that Alternate 38 (Modified) provides the needed service for transportation with minimal impacts to adJacent cammunltles.

## 7. Permits Required

Construction of thls project would requlre review and approval for the followling permits:

- U.S. Army Corps of Englneers - Sectlon 404 Permit
- Maryland Department of Natural Resources - Approved Sediment Control Plan
- Maryland Department of Natural Resources - Approved Stormwater Management Plan
- Maryland Department of Natural Resources - Waterway Construction Permit
- Maryland Department of Health and Mental Hyglene - Water Quallty Certiflcate

8. Summary of Impacts

Table S-1 compares the signiflcant Impacts assoclated with each alternate.

## SUMMARY OF IMPACTS

TABLE S-I


## NATURAL ENVIRONMENT IMPACTS

| PRIME FARMLAND SOILS - ACRES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ACTIVE AGRICULTURAL LAND-ACRES | 0 | 16.8 | 12.3 | 54.4 | 43.5 | 43.5 | 16.8 | 16.8 | 0 |
| STREAM REALIGNMENT - LINEAR FT. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEW STREAM CROSS I GS | 0 | 4 | 4 | 6 | 7 | 7 | 3 | 5 | 3 |
| WETLANDS - ACRES | 0 | 48.8 | 41.6 | 53.5 | 54.3 | 56.9 | 79.1 | 76.5 | 77.3 |
| FLOODPLAIN - ACRES | 0 | 17.2 | 17.2 | 33.3 | 34.2 | 28.5 | 8.8 | 25.7 | 7.3 |
| WOODLAND - ACRES | 0 | 47.6 | 39.7 | 59.5 | 61.4 | 56.0 | 41.7 | 54.3 | 37.6 |
| OLD FIELD - ACRES | 0 | 59.0 | 46.8 | 80.7 | 76.4 | 69.7 | 68.1 | 96.9 | 54.9 |
| THREATENED OR ENDANGERED SPECIES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AIR QUALITY IMPACTS + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NOISE LEVEL IMPACTS + + | 5 | 5 | 5 | 11 | 10 | 10 | 8 | 7 | 8 |

COST ( $x \$ 1,000,000$ )

| RIGHT OF WAY | 0 | 12.1 | 16.1 | 23.4 | 22.8 | 22.8 | 18.2 | 18.0 | 18.0 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| RELOCATION | 0 | 0.5 | 1.3 | 1.3 | 1.0 | 1.0 | 0.8 | 1.0 | 0.8 |
| CONSTRUCTION | 0 | 101.6 | 103.8 | 119.1 | 130.1 | 133.2 | $105.8^{*}$ | $119.1^{*}$ | $109.0^{*}$ |
| TOTAL | 0 | 114.2 | 121.2 | 143.8 | 153.9 | 157.0 | $124.8^{*}$ | $138.1^{*}$ | $127.8^{*}$ |

A. REPRESENTS WORSE CASE COMB NATION OF INTERCHANGE OPTIONS

+ SITES EXCEEDING S/NAAQS
*     + NSA'S EXCEEDING fEDERAL NOISE abatement Criteria or iodba increase
* WILL INCREASE BY $\$ 45$ TO $\$ 65$ MILLION FOR AIRPORT TUNNEL

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 Enviromental Quality Regulations, effectie 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 doument, 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 ..... №
CMMENTS
A. Land Use Considerations

1. WIIl the action be within the 100 year flocd plain?
X $\square$
2. WIII the action require a permit for construction or alteration within the 50 year flood plain
$-\quad \underline{x}$
3. WIII the action requlre a permit for dredging, filling, dralning or alteration of a wet land?
$\mathrm{X} \quad-\quad$ IV.C. 4
4. WIII the action require a permit for the construction or operation of facilitles for solld waste disposal Including dredge and excavation spoli?

5. Will the action occur on slopes exceeding 15\%?
X
IV.C. 1
6. WIII the action require a grading plan or a sediment control permit?
X
IV.C. 8
7. WIII the action require a mining permit for deep or surface mining?
$\cdots \quad \mathrm{X}$
8. WIII the action require a permit for drlliling a gas or oll well?
$\longrightarrow \quad X$
9. WIIl the action require a permit for alrport construction?
10. WIII the action require a permit for the crossing of the Potomac River by condults, cables or other llke devices?
11. WIII the act lon affect the use of a public recreation area, park, forest, wildilfe management area, scenic river or wild land?

YES NO MOMENTS
1.
$X$
IV.A.1.f
12. WIII the action affect the use of any natural or manmade features that are unique to the county, state or nation?
13. Will the action affect the use of an archeological or historycal site or structures?

B. Water Use ConsIderations
14. WIII the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?

15. WIll the action require the construction, alteration or removal of a dam, reservoir, or waterway obstruct lon?
$\longrightarrow \quad \mathrm{X}$
16. WIII the action change the over land flow of stormwater or reduce the absorption capacity of the ground?
$\xrightarrow{X}$
IV.C. 2
17. Will the action require a permit for the drilling of a water well?

- $\quad \mathrm{X}$

18. Will the action require a permit for water appropriation?
$-\quad x$
19. WIII the act lon require a permit for the construction and operation of facilities for treatment or distribution of water?

20. Will the project require a permit for the construction and operation of facilltes for sewage treatment and/or land disposal of llquid waste derivatives?
21. WIII the action result in any discharge into surface or sub-surface water?
$x$
IV.C. 2
22. If so, will the discharge affect amblent water quallty parameters and/or require a discharge permit?
$-\quad x$
23: Will the action result in any discharge Into the alr?

X IV.D
24. If so, will the discharge affect amblent air quallty parameters or produce a disagreeable odor?

X
25. Will the action generate additional nolse which differs In character or level from present conditions?
26. Will the action preclude future use of related air space?
27. WIII the action generate any radiological, electrical, magnetic, or Ilght influences?
D. Plants and Animals
28. Will the actlon cause the disturbance, reduction or loss - of any rare, unlque or valuable plant or an Imal?
$\longrightarrow \quad x$
IV.C. 7
29. Will the actlon result in the significant reduction or loss of any flsh or wildilfe habltats?

30. Will the action require a
permit for the use of pestl-
cldes, herblcides or other
blological, chemlcal or
radiological control agents?
soclo-Economic YES
35. WIII the act lon affect the production; extraction, harvest or potential use of a scarce or economically Important resource?
36. Will the action require a lIcense to construct a sawmIll or other plant for the manufacture of forest products?
37. Is the action In accord with federal, state, regional and local comprehensive or functional plans - Including zoning?
38. WIll the action affect the employment opportunities for persons In the area?
39. WIII the action affect the ability of the area to attract new sources of tax revenue?
40. WIll the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?
41. WIII the action affect the ablilty of the area to attract tour Ism?

## F. Other Considerations

42. Could the action endanger the public health, safety or wei fare?
$\longrightarrow \quad X$
43. Could the action be eliminated without deleterious affects to the publ lc health, safety, welfare or the natural inv I roment?

YES NO OAMIENTS

X $\quad \mathrm{X}$ IV.H
44. WIII the action be of statewlde signiflcance?

45. Are there any other plans or actlons (federal, state, county or prlvate) that, In con Junction with the subject action could result in a cumulative or synergistlc Impact on the publlc health, safety, welfare, or envirorment?
X
46. WIII the action requlre addltional power generation or transmlssion capaclty? $\qquad$
47. This agency will develop a complete enviromental effects report on the proposed action.

A Draft and Final Enviromental Impact Statement have been prepared In accordance with the Natlonal Enviromental Pollcy Act. These documents satisfy all the requlrements of the Maryland Envlromental Pollcy Act.
I. PURPOSE AND NEED
A. Project Location and Description ..... |-1
B. Need for the Project ..... 1-1

1. Reglonal Growth and Development ..... 1-1
2. Trafflc and OperatIng Condltions ..... 1-4
a. Exlstlng Facillty ..... 1-4
b. Operating Condltions ..... I-5
C. Plannlng Background ..... 1-8
II. ALTERNATES, INCLUDING THE SELECTED ACTION
A. Prellminary Alternates ..... ||-1
B. Alternates for Detalled Study ..... ||-2
3. No-Bulld Alternate ..... ||-2
4. Alternate 211-3
5. Alternate 3 ..... 11-84. Alternate 3B (Modifled)
| |-125. Alternate 4

- Alternate 4 ..... | |-146. Crossover OptIon (Alternate 3 to Alternate 4)

7. Alternate 4/3B ..... |l-17
||-188. Project CostsII-18
III. AFFECTED ENVIRONMENT
A. Soclal, Economlc, and Land Use ..... |||-1
8. Soclal Envirorment ..... |||-1
a. Population ..... |||-1
b. Housing$111-7$
c. Famliy Income ..... |||-8
d. Cammultles and Cltles ..... |||-8
9. Cammulty Facllitles ..... |||-12
10. Parks and Publlc Recreat Ion Areas
| ||-134. Economlc Proflle
|||-13
11. Land Use
a. ExlstIng Land Use1||-20
b. Future Land Use ..... 111-20
| | |-20
B. Transportation| | |-24
12. Transportatlon Facllities ..... 111-24
13. Traffic Volumes
14. Trafflc Operatlons ..... |||-25|||-26

## Page Number

## C. Natural Enviroment

111-27

1. Study Area Location
2. CIImate 111-27

- $111-27$

3. Physlography - Topography 111-28
4. Geology - Solls 111-29
a. Geology lll-29
b. Soll Assoclations
|11-33
5. Water Resources
a. Surface Water
(1) Dralnage Areas
(2) Surface Water Quallty
(3) Flood Plalns

111-35
111-35
111-35
111-36
b. Groundwater

111-37
III-38
6. Ecology III-41
a. Vegetation $||\mid-41$
b. WIIdIlfe
c. Wetlands
$111-42$
7. Enviromentalily Sensitive Areas III-43
D. Alr Quallty 111-49
E. Nolse 111-52
||1-53
F. Cultural Resources

111-57

1. Historlcal SItes 111-57
2. Archeologlcal SItes |||-58
IV. ENVIROMMENTAL CONSEQUENCES
A. Soclal and Economic IV-1
3. Social Impacts IV-1
a. Residentlal DIsplacement and Relocation IV-1
b. Effects on Minorities, Handicapped, IV-4
Elderly Persons
c. Summary of Equal Opportunlty Program Of Maryland State HIghway Adminlstration IV-7
d. Access to Nelghborhoods, Communitles and $\begin{aligned} & \text { Communlty Facllities } \\ & \text { IV-8 }\end{aligned}$
e. Parks and Public Recreation Areas IV-20
4. Economic Impacts IV-20
a. Business DIsplacement and Relocation IV-20
b. Effect on Reglonal Business Activities IV-23
c. Effect on Local Business Activity IV-24
d. Effect on Tax Base IV-25
5. Land Use and Land Use Planning IV-26

Page Number
B. Transportation ..... IV-27
C. Natural Envirorment ..... IV-41

1. Effects on Topography, Geology and Solls ..... IV-41
a. Topography ..... IV-41
b. Geology and Solls ..... IV-41
2. Effects on Water Resources ..... IV-43
a. Surface Water ..... IV-43
b. Groundwater ..... IV-46
3. Flood Plalns and Stream Modiflcations ..... IV-47
4. Effects on Wet lands ..... IV-49
5. Effects on Terrestrlal and Aquatlc Habltats ..... IV-53
6. Effects on Threatened and Endangered Specles ..... IV-55
7. VIsual/Scenlc Resource Impacts ..... IV-56
a. Short-Term Effects ..... IV-56
b. Long-Term Effects ..... IV-56
c. MItlgatlon Measures ..... IV-58
8. Coordination ..... IV-58
D. Alr Quallty Impacts ..... IV-59
9. Analysis Ob Jectlves, Methodology, and Results ..... IV-59
a. Analysis Inputs ..... IV-59
b. Sensltive Receptors ..... IV-61
c. Results of Mlcroscale Analysis ..... IV-64
10. Construction Impacts ..... IV-65
11. Conformlty with Reglonal Alr Quallty Plannling ..... IV-65
12. Agency Coordination ..... IV-65
E. Nolse Impact Analysis ..... IV-71
13. Introduction ..... IV-71
14. Amblent Nolse Level Measurements ..... IV-71
15. Predlcted Nolse Levels ..... IV-74
a. Predlction Methodology ..... IV-74
b. Summary of Trafflc Parameters ..... IV-75
c. Prediction Results ..... IV-75
16. Nolse Impact Assessment ..... IV-75
a. Impact Analysis and Feasiblilty of Nolse Control ..... IV-75
b. Construction Impacts ..... IV-90
F. Impact on HIstorlc or Archeological Sites ..... IV-90
17. Historlc Sites - Consequences ..... IV-90
18. Archeological Sites ..... IV-90
G. RelatlonshIps Between Short-Term and Long-
Term ProductIvity and Enhancement
H. Irreversible and Irretrlevable Cormitment IV-92
Of Resources
I. Energy Impacts IV-92
J. 4(f) Evaluations IV-92
19. Introduction IV-92
20. Description of Proposed Action IV-92
21. Description of 4(f) Resources IV-93
a. Frlendship Park IV-93
b. Patapsco Valley State Park IV-94
C. Silth Farm IV-97
22. Impacts of the Alternates, Avoldance
Optlons, and MItIgatlon
a. FrlendshID Park IV-97
b. Patapsco Valley State Park IV-108
c. Smlth Farm IV-114
23. Conclusion IV-117
V. DISTRIBUTION LIST V-1
VI. COMMENTS AND CORDINATION VI-1
A. coordination VI-1
B. Comments
24. Comblned Location/Design Public Hearing

VI-32
2. Written Corments VI-48
VII. LIST OF PREPARERS VII-1
VIII. APPENDICES VIII-1
A. Glossary of Terms Vill-1
B. Summary of Relocation Assistance Program Vili-6
C. Representative AnImals of Study Area VIII-10
D. Representative Vegetation of Study Area Vili-14
E. References VIII-17
F. Index

VIII-20

## LIST OF TABLES

|  |  | Page Number |
| :---: | :---: | :---: |
| S-1 | Summary of impacts | vil |
| \|i-1 | Project Cost Estimates | 11-19 |
| \| 11 -1 | Regional Population Data | 111-2 |
| $1 \mid 1-2$ | Study Area Population | 111-4 |
| 111-3 | Statistical Data - 1980 Census | \| | |-6 |
| 1 i $1-4$ | Study Area Industrial Parks | 111-18 |
| 1 i i-5 | Employment Data - 1980 Census | 111-19 |
| $111-6$ | Description of Wetiands | 1 11-45 |
| 11i-6(a) | Study Area Wetiands Summary | 111-46 |
| \| | |-7 | Nolse Abatement Criterla and Land Use Relationships Specifled In FHPM 7-7-3 | 1 1 1-55 |
| 111-8 | Study Area Historical Sites | 1 1 1-59 |
| IV-1 | $\infty$ Concentration at Each Receptor Site, PPM-1990 | IV-67 |
| iV-2 | O Concentration at Each Receptor Site, PPM-2010 | iV-69 |
| iV-3 | Noise Sensitive Areas and Amblent Noise Levels | iV-72 |
| iV-4 | Project Noise Levels - Alternates 2A, 2 B , 3, 4 and 3 Crossover 4 | IV-77 |
| IV-5 | Project Noise Levels - No-Bulld Alternate | IV-79 |
| IV-6 | Barrier Effectiveness - Alternate 2A | iV-82 |
| IV-7. | Barrler Effectiveness - Alternate 2B | iV-83 |
| IV-8 | Barrler Effectiveness - Alternate 3A | iV-85 |
| iV-9 | Barrier Effectiveness - Alternate 38 | iV-86 |
| iV-10 | Barrler Effectiveness - Alternate 4 | iV-87 |
| IV-11 | Barrier Effectiveness - Alternate 3/Crossover/ Alternate 4 | IV-88 |
| IV-12 | Barrier Effectivness - Alternate 4/3B | IV-89 |

## LIST OF FIGURES

Page Number

| 1-1 | Location Map | 1-2 |
| :---: | :---: | :---: |
| 1-2 | Study Area Map | $1-3$ |
| 1-3 | 1983 Average Dally Trafflc \& Level of Service | $1-6$ |
| $11-L$ | Plan Legend | 11-20 |
| $11-K 1$ | Alternates for Detalled Study | \| 1-21 |
| $11-K 2$ | Key Plan - Alternate 38 (Modlfled)/Selected Alternate | \| |-22 |
| \|i-1 thru | Alternate 2 | 1 \|-23 |
| 11-11 | Alternate 3 . | \| |-33 |
| \|i-12 thru | Alternate 3 | 1 1-34 |
| $11-25$ |  | 11-47 |
| 11-26 thru | Alternate 38 (Modifled)/Selected Alternate | \| | -48 |
| 11-35. |  | 1 1-57 |
| 11.-36 thru | Alternate 4 | 11-58 |
| $11-42$ |  | 11-64 |
| 11-43 thru | Crossover - Alternate 3 to Alternate 4 | 11-65 |
| $11-44$ |  | 11-66 |
| I 1-45 | Alternate 4/3B | 11-67 |
| $11-46$ | Typlcal Sections - Alternates 2, 3 and 4 | 11-68 |
| 11-47 thru | Typlcal Road Sections | 11-69 |
| $11-48$ |  | 11-70 |
| 11-49 thru | Typical Bridge Sections | $11-71$ |
| $11-50$ |  | \| 1-72 |
| \| | | - 1 | Census Tract Statistical Area | \|1|-3 |
| 111-2 | Envirommental Inventory Map | \|||-14 |
| 111-3 | Existing Land Use | \| | |-21 |
| \|||-4 | Proposed Land Use | \| | |-23 |
| \||1-5 | Generallzed Geologic Map | \| | |-30 |
| IV-1 | 1990/2010 Average Dally Trafflc - No-Bulld | IV-31 |
| IV-2 | 1990/2010 Average Dally Traffic - Alternate No. 2 | IV-32 |
| I.V-3 | 1990/2010 Average Dally Traffic - Alternate No. 3 | IV-33 |
| IV-4 | 1990/2010 Average Dally Traffic - Alternate No. 4 | IV-34 |
| IV-5 | 1990/2010 Average Dally Traffic - Crossover | IV-35 |
| IV-6 | 2010 A.D.T. \& Level of Service - No Bulld Alternate | IV-36 |
| IV-7 | 2010 A.D.T. \& Level of Service - Alternate No. 2 | IV-37 |
| IV-8 | 2010 A.D.T. \& Level of Service - Alternate No. 3 | IV-38 |
| IV-9 | 2010 A.D.T. \& Level of Service - Alternate No. 4 | IV-39 |
| IV-10 | 2010 A.D.T. \& Level of Service - Crossover | IV-40 |
| IV-11 | Alr and Nolse Sensltive Receptors | IV-63 |
| IV-12 | Patapsco Valley State Park Location Plan | IV-96 |

## I <br> PURPOSE AND NEED

## I. PURPOSE AND NEED

A. Project Location and Description

The Maryland Route 100 location study is located In the northern part of Anne Arundel County, south of Baltlmore/WashIngton International AIrport, and the eastern part of Howard County (see Figure I-1). The project I lImits are from Interstate 1-95 to Maryland Route 3/Interstate 97 (see Figure (-2).
B. Need for the Project

1. RegIonal Growth and Development

Anne Arundel County and Howard County have established general development plans which Include proposed land usage for continued growth and development In the region. The General Development Plan for Anne Arundel County was adopted In 1978, while the General Development Plan for Howard County was adopted In 1982. The expressed purpose of these Plans is to establish policies to provide for orderly growth and development In the region. The project is shown on the Regional Planning Council General Development Plan adopted In 1986.

This region of Anne Arundel County has experIenced an above average growth rate based on the 1970 census tracts. By the year 2005, the population Is expected to Increase an additional 35 percent to an estimated 42,460 people. For the study area within Howard County, the rate of growth has been 28.3 percent since 1980 and is more than that for the county as a whole, with the area around Columbia having the largest population growth. In the combined areas of Anne Arundel and Howard Counties, the population is expected to Increase by approximately $45 \%$ to 55,400 In the next 20 years (2005).


This large growth in the population creates a need for Improved transportation faclilties in the region. Maryland Route 100 wlll provide a major east-west link in the highway network and relleve an already congested Maryland Route 176 (Dorsey Road).

## 2. Traffic and Operating Conditions

a. Existing Facilities (Figure i-2)

The study area Is serviced by Maryland Route 176 In an east/west direction. This road links interstate 97 on the east with interstate 95 on the west (via small lengths of U.S. Route 1 and Maryland Route 100). These interstate highways are the two major north/south routes serving the region. In addltion to the interstate routes, there are two major state routes and one U.S. Route serving the north/south movement, Maryland Route 295 (Gladys Noon Spellman Parkway), Maryland Route 170 and U.S. Route 1.

The transportation needs within the study area are twofold. Maryland Route 176 is the only east/west movement in the study area and suffers from the problem of high trafflc volumes compounded by a mix of local and through traffic, strip development, business and large industrial parks and side road friction created by numerous driveways. Also essentlal to the future develoment in the region is the timely provision of a major new highway facility to provide for Increased system capaclty and levels of service. This project is intended to provide the capacity for an Improved east/west movement of traffic Ilnking the major north/south interstate routes. The proposed extension of MD. Route 100 west of $1-95$ to MD. Route 29 as an arterlal highway has independent utility and is not essentlal to the operation of this faclilty, being beyond the major traffic generating interstate corridors.

## b. Operating Conditions

Existing roads in the vicinlty of the study area are congested, partlcularly durlng peak hours. Maryland Route 176 currently carrles trafflc volumes of 17,800 vehlcles per day at U.S. Route 1 (the west end of the study area), 19,000 vehlcles per day at Maryland Route 170 and 17,100 vehlcles per day at Maryland Route $3 /$ Interstate 97 (see Figure 1-3). Motorlsts along the existIng Maryland Route $17 \dot{6}$ experlence considerable congestion and delay, especlally at the following Intersections: U.S. Route 1, Parkway Drive, Maryland Route 713, Candlewood Road, Harmans Road and Maryland Route 170. These Intersections will be at capacity in the design year 2010 even with the 4-lane Inter Im Improvement of Maryland Route 176 from Maryland Route 295 to Harmonds Ferry Road, and will operate at a level-of-service fin elther the a.m. or D.m. peak or both (for definltion of Level of Service, see Appendix A). Maryland Route 176 would be at a level-of-service $F$ and Harmonds Ferry Road would be at a level-of-service $E$ in the a.m. peak for the design year 2010.

An accident analysis was performed for the study area for the years 1979 through 1983. Maryland Route 176, from U.S. Route 1 in Howard County to Maryland Route 3 In Anne Arundel County, experlenced 627 reported accidents durling the five-year perlod, 1979 through 1983, resulting in an average accldent rate of 256 accidents per one hundred mililon vehicle miles of travel (100MMM). This rate is lower than the welghted statewide average rate of 333 ACC/100MM for all simllar design highways.

An estimated monetary loss of $\$ 1.4 \mathrm{mllil}$ lon for every hundred million vehicle miles of travel cccurred to the general and motoring public as a result of these 627 accidents. The accidents are llsted below by severlty Indlcating persons killed and Injured.



A total of 59 accidents Involving trucks occurred during the study period. Nearly 51 percent of the total accidents occurred during hours of darkness, which is above the statewide average for nighttime accidents. Also, 25 percent of the reported accidents were experienced between the hours of 4:00 to 7:00 p.m. The accidents were evenly distributed throughout the months of the year.

There were 3 locations $w l$ thin the study area that met the criteria for a HIgh Accident Location (HAL). These locations: Maryland Route 176 from Hammonds Ferry Road to .22 mlle east of Maryland Route 3, Maryland Route 176 at RIdge Road and Maryland Route 176 at Hammonds Ferry . Road, were HAL's for 1981 only.

The collision types experienced on Maryland Route 176 In comparison to statewide averages for this type design highway are as follows: Collision Type Study Section Rate/100 MMM Statewide Rate/100MMM

Rear End
Fixed Ob ject
Opposite DIrection
SIdeswipe
90.56
33.45
19.17
14.28
75.83
50.16
22.15
24.38

The rate of rear end type collisions significantly exceeds the statewide average rate. These collisions are mainly associated with congestion generally present with backup and delay situations.

The Increasing trafflc volumes, deterlorating condltions and Iow levels of service that the existing road network would experience through the design year 2010 would Increase the rate and severlty of all types of accldents.

Trafflc volumes on Maryland Route 176 will Increase substantlally (e.g. from the current 17,800 vehlcles per day to 24,100 vehlcles per day at U.S. Route 1 In the year 2010) If a new faclllty is not constructed. In the year 2010 trafflc operatlons would contlnue to deterlorate for the NoBuild option with higher volumes causing forced flow and operational breakdowns.

Trafflc volumes on Maryland Route 176 wlll decrease substantlally with the freeway bulld options. At Maryland Route 170, with the NoBulld option, it is estimated that there wIll be 26,700 vehlcles per day In the year 2010. However, with any of the freeway bulld optlons, this volume is estimated to decreased to 16,300 vehlcles per day In the year $2010 \mathrm{wlth} 45,600$ vehlcles per day utllizlng the new facillty.

## C. Planning Background

In the early 1960 's, Maryland Route 100 was envisloned as part of the "Outer Baltlmore Beltway". A planning study was Inltlated for thls same sectlon of Maryland Route 100 from Maryland Route 3 to Maryland Route 170 and a comblned Corrldor/Design Publlc Hearlng was held on August 6, 1973. A Draft Enviromentai Impact Statement was prepared by the State HIghway Adminlstration. However, the project was then delayed pending the completion of a Maryland Route 100 Corrldor Systems Study.

The Corridor Systems Study was undertaken In 1977 by the Maryland Department of Transportation In cooperation with Anne Arundel and Howard Counties, the Department of State Planning, and the Regional Planning Council. The purpose of the study was to determine additional east/west highway needs through northern Anne Arundel and eastern Howard Counties. The FInal Report for the Corridor System's Study was published In July, 1979. The study concluded that both the new Maryland Route 100 freeway and the reconstruction/relocation of Maryland Route 176 be studied as equal alternates before a decision is made.

The Maryland Department of Transportation's Highway Needs Inventory (revised 1984) Identifies and acknowledges the need to improve service by extending Maryland Route 100 from Maryland Route 3 (Interstate 97) west to Interstate 95. The General Development Plan for Anne Arundel County (1978), the General Development Plan for Howard County (1982) and the Regional Planning Council General Development Plan (1986) Identify the corridor of Alternate 3-Option A for this project and is the basis upon which transportation, development and zoning plans have been made and implemented. This alignment has also been shown in the General Development Plan for Anne Arundel County of 1968.

The project is Included In the Maryland Department of Transportaton's Consolidated Transportation Program for Fiscal Years 1986-1991 In the Primary Development and Evaluation Section.

Coordination of this project with Anne Arundel and Howard County officials, elected officials, and the public has been on-going throughout the project planning phase.

In early 1984 through early 1985, meetIngs were held with Elected Offlcials of Anne Arundel and Howard Countles, the County staffs (e.g., Department of Planning and Zoning, Department of Trafflc EnglneerIng, Department of Publlc Works) and communlty groups to brlef and update them on the studles developed to date, obtaln thelr Input regarding the prellminary alternates and to address thelr concerns. Comments from these meetings have been given consideration and Incorporated Into the development of the preI Iminary alternates.

On April 11, 1985 the Alternates Publlc Meeting was held to present the preliminary alternates developed as a result of the feasibllity studies, enviromental assessments and coordination to date and to encourage public discussion of these alternates. The Maryland State Highway *Administration reviewed the comments recelved from the Alternates pubilc Meeting and selected those alternates that would be retalned for further study. The Incorporation of Alternate 4, Alternate 3-Option B and the Crossover Option Into the study was a direct result of the Input from these meet ings.

The alternates retalned for further study and thelr assoclated Impacts were discussed In the Draft Enviromental Impact Statement/4(f) Evaluation whlch was approved for distribution on May 5, 1986.

Subsequent to the distribution of the Draft Enviromental Impact Statement, a Locatlon/Design Publlc Hearlng was held on June 12, 1986 at Andover Senlor High School. All comments recelved on the Draft Enviromental Impact Statement were considered prior to the selectlon of Alternate 3B
(Modified) for Maryland Route 100 . The study of Alternate $4 / 3 \mathrm{~B}$ was a direct result of the review of these comments.

After location and design approvals are granted for Maryland Route 100, the project will proceed to detailed design.

### 1.1. ALTERNATES, INCLUDING THE SELECTED ACTION

## A. Preliminary Alternates

Prior to the Alternates Public Meeting, Transportation System Management (TSM) procedures were considered as a solution to the traffic problems of the corridor. They were found not to be feasible since they would utilize existing Dorsey Road which, as discussed in Section IV.B, will expert lance a level-of-service F In the design year (2010) from U.S. Route 1 to Maryland Route 3. TSM procedures would leave Dorsey Road as the only major east-west road through the study corridor and therefore could not furnish the capacity needed for the planned growth In the area.

Two build alternates and the No-Bulld Alternate were presented at the Alternates Public Meeting on April 11, 1985. Alternate 2 (Options A \& B) and Alternate 3 (Option A), as described In Section B of this chapter, were presented to the public.

In response to public request at the alternates meeting, Alternate 4 was studied. This alternate is described in detail in Section $B$ of this chapter .

After Introducing Alternate 4, publIc Input resulted In the study of a Crossover Option combining the western section of Alternate 3 with the eastern section of Alternate 4. Public Input also resulted in the study of Option B for Alternate 3.

At the Combined Location/Design Public Hearing held on June 12, 1986, the following alternates were presented: the No-Bulid Alternate, Alternate 2 (Options A \& B), Alternate 3 (Options A \& B), Alternate 4 and the Crossover Opt lon. In response to public Input, Alternate 4 with a connection to Alternate 3-Option B near W.B.\&A. Road (Alternate 4/3B) and Alternate 3 B
(Modified), the selected alternate, were studied.
All of these alternates are described In detail In Section $B$ of this chapter. Figures II-1 through II-45 show the detailed plans for each alignment. Figure $\operatorname{ll}-K 1$ shows the alternates which were studied In detail and Figure II-K2 shows the locations of the plan sheets for the selected alternate, Alternate 38 (Modified).

Figure Il-46 shows the typIcal section for the urban arterial section (Alternate 2) and the freeway section (Alternates 3, 4, 4/38 and the Crossover Option). Figures II-47 and II-48 show typical sections for various roads and FIgures II-49 and II-50 show typIcal bridge sections.

## B. Alternates for Detailed Studies

As a result of public Involvement in the initial project planning phase, the following alternates were advanced to detailed engineering studies and environmental analysis in the final project planning phase of this project.

## 1. No-Bulld Alternate

The No-Bulld Alternate would provide no major Improvements or Increase In capacity to Maryland Route 176 (Dorsey Road) other than the recent widening of the existing roadway to four lanes between Maryland Routes 295 and 652. A fifth lane, for left turning vehicles, will be provided in several locations.

The widening of existing Maryland Route 176 from two lanes to four lanes between Maryland Route 652 and Hammonds Ferry Road Is scheduled to begin $\ln$ fiscal year 1987.

In addition to these speclal projects, minor safety improvements and normal malntenance will continue with the No-Bulid Alternate. There are no plans for widening the section of Maryland Route 176 between U.S. Route 1 and Maryland Route 295.

The improvements descrlbed above are to be considered only as an Inter Im measure for the short-term rellef of trafflc congestion and even with these Improvements, the road will not adequately accommodate the future traffic needs of this corridor. Therefore, the No-Bulla Alternate was not selected.
2. Alternate 2-Urban Arterlal (Figure $11-1$ through $1 \mid-11$ )

Alternate 2 proposes the reconstruction of a portion of existing Maryiand Route 176 to a 6 lane curbed section urban arterlal highway with a design speed of 60 miles per hour (see Typical Sections). This alternate does not provide for access control along its aligrment. As a result, residentlal drives and commercial entrances, with their asscciated in and out turning movements, will present a safety hazard and otherwlse impede the continuous flow of trafflc through the study area. It also proposes to construct segments on new. iocation using the same curbed section. With Alternate 2, some intersecting roads will remain at grade, some will be ciosed and scme will have grade separated Interchanges.

Beginning at 1-95, Alternate 2 would follow the allgment of the existing Maryland Route 100 (Figure $11-1$ ). It would cross beneath U.S. Route 1 approximately 950 feet north of the existing Maryland Route 176 Intersection. Alternate 2 proposes the construction of a partlal cloverleaf InterChange with the two loops on the east slde of U.S. Route 1.

ExistIng Maryland Route 176 (Dorsey Road) would be terminated with a cul-de-sac just east of U.S. Route 1. It would be relocated beginning opposite the Intersection of Maryland Route 103 (Meadowridge Road) and U.S. Route 1 (FIgure $11-2$ ). This relocated two lane road would follow a southeastward direction for 700 feet. At this polnt, there are two possible optlons. One option would have the relocated road turning northeast and then parallellng U.S. Route 1 approximately 1,000 feet to the east untll it would tle back Into existing Maryland Route 176. In the other option, the relocated road would continue southeasterly for 500 feet and then would curve easterly until lt would tle Into exlsting Maryland Route 176 near Magnolla Avenue. Elther one of the optlons would Incorporate a road proposed by Howard County that runs from U.S. Route 1 easterly to south of Lennox Park and then southerly to Montevideo Road.

The entrance to the Route 100 Industrlal Park would be relocated approximately 1,100 feet north of Its current location at U.S. Route 1 and Amberton Drive (see Flgure $\mid 1-1$ ). This entrance would curve Into the Hunting Milis Drive right-of-way. Amberton Drive would then be closed with a cul-de-sac at U.S. Route 1. A service road would be constructed on the west slde of U.S. Route 1 directly opposite this new entrance to provide access for the propertles on the west side of U.S. Route 1.
U.S. Route 1 would be reconstructed as a four lane roadway with a 30 foot wide median through the Interchange and the service road Intersections.
The allgrment for Alternate 2 would continue south-
eastwardly abutting the Route 100 Business Park on the north and Dorsey
Business Center on the south. Alternate 2 would brlage over the Chessle

System (Baltimore and Ohio) Railroad and O'Conner Road approximately 1,600 feet north of Maryland Route 176 (See Figure il-3). East of the railroad, existing Maryland Route 176 would again be relocated beginning 500 feet east of Forest Avenue, curving to the east to an at-grade Intersection with Alternate 2 and tying into existing Race Road. Service roads would connect Parkway Drive South with the relocated Route 176. Another service road would connect Parkway Drive on the north side of Alternate 2 with the relocated road which runs between Race and Dorsey Roads.

Alternate 2 then continues in an eastward direction passing under, and Interchanging with, Maryland Route 295 (Baitimore-Washington Parkway) Just south of the existing interchange (See Figure $\mid 1-4$ ).

Beyond the Route 295 interchange, Alternate 2 continues parallel to and Just south of Maryland Route 176. Access from Wright Road would be relocated approximately 1,200 feet to the east of 1 ts present intersection via an at-grade intersection. The existing Dorsey Road east of Maryland Route 295 would became a service road which would be accessed to Route 100 at the Intersection with the relocated Wright Road.

Alternate 2 would then shift onto the existing Dorsey Road right-of-way at Maryland Route 713 (RIdge Road) and there would be an at-grade intersection with Maryland Route 713 (See Figure ii-5). From this intersectimon to Harmans Road, the median width would decrease to 20 feet from the previous 30 feet to avoid encroachment to the Sandalwood and Ridge View subdivisions. As Alternate 2 approaches Maryland Route 170, the proposed alignment would begin a silght shift to the north of existing Route 176 (Figure li6). The allgment would bridge over the Amtrak railroad line utilizing the existing bridge (widening of the bridge is programmed to begin in fiscal year
1986). Alternate 2 would then brldge over and Interchange with Maryland Route 170. This Interchange would have a loop In the northeast quadrant and dlamond Interchange ramps on the west slde of Route 170, thus creatIng two at-grade Intersectlons requiring provisions for left turn movements. There would be no ramps in the southeast quadrant in an effort to minlmize Impact to the TImber Ridge subdivision. Maryland Route 170 would be dualized through thls InterChange.

East of Maryland Route 170, the Alternate 2 allgment would be located north of the exlsting Maryland Route 176 on property owned by BaltImore-WashIngton InternatIonal Alrport.

Maryland Route 652 (Telegraph Road) would be relocated wlth an at-grade Intersection with Alternate 2 sltuated approximately 700 feet west of Its current Intersection wIth Route 176.

Beyond Maryland Route 652, Alternate 2 proposes two optlons. Option A (Figure $1 \mid-7$ ) would curve southeasterly, leaving the Dorsey Road corridor approximately 1,000 feet east of the exlsting Maryland Route 652 Intersection. Exlsting Dorsey Road on the east slde of the Alternate 2 allgnment would be relocated to tle Into the Option A allgment at an at-grade Intersection.

OptIon A proposes an at-grade Intersection with W.B.\&A. Road approx Imately 1,200 feet north of Queenstown Road. The allgment would cross through the proposed Landco BusIness Park Just north of Queenstown Park. Thls allgment would then pass through the southern corner of Frlendshlp Park (Flgure $|\mid-8$ ). At thls polnt the eastbound and westbound roadways would begin to diverge as OptIon A approaches the I-97/Maryland Route 100 Interchange. The eastbound roadway would cross Jones Road 500 feet east of Queenstown Road.

Option A would bridge over a relocated and realigned Jones Road which would be constructed to maintain access to the section of Queenstown north of the alignment. Alternate 2, Opt lon A would tie Into existing Maryland Route 100 at 1-97 where a full Interchange is being designed which provides all movemints.

From the vicinity of the relocated Maryland Route 652 Intersection, Alternate 2, Option B (Figure II-9) would continue easterly on the north side of existing Maryland Route 176. Just beyond McPherson, the Option Baligment would curve to the south and enter Friendship Park (Figure II-10). The Option B allgrment would run parallel to and approximately two hundred feet inside the western boundary of the park. Near the southern end of Friendship Park, this allgrment would curve easterly and bridge over a reconstructed Jones Road (Figure li-11). The option would then tie Into existing Maryland Route 100 and the full Interchange with I-97 would be Identical to the Option A alignment.

Alternate 2 was not selected for several reasons. As discussed in Section IV.B, Alternate 2 would carry $17 \%$ less traffic through the study area than the freeway alternates, the accident rate for the urban arterial roadway is projected to be high (358 accidents per 100 MMM ) and the Introduction of an urban arterial facility I Inking two major freeways (i-95 and 1-97) would create a bottleneck effect, produce confusion and conflicts between through and local traffic and otherwise impede the continuous flow of traffic through the study area. The State Aviation Administration is opposed to Alternate 2, Options $A$ and $B$, due to confilcts with the planned expansion Of the EWI AIrport (see letter dated December 26, 1985 In Section VI).

## 3. Alternate 3 - Freeway (F|gure ||-12 through ||-25)

Alternate 3 proposes the construction of Maryland Route 100 as a multi-lane freeway with full control of access from $1-95$ to $1-97$. Thls freeway would have four lanes from I-95 to Maryland Route 170 and slx lanes from Maryland Route 170 to 1-97. The design speed for the malnilne is 70 miles per hour except In the vicinlty of the $1-97$ Interchange where the design speed is 60 mlles per hour. Interchanges for thls alternate would be located at U.S. Route 1, Race Road, Maryland Route 295, Maryland Route 713, Maryland Route 170 and Maryland Route 3/1-97.

Beginning at l-95, the allgrment of Alternate 3 would be Identlcal to Alternate 2 through the proposed Maryland Route 295 Interchange (Figures $|\mid-12$ to $| \mid-14)$. The Interchange, service roads and relocated Maryland Route 176 (Dorsey Road) optlons at U.S. Route 1 are the same as descrlbed for Alternate 2.

The allgment for Alternate 3 would continue In a southeasterly direction after Interchanglng with U.S. Route 1. Shortly after bridging over the Chessle System (BaltImore and Ohlo) Rallroad and O'Conner Road (Figure l|-13), an exlt ramp is provided for the exlt of eastbound trafflc onto existing Maryland Route 176 at Forest Avenue. At this Intersection, an entrance ramp for traffic onto eastbound Maryland Route 100 would begin and curve towards the freeway allgment.

As descrlbed for Alternate 2, Maryland Route 176 would be relocated to tle Into Race Road. However, with Alternate 3, this relocated road would brldge over Route 100 and therefore an Interchange would be requlred. Thls Interchange (Figure ll-14) would have both a loop for exiting from westbound Maryland Route 100 and a ramp for enterIng onto westbound Route 100

In the northeast quadrant.

The Alternate 3 allgment would pass under and Interchange with Maryland Route 295 (BaltImore-Washington Parkway) Just south of the exlsting Maryland Route 176 underpass. There are two optlons for the Maryland Route 100 Interchange with Maryland Route 295. A full cloverleaf Interchange Is the first optlon. The second option (FIgure II-23) uses three loops and a directlonal ramp for the southbound Parkway traffic desiring to go eastbound On Maryland Route 100.

The Alternate 3 allgment separates from the Alternate 2 allgment Just east of the Route 295 Interchange. Alternate 3 proceeds In a southeastward direction and would parallel Maryland Route 176 with approxlmately 500 to 1,000 feet separating the two roads.

Wright Road would be relocated to the east (FIgure $\mid I-14$ ) of Its present location. It would brldge over Alternate 3 and tle Into exlsting Maryland Route 176 approximately 600 feet to the east of Its exlsting Intersection.

Alternate 3 would Interchange with a relocated New Ridge Road/Maryland Route 713 (Figure ll-15). Thls relocated road would leave the allgment of the New RIdge Road approx Imately 750 feet north of its IntersectIon with Ridge Road. It would proceed southwesterly and Intersect Maryland Route 176 approximately 1,100 feet to the west of the exlsting Maryland Route 176 Intersection wIth Maryland Route 713.

The relocated Maryland Route 713 would parallel the exlsting road for approximately 1,200 feet and then curve southward to rejoln the exlsting road approxlmately 1,100 feet south of RIdge Chapel Road. This relocated road would be dualized from Dorsey Road south to where it rejolns
the existing Maryland Route 713. Watts Avenue would be relocated and would tle Into Rldge Chapel Road whlch would result In an at-grade Intersection on relocated Maryland Route 713.

There are two optlons for the Alternate 3 Interchange with the relocated Maryland Route 713. The flrst opt Ion (Figure II-15) proposes a conventlonal dlamond In three quadrants and a loop In the southeast quadrant. Thls loop ellminates the left turn maneuver for the eastbound Maryland Route 100 trafflc desiring to go northbound on Maryland Route 713. The second option (Figure l|-24) ellminates the loop resulting in a full conventional dlamond Interchange.

Alternate 3, after brlaging over the relocated Maryland Route 713 (the exlsting Maryland Route 713 would terminate with cul-de-sacs at the freeway), would contInue southeasterly and would cross Harmans Road (Flgure $|\mid-16$ ) approximately 3,700 feet south of the Maryland Route 176/Harmans Road Intersectlon. Harmans Road would be closed and Matthews Town Road would terminate Just south of the freeway.

Alternate 3 would then curve to the east and brldge over the AMTRAK I Ine approx Imately 4,100 feet south of Maryland Route 176 . The allgnment would contInue east through the BuckIngham Forest Tree Nursery.

The allgrment would brldge over and Interchange with Maryland Route 170 (FIgure II-17) approximately 4,100 feet south of Maryland Route 176. Maryland Route 170 would be duallzed In the vicinlty of thls Interchange. Maryland Route 652 GTelegraph Road) would be closed with a cul-de-sac Just north of the Interchange.

Two optlons for the Maryland Route 170 Interchange have been consldered. The flrst option (FIgure II-17) is an urban dlamond Interchange. The second optlon (FIgure ll-25) utllizes a dlagonal ramp in the southeast quadrant, loop ramps In the northeast and northwest quadrants and a directlonal ramp for the movement from southbound Maryland Route 170 to eastbound Maryland Route 100.

Beyond Maryland Route 170, Alternate 3 proposes two optlons. Optlon A (FIgure $\mid I-17$ ) would contlnue easterly approximately paralleling Queenstown Road. The allgrment would cross W.B.\& A. Road (Flgure 1|-18) approx Imately 1300 feet south of Queenstown Road. W.B.\& A. Road would be termlnated with cul-de-sacs on each side of the freeway.

Option A would continue eastward and cross under Queenstown Road approx Imately 500 feet south of Jones Road (FIgure II-19). Queenstown Road would remaln at or close to its current grade. Option A would then tle Into existIng Maryland Route 100 at I-97 where a full Interchange is belng deslgned which provides all movements.

Alternate 3 - Option A was not chosen due to Its Impacts on Queenstown, a unlque and distinct minorlty communlty. The Optlon A allgrment would require 12 minorlty owner-occupled residences and oneminorlty owned business to be relocated from Queenstown. In addltion, the Option A allgrment would serve as a physical and psychologlcal barrler to the soclal Interactions withln the communlty.

From the vicinlty of the Maryland Route 170 Interchange, Alternate 3, Option B, would curve northeasterly and cross under Queenstown Road approximately 2,000 feet east of Maryland Route 652 (FIgure 11-20). Queenstown Road would remaln at or close to Its current grade. Optlon B would
then curve easterly and cross W.B.\&A. Road approximately 1,200 feet north of Queenstown Road (FIgure II-21). W.B.\&A. Road would terminate with cul-de-sacs on each side of the freeway. The aligment would continue easterly north of Alberta Helghts and then across Landco Buslness Park and Frlendshlp Park. Near the eastern border of Frlendshlp Park, Optlon B curves southeasterly around the northern section of the Queenstown communlty and then tles Into existing Maryland Route 100 at $1-97$ where a full Interchange is belng designed whlch provldes all movements (Flgure $11-22$ ).
4. Alternate 3 B (Modified) - Selected Alternate (FIgure II-26 through II-35)

In response to public comments recelved at the comblned Location/Design Publlc Hearing, modiflcations that reduced the number of relocations required and Improved local traffic clrculation were made to Alternate 3-Option B. The resultant Alternate 38 (Modified) is the selected alternate for the extensIon of Maryland Route 100 from I-95 to Maryland Route 3/1-97.

Alternate 38 (Modifled) proposes the construction of Maryland Route 100 as a multi-lane freeway with full control of access from I-95 to l-97. It would have the same geometrlc characterlstlcs and Interchange locatlons as described for Alternate 3-Option 8.

The malnilne allgment for Alternate 38 (Modifled) would be the same as that for Alternate 3-Option B except In the vicinlty of Race Road where the allgrment has been shifted silghtly south (see figures II-28 and II29). Other modifications to Alternate 3-Option B include:
a. The service road West of U.S. Route 1 was relocated to reduce the Impacts to wetland $W$-10 (See Figure $11-26$ ).
b. Using the "Option" for relocatlng Dorsey Road at U.S. Route 1 to reduce the number of residentlal relocatlons (see Figure II-27).
c. Using a standard dlamond conflguration for the InterChange at Race Road to reduce the number of residentlal relocatlons and wetland and floodplaln Impacts (see FIgure II-28).
d. Using a full cloverleaf Interchange at Maryland Route 295 with a lower design speed outer ramp In the southwest quadrant to further reduce the number of residentlal relocatlons (see FIgure $11-29$ ).
e. Providing a brldge over Maryland Route 295 to connect Race Road and Wr Ight Road (see Figure II-30).
f. Shlfting the relocated Ridge Road to avold the Mt. PIIgrim Baptlst Church and cemetery (see FIgure II-31).
g. Using the "first optlon" Interchange at relocated Maryland Route 713 which conslsts of conventional dlamond ramps in three quadrants and a loop ramp In the southeast quadrant (see Flgure II-31).
h. Brldglng Harmans Road over Maryland Route 100 (see Figure (I-32).
I. Using the urban dlamond Interchange at Maryland Route 170 to reduce impacts to Buck Ingham Forest Tree Nursery (see FIgure 11-33).
J. Bridglng W.B.\&A. Road over Maryland Route 100 (see Figure $11-34$ ).
K. An access road to Smlth Farm from Queenstown Road will be provided on the east slde of Maryland Route 100 (See FIgure $11-33$ ).

1. The service road serving the farms south of smith Farm will remaln as shown for Alternate 3B. However, detalls of these servlce roads will be coordinated with the affected owners.

The changes to Alternate $3 B$ from how it was presented In the DEIS are not signiflcant and the resulting changes In the antlclpated Impacts are not slgnlflcant as shown In the Summary of. Impacts Table (Table S-1).
5. Alternate 4-Freeway (Figure I|-36 through ||-42)

Alternate 4, IIke Alternate 3, proposes the construction of Maryland Route 100 as a multl-lane freeway with full control of access from l95 to Maryland Route. 3/I-97. Thls alternate takes a northerly route around Dorsey and the Industrlal parks frontIng on Maryland Route 176. Interchanges for this alternate would be located at U.S. Route 1, Maryland Route 295, New Ridge Road (extended), Maryland Route 176 near Maryland Route 170 and Maryland Route 3/I-97. Thls freeway would have four lanes from l-95 to the Maryland Route 176 Interchange and six lanes from Route 176 to 1-97. The design speed for the malnilne is 70 mlles per hour except in the vicinlty of the $1-97$ Interchange where the design speed is 60 mlles per hour. The Interchange, service roads and relocated Maryland Route 176 (Dorsey Road) optIons at U.S. Route 1 are the same as descrlbed for Alternate 2.

Beginning at l-95 (Figure ll-36), Alternate 4 would follow the same allgment as Alternates 2 and 3 to a polnt approximately 1,300 feet west of the crossing for the Chessle System Rallroad (FIgure II-37). Here the allgment would begln curving to the northeast, crossing the rallroad approximately 1,900 feet north of exlsting Maryland Route 176 , and 300 feet north of where Alternates 2 and 3 cross the rallroad.

After Alternate 4.bridges over the rallroad and O'Conner Road, It would continue curving In a northeasterly directlon and would brldge over the rallroad spur which services the Parkway Industrial Center. The
allgrment would then curve to the southeast and cross through the southern section of the Patapsco Valley State Park (FIgure li-38) approximately 900 feet north of Deep Run and Race Road. Alternate 4 would brldge over Race Road approxImately 700 feet north of the locatlon where Race Road takes a sharp curve to the north.

Alternate 4 would then bridge over and interchange with Maryiand Route 295 approximately 1 mile north of the existing interchange of Maryland Routes 295 and 176 and approximately 2,000 feet south of Hanover Road. The proposed Maryland Route 295 Interchange configuration would Inciude three loop ramps, one in each of the quadrants except for the southwest quadrant; a directional ramp for the traffic from southbound Maryiand Route 295 desiring to go eastbound on Alternate 4 and four outer ramps for right turning movements. The ramps on the west slde of Maryland Route 295 would be mostly on bridge structures because these ramps would cross the Deep Run fiood pialn.

Alternate 4 would continue southeasteriy just south of Weeping willow Road. The allgrment would cross the southermost 200 feet of Bentwoods Road. The freeway would then pass under Ridge Road (Figure li-39) approximately 500 feet north of Cemetery Road.

The alignment would proceed easterly and Interchange with the New Ridge Road extension. The aligment would bridge over this road extension approximately 1,300 feet north of the existing Charwood Road/New Ridge Road Intersection and approximately 2,000 feet south of the relocated Stoney Run Road. The interchange would be essentially a conventional diamond with one loop in the northeast quadrant. Valley Road would be terminated just north of the iocation where it curves eastward.

Alternate 4 would then curve to the southeast bridging over both AMTRAK and Maryland Route 170. The freeway would cross Maryland Route 170 approx Imately 2,200 feet south of the relocated Stony Run Road bridge over Maryland Route 170.

The freeway would proceed In a southeasterly direction across the southwest corner of the Baltimore-Washington Internatlonal Alrport property. The freeway would cross and close the section of Old Telegraph Road that is on alrport property (FIgure II-40).

Alternate 4 would brldge over and Interchange with Maryland Route 176 approxImately 1,500 feet east of the Intersection of Maryland Routes 652 and 176 (FIgure $\mid 1-41$ ). The Interchange would be essentlally a conventlonal dlamond with one loop provided In the northeast quadrant and no ramps In the southeast quadrant.

South of Maryland Route 176, the Alternate 4 aligment is Identlcal to Alternate 2, OptIon A except that W.B.\& A. Road would be closed by this alternate. Alternate 4 would continue to the southeast until it Interchanges with the Interstate 97 Maryland Route 100 Interchange (FIgure II42). This proposed Interchange would be the same as described previously.

Alternate 4 was not selected for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park, a 4(f) resource, whlch is prohlbited under Federal Law If a "feasible and prudent" alternatlve exlsts. Also, Alternate 4 does not provide the required service to areas of Howard and Anne Arundel countles whlch are planned for develoment. Alternate 4 also traverses the soutwestern corner of the Baltimore-Washington International Alrport. Federal Avlation Adminlstration regulations would require the highway to be constructed in a
tunnel through this area which would cause the total cost of Alternate 4 to be up to $\$ 65$ millIon greater. The Federal Aviation Administration is opposed to Alternate 4 (see letter dated October 26, 1986 In Section VI).

Alternate 4 would also require the relocation of residences from Queenstown, a unique and distinct minority community and would be a physical and psychological barrier that would separate this communtly Into north and south sections.
6. Crossover Option (Alternate 3 to Alternate 4)
(FIgures 11-43 and 11-44)
This Crossover Option proposes utilizing Alternate 3 west of Maryland Route 295 and Alternate 4 east of New RIdge Road. The Crossover Option proposes the construction of Maryland Route 100 as a multl-lane freeway with full control of access and the same number of lanes and design speed as proposed for the respective segments of Alternates 3 and 4. The crossover segment from Maryland Route 295 to New RIdge Road would have four lanes and a malnilne design speed of 70 miles per hour.

The Crossover Option would utilize the same full cloverleaf Interchange with Maryland Route 295 (FIgure $|\mid-43$ ) as descrIbed for Alternate 3. However, beyond this Interchange, the Crossover alignment would curve In a northeasterly direction and cross beneath the existing Ridge Road (Figure II44) approxImately 600 feet south of Cemetery Road. The alignment of the Crossover Option would then curve to the southeast and bridge over and InterChange with the New Ridge Road extension. This Interchange would be the same as described for Alternate 4. Beyond the Interchange, the Crossover allgment would tie Into the Alternate 4 alignment.

For this option, Wright Road would be relocated. This relocated road would curve towards the nor theast, go through the existing park and ride lot and then tie into existing Maryland Route 176.

The Crossover Option was not selected because it has the same impacts on the BWI Alrport and Queenstown as described for Alternate 4 and because it does not provide the required service to an area of Anne Arundel County that is planned for development.

## 7. Alternate 4/3B

In response to comments received at the Combined Location/Design Pubilc Hearing, an aiternate that combined Alternate 4 with Alternate 3-Option B was studied. This aiternate, designated Alternate 4/38, would follow the same aligment as Alternate 4 from i-95 to the Dorsey Road Interchange (see Figure li-36 through il-41). South of Dorsey Road, the allgrment would curve easteriy (see Figure il-45) and follow the Alternate 3Option B aligment from W.B.\&A. Road to I-97 (see Figures il-21 and il-22).

Alternate $4 / 38$ was not selected because it would have the same impacts on the Patapsco Valley State Park and the EWI Alrport as described for Alternate 4 and because it does not provide the required service to areas of Howard and Anne Arundei Countles that are pianned for development.

## 8. Project Costs

Total construction and right-of-way costs for each of the aiternates are summarized in Table No. li-1. The right-of-way costs include costs of land, improvements, relocation assistance costs, contingencies,
adminlstrative and overhead expenses. The construction costs Include clear Ing the right-of-way, earthwork and grading, dralnage and related structures, roadway base and surface, roadslde development, major and miscellaneous structures, contingencles, construction engineering and administrative and overhead expenses.

TABLE NO. $11-1$
PROJECT COST ESTIMATES (mlillons of dollars)

RIght-of Way and Relocation

Construct Ion

No-Bulld Alternate
Alternate No. 2 - Option A
Alternate No. 2 - Option B
Alternate No. 3
Maryland Route 295 Interchange Option
Maryland Route 713 Interchange Option
Maryland Route 170 Interchange Option
Alternate 3 - Option B
Alternate 3 B (Modifled)
Selected Alternate
Alternate No. 4
Alternate No. 3 - Crossover -
Alternate No. 4
Alternate 4/38

0
12.6
17.4
24.7
+0.1*
+0.2*
+0.6*
23.8
23.8
19.0
19.0
19.0

## 0

101.6
103.8
119.1
+0.6*
-0.7*
+2.7*
130.1
133.2
105.8**
119.1
109.0**

* Note that these costs represent the difference between the interchange shown and Its option. A positive cost Indicates that the Interchange option is more expensive than the one shown.
** Note that these costs will increase by $\$ 45$ to $\$ 65 \mathrm{mllil}$ on depending upon the requirements of bullding tunnels through the BaltimoreWashington International Alrport.





II-24




II-27


$\pi_{-} \rightarrow 0$






II-34



II-36









프-43





II - 47







II-52



II-54


II- 55













II-67



BEIOC PORSEY RO REIEOC WRIGHT RO Y Y. B. A._RD_-
HARMANS RD. WRIGHT RD. /RACE RD. CONNEGTOR AND COLLECTOR ROADS



## note.

TNE OIMEMSIOMS SMOMM AAE PON THE PURPOSE OF DETERMNIME COST CSTIMATES ANO EMVIROMMEMTAL immets, and ane suaject to cmamet OUNINE THE PIMAL DESISN PWAEE."

| Talmer |  |
| :---: | :---: |
| "m" | 0 |
| $\cdots$ | $\stackrel{\sim}{*}$ |
| Trimbers |  |
| manio | 4 mex |
| $\cdots$ | $\cdots$ |



SCALE I NONE
DATEI MAY, 1986
FIGURE: IJ-47


TYPCAL RAMP SECTION

mare:
"THE DIMEMSIONS snowm ane fon TME PUAPOEE or OETERMMINE COBT EETIMATES AWO ENVIROWMENTAL
lymcts, AnO ARE SUQ dect ro cmamer ounine TME FIMAL oEsigm Phase.



| MARYLAND ROUTE <br> I-95 TO MARYLAND ROUTE 3 (I-97) |
| :--- | :--- |
| TYPICAL ROAD SECTIONS |




## 4 LaNe dualized bridge section

USS. ROUTE I AND MD. ROUTE 295


2 LANE OPEN SECTION COLLECTOR ROADS


RAMP SECTION
MARYLAND ROUTE 100
(-95 TO MARYLAND ROUTE 3 (1-97)
TYPICAL BRIDGE SECTIONS

AFFECTED ENVIRONMENT

## III. AFFECTED ENVIRONMENT

A. Social, Economic, and Land Use

1. Social Environment
a. Population

The Maryland Route 100 study corridor lies predominantly within northern Anne Arundel County, with the western portion extending Into eastern Howard County. Each of these count les has sustained a very high growth rate over the past several decades, far in excess of the growth rates for the Baltimore Standard Metropolitan Statistical Area (SMSA) or the State of Maryland as a whole. The Howard County population Increased 90 percent between 1970 and 1980, from a population of 62,400 to 118,600; and Increased an additional 18.5 percent in the past five years to a 1985 population of 140,100. The Anne Arundel County population Increased 24.5 percent between 1970 and 1980, from a population of 298,000 to 370,800; and has Increased an additional 7.5 percent since 1980 to a 1985 population of 398,600 . Most of this growth In Anne Arundel County has occurred In the northern portion of the county which Includes the Route 100 study area. Table lll-1 shows the past and projected population growth for these counties in relation to the Baltimore SMSA and the State of Maryland.

In order to provide a more detailed view of population In the Maryland Route 100 study area, Anne Arundel County and Howard County Census Tract data have been obtained from the respective planning agencies. The boundaries of those statistical areas which are directly overlain by the study corridor are shown on FIgure $111-1$ and population data are presented in Table III-2.

## TABLE |||-1

## REGIONAL POPULATION DATA

A.A. County Howard County Baltimore S.M.S.A. Maryland

| 1960 | 206,634 | 36,152 | $1,803,745$ | $3,100,689$ |
| ---: | ---: | ---: | :---: | :---: |
| 1970 | 298,042 | 62,394 | $2,071,016$ | $3,923,897$ |
| 1980 | 370,773 | 118,570 | $2,174,023$ | $4,216,446$ |
| 1985 | 398,554 | 140,100 | $2,226,000$ | $4,350,100$ |
| 1990 | 435,000 | 165,600 | $2,296,000$ | $4,535,450$ |
| 2000 | 479,000 | 189,900 | $2,424,000$ | $4,862,900$ |
| 2005 | 490,000 | 211,700 | - | - |

(Source: U.S. Bureau of Census, Maryland Department of State Planning)

## TABLE |l|-2

STOP AREA POPULATION


| Households |  |  |  |
| ---: | ---: | ---: | ---: |
| 1970 | 1980 | 1985 | 2005 |
| 760 | 3,973 | 4,894 | 6,686 |
| 781 | 1,052 | 1,509 | 3,801 |
| 1,413 | 2,396 | 2,474 | 3,117 |
| 492 | 666 | 748 | 1,271 |
| 507 | 525 | 523 | 525 |
| 291 | 305 | 305 | 315 |

AAA. CO.
$\begin{array}{llllllll}\text { Subtotal: } & 15,218 & 28,219 & 31,541 & 42,461 & 4,244 & 8,917 & 10,453 \\ 15,715\end{array}$
*Howard CO.
Census
Tract
6012 - $5,122 \quad 6,57312,932 \quad$ - $1,870 \quad 2,140 \quad 5,029$

STOP AREA
TOTAL - $33,34138,114 \quad 55,393 \quad-\quad 10,78712,593 \quad 20,744$

[^0]The data shows that 31,541 persons resided In the Anne Arundel County portion of the study area In 1985; or 7.9 percent of the total county population. The growth In these census tract areas since 1970 has been 107 percent, which is well In excess of the 34 percent experienced by Anne Arundel County as a whole. The population of the Anne Arundel county portion of the study area is projected to Increase by an additional 35 percent In the next twenty years to a 2005 population of 42,461. As shown In Table III-2, the area of greatest population growth in the corridor has occurred in census tract 7401.01, which is bounded by Dorsey Road to the north, Ridge Road to the west and the AMTRAK Rall road to the east.

A total of 6;573 persons lIve In the Howard County portion Of the Route 100 study corridor (1985), which is 4.7 percent of the total Howard County population. The area's 18.2 percent population growth since 1980 is more than the 12.5 percent exper lenced by the county as a whole, where the most significant population growth has occurred In the columbia area.

The total 1985 population of the statistical areas In both Howard and Anne Arundel Counties with ln the Route 100 study area is 38,114 ; and this is projected to Increase to 55,393 by the year 2005 .

Table III-3 shows that the minority composition of the study area portion In Anne Arundel County is 23.9 percent, which is greater than the overall county figure of 13.4 percent. The minority composition in the Howard County portion of the study area (Census Tract 6012) Is 10.2 percent, while the total Howard County figure is 11.7 percent.

## TABLE $1 \|$-3 <br> STATISTICAL DATA

## 1980 Census



Howard Co.
Census
Tract


From 1980 Census data, the percentage of elderly persons (age 65+) In the Anne Arundel County portion of the study area was approxmately 3.3 percent; and for Howard County Election District 1 the figure was approximately 8.9 percent.
b. Housing

The reported 1980 med lan house values in the Maryland Route 100 study corridor, which contains approximately 9,800 total housing units, was approximately $\$ 62,500$. The median rent per housing unit was $\$ 237$ per month. Median housing values for Anne Arundel and Howard Count les as a whole were $\$ 65,700$ and $\$ 85,700$ respectively.

The continuing rapid population growth in the study area has resulted in. a significant increase in housing units, and this is projected to. continue Into the future. Table III-2 shows the existing and projected housing data for the census tracts encompassing the study area as developed by the Anne Arundel County and Howard County Offices of Planning and Zoning.

The 1985 household count for the Anne Arundel County portion represents a 146 percent increase since 1970, and this is projected to Increase by another 50 percent by the year 2005. Reference to Table ili-2 and figure lli-1 shows that essentially none of this housing growth is projected to occur north of Dorsey Road, while the area of most rapid growth will be census tract 7402.02; the Eimhurst-Munson Heights area.

Housing in the Howard County portion of the study area Is projected to double in number by the year 2005 with the vast majority of this growth occurring to the west of U.S. Route 1.
c. Family Income

Statistical data from the 1980 census (see Table lll-3) show the Anne Arundel County portion of the study area to have had a med lan family Income of $\$ 23,691$ year. This was slightly lower than that for Anne Arundel County as a whole ( $\$ 24,771$ ) and sightly higher than the median for the State of Maryland $(\$ 23,114)$. The percentage of the population In these census tract areas which are living below poverty level is approximately 8.5 percent. The Howard County portion of the study area (census tract 6012) shows a med lan family Income of $\$ 21,236$, with approx Imately 2.3 percent of the population living below the poverty level.

## d. Commultles and CIties

The Maryland Route 100 Corridor is located within the metropolitan area of Baltimore CIty, whose southern boundary Is approximately six miles north of the Corridor. Washington, D.C., the nation's capItal, lies 20 miles to the southwest of the study area; while the City of Annapolis, Maryland's seat of government, Is located approximately 15 ml les to the southeast. Just beyond the eastern lImIt of the study area is the town of Glen Burnle which, with a 1980 population of 37,000 , is a major center of retail and commercial activity In Anne Arundel County. Centered approximately five miles west of the study area In Howard County is the 14,000 acre planned community of Columbia, which has a 1985 population of approximately 62,000 and Is where more than half of the County's 3,000 businesses have located.

WIthIn the study area Itself are a number of smaller communities (shown on FIgure $111-2$ ) which maintain their Individual Identic|ties. Included In these are the cormunltles of Dorsey, Harmans, Burleytown/

Queenstown, and Matthewstown. Two of these are unlque and distlnct communltles because of thelr herltage and malntenance of a strong sense of ldentlty desplte the land use changes occurring around them.

Matthewstown is a close knit minorlty communlty which has grown up around the orlginal Matthews famlly who settled In the area as farmers approximately one hundred years ago. The physlcal extent of the communlty, as percelved by lts residents, Includes all of those homes on Matthewstown Road, Post Road, the north side of Rldge Chapel Road, and a scattering of homes around the Post Road-Harmons Road Intersection. Nearly all of the people in this communlty, which consists of approximately thirty homes, are related to same degree to each other and can trace thelr IIneage by blood or marriage to the original Matthews family. Chlidren of thls communlty have tried to remain in or return to the area, and thus its hames range in age from very old to new. The orlginal Matthews house, at Matthewstown Road and Post Road, stIII exlsts and Is cccupled. Most of the residents are employed at Fort Meade, the Koppers plastlc plant, or In constructlon contract work.

Queenstown is also a close knit and highly interactive minorlty communlty whlch has evolved and grown from four original famlles who first settled the area In approximately 1900. These orlginal famlles were the Queens, the Galthers, the Burleys, and the Gambrills. The orlginal famllles were truck farmers, and the area retalned this farming character, as the chlidren grew to adulthood and bullt homes on famlly land, up untll World War II when other economic opportunltles developed. A number of additional famlIles moved to the area after the orlginal four, and marrlages between these varlous famliles has resulted in the existing communlty where nearly all
residents can trace some family relationship to the others. The original family hames still exist and are being occupied.

The Queenstown Community as perceived by its residents Includes all homes along Queenstown Road, and on the various side streets off of Queenstown Road, from Telegraph Road to Donaldson Avenue (a length of approximately 1.9 ml les). Although current mapping shows two separate commonIt les of Burleytown and Queenstown in the area, the residents view no such distinction, and consider the area to be a single community. The center for community interaction ls the Metropolitan United Methodist Church, originally estabilshed in 1917 at Queenstown Road and Donaldson Avenue, and moved to its present location in 1976.

Housing growth in the Queenstown community, which currently consists of approximately 120 homes, has generally occurred as a result of family transactions, as children have tended to stay and settle in the community. Thus, ages of homes range from old to new. Econanlcally, the famliles of Queenstown generally are in the lower to lower middle income range. Major employers for the community are Westinghouse and Fort Meade, and It has been estimated by community members that as many as a quarter of the residents are retirees.

Dorsey is a small residential community located on Dorsey Road between the Baitlmore-Washington Parkway and U.S. Route 1. The community straddles the county lIne between Anne Arundel and Howard Count les and is approximately $50 \%$ minority. The old 880 railroad tracks follow the county border and divide Dorsey in two. The bulk of the minority residents lIve In the Anne Arundel County section. There are three Industrial parks in the immediate vicinity.

$$
||\mid-10
$$

Dorsey dates back to the $n$ Ineteenth century and originated as a rall stop for the $88 O$ railroad. At one time there was a hotel (no longer existent). owned and operated by two sisters named Dorsey; hence the town's name. The primary landholders were members of three families, the Relmsnyder's, Powells and Goldman's. Most residents of Dorsey at that time were rall road employees, and their dependents.

When the train station was abandoned the nature of the community changed. The town ceased to grow and residents who worked for the rall road either moved or found work elsewhere In the area, most notably at Fort Meade and the NatIonal SecurIty Agency (NSA).

Harmans is a small community located along Dorsey Road between Route 170 and Ridge Road (Shlpley's Corner). The town Is adjacent to BaltImore-Washington InternatIonal AIrport and a large Industrial park. Most of the area residents lIve In one of four subdivisions. Sandalwood, Ridgevlew and Leeds are three adjacent subdivisions of different ages and character. Rldgevlew and Leeds are somewhat older than Sandalwood and lie on either side of It. The homes in these subdivisions range from lower to middle income. Timber Ridge is a subdivision Just east of Harmans that contains over 100 middle to upper middle Income homes.

Harmans originated In the mid-nlneteenth century as a rall stop for the Penn Central Railroad. At one time, Marmans had a blacksmith shop, a cannery, a brick mining operation, a pigment mill, and a general store and post office. Another general store was located at Shlpley's Corner and is preserved today as an historical landmark (Shlpley House). There were five major famliles who owned the land around Harmans: the Shlpley's, HawkIns, Kellys, Clarks, and Harmans (for whom the town was named).

Since the rallroad station closed, Harmans, IIke Dorsey to the west, has changed. There is no longer as much cohesiveness In the commulty. Most residents work outslde the area and three hlgh schools draw from the communlty.

Approximately one and one-half miles east of Harmans is McPherson. McPherson is a small cluster of homes located on the south slde of Dorsey Road. At one time McPherson was a rall stop for the old and abandoned Washington, Baltimore and Annapolis (W.B.\&A.) Rallroad.

Between Harmans Road and the AMTRAK rall IIne, east of Matthewstown, lles the Harmans Woods housing development. This communlty consists of seven to elght hundred homes all constructed withln the last five years.

## 2. Communlty Facllitles

The Maryland Route 100 study area supports a full range of communlty facilities, Including eleven churches, five schools, and six parks and recreation areas. Figure ll|-2 shows the locatlons of these facllltles, and they are ldentlfled in the legend to that figure.

A post offlce in the study area is located at old Dorsey Road and Old Coalling Road. Fire protection is provided by Fire Company 21 Iocated at Shlpley Corner, and from the East by Glen Burnle Flre Department 33. Nearby police statlons Include the Waterloo State Pollce Barracks Iocated at Maryland Route 175 and U.S. Route $1, a$ state pollce barracks near Maryland Route 176 on Hammonds Ferry Road and Anne Arundel County Pollce Headquarters located on Route 3 near Benfleld Boulevard. The nearest health care facillty Is the North Arundel General Hospltal located east of the study area In Gien Burnle.
3. Parks and Public Recreation

A total of six parks and public recreation areas serve the study area, and these are shown on Figure lili-2. Four of these are Anne Arundel County faclilties, one is a state park, and the remaining is under the ownership of the State Aviation Administration (SAA).

The Patapsco Valley State Park is a very large State owned land and forest reservation extending along the Patapsco River and Its major tributaries which provides along its reach opportunities for recreational activities like camping, fishing, hiking, and canceling. As shown on Figure III-2, a branch of the Patapsco Valley State Park reaches into the northern portion of the study area along Deep Run to a point approximately one mile north of existing Dorsey Road.

The remaining parks are community recreation areas containing baseball diamonds and other facilities. These are Queenstown Park located on Queenstown Road; Friendship Park, owned by SAA and leased by Anne Arundel County, located off of Dorsey Road north of Queenstown; Harmans Park located off Ridge Chapel Road at Ridge Road; Jessup and Dorsey Park located off Race Road; and the Severn-Danza Park located on Donaldson Avenue south of the study corridor.

## 4. Economic Profile

There are major centers of economic activity impacting upon the economic base of the Maryland Route 100 Study Corridor. These

Include the CIty and Port of Baltimore, the Baltimore-WashIngton International AIrport, the Fort Meade military Installation, and the government office complexes located in Annapolis. Each of these provides for employment and economic spln-offs to the study area, but the one which has the greatest Impact upon the ImmedIate Route 100 Study Corridor is the EWI AIrport, which is located adjacent to Dorsey Road.

The Port of Baltimore is located approximately six miles north of the study area. With 45 ml les of Improved waterfront, it is the third largest port in terms of cargo value in the United States, and the second busiest containerized cargo port on the U.S. Atlantic and Gulf Coasts. The port offers modern efficient facilities to handle the unloading and loadIng of up to 200 vessels at the same time, and serves 4,500 ships from 45 countries annually.

The Fort Meade military Installation, located Just south of the Maryland Route 100 Study Corridor, is an active U.S. Army Base. It, In con Junction with the rapidly expanding National Security Agency also on the Fort Meade military Installation, is a major center of employment for the area.

The government complexes located In Annapolis are the centers for State, County, and CIty governments. Numerous state, county and city office buildings are located in and around Annapoils, with direct employment at all three levels estimated at approximately 16,000 people.

The Baltimore-Washington International Alrport is the only major alrport In Anne Arundel County, and the largest in the state. Operated by the Maryland State Avlation Adminlstration, it provides alr serVice to more than 240 domestic and overseas cltles with 48 alr carrlers (passengers and frelght) and commuter alrilnes that total 475 flights dally. BWI handled 4.5 mililon passengers $\ln 1982$, and also handles more than 60 percent of the region's alr-cargo through its 8 cargo facllitles. In addltion to these typlcal alrport operatlons, it has attracted a substantlal amount of Industrlal development to the study area. Over 20,000 jobs In and around the alrport have been generated as a result of this growth. Much of the existing and projected economic growth of the corridor, along with lts assoclated traffic problems and service needs, can be directly or Indirectly attributed to the BWI Alrport presence. The 1987 BWI Master Plan calls for expansion of the alrport runway system. Master Plan Publlc Hearings were held in December, 1986. Each of the runway expansion alternates under conslderation would requlre addltional use of the alrport property south of the exlsting runways to Maryland Route 176. (See State Aviation Administration letter of December 30, 1985 In correspondence section). The SAA has recommended an expansion alternate south of and parallel to exiting runway 10/28.

There are currently ten Industrial parks located withln the Maryland Route 100 study area; six In Anne Arundel County and four in Howard County. A fifth Industrial park is in the planning stages in the Howard County portion, and a seventh is under development in Anne Arundel County. These Industrlal parks are IIsted In Table III-4 and shown on Flgure III-2.

Table lili-5 summarizes 1980 census employment data for the study area, and for Anne Arundel and Howard Counties as a whole. The data show that the greater part of the labor force In the study area is employed in white collar occupations, although not to the same degree as the region as a whole. Unemployment rates varied significantly between the different census tracts, but the overall Anne Arundel County portion of the study area unemployment rate of 5.6 percent was silghtly greater than that for Anne Arundel County as a whole. The 3.6 percent unemployment rate for the Howard County Portion of the study area was also greater than the entire Howard County Figure. Employment in farm operations is very minor throughout the study area. Anne Arundel County's single largest private employer, the Westinghouse Electric Corporation, with an employment of 15,000 people, is located Just north of the Study Corridor adJacent to the BWI AIrport.

TABLE $111-4$
STUDY AREA INDUSTRIAL PARKS


```
TABLE |||-5
EMPLOYMENT DATA (1980 Census)
```



Howard County
Census Tract

| 6012 | 2776 | 3.60 | 49.51 | 37.23 | 0.90 | 12.36 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

A.A. CO. Total

172,785
4.54
60.3
12.08
0.87
26.75

Howard Co.
Total 63,279
2.27
72.45
9.27
1.32
16.95

## Land Use

## a. Existing Land Use.

Existing land use In the Maryland Route 100 study area Is shown on Figure III-3. Residential land uses are generally located south of Dorsey Road In scattered communities described In Section III.A.1.d. Areas of commercial and lIght Industrial activity are located throughout the study area In Isolated locations or in conjunction with Industrial parks which are more fully described In Section III.A.3. The remainder of the existing study area land use Includes parcels of agricultural lands and conservational areas, woodlands, and open space, along with the large area covered by the BWI AIrport.

## b. Future Land Use

Both Anne Arundel County and Howard County have estabIlshed general development plans which Include proposed land usage within their respective regions and serve as official policy for growth and development. The General Plan for Howard County was adopted In 1982. Because of Its strategic location within the metropolitan Baltimore-Washlngton Corridor, Increasing development is planned for the eastern portion of the county; and the challenge addressed by the General Plan was the need to accommodate this expected growth while maintaining the high quality of development which has CharacterIzed Howard County for the past two decades. The General Development Plan for Anne Arundel County, Maryland was adopted In 1978. Its expressed purpose is to establish policies to provide for and take advantage of future growth In a manner that will be beneficial to most people. It seeks to prepare for the County's future In a careful, positive, and consistent manner,
and to provide a policy framework within which decisions can be made to deal with problems facing the county. Information from proposed land use maps in these two documents have been Incorporated onto FIgure III-4 to show proposed land use for the Maryland Route 100 study area. The construction of a new Maryland Route 100 roadway connecting U.S. Route 1 with Maryland Route 3 is consistent with each of these development plans.

The Anne Arundel County General Development Plan proposes a near continuous band of lIght Industry and Industrial parks around the EWI AIrport perimeter, and continued Industrial park development in the Parkway Industrial Center area. With the exception of open space and recreation areas, the remaining portion of the Anne Arundel County study area is proposed for residential land usage. Residential areas east of Telegraph Road and between Ridge Road and the Ealtimore-Washington Parkway, will be rural (1/2 unit per acre or less), while residential areas west of the BaltimoreWashington Parkway and between RIdge Road and Telegraph Road are proposed to be low density residential areas ( 2 units per acre or less).

Figure III-4 shows that the Howard County General Plan calls for extensive Industrial land use from the county Il ne west to 1-95. West of $1-95$, the proposed land use is predominantly residential, although a planned employment center is proposed for the S.W. quadrant of the interchange. The Howard County Office of Planning and Zoning projects that comDined Industrial and commercial land use In the Elkridge Election District (which Includes the Howard County portion of the study areas) will increase from Its 1985 area of 539 acres to 948 acres in the year 2005.


B. Transportation

## 1. Transportation Facilities

The Maryland Route 100 Study Area and Its surrounding region are serviced by major air, rall, ship, and highway transportation routes.

Two major I Inks In the U.S. Interstate HIghway System pass In a north-south direction through the Corridor. Interstate 95, as well as Maryland Route 295 (Baltimore-Washington Parkway), provides convenient automobile and truck access to Washington, D.C. to the south and to Baltimore and the entire U.S. Northeast Corridor to the north. Maryland Route 3 (Proposed Interstate 97) wIll provide convenient Interstate access south to Annapolis, as well as north to Baltimore. The study area's strategic location and excellent Interstate highway access allows overnight truck transport to 30 percent of the nation's population and 36 percent of the nation's manufacturing establishments throughout the northeast, midwest and southeast. This consumer market within overnight reach of the study area represents: 70 mlili in people, $31.5 \%$ of the effective buyIng Income In the United States, and 29.3\% of the retail sales In the U.S. Over 150 motor carriers are authorized to serve Anne Arundel County, and the southeast portion of Howard County is served by over 100 motor freight lInes. The other major north-south route serving the study area is U.S. Route 1 , roughly paralleling $1-95$, while the major east-west roadway Is Maryland Route 176 (Dorsey Road).

Air service, both passenger and cargo, is provided by the Baltimore-Washington International Airport located adjacent to the Study Corridor. With 48 carriers it provides service to more than 240 domestic and
overseas cities. In 1982, BWI handled a total of 4.5 mlillon passengers on an average of 475 flights per day. It offers 24 hour alr-cargo services through 8 cargo facllitles.

Water transportation for the study area is provided by the nearby Port of Baltimore. Located as much as 200 mlles closer to the midwest than any other of the Atlantic seaports, it is the third largest port In terms of cargo value in the U.S., and one of the safest and most secure ports In the world. It serves 4,500 ships from 45 countries annually.

Rall transportation Is provided by the Chessle System (C8O/B80/MM) and by AMTRAK, both of which have rall lInes passing through the Study Corridor. AMTRAK has a commuter station adjacent to the BWI AIrport, and with nine dally commuter trains lt provides passenger transportation to cities throughout the U.S. Northeast Corridor.

## 2. Traffic Volumes

1983 traffic volumes and resulting traffic operational details in the project vicinity are shown in Figure l-3. Projected traffic volumes for the No-Bulld conditions In the design year 2010 are shown on Figure IV-1. These are Average Dally Traffic (ADT) volumes. The projected volumes Indicate traffic demand associated with planned land use development and roadway Improvements scheduled for Implementation. These Improvements Include Maryland Route 176 (Dorsey Road) being upgraded to four lanes from Maryland Route 295 to Hammonds Ferry Road and Maryland Route 3 being upgraded to an Interstate highway (I-97). The projected volumes assume that Route 100 Is not built between 1-95 and 1-97.

As shown, projected traffic growth on Maryland Route 176 (Dorsey Road) is considerable since It will remain the major east-west roadway in the study area. The traffic Increases average approximately 33 percent and range from 19 percent west of Route 295 to over 40 percent between Maryland Routes 713 and 170.

## 3. Traffic Operations

Level of service describes traffic operating conditions during peak hours and varies primarily with traffic volume, number of lanes and geometrics. It is a measure of such factors as speed, traffic interruptons or restrictions and freedom to maneuver. Six levels of service, deslgnoted A through $F$, from best to worst, have been established to Identify traffic operations (HIghway Capacity Manual, 1965). Level-of-service A represents a condition of relatively free flow (low volumes and high speeds). At level-of-service $E$, volumes are at or near the capacIty of the highway. For a more detailed description of levels of service for uninterrupted and Interrupted conditions, see the Glossary of Terms In Appendix A of this document.

A traffic analysis for the recent widening of Maryland Route 176 between Maryland Routes 295 and 652 has not been conducted. However, this widening is accepted as an Inter lm relief measure and is not expected to significantly Increase the level of service In this area. In the des Ign year 2010, Maryland Route 176 wIll operate at a level-of-service from U.S. Route 1 to 1-97 even though It would be four lanes wide between Maryland Route 295 and 1-97. The resulting level of service and traffic operations are not compatible with the 1978 General Development Plan for Anne Arundel County or the 1982 Howard County General Plan.

## C. Natural Environment

1. Study Area Location

The Maryland Route 100 Study Corridor extends across northern Anne Arundel County Into eastern Howard County, Maryland. Figure I1 Is a location map of the Route 100 project. The area's physical geography, temperate climate, and association with the Baltimore Metropolitan area has provided a setting for a relatively rapid and recent residential growth trend. Much of the area does, however, still remain rural. Its nearness to Baltmore, and relative close proximity to Washington, D.C. and the seat of state government In Annapolis, provides assets which make the area a desirable place to lIve and work. The BaltImore/Washlngton International (BWI) AIrport, located adjacent to the study corridor, has encouraged a rather extensive expansion of commercial and lIght Industrial activities In the area.

## 2. ClImate

Because of Its latitude and proximity to the moderating Influences of the Chesapeake Bay, the Maryland Route 100 study area exper lenLes a relatively moderate, humid, temperate climate. Weather patterns tend to move from west to east, resulting in a continental type climate with well defined seasons. Average monthly temperatures at BWI AIrport, adjacent to the study area, range from 33.4 degrees $F$. In January to 76.6 degrees $F$. In July. MInImum temperatures occur at the end of January and beginning of February with early morning temperatures averaging about 24 degrees $F$. Dally maximum temperatures occur In late july, averaging about 88 degrees $F$. The average grow lng season, or number of days between the last frost in the spring and the first frost In the fall, is 194 days.

Average annual precipitation at the BWI AIrport is 40.5 Inches. This is spread rather uniformly throughout the year, although the summertime is more prone to both heavy rain and drought conditions. Peak rainfall Intensities are associated with thunderstorms or hurricanes. Signlflcant freezing rain occurs on an average of two or three times per year, usually in January and February. The heaviest amount of snow usually falls in February. Snow flurries usually occur 25 days per year with snowfalls exceedIng one Inch occurring on an average of $n$ lIne days per year.

## 3. Phys lography - Topography

The Maryland Route 100 Study Corridor les wIthIn two physiographic provinces, the Atlantic Coastal Plain and the Piedmont Plateau. The greater portion of the study area, Including all of that within Anne Arundel County, I les within the Atlantic coastal Plain province and Is characterlzed by a level to gently rolling topography with slopes ranging from zero to ten percent. The western end of the study corridor, lyIng within Howard County, contains portions of both the Atlantic Coastal Plain and the Eastern Piedmont Plateau physiographic provinces. The Piedmont Province is composed of metamorphic rocks that have been uplifted and extensively folded and faulted, and exhibits a greater surface relief. In this area the relief is also level to rolling, but some slopes range up to fifteen percent.

Surface elevations in the study area range from a low Of approximately 60 feet mean sea level (MSL), along the Deep Run floodplain to a high of approx Imately 240 feet MSL. at the I-95 Interchange area.
4. Geology - Solis
a. Geology

The Atlantic Coastal Plain Province, In which most of the study corridor lies, is underlain by a ser les of southeasterly dipping layers of unconsolidated sand and clay with lesser amounts of gravel. These sedimentary rocks form a relatively thin veneer over an eastward continuation of crystalline rock from the Pledmont Plateau, which outcrop in the western end of the study area.

The outcropping geological formations in the study area range In age from early Paleozoic in parts of the Howard County portion, to early Cretaceous in most of the Anne Arundel County portion, to recent along certain floodplains of the area. The specific formations found in the corridor are described as follows and as shown on Figure 111-5.

Potomac Group - This complex group of sand-gravel and silt-clay facies, which were formerly divided Into the Arundel and Patapsco formations, occupy nearly the entire northern third of Anne Arundel County and the great bulk of the study area. Thickness of the group ranges from 50 to 1,600 feet.

The Patapsco formation, or sand-gravel facies, outcrops In nearly the entIre area east of Stony Run In Anne Arundel County and In large portions of the area west to Howard County. They are generally white, buff, red-brown to varicolored Interbedded quartz sand, pebbly sand, gravel, and subordinate silt clay.


The Arundel formation, or silt-clay facies, outcrops extensively in the study area west of Stony Run and Into Howard County. They are generally red, tan, gray, buff, or mottled clay, slit, and subordinate fine to medium-gralned muddy sand.

Baltimore Gabbro Complex - These are Early Piedmont Plutonic rocks outcropping in the U.S. Route $1-1-95$ portion of the study area. The formation is mainly hypersthene gabbro with subordinate amounts of olivine gabbro, norite, anorthositic gabbro and pyroxenite.

Relay Quartz Diorite - This Early Piedmont Plutonic rock formation outcrops in areas east of U.S. Route 1 In Howard county. It is composed of Intensively foliated, fine grained, I light colored quartz diorite to albite granite.

Alluvium - In the study corridor, alluvium occurs along the Stony Run and Deep Run floodplains. It Is composed of interbedded sand, silt-clay, and subordinate gravel. Alluvium comprises very heterogeneous sediments with poorly-sorted muddy sand and silt the dominant lithologles. Organic matter, Including leaves, branches, and logs, is a common component. In places, thin pats occur.

Terrace Deposits - Small areas of terrace deposits outcrop In the study corridor. These occur on terraces flanking Stony Run, Piney Run, and Deep Run as shown on Figure $|1|-5$. They are composed of a heterogeneous mixture of Interbedded sand, gravel, and silt-ciay, and are typically tan, buff, gray or reddish brown.

Present and potentlal geological resources of economic value In the study area Include sand, clay and Iron ore. Deposits of economlcally valuable sand cccur In the sand-gravel facles of the Potomac Group (Patapsco formation) malnly In that portion of the study area east of stony Run. These sand-gravel bodies range from 5 to 60 feet In thickness and consist of quartz sand, pebbly sand and sand gravel. A signlficant potentlal source of ciay is in the sllt clay facles (Arundel formation) west of Stony Run. These clays are lentlcular, range In thlckness from a few feet to 100 feet or more, and are sultable for brlcks and other structural clay products. Around the turn of the century, one of the largest clay operations In the County was the WashIngton Hydraullc Pressed Brlck Company, Iocated south of Harmans. Several Inactlve or abandoned operations are located in this area.

From the early 1700's to the late 1800 's, Iron ore was one of Anne Arundel County's most Important mineral resources. The ore occurs chlefly in the lower part of the silt clay facles, and several former Iron ore operation sltes are located on the western end of the study corrldor, partlcuiarly between Deep Run and the Baltimore WashIngton Parkway. Maryland's largest Iron ore Operation was the TImber Neck Ore Banks (Great Falis Iron Company) located about one mile northeast of the Intersection of the B-W Parkway and Maryland Route 176. This area was once termed the "badlands" of Anne Arundel County due to the extent of the mining operations. No currently operational Iron ore operations exist In the study area however.

Generally, geologlc features of the study area pose no signlficant difflculty to roadway construction, although some precautions must be considered in highway design. Out banks In thlck Potomac clay bodles tend to be
unstable over long periods of time due to jointing; bank failures durIng wet weather stemming from silppage along joint planes are como as is wedging caused by freezing and thaw lng. Floodplain alluvium, as occur at Deep Run and Stony Run, generally underlie. the floodplains from one valley wall to the other, and range in thickness from a few feet to as much as 15 feet. constralnts on construction in floodplains are several; the sediments are generally loose and water-saturated due to a perennially high water table and they are subject to Inundation during flood events.

## b. Soll Associations

The U.S. SoIl Conservation Service along with the Maryland Agricultural ExperIment Station has conducted soIl surveys of Anne Arundel and Howard Counties. These surveys have classified and mapped the solis of the two count les Into fifteen separate soIl associations, where an association consists of at least one major soil series and one minor soil series which consistently occur together. The Route 100 Study Corridor encampasses four major sold associations. These soll associations are summarized below:


#### Abstract

Evesboro-Rumford-Sassafras - CoverIng most of that portion of the study area In Anne Arundel County east of Ridge Road, this association consists of excessively drained and well-dralned sandy and loamy solis, found on gently sloping to moderately steep slopes. The major solis have few lImitations other than slope for residential and community development. Some Important. minor solis have lImitations for use as building sites or for sept lc systems, because of their unstable substratum, slowly permeable sub-solls or seasonably high water table.


Mulkirk-Evesboro - This assoclation covers the study area from approximately Ridge Road west to Deep Run in Anne Arundel County. It consists of well-drained loamy and clayey solis and excessively well drained sandy solis, found on nearly level to steep slopes. These solls are underialn by unstable clays, which pose a potentlal hazard to development.

Beltsville-Chillum-Sassafras - Covering most of the Route 100 Study Corridor in Howard County, this assoclation consists of deep, moderately well dralned, gently sloping to strongly sloping solis of the Coastal Plain.

Neshaminy-Monalto - This soll assoclation covers a small area between U.S. Route 1 and 1-95 in the Howard County portion of the study corrldor. It is composed of deep, well-dralned, moderately slowly permeable, gently sloping to steep solis.

The Soll Conservation Service (SCS) has developed mapping for farmlands of statewide Importance In Anne Arundel County. The Information shows that there are no Important farmlands in the study area west of the AMTRAK rall line. There are scattered areas of important farmlands between AMTRAK and the Baltimore Washington Parkway, but only a very small portion of these areas are classifled as "Prime" farmland. No similar mapping for Important farmlands has been performed by SCS for the Howard County portion of the study area.

An extensive evaluation of zoning maps and solls data for the MD Route 100 alternates has been performed by the Soll Conservation Service specifically for this project to determine if the Farmland Protection Pollcy Act (FPPA) applles to this area. The FPPA does not apply to any of the
alternates In Anne Arundel County due to either the preclusion from FPPA by current zoning, or to a lack of solis qualifying as prime or of statewide Importance in those areas not precluded by zoning. However, a small area of statewide Important solis was found to be applicable In Howard County.
5. Water Resources
a. Surface Water
(1) Drainage Areas - The Maryland Route 100 Study Corridor lies entirely within the Patapsco RIver Watershed. That Is, all surface runoff from the corridor ultimately finds its way to the Patapsco River and thence to the Chesapeake Bay. Within this major watershed, the study corridor crosses four .trIbutary streams to the Patapsco RIver. These streams are Deep Run, Piney Run, Stony Run, and Sawmill Creek. Figure III-2 shows the drainage divides for their respective drainage areas. In addition to these streams, there are numerous natural and man-made ponds in the study area.

The total Patapsco RIver Watershed has a draInage area of 1056 square miles. The drainage area of those tributaries crossing the Route 100 Study Corridor totals approximately 41 square miles, or 3.9 percent of the Patapsco Watershed area. Some basic Information on each of these tributary drainage areas is provided below:

Piney Run - Located entirely within Anne Arundel County, this stream is actually a tributary to and part of the total drainage area of Deep Run. The existing Dorsey Road crosses this stream approximately one-half mile east of the Baltlmore/Washlngton Parkway. Its drainage area is 2.8 square miles.

Deep Run - Thls is the largest of the dralnage areas overlaln by the Maryland Route 100 Corridor, coverlng all of that portion within Howard County and extendIng Into Anne Arundel County. Just north of Dorsey Road, the Howard/Anne Arundel County boundary leaves the B8O rallroad IIne and follows thls stream to the Patapsco River. Excluding the PIney Run subdralnage area, Deep Run has a total dralnage area of approximately 17.8 square miles.

Stony Run - Generally paralleled on the east by the AMTRAK IIne, Stony Run dralns that area of the study corridor which Includes the communlty of Harmans and the western portion of EWI Alrport. It has a total dralnage area of approx Imately 9.9 square ml les and flows directly to the Patapsco River.

Sammill Creek - This stream dralns the study corridor area east of Telegraph Road, Including the communlty of Queenstown and the eastern portlon of BWI Alrport, as well as a major portion of Glen Burnle. With a total dralnage area of approximately nine square miles, it is a tributary to Furnace Creek and Curtls Creek on thelr way to the Patapsco River. The U.S. Geological Survey did malntaln a record gaging station on Sawmill.Creek near Baltimore/Annapolis Boulevard (1944 to 1952) and recorded an average stream flow of 8.26 cublc feet per second (CFS). The peak 100 -year flow at thls location was determined to be 205 cfs.
(2) Surface Water Quallty - Water quallty standards have been developed by the State of Maryland for four different water use classifications, and all of the streams In the Maryland Route 100 corridor have been designated as Class 1 waters. Under this classiflcation, the waters must be protected for contact recreation, flsh and other aquatic life, and for
wildife. This protection is sufficlently stringent to allow for its use as a water supply.

The State does not have speciflc water qually sampling data for the four streams crossing the Route 100 corridor, but the West Chesapeake River Basin Water Quallty Management Plan (1976) summarizes exlsting water quallty for the Patapsco Watershed. Water quallty is generally good with dissolved oxygen, DH , and temperature consistently meeting state standards. However, locallzed bacterlal problems do occur. The streams are generally characterlzed by high turbidity and slow moving water. There are no known polnt source discharges of pollution Into these streams, and the principle threat to water quallty is from non-polnt source runoff from urban development.
(3) Floodplalns - The four major streams of the Route 100 Study area typlfy most water courses In that they flow in definlte channels bordered on both sldes by flat areas or valley floors referred to as floodplains. The channel can contaln within its banks a discharge of only moderate size, and during perlods of high stage the floodplain is inundated and In effect becomes part of the river channel. These floodplains therefore provide design constraints on highway projects.

The Federal Emergency Management Agency (FEMA) under the Natlonal Flood Insurance Program has mapped the IImlts of the 100 year floodplalns for those streams in the Route 100 Corrldor, and these floodDialns are shown on Flgure lll-2. A 100-year flood is a storm that has a one percent chance of occurring in any year.

Floodpialns contribute to the area's enviromental quallty in a number of ways. They contain, retard and absorb fiood water, provide important wildilfe habitats and buffer streams. Fioodplains are unsuitable for development which can be damaged by flooding or which will increase flooding.

Figure lil-2 shows that Deep Run, Piney Run, Stony Run, and Sawnill Creek ail have 100 year floodplains along the study corridor, with same extending up to 600 and more feet In width.
b. Groundwater

Within the study area there are two major aquifers which supply groundwater for Anne Arundel County. These are the Patapsco and Patuxent formations, which occur as a series of Irregulariy shaped wedges that dip gentily, generally less than 1 degree, to the, southeast. Groundwater is stored In the pore spaces of these granular deposits. The Patapsco formation outcrops extensively in the study corridor (See Figure ili-5, Section III.C.4.), and these outcroppings serve as important recharge areas for the aquifer. The deeper Patuxent formation in the vicinity of the study area is a confined or artesian aquifer with its recharge area primarily to the west in Howard County.

The Patapsco is a multi-aquifer formation consisting of irregulariy stratified interbedded, variegated silt and clay and clayey, subgrounded, fine to medium grained quartzose sand; with minor amounts of gravel. Sand percentages of the total Patapsco thickness generally range between 25 and 50 percent. Individual sand beds often exceed 50 feet in thickness. It is an extremely productive groundwater source. Weli yields
range from 3 to 2,160 gallons per minute (gpm); although ylelds over 1,000 gpm are exceptional. The Patapsco's transmissivity generally ranges between 160 $\mathrm{ft}^{2} /$ day and $6,700 \mathrm{ft}^{2} /$ day (Hansen, 1972b) with the highest values occurring in Anne Arundel and Baltimore Countles. Storage coefficlents for the formation tend to range between .005 and .00005.

The Patapsco Formation is the most widely used aquifer In the Maryland Coastal plain, with most of this usage concentrated In the updip (that is: upwards and parallel to the dip of the formation) countles, Including Anne Arundel. Generally, In most up-dip areas, the natural quallty of Patapsco groundwater is good for potable supplies and most other uses. The water tends to contain less than 10 ppm of chlorldes west of the Chesapeake Bay, and total dissolved sollds are also low in the western portlons of the formation. The up-dip portions of the formation which occur in the study area tend to yleld very soft water, which is also acldic (low pH ) with high concentrations of dissolved Iron.

In parts of the Baltimore-Sparrows Polnt Industrial area, apparent over pumpling and chemical contamination of the recharge zone in the past, seems to have altered the chemical quallty of the formation's water. Some Patapsco wells in that industrial area now produce water that is elther abnormally acidic, high in hardness, and/or high in chlorides and total dissolved sollds. This polnts out two potential problems with the Patapsco. These are: the possibility that over pumping in areas near to where the formation outcrops under brackish water could cause bracklsh water intrusion Into the formation; and the possiblilty that Indiscriminate dumping of wastes In the formation's recharge zones could contaminate the formation's groundwater.

The Patuxent Formation conslsts of irregularly stratified, cross-bedded and ienticular whlte or ilght gray to orange-brown, moderately sorted, angular sands and subgrounded gravels; also gray to ocherous silt and clay beds which cccur in amounts ranging from less than 25 percent to greater than 75 percent of total formation. Like the Patapsco Formation, it is one of the most productive water bearing formations in Maryland. Its transmissivity ranges between $130 \mathrm{ft}^{2} /$ day and $10,700 \mathrm{ft}^{2} /$ day with the highest values appearing in Anne Arundei, Baltimore and Harford Counties. Typicai Patuxent storage coefflcients range between .001 and .00001. The best weli yleids range from a few hundred to 1,200 gallons per minute.

The natural water quality of the Patuxent Formation is generaliy good In most up-dip iocations. In these up-dip areas, the formation's water is commonily soft, iow in total dissolved solids (TDS), iow in chlor ldes and with moderately low but acceptable pH levels. High iron content Is, however, often a probiem In the up-dip areas. Further down-dip the water tends to become harder, more alkailne, lower in dissolved iron content, higher in chiorides and higher in total dissolved solids until, the water is too bracklsh for normal potable use in some parts of Maryland's Eastern Shore.

In the Immediate area of the Route 100 study Corrldor, Anne Arundel County maintalns a major well fleld which taps the Patapsco and Patuxent formation aquifers. This thirteen well field is located aiong Dorsey Road and Hammonds Ferry Road and serves the Gien Burnie potable water service area. Two of the wells are observation welis oniy. Treatment is provided at the Dorsey Road Treatment Plant which provides aeration, chemical treatment, fiuoridation, sedimentation, and filtration for a maximum capacity of 6.0 miliion gailons per day (mgd). Six of the weils in the Dorsey Road fleid are
drawling water from the Patapsco formation and five are drawing from the Patuxent formation. The Patapsco wells range In total depth from 131 feet to 186 feet, and the Patuxent wells range from 474 to 590 feet. Figure lll-2 shows the locations of these wells.
6. Ecology
a. Vegetation

With the advent of agricultural and urban land uses Into the study area, formerly extensive woodlands have been greatly reduced. However, significant areas of woodlands do still remain. Brush, et al (1976), In the Vegetation Map of Maryland have Identified large wooded areas in the corridor west of the BaltImore-Washington Parkway, along the Stony Run and Deep Run stream valleys, and In the southeastern portion of the study area. The woodlands along Stony Run and Deep Run have been Identified as belonging to the River Birch-Sycamore Association, while the remaining woodlands belong to either the Tulip Poplar Association or the Chestnut Oak-Post Oak-BlackJack Oak Association. These associations are briefly described below:

River Birch-Sycamore Association - Associated species Include, red maple, poison ivy, Virginia creeper, greenbriers, sweet gum, Japanese honeysuckle, southern arrowwood, tull p popular, spicebush, black gum, grape, Ironwood, American holly, flower ling dogwood, black cherry, green ash, white oak, brambles, elderberry, silppery elm, and sassafras.

Chestnut Oak-Post Oak-BlackJack Oak AssociationAssociated species Include red maple, black gum, white oak, sassafras, greenbriers, American holly, Virginia pine, black oak, Japanese honeysuckle, beech, early low blueberry, flower Ing dogwood, sweet gum, scarlet oak, Spanish oak,
mockernut hickory, Virginia creeper, black cherry, sweet pignut hickory, dwar fhuck leberry, mountain laurei, southern arrowwood, and tail deerberry.

Tuilp Popiar Assoclation - Associated species Inciude red mapie, flowering dogwood, Virginla creeper, black gum, white oak, sassafras, black cherry, grape, mockernut hickory, southern arrowwood, Japanese honeysuckie, pignut hickory, biack oak, poison lvy, greenbriers, beech, spicebush, northern red aak, mapleieaf viburnum, eariy iow biueberry, choke cherry, and brambies.
in addition to woodiand vegetation, there are agriculturai areas composed of old fleids, pasture, hay and grain crops; along with residentlai development with Its associated vegetation of lawns, gardens, and ornamental trees and shrubs. Appendix $D$ tabulates representative vegetation of the study area.

## Threatened or Endangered Vegetation

The Maryland Naturai Heritage Program malntalns records of rare, threatened, or endangered piants which occur throughout the State, and their data indicate that no such species occur in the immediate vicinity Of this project. Several state rare piants Arundinaria gigantea (Glant Cane), Carex barrattil (Barratt Sedge) and Heionias builata (Swamp Pink) have been reported in the floodplains of Stony Run and Deep Run in the vicinity of Alternate 4. Two of these, C. barrattil and H. builata, are federal candidate specles presentily under consideration by the U.S. Fish and Wildilfe Service for ilsting as threatened or endangered species.
b. Wildilfe

The diverse vegetation and land use patterns in the study area provide a varlety of habltats for wildilfe with four princlpal
types In abundance. These are forest, old fleld, wetland, and frestwater aquatic communltles. Each habltat has its own characterlstic wildilfe population, and there is also a conslderable amount of edge effect at the Interface between habltats which enhances the productivity and diverslty of wildilfe. Appendix C IIsts representative specles of anlmals of the study area. Blrds, mammals, flsh, frogs, salamanders, turtles, and snakes are all well represented.

Some of the streams In the project area are tributary to waters that have been recorded as anadromous spawning streams for specles such as alewlfe, and white and yellow perch. However, streams that cross the study corrldor are not known to serve as spawning areas.

Threatened or Endangered WIIdIIfe
Except for occasional translent Individuals, there are no known federally threatened or endangered specles which reside in the study area, (refer to letter In correspondence section).
c. Wetlands

Wetland areas cccur throughout the study area, predamInantly along the major steams and tributarles. The U.S. FIsh and WIldilfe Service Nat lonal Wetlands Inventory maps were used to Identlfy wetlands of the study area, and these are shown on FIgure III-2. Extensive areas of wetlands occur along Stony Run, and Saw MIII Creek and Deep Run, and scattered other pockets of wetlands occur throughout the corrldor. These are all non-tidal wetlands of the Palustrine ecologlcal system. Wetland areas along the streams are domlnantly forested, broad leaf declduous, mapped as having elther temporarlly flooded or seasonally flooded water regimes; with smaller areas of
narrow leafed, emergent vegetation of temporarily fiooded water regime. The remaining wetiands inciude many open water, intermittentiy exposed ponds.

These wetlands are essentlal components of estuarine and freshwater ecosystems, providing valuable habltat and food for numerous species of plants and animals. Physically, the wetiands function as erosion control mechanisms and sediment traps. Hydrologically, vegetated wetiands function as buffer systems to flood water. Their unique water holding capacity, estimated to be as much as 300,000 gallons per acre, allows them to store excess water which is released at times of drought to aquifer recharge areas. Vegetated wetlands also provide significant poliution abatement by acting as nutrlent sinks which decrease water poliution by metaboilzing nitrates and phosphates and by absorbing and assimilating gaseous air poliutants.

A more detalled wetiands analysis has been performed for those areas that may be impacted by the deveioped alternates. Wet lands I imits and characteristics were refined by the use of detalled soll serles mapping from soll surveys of both Howard and Anne Arundel Countles, and by field Investigations also. Field Investigations were conducted on November 18, 1986 and March 30, 1987 with representatives of the U.S. Fish \& Wildilfe Service, the MD DNR wetlands Division, and the U.S. Corps of Engineers. Notes of this reconnalssance are included in the Correspondence Section. These soli surveys characterize the sultability of specific solis serles for both wetland plants and wetiand wildilfe habitat. Ten separate wetland areas have been identifled along the path of the selected alternate(Alternate 3B Modified). Limits of these areas are shown on Figures $|\mid-26$ thru $| \mid-35$, and Table $\|\|-6$ summarizes information on each. Table lili-6a summarizes data on wetiands associated only with the other Build Alternates.

## TABLE III - 6

## DESCRIPTION OF WETLANDS

|  | Wetland (a) Number | Location | Classification | Representative Vegetation | Approximate width thru Corridor |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | W-1 | Along Sawmill Creek, East of Friendship Park | Palustrine forested Broad leaf deciduous Temporary flooding regime | Red Maple, Black Gum Winterberry, ferns, Chokeberry | $775{ }^{\prime}$ |
|  | W-2 | Along Sawmill Creek near WB \& A Road | Palustrine forested Broad leaf deciduous Telliporary flooding regime | Sweet Gum, Red Maple, White Oak, arrowwood High brush blueberry | $640{ }^{\prime}$ |
|  | W-3 | Buckingham Nursery | Palustrine forested and Palustrine emergent areas | Black Gum, Maple, Willows, River Birch, Cattails | $675{ }^{\circ}$ |
| $\underset{-}{\leftrightarrows}$ | W-4 | Along Stony Run South of Koppers Plant | Palustrine forested and Palustrine emergent areas | Red Maple, Spagnum Moss, Winterberry, Viburnum | 8001 |
|  | W-5 | Stony Run Tributary NE of liarmons Park | Palustrine forested Broad leaf deciduous | Red Maple, Black Gum | $570{ }^{\prime}$ |
|  | W-6 | Piny Run Tributary S.W. of Shipleys Corner | Palustrine forested, Broad leaf deciduous, Needle leaved evergreen | Red Maple, Black Gum, River Birch, Pitch Pine | $180^{\prime}$ |
|  | W-7 | Along Piny Run <br> S. of Dorsey Road | Palustrine forested, Broad leaf deciduous | Red Maple, Black Gum, River Birch | $250{ }^{\prime}$ |
|  | W-8 | Along Deep Run Trib. near Race Road | Palustrine forested Broad leaf deciduous | Sycamore, Red Maple, Viburnum | $480{ }^{\prime}$ |
|  | W-9 | Along Deep Run North of Dorsey | Palustrine forested Broad leaf deciduous | Sycamore, Black Gum, Red Maple, Chokeberry | $1760^{\prime}$ |
|  | W-10 | Along Deep Run Trib. West of U.S. Route 1 | Palustrine forested Broad leaf deciduous | Sycamore, Black Gum, Red Maple, Arrowwood | $500{ }^{\prime}$ |
|  | (a) See Figur <br> (b) Widths ar hydrologi | II-26 thru II-35 <br> approximate as estimated <br> support systen. Map's ind | in the field and by soil sur icate approximate maxinum | ey data; may vary to time ent. | year and |

TABLE III - 6 (a)
STUDY AREA WETLANDS SUMMARY

| Wetland Number | Affected by Alternate No. | Location | Classification | Area (acres) |
| :---: | :---: | :---: | :---: | :---: |
| W2-1 | 2 | EWI Airport nr. Post 11 | PFOIA | 0.3 |
| W2-2 | 2 | BWI Airport @ Dorsey Rd. | PFOIA/PEMIE | 1.9 |
| W2-3 | 2 | E. of Wright Rd. along Dorsey Rd. | PFOIA/R3UBL | 4.5 |
| W2-4 | 2 | Along Dorsey Rd. opposite St. Marks Church | PFOIA | 0.3 |
| W2-5 | 2 | O1d Dorsey Rd. © Dorsey Rd. | PEMIEX | 0.2 |
| W2-6 | 2 | Between Dorsey \& 01d Dorsey W. of MD 170 | PFOIE | 2.1 |
| W2B-1 | 2B | S. of Friendship Pk. @ BWI | PFOIA | 0.6 |
| W-2B-2 | 2B | Between WB \& A P.d. \& Route 3 | PFOIA | 1.9 |
| W-2B-3 | 2 B | Along Jones Road | PFOIA | 1.7 |
| W-3A-1 | 3 A | At Bend in Jones Road | PFOIA | 2.2 |
| W-3A-2 | 3A | E. of WBA Rd., S. of Queenstown Road | PFOIA | 2.0 |
| W-3A-3 | 3 A | W. of WB \& A Rd. | PFOIA/R3UB | 1.2 |
| W-4-1 | 4 | End of S. Thomas Rd. | POWHx/PEM5Gx/PF0IE | 6.2 |
| W-4-2 | 4 | Along 0 'Connor Rd. | PFOIA | 8.6 |
| W-4-3 | 4 | I 295/Race Rd. Int. Area | PFOIA | 1.0 |
| W-4-4 | 4 | E. of I 295 @ Race Rd. | PFOIA | 2.6 |
| W-4-5 | 4 | S.E. Quadrant I-295 Interchange | R3UBI/PFOIE | 5.5 |

TABLE III - 6 (a) (cont.)
STUDY AREA WETLANDS SUMMARY

| Wetland Number | Affected by Alternate No. | Location | Classification | Area (acres) |
| :---: | :---: | :---: | :---: | :---: |
| W-4-6 | 4 | I 295 interchange E. of I-295 | PFOIA/POWH | 3.2 |
| W-4-7 | 4 | I-295 interchange N. of Rt. 100 | PFOIA/R3UB2H | 1.6 |
| W-4-8 | 4 | Along Race Rd. E. of I-295 | PFOIA | 0.3 |
| W-4-9 | 4 | E. of Race Road | PFOIE/R3UBIA | 1.7 |
| W-4-10 | 4 | E. of Deep Run | PFOIG | 0.3 |
| W-4-11 | 4 | Patapsco St. Park | PFOIE | 0.4 |
| W-4-12 | 4 | Patapsco St. Park, S. R/W | PFOIA | 0.1 |
| W-4-13 | 4 | Patapsco St. Park, W. of Pond | PFOIA | 1.3 |
| W-4-14 | 4 | Patapsco St. Park | PFOIE | 1.0 |
| W-4-15 | 4 | Between Race Rd. \& I-295 | PFOIE | 0.4 |
| W-4-16 | 4 | BWI Airport near Rt. 170 | R3UB2 | 0.6 |
| W-4-17 | 4 | Patapsco State Park | PFOIA | 0.8 |
| W-4-18 | 4 | Patapsco State Park | PFOIA | 0.7 |
| W-4-19 | 4 | Patapsco State Park | R4 | 0.1 |
| W-4-20 | 4 | Amtrack 1 ines near I-170 | PFOIA/POWx/ PEM5H/R3UBI | 25.5 |
| W-4-21 | 4 | W. of Ridge Road | PFOIE | 0.6 |
| W-4-22 | 4 | NW of W-4-21 | PFOIA | 1.0 |
| W-4-23 | 4 | BW \& A Road | PFOIE | 4.3 |

TABLE III - 6 (a) (cont.)
STUDY AREA WETLANDS SUMMARY

| Wetland Number | Affected by Alternate No. | Location | Classification | Area (acres) |
| :---: | :---: | :---: | :---: | :---: |
| W-4-24 | 4 | W. of WB \& A Road | P35IA/PF0IA | 3.4 |
| W-4-25 | 4 | E. of WB i A Road | PEM5A | 0.1 |
| W-4-26 | 4 | E. of WB \& A Road | POWX | 2.0 |
| W-4-27 | 4 | Sawmill Creek area | PFOIA | 1.7 |
| W-4-28 | 4 | Along Jones Road | PFOIA | 2.2 |
| WC-1 | X Over | E. of Ridge Road | PEMIE | 0.5 |
| WC-2 | X Over | E. of Ridge Road | PEM2A | 0.3 |
| WC-3 | $x$ Over | W. of Ridge Road | R41 | 0.1 |
| WC-4 | $X$ Over | Piney Run N. of Dorsey Road | R35BI | 0.8 |

$\frac{8}{8}$

## 7. Environmentally Sensitive Areas

Environmentally sensitive areas along the study corrldor Include the Troyhlil Natural Environmental Area and the Maryland Department of Natural Resources' BuckIngham Forest Tree Nursery.

In the eastern quadrant of the 1-95-Maryland Route 100 Interchange in Howard County is the Troyhlil Natural Environmental Area. The area is a tract of approximately 57 acres of woodlands and pioneer growth which is also a historical site Included on the National Register of. historic places. Troy, which Includes a house built in 1820, is the remaining fragment of an original 1100 acre parcel settled In 1695 by John Dorsey. Howard County has tentative plans for developing this site into an arboretum to be run by the Eikrldge HerItage Society, which will Include meadows and shrub planting, wildflower areas, and restoration of the existing building. The site will thus become an area of high scenic and environmental value. Since this area lies outside the study area lImits, It will not be Impacted by the project, and is not discussed further in this report.

The BuckIngham Forest Tree Nursery is an approximately 130 acre area located adjacent to the AMTRAK lIne south of Dorsey Road (see Figure (11-2). It is operated by the Maryland Department of Natural Resources to provide seedlIngs of various species for use throughout the State. Envirormental concerns that have been Identified for this site regarding impacts from a new roadway include loss of land for seeding beds, disruption or poiluton of the spring fed system of Irrigation ponds, and potential air pollution problems. A separate environmental study has been developed to address the concerns for this nursery, (Analysis of Impacts on BuckIngham Nursery resultIng from Proposed MD Route 100 - October, 1986), and is available for review
at the Maryland State HIghway AdmInIstration LIbrary, 707 North Calvert Street, Baltimore, Maryland and at all State Depository Libraries. The results are summarized below and in section IV.C. 5 of this document.

The BuckIngham Nursery property is comprised of several habitat types based on natural successional stages, past mining practices and present nursery practices. Various portions of the property are used by State Forest, Park and WIldlIfe personnel for production of seedlIngs, seed orchards, field production areas, and tree plantation areas. There are also fallow fields, grass covered areas and newly cleared areas.

Seed areas are used to grow tree seedlIngs on an annual or biannual basis. Seed orchard areas are planted groves of trees used to produce seeds. These seeds are then harvested and used to produce seedlIngs. Field production areas are fields used to grow trees beyond the seedling stage. These trees are raised to sapling stage before being removed for planting elsewhere or are used to grow trees from which cuttings are taken on an annual basis.

There are several areas referred to as tree plantations and most of these are in white pines. The areas are used primarily for screening and aesthetics. Fallow fields are generally covered with sparse herbaceous growth, and these areas will be converted to tree production/propagat ion depending on the nursery scheduling. In addition, there are 15.1 acres of newly cleared land. A large portion is expected to be used in the near future for seed beds.

There are also wetland areas in the nursery described In the National Wetlands Inventory as palustrine, forested broad leaf, decideyous, seasonal (PFOIC). This wetland type is characterized by a thin canopy,
a weli-defined shrub layer and humocking. Red maple is the dominant canopy species, with sweet bay scattered throughout (facultative wetland species). Willow and tupelo are also occasional species. Pines and oaks are found along the drier edges and on raised areas which appear to be spoil plies and abanconed roadbeds.

Several small ponds are located within the nursery.
These ponds are mostly excavated, having been created by past mining practices. The ponds are classified as POWFX or POWZX (paiustrine, open water, unknown bottom, semipermanent or intermittently exposed/permanent, excavated). The largest pond is used as a source for nursery irrigation water.
D. Air Quality

The Maryiand Route 100 project is within the Metropolitan Baitimore Interstate Air Quality Control Region. Whlle only a portion of the region does not meet the primary standards for carbon monoxide ( $\infty$ ), the entire region is subject to transportation control measures such as the VehIcle Emission Inspection Program.

A detailed microscale air quallty analysis has been performed to determine the $\infty$ impact of the proposed project and is described in further detali. In Section IV.D.

## E. Noise

## ExIsting NoIse

Existing noise conditions in the study corridor are described in detaIl In Section IV.E.2., AmbIent NoIse Level Measurements, and In a supplemental report to this EIS (Maryland Route 100 - NoIse Analysis Report). Noise sensitive areas along the study corridor such as residences, schools, hospitals, and parks, are Identified In Section iV and ambient noise levels are presented.

In this assessment, noIse levels are presented in terms of the Aweighted equivalent sound level, abbreviated here as Lea. It is a single number representation of the actual fluctuating sound level that accounts for all the sound energy during a given period of time. The units of Lea are Aweighted decibels or ABA. The A-welghting means that the sound level is measured in a method that approximates the response of the human ear with deemphasis of low and very high frequencies, and emphasis on the mid frequency range.

In most residential areas, Led values generally range between 50 ABA and 70 dBA . Quiet rural areas can be below 50 dBA , while noisy urban areas with either high volumes of street traffic or aircraft overflights can be above 70 dBA . Tables In Section IV.E. present the measured existing or "ambient" values of Lea along the proposed Maryland Route 100 corridor. In general, existing Lea ranges from mld-50's aBA to upper 60's aBA. Only within approximately 50 feet of Dorsey Road do existing street traffic noise levels exceed 70 dBA Lea.

It should be noted that throughout the study area, nolse from alrcraft operations at Baltimore-WashIngton International Alrport are audlble, If not domlnant. Alrcraft nolse, however, cannot be consldered to completely cover up or "mask" street trafflc nolse. Alrcraft nolse is very different from street trafflc nolse, belng characterlzed by relatively short duration, high level events, with qulet perlods in between. Traffic nolse, on the other hand, tends to be falrly constant in level, varying siowly as rush periods begin and end.

Thus, though alrcraft nolse exlsts, and was measured throughout the study area, It has been separated from the measured amblent Leq values. Tables In Section IV.E. showing measured amblent Leq values give both the total or "wlth alrcraft" nolse levels and the non-alrcraft or "wlthout alrcraft" nolse levels.

## Future Nolse Impacts

The effects of nolse from the proposed Maryland Route 100 are Judged In accordance with Federal HIghway Administration (FHWA) standards and Maryland State Highway Administration (SHA) guldellnes. According to FHNA regulations as given In 23CFR772 or in FHPM 7-7-3, traffic nolse impacts occur when:
> "...the predicted traffic nolse levels approach or exceed the nolse abatement criterla (see Table Ill-7), or when the predicted traffic nolse levels substantlally exceed the exlsting nolse levels."

FHWA regulations further state that nolse Impact should be assessed for the nolslest hour of the day in the design year (this is usually the peak hour). Maryland State Highway Adminlstration also considers an Increase of 10 dBA or more above existing amblent levels to represent a signiflcant Impact.

## TABLE |l|-7

## NOISE ABATEMENT CRITERIA AND <br> LAND USE RELATIONSHIPS <br> SPECIFIED IN FHPM 7-7-3

ACTIVITY
CATEGORY
A

B

C

D

E

Leq(h)
57
(Exterlor)

67
(Exterlor)

72
(Exterlor)
-
52
(Interior)

## DESCRIPTION OF ACTIVITY PROGRAM

Lands on which serenlty and qulet are of extraordinary significance and serve an Important public need and where the preservation of those qualitles is essential If the area is to continue to serve its Intended purpose.

Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, librarles, and hospltals.

Developed lands, properties, or activities not included In Categorles A or B above.

Undeveloped lands.
Residences, motels, hotels, public meeting rooms, schools, churches, ilbrarles, hospltals, and auditorlums.

Throughout the study corridor, all nolse sensitive land uses are considered to fall in Activity Category $B$ of Tabie lil-7. Thus nolse impacts occur when computed design year Maryland Route 100 traffic Leq values exceed 67 dBA , or when these computed levels exceed the measured "without alrcraft" levels by 10 dBA or more.

## F. Cultural Resources

## 1. HIstoric SItes

The Maryland Historical Trust, in conjunction with the State Highway Administration, has identified seventeen sites of historical significance in the study area. Two sites, the Smith farm located near Telegraph Road at Queenstown Road and the Shipley House located on Ridge Road south of Shipley Corner, are considered eligible for the National Register by the State Historic Preservation Officer. The remaining 15 sites have been designated as being of Maryland inventory Quality only, and not thought to meet the criteria for inclusion in the National Register. These historical sites are described in Table lli-8 with their historical significance, and are located on Figure 1II-2.

The Bill Shipley House, (AA 125) is a frame house, built in the mid-nineteenth century, located on a hill overlooking the intersection of Dorsey and Ridge Roads. Consisting of two parts, the south section is two stories high and three bays long, with a long two story wing attached to the east on the rear side. Attached to the north side is another two story, 3 bay structure which served as a store until 1913. The house is complemented by a board and batten barn, numerous sheds and a frame corncrib which are located east of it. The building and its setting retain considerable integrity and is a visual reminder of the rural character of the area in the nineteenth and early twentieth century. It is also significant for its association with the Shipley family, prominent in the area, who built the house and occupied it untIl the sale to the current owner.

The Smlth Farm is visualiy domlnated by the large, two story, four bay frame house which sits on a hill overlooking the surrounding cropland. This large, rambling, frame structure, probably built in the third quarter of the nineteenth century by the Smith family, is complemented by numerous farm bulldings of later vintage, and a famlly cemetery located next to the house. The farm is signiflcant as a palpable IInk to the agrarlan and rural character of this section of Anne Arundel County in the nineteenth and early twentleth century and for the archltectural character of the house and Its traditional settlng.

## 2. Archeologlcal Sites

A Phase I Archeologlcal Investigation of the project area Identifled 24 archeological sites that would be Impacted by alternatives belng consldered. Of these, flve prehlstoric sltes (18AN579, 18AN582, 18AN29A, 18AN352, 18AN58O) and one historic site (18AN596) were identified as having potentlal Natlonal Reglster signiflcance. One site, 18AN352, will not be Impacted by alternates now belng considered.

With the selection of Alternate 38 (Modifled), Phase il archeological work will be undertaken at sites 18AN596, 18AN580, and elther $18 A N 579$ or $18 A N 582$ to determine slte boundarles, degree of impact, and National Reglster ellgiblilty. If Alternate $4 / 3 B$ had been chosen, Phase II archaeological work would have been undertaken at site 18AN29A.

Addltionai Phase $I$ archeologlcai reconnalssance would also have been undertaken In archeological test tract 12, along Alternate 4/3B whlch was not previously surveyed. This tract wili not be impacted by Alternate 3B (Modlfled).

TABLE |||-8
STUDY AREA HISTORICAL SITES

Description*
a. Frame dwelling
b. Frame dwelling
c. Smith Farm
d. Frame dwelling and out buildings
e. HawkIns house (AA 231)
f. Farm on Harmans Road
g. Alpha Assembly of God Church
h. Dwelling (within park property)

1. Piney Run (AA 124)
J. Shipley House (AA 125)
k. Frame dwell lIngs., 7114 Wright Road
2. Frame dwelling, Dorsey Road east of Bal to. Wash. Parkway Frame dwelling, Dorsey Road east of Balto. Wash. Parkway Frame dwelling, 1576 Dorsey Road
o. Frame dwelling on Abraham Road
D. Frame dwelling on Abraham Road
a. Frame dwelling on Dorsey Road, west of Balbo. Wash. Parkway

## SIgnificance

Maryland Inventory Quality only
Maryland Inventory Quality only
NatIonal Register eligible
Maryland Inventory Quality only
Maryland Inventory Quality only
Maryland Inventory Quality only
Maryland Inventory Quality only
Maryland Inventory Quality only
Maryland Inventory Quality only
NatIonal Register eligible
Maryland Inventory QuaIl ty only
Maryland Inventory Quality only
Maryland Inventory QualIty only
Maryland Inventory Quality only
Maryland Inventory QualIty only
Maryland Inventory Quality only Maryland Inventory Quality only

* See Figure 1II-2 for location of slate


## IV <br> ENVIRONMENTAL CONSEQUENCES

## IV. ENVIRONMENTAL CONSEQUENCES

## A. Social and Economic

1. Social Impacts
a. Residential DIsplacement and Relocation Availability Residential displacement is based on preliminary relocation studies conducted by the State HIghway Administration. The preliminary relocation report is available for examination at the offices of the State HIghway Administration, 707 North Calvert Street, Baltimore, Maryland. Relocation of any families and Individuals displaced by the proposed project would be accomplished In accordance with the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (P.L. 91-646) and as amended in 1987. A summary of the relocation assistance program of the State of Maryland is given in Appendix $B$.

## No-Bulld Alternate

The No-Bulld Alternate would result in no residential relocations or displacements. This alternate would not serve the planned resdental and commercial development throughout the study area and is not consistent with proposed land use for both Anne Arundel and Howard Counties.

Maryland Route 100 Alternates
Alternate 2 - Opt lon A would require the relocation of 38 residences of which 34 are owner-occupled and 4 are tenant-occupled, affecting approxImately 152 persons.

Under Alternate 2 - Option B, 39 residences would be relocated Involving 35 owner-occupled and 4 tenant-occupled residences. Approx imately 156 persons would be affected by this alternate.

The relocation of 39 residences would be requiled for Alternate 3 - Option A. These relocatlons Include 31 owner-occupled and 8 tenantcccupled resldences affecting approxlmately 156 persons.

Alternate 3 - Option B would requlre 29 resldences to be relocated, of whlch 19 are owner-occupled and 10 are tenant-occupled. Approximately 116 persons would be affected.

The Alternate 3 Interchange option at Maryland Route 295 would require 3 additional owner-occupled relocatlons; the Interchange option at Maryland Route 713 would require no addltional relocatlons; and the Interchange option at Maryland Route 170 would require 1 addltional owner-occupled relocation.

Alternate 38 (Modifled), the selected alternate, would require 22 resldences to be relocated of whlch 12 are owner-occupled and 10 are tenant-occupled. Approximately 88 persons would be affected.

For Alternate 4, 33 residences would be relocated of which 32 are owner-occupled and 1 is tenant-occupled. Approximately 132 persons would be affected by thls alternate.

Alternate 4 with a connection to Alternate 3 - Option B near W.B.\& A. Road would requlre 25 residences to be relocated of which 24 are owner-occupled and 1 is tenant-occupled. ApproxImately 100 persons would be affected.

The Alternate 3 -Crossover-Alternate 4 allgment would require the relocation of 40 resldences of whlch 37 are owner-occupled and 3 are tenant-occupled. Thls alternate would affect approximately 160 persons.

All the requlred relocations are expected to be completed in a timely, orderly and humane manner and without any undue hardshlp to those
affected. A reasonable lead time of 24 months from the date of the initiation of negotiations would be necessary to accomplish the required relocation. "Housing of Last Resort" would be utilized, If necessary, to provide comparable decent, safe and sanitary housing.

A survey of the local real estate market reveals that there is sufficient comparable replacement housing in the area for the dislocated famliles. The survey for the Howard County area of the project was made in January, 1986 and the survey for the Anne Arundel County area of the project was made in March, 1987. Of the 25 homes found to be for sale in the Howard County area of the project, 3 were in the asking price range of $\$ 30,000$ to $\$ 60,000$ and 22 were greater than $\$ 60,000$. Four homes were found to be for rent with the monthly rent greater than $\$ 300$. All of the 118 homes found to be for sale In the Anne Arundel County area of the project were in the asking price range greater than $\$ 60,000$. Ninety-one rental units (twenty-four onebedroom apartments, 36 two-bedroom apartments, eleven two-bedrom homes, 18 three-bedroom homes and 2 four-bedroom homes) with monthly rents greater than $\$ 300$ were found to be available. However, It should be noted that the nearest replacement housing for those famliles displaced from the Queenstown community would be In the Glen Burnle/Ferndale or the Ft. Meade area since there is no sufficient housing available within the community. There are no adverse Impacts expected to the communities to which the displaces may move and there are no known outside projects which would affect the avallablilty of replacement housing. No significant change in population density or distribution is expected.

In addition to the required displacements, an additional amount of right-of-way would be required from other properties to accommodate
the new allgrment required under each alternate. While much of the land is vacant, some parcels have been proposed for future development. Table S-1 In the summary shows the acreages affected by type under each alternate.
b. Effects on MInorItIes, HandIcapped, Elderly Persons

The Build Alternates would have the following effects on minority residences:

Alternate 2 - Option A would displace 20 minority owneroccupied and 3 minority tenant-occupled residences. Approximately 80 persons would be Involved. There would be 2 minority owner-occupled relocation from the Dorsey community located In the northwest quadrant of the existing Dorsey Road/Race Road Intersection. From the Immediate area east of the existing Dorsey Road/Maryland Route 295 Interchange, 2 minority owner-occupled and 1 minorlty-tenant occupied residences would be displaced. The community of Shipley Corner would experience 4 minority owner-occupled, 1 minority tenantoccupied and 1 minority church displacement. One minority owner-occupled residence would be relocated from the southeast quadrant of the existing Dorsey Road/Maryland Route 170 Interchange and 9 minorIty owner-occupled residences would be relocated from the Queenstown community.

Under Alternate 2 - Option B, 21 minority owner-occupled and 3 minority tenant-occupled residences would be relocated. This allgrment has the same impacts as those for Alternate 2 - Option A, except that 10 mlnorlty owner-occupled residences would be displaced from the community of Queenstown.

The allgment for Alternate 3 - Option A would displace 24 minority owner-occupied and 1 minority tenant-occupled residences. There would be 5 minority owner-occupled relocation from the Dorsey community
located In the northwest quadrant of the existIng Dorsey Road/Race Road Intersection. From the Immediate area east of the existing Dorsey Road/Maryland Route 295 Interchange, 3 minority owner-occupled residences and 1 minority tenant-occupled residence would be displaced. One minority owner-occupled residence and 1 minority church would be displaced from the Shipley Corner community. There would be 4 minority owner-occupled relocation from the Burleytown section of Queenstown which les along W.B.\& A. Road north of Dorol Court and the Queenstown community near Jones Road would experience 8 minority owner-occupled relocatlons.

Alternate 3 - Option B would displace 9 minority owneroccupied and 2 minority tenant-cccupled residences. This allgment has the same Impacts as those for Alternate 3 - Option A from 1-95 to the Maryland Route 170 Interchange. East of Maryland Route 170, Option 8 curves northeaster fly around the Queenstown community before teeing Into existing Route 100 at 1-97. One minority tenant-occupled residence would be displaced from the area where Option B crosses under Queenstown Road.

The Alternate 3 Interchange option at Maryland Route 295 would require 3 additional minority owner-occupled relocation.

The Alternate 3 Interchange options at Maryland Route 713 and Maryland Route 170 would not require any additional minority relocatlons.

Alternate 38 (Modified), the selected alternate, would displace 7 minority owner-occupled and 3 minority tenant-occupled residences. There would be three minority owner-occupled relocation from the Dorsey communlty located In the northwest quadrant' of the existing Dorsey Road/Race Road Intersection. From the.Immedlate area east of the existing Dorsey Road/Maryland Route 295 Interchange, three minority owner-occupled residences and one
minorlty tenant-cccupled residence would be dlsplaced. One minorlty owneroccupled resldence and one minorlty tenant-occupled residence would be displaced from the Shlpley Corner cammunlty. There would be one minorlty tenant-occupled relocation from the Queenstown communlty In the vicinlty of the Smlth Farm.

For Alternate 4, 12 minority owner-cccupled residences would be relocated. Along Weeplng WIIIow Road Just east of Maryland Route 295, two minorlty owner-occupled resldences would be displaced. One minorlty owneroccupled residence would be relocated from the area north of Calvary Church along Ridge Road and 9 minorlty owner-occupled residences would be displaced from the Queenstown communlty.

Under the Alternate 3 - Crossover-Alternate 4 allgrment, 25 minorlty owner-occupled residences and one minorlty tenant-occupled residence would be relocated. There would be 5 minorlty owner-occupled relocatlons from the Dorsey communlty located In the northwest quadrant of the exlsting Dorsey Road/Race Road Intersection. From the area Immedlately east of the existing Dorsey RoadMaryland Route 295 Interchange, 10 minorlty owner-occupled resldences and one minorlty tenant-occupled resldence would be displaced. One minorlty owner-occupled residence would be relocated from the area south of Calvary Church along Ridge Road and 9 minorlty owner-occupled residences would be displaced from the Queenstown communlty.

Alternate 4/3B would require three minorlty owner-occupled residences to be displaced. Two of these relocations are along weeplng willow Road and one Is In the area north of Calvary Church along RIdge Road.

Because of close communlty relationshlps, the State HIghway Adminlstration wIII consIder every reasonable measure to malntaln nelghborhood
continuity. Relocation Assistance personnel will meet with each person to ascertain their replacement housing needs prior to displacement. Every effort will be made to mitigate camunity disruption and serve the Individual needs by conducting relocation assistance Informational meetings. These meetings will be designed to solicit community Input and ideas regarding comparable replacement housing. While comparable replacement housing is available in nearby areas, special efforts will be examined Including the use of Last Resort Housing to maintain, where possible, community ties. Close liaison with community leaders will be maintained to insure that individual needs are met through advisory services.

The needs of the elder il and handicapped will be considered as well as those of minority individuals.

The construction of Alternates 3 or 4 would remove through traffic from the local road network and would thus have a positive Impact on access and travel patterns for any elderly who may walk and drive along those roads.

## C. Summary of Equal Opportunity Program of Maryland State

It is the policy of the Maryland State HIghway Administraton 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 Adminlstraton. The State HIghway Administration wII not discriminate In highway plan-
ning, highway design, highway construction, the acqulsition of right-of-way, or the provision of relocation advisory assistance.

Thls pollcy has been Incorporated Into all levels of the highway plannlng process in order that proper consideration may be given to the soclal, economic, and enviromental effects of all highway projects. Alleged discriminatory actlons should be addressed to the Equal Opportunlty Section of the Maryland State HIghway AdmInIstration for Investlgation.
d. Access to Nelghborhoods, Cormunltles, and Community

## Facllitles

For the most part, the Bulld Alternates would Improve accesslbillty, travel time, and safety by separating local and through trafflc. Access and travel time would Improve for travel both withln and outslde the study corridor for Intercounty cammuters, local residents, and businesses in developlng Industrlal areas. Maryland Route 100 would accommodate a majorlty of through and buslness truck trafflc allowing less congested local business and residentlal use of Maryland Route 176 and Intersecting streets. Interchanges would facliltate quicker and easler access, especlally during peak volume perlods.

No-Bulld Alternate - under this alternate, deterlorating traffic condltions will contInue to worsen in the project area as congestlon Increases; posing hazards to chlldren, blcyclists, pedestrlans, and nearby residents. The Increase In traffic and related congestion would lead to more disruptions to the residentlal and commerclal development along existing Maryland Route 176 than would any of the bulld alternates. The No-Bulld Alternate would also lead to disruptlons to communlties along adjacent roads
(notably Queenstown, Road) as traffic would Increasingly use these roads to avoid the congestion along Route $17 \dot{6}$.

Alternate 2 - From 1-95 east to Maryland Route 295, this alternate would disturb no communities except for the part of Dorsey Road at the Maryland Route $176 /$ Race Road Intersection where there would be 6 residentaal displacements and disruptions to patterns of interaction would occur. While this allgment which is on new location would divide the community, access across MD. Route 100 is provided via the Intersection with Race Road. This alternate would remove the through traffic of Maryland Route 176 from Race Road west to U.S. Route 1 Increasing safety and access to the developmints In this area.

Under this alternate the Intersection of Maryland Route 176/U.S. Route 1 would be relocated approximately $1 / 4 \mathrm{mlle}$ south, to opposite Meadow Inge Road, due to Interchange construction. The existing intersection will terminate with a cul-de-sac. This relocation would not result in any significant changes In access or driving time for those using Maryland Route 176. Interchange construction at U.S. Route 1 would also result in the relocation of a residential area access road to opposite the relocated entrance to the Maryland Route 100 Business Park. These relocation would not have slgnificant adverse effects in terms of accessibility.

Alternate 2 would continue east across the Chessle System (B8O Railroad) and O'Connor Road on bridge, tyIng Into existing Maryland Route 176 at Race Road. Parkway Drive South will be connected by service roads to the existing Maryland Route 176 and Parkway Drive North (Parkway Industrial Center access) will also be connected by service roads to the Alternate 2
allgment. Accessiblilty and travel time should not be significantly affected.

Alternate 2 then Interchanges with Maryland Route 295, running parallel, and Just south of, Maryland Route 176. Access from Wright Road would be relocated east of Its present Intersection. Existing Dorsey Road, east of Maryland Route 295, would become a service road accessed by Alternate 2 at the Intersection with the relocated Wright Road. This causes the travel distance to St. Marks Unlted Methodist Church from the east to Increase by approximately one (1) mile and no other significant impacts on accessibility are antlclpated.

From Maryland Route 295 east to Maryland Route 713 (Ridge Road), Alternate 2 would cause 4 residentlal relocations from the area of the existing Wright Road/Dorsey Road Intersection and at the Ridge Road/Dorsey Road Intersection, displacements of 7 residences, 6 businesses, a church and cemetery would cause disruptions to the communlty of Shipley Corner.

The Alternate 2 allgrment shlfts silghtly north of Maryland Route 176 East of the Ridge Road Intersection to minimize Impacts to the Sandalwood and Ridge VIew developments. There would, however, be an Increase In traffic on some roads within the developments since access to the allgment In this area from the developments Is IImited to Leeds Road and Harmans Road. The Anne Arundel County Fire Department, located Just east of RIdge Road, would be provided with emergency-only access to both eastbound and westbound Route 100. The Sandalwood development would have access from and to eastbound Route 100 at Leeds Road. There would be no direct access to Route 100 from

Sandalwood Court. At the existing entrance to the Baltimore Commons Industryal Park, there would be an at-grade Intersection allowing access to the Industrial park to the north and Old Dorsey Road to the south. Access from Harmans Road to westbound Route 100 would be at this Intersection while access from Harmans Road to eastbound Route 100 would be at the existing Dorsey Road/Harmans Road intersection. There would be access to and from westbound Route 100 at Shipley Avenue. Access to eastbound Route 100 from Shipley Avenue would be via Upturns at the Baltimore Commons Industrial Park Intersection and access to Shlpley Avenue from eastbound Route 100 would be via U-turns at the Maryland Route 170 interchange. Near Sandalwood, there would be access to and from westbound Route 100 for those residences along the north side of Dorsey Road and these residences would have access to eastbound Route 100 via U-turns at the Route 713 Intersection and access from eastbound Route 100 via U-turns at the Baltimore Commons Industrial Park Intersection. Travel to the Wesley Grove United Methodist Church from the east would be increased by approximately three-fourths of a mile and travel from the church to the west would be increased by approximately two-thirds of a mile.

The Alternate 2 alignment then bridges over the AMTRAK railroad and Interchanges with Maryland Route 170 (Camp Meade Road). Access to the road leading to the Buckingham Tree Nursery is maintained.

East of Maryland Route 170, Alternate 2 is north of existing Dorsey Road and does not directly Impact the Timber Ridge development. There Is an at-grade Intersection with Maryland Route 652 (Telegraph Road) which maintains access to the development.

The Alternate 2 - Option A allgment then turns south of
Maryland Route 176, IntersectIng at-grade wIth W.B.\& A. Road, and continues
onto the 1-97/Route 100 Interchange. Access to the northern sectlon of Queenstown would be malntalned by bridging over a relocated jones Road. Alternate 2 - Option B contInues to run parallel to Maryland Route 176 east of the Intersection with Maryland Route 652, turning south along the edge of Frlendship Park and tyIng Into the I-97Maryland Route 100 Interchange which Is Identical to Option A. The VFW Post 160 bullding would be relocated under Option $A$ while option $B$ would malntaln access to the bullding since existing Dorsey Road would serve as a frontage road.

Under elther option, there will be no signlficant Increases In travel time or clrculty of travel for the residents of Queenstown to use the existing road network. However, both optlons cross through the residentlal area of Queenstown near the existing Maryiand Route 100 terminus at Maryland Route 3 with Option A requiring 9 relocations and Option B requiring 10 relocations at Maryland Route 3. Even though both options would brldge over a relocated Jones Road, the roadway would be a physical barrler that would essentlally divide the cormunlty Into north and south sections. Both optlons also would require the acquisltion of the northern corner of the Metropolitan Unlted Methodist Church property. Nelther option would disturb Queenstown Park.

Alternate 3 - This alternate follows the allgrment of Alternate 2 from U.S. Route 1 east to Maryland Route 295. Where relocated Dorsey Road tles Into Race Road, there would be an Interchange Instead of the Alternate 2 at-grade Intersection. Thls alternate would baslcally have the same effects as Alternate 2, except that 10 residentlal relocations would be required from the Maryland Route 176/Race Road Intersection. Access across the freeway is provided via an overpass on the relocated Race Road.

Alternate 3 begins to diverge south of Maryiand Route 176 east of Maryiand Route 295. Wright Road would be relocated and brldged over Route 100 to tie Into existing Dorsey Road. Access to Route 100 from Wright Road would be at the relocated New Rldge Road Interchange, Increasing the travel distance from Wright. Road to westbound Route 100 and from eastbound Route 100 to Wright Road by approximately one and three-quarter miles. Four reiocations would be required from the area of the existing Wright Road/Dorsey Road intersection. The Mount PIIgrim Baptlst Church would be reiocated. There would be no disturbance to St. Marks Unlted Methodlst Church, the Piney Run House, the Shlpiey House, Harmans Park or the Assembiy of God Church.

The Interchange at the relocated New Rldge Road (Maryland Route 713) includes an at-grade Intersection of New Ridge Road and Dorsey Road which provides convenient access for the Anne Arundel County Fire Department to both eastbound and westbound Route 100. This Interchange would also re_ quire the relocation of Watts Avenue and Ridge Chapel Road, resuiting in an at-grade Intersection on Route 713. Existing Route 713 would terminate with cul-de-sacs at the freeway.

The relocated New Ridge Road would be slightiy longer but similar access to the exlsting roads would be malntalned and no significant adverse impacts on travel to and from this area is anticipated.

The Alternate 3 ailgrment then crosses Harmans Road which would be closed at the freeway. Access from Harmans Road south of the freeway to Maryland Route 176 would be via Ridge Chapel Road and relocated New Rldge Road. Access to Harmans Elementary School would be one mile longer and more circuitous for those from the Maryland Route 176 area normaliy using Harmans Road and increasing traffic would result in front of the school. Traffic
along Ridge Chapel Road is expected to Increase due to the closing of Harmans Road and the provision of the Interchange on MD Route 100 wlth the Relocated Ridge Road. No relocation are required from the Matthewstown community.

Maryland Route 652 (Telegraph Road) would be closed with cul-de-sacs Just north of the Alternate 3 Interchange with Maryland Route 170. This road closure would have no significant effect on accessibility to the area, Including the Munson Heights Development.

The Alternate 3 - Option A alignment would then contInue eastward from Maryland Route 170 and across W.B.\&A. Road 1,300 feet south of Queenstown Road. W.B. \& A. Road would be closed with cul-de-sacs on each side of the freeway and thus residences along W.B. \& A. Road south of the freeway would have to travel to Dorsey Road via Maryland Route 174 and 170 and to Queenstown via Route 174 and Queenstown Road. The freeway crosses under Queenstown Road, and Queenstown Road will remain at-grade. A swim club and 4 residences would be relocated and W.B.\&A. Road would terminate at the freeway thus separating those residences along W.B.\&A. Road south of the freeway from the Burleytown section of the Queenstown community at the Intersection of W.B.\& A. Road and Queenstown Road.

The Alternate 3 - Option A connection to $1-97$ would be similar to Alternate 2 except that the ramp alignment would not cross Jones Road. The alignment would cross through the Queenstown commulty and require the relocation of 8 residences. Even though Queenstown Road would bridge over the freeway, the allgrment in this area would act as a physical barrier that would essentially divide the Queenstown commulty Into 'north' and 'south' sections.

From the Maryland Route 170 Interchange, the Alternate 3Option B allgrment would curve northeasterly and cross under Queenstown Road and continue north of the Burleytown \& Alberta Heights sections of the Queenstown Community. Queenstown Road would bridge over the freeway at approxmately its current grade. Two residences would be displaced from the area where the alignment crosses under Queenstown Road. Option B would then curve easterly and cross W.B.\&A. Road and go through the Landon Business Park and Frlendshlp Park before tyIng Into existing Maryland Route 100 at 1-97. W.B.\&A. Road would be terminated at the freeway with cul-de-sacs but no signalflcant circuitous travel would result since access to Dorsey Road would be via Telegraph Road.

The nearest access to either option of Alternate 3 for residents of Burleytown and Queenstown would be at either Maryland Route 170 or 1-97. However, access and travel on the local road network would improve due to the removal of through traffic.

Alternate 38 (Modified) (Selected Alternate) - The selected alternate basically follows the allgment of Alternate 3 - Option $B$ and would have many of the same effects on nelghtorhoods, communities, and local access. Alternate 38 (Modified) Includes several provisions for minimizing access problems with the building of this freeway. These include: a bridge over Maryland Route 295 which would connect Race Road and Wright Road (See Figure 11-30), bridging Harmans Road over Maryland Route 100 (See Figure II-32) and bridgIng W.B.\&A. Road over Maryland Route 100 (See Figure II-34). Traffic on Ridge Chapel Road will still Increase due to the Interchange of MD. Route 100 and Relocated Ridge Road (FIgure II-31), but bridgIng Harmans Road over MD.

Route 100 will decrease this traffic by providing direct access to Dorsey Road.

Provisions for minimizing communlty disruptions Inciude using a standard diamond configuration for the Race Road interchange (See Figure $11-28$ ) resulting in the relocation of 4 residences instead of 10 and shifting the aligment of the relocated Ridge Road (Figure il-31) to avold the Mt. Pilgrim Baptist Church and cemetery. Bridging Harmans Road (Figure il-32) and W.B.\& A. Road (Fig. II-34) over the freeway and providing a bridge over Maryiand Route 295 to connect Race Road and Wright Road (Fig. il-30) aiso minimizes community disruptions by allowing access between neighborhoods without making the iocal residences utilize the freeway or causing circulty of travel.

For residents of Race Road, north of Maryland Route 176, and for residents of Wright Road (Fig. $11-29,30$ ), some circulty of travel will result from Alternate $3 B$ (Modifled). Even though the travel distances may Increase, the travel times may be reduced due to the relief of traffic congestion on Maryland Route 176 and access to Maryland Route 100.

The residents of Queenstown will experlence very ilttle circuity of travel. The only existing road in Queenstown to be cul-de-saced Is Telegraph Road (Fig. il-33) but W.B.\&A. Road to Donaidson Avenue can serve this movement. Donaidson Avenue Intersects W.B.\&A. Road approximately 1.25 miles south of the Queenstown Road/W.B.\&A.

The following table shows the distance and travel times for travel from Wright Road, Race Road and Queenstown Road to elther end of the project (Maryland Route 176 Intersection with U.S. Route 1 on the west end and Maryland Route 176 Intersection with Hammonds Ferry Road on the east end).

Travel $t$ lmes were based on peak hour levels-of-service for Alternate 3B (ModIfled) for the year 2010 and the No-Bulld Alternate for 1987 and 2010.

Response time from the Waterlos State Pollce Barracks located at the Intersection of U.S. Route 1 and Maryland Route 175 to nearly all of the locatlons along the project would be less than the 1987 No-Bulld response time and would be less than the 2010 No-Build response time to every location In the study corrldor (See the following Table).

## TRAVEL TIMES AND DISTANCES

ALTERNATE $3 B$ (MODIFIED) VS. THE NO-BUILD ALTERNATE

| Al I grment | Alternate 3B (Modifled) 2010 |  | No-Bulld <br> Alternate 1987 |  | No-Bulld Alternate 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Travel Distance (MIles) | Travel Time (MInutes) | Travel Distance (MIles) | Travel Time (MInutes) | Travel Distance (MIles) | Travel Time (MInutes) |
| Race Road to |  |  |  |  |  |  |
| Race Road to | 2.1 | 4.1 | . 1.6 | 4.4 | 1.6 | 6.4 |
| Hammonds Ferry |  |  |  |  |  |  |
| Road | 7.8 | 13.3 | 5.6 | 16.3 | 5.6 | 21.9 |
| Wright Road to |  |  |  |  |  |  |
| Wright Road to | 4.6 | 7.6 | 2.2 | 6.5 | 2.2 | 9.4 |
| Harmonds Ferry |  |  |  |  |  |  |
| Road | 5.0 | 9.50 | 5.0 | 14.3 | 5.0 | 19.2 |
| Queenstown Road |  |  |  |  |  |  |
| Queenstown Road to Harmonds | 7.3 | 13.3 | 7.0 | 18.8 | 7.0 | 23.9 |
| Ferry Road | 2.7 | 4.6 | 2.7 | 5.7 | 2.7 | 7 |

Alternate 4 - This alternate is on an allgrment Identical with the other bulld alternates untli Just before it crosses into Anne Arundel County where It swings northerly around Dorsey and the Industrlal parks fronting on Maryland Route 176. The allgrment would not disturb any commultles although 3 residentlal relocatlons are requlred from the area of Race Road north of the Parkway Industrlal Center I. East of the Route 295 Interchange, thls alternate would require 8 residentlal relocations from Weeplng WIIIow Road and Bentwoods Road. By crossing under Rldge Road, this alternate would not disturb the Calvary Chapel Church but would require 4 residentlal relocatlons along Rldge Road north of Cemetery Road. Rldge Road would br Idge over MD. Route 295 to provlde access across the freeway.

The proposed connectlon of Stoney Run Road to New Rldge Road would improve accessiblilty and travel time between Maryland Route 176 and the resl-dentlal area near Stoney Run Road.

Alternate 4 bridges over but does not Interchange with Maryiand Route 170 and thus access to Route 100 would be at the New RIdge Road Interchange (via Stoney Run Road) for Route 170 trafflc travellng from the north or at the Maryland Route 176 Interchange for Route 170 traffic travellng from the south.

South of Maryland Route 176 , the new allgment under Alternate 4 would blsect W.B.\&A. Road. The proposed blsectlon and closure of W.B.\&A. Road by the new allgnment would not significantly affect fire and pollce response time due to the proximity of alternatlve roads.

East of the Metropolitan Unlted Methodist Church, the allgment would brldge over a relocated Jones Road whlch would malntaln access to the northern section of Queenstown, and would then continue onto the $1-97$ Maryland Route 100 Interchange.

All other roads crossed by the new aligment In the study area will be bridged allowing continued, uninterrupted access and travel for area resldents.

Alternate 4 follows the same aligment as Alternate 2, Option $A$, through the Queenstown communlty and would have the same Impacts.

The Crossover Option (Alternate 3 to Alternate 4) - This alternate also separates through and local traffic, reduces congestion, and improves travel time on Maryland Route 100. However, Just east of Maryland Route 295, Maryland Route 176 would dead end at Wright Road due to Interchange construction. All local traffic bound from or to Maryland Route 176 would have to utllize the new Interchange at New Ridge Road. This Increase In travel distance of up to 4 mlle es would result In Inconvenlence, less accessibillty of services and facllities, circulty of travel, and Increased travel time for residents along Maryland Route 176. Travel to the west of Maryland Route 295 for the Anne Arundel County Fire Department station located at Shipley Corner would be Increased by approximately 2 miles. Ridge Road would bridge over the allgment.

West of Maryland Route 295, this alternate would have the same Impacts as Alternate 3 and east of the New Ridge Road extenslon this alternate would have the same impacts as Alternate 4.

Between Route 295 and the New Ridge Road extension, this alternate would displace 11 residences from the area near the existing Wright Road/Dorsey Road Intersection and 3 resldences from Ridge Road south of the Calvary Chapel Church. Ridge Road would bridge over the freeway and the Calvary Chapel Church would not be disturbed.

Alternate 4/3B - From I-95 to Just west of W.B.\& A. Road,
this alternate would have the same Impacts as Alternate 4 . From just west of w.B.\& A. Road to Maryland Route 3 (I-97), this alternate would have the same impacts as Alternate 3 -Option $B$ although one residentlal relocation is required where the freeway crosses W.B.\& A. Road.
e. Parks and Public Recreation Areas

The No-Bulld alternate would not directly Impact any of the parks or public recreation areas in the study area. However, the congestlon and low levels of service would make accessibility to these areas difflcult and dangerous, especlally for pedestrlans and blcyclists.

Patapsco Valley State Park would be Impacted by Alternate 4 and Alternate 4/3B. Frlendship Park would be Impacted by Alternates 2A, 2B, 3B, 4, 4/3Band the Crossover Option. These Impacts, posslble avoldances and mitigation measures are discussed In Section IV.J.

Severn Danza Park, Harmans Park and Jessup and Dorsey Park would not be directly impacted by any of the bulld alternates and access to all parks and public recreation areas would be malntalned and improved by any of the bulld alternates since through trafflc would by removed from the local roads which access the parks.

## 2. Economic Impacts

## a. Business Displacement and Relocation

No-Bulld - The No-Bulld Alternate would have no business displacements.

Alternate 2 - Option A - This alternate would displace 12 businesses of which two are minorlty owned and cocupled and one is minorlty tenant occu-
pied. Of the remaining businesses, 6 are owner-occupled and 3 are tenant occupied. One of these business relocation is a farm operation consisting of approximately 12.5 acres of active farmland. These businesses employ a total of approximately 51 employees, five of whom are members of a minority group.

Alternate 2 -Option B - A total of 12 businesses would be displaced under this alternate, two of which are minority owned and occupied and one is minority tenant coupled. Of the remaining businesses, 6 are owner occupied and 3 are tenant occupied. One of these business relocation is a farm operation consistIng of approximately 12.5 acres of active farmland. These businesses employ a total of approximately 51 employees, five of whom are members of a minority group.

Alternate 3 -Option A - Eight businesses would be relocated under this alternate including one minority owner occupied business. The remaining businesses Involve three owner occupied businesses and 4 tenant occupied business. Two of these business relocation are farm operations consisting of approximately 12.5 and 7.0 acres of active farmland. A total of approximately 68 employees would be affected, of which 20 belong to a minority group.

Alternate 3 -Option B - Seven businesses would be relocated under this alternate. The businesses Involve three owner occupied businesses and 4 tenant occupied businesses. One of these businesses is a farm operation consisting of approximately 12.5 acres of active farmland. A total of approximately 68 employees would be affected, of which 20 belong to a minority group.

The Alternate 3 Interchange options at Maryland Route 295, Maryland Route 713, and Maryland Route 170 would require no additional business relocatrons.

[^1]Alternate 4 - This alternate would displace 7 businesses, of which 2 are minorlty owned and occupled. The remalning relocations Involve 4 tenant occupled businesses and one owner occupled buslness. One of these business relocatlons is a farm operation consisting of approximately 12.5 acres of actlve farmland. A total of approximately 56 employees would be affected of which 2 are members of a minorlty group. One of the businesses employs an estimated 30 individuals.

Crossover (Alternate 3 to Alternate 4) - A total of 7 businesses would be relocated under thls alternate, of whlch 2 are minorlty owned and occupled businesses. One of these business relocations is a farm operation consisting of approximately 12.5 acres of actlve farmland. A total of approximately 58 employees Of which 4 are members of a minorlty group would be affected.

Alternate 4/3B - This alternate would displace 6 businesses, of which 1 is minorlty owned and occupled. The remalning relocations involve 3 tenant cccupled businesses and two owner cccupled businesses. One of these business relocations is a farm operation conslsting of approximately 12.5 acres of actlve farmland. A total of approximately 56 employees would be affected of which 2 are members of a mlnorlty group. One of the businesses employs an estimated 30 Individuals.

A survey of the local real estate market reveals that there is a sufflclent number of avallable replacement sltes for sale or lease in both countles to accommodate the affected businesses.

All-businesses would be asslsted in finding sultable relocation sites In accordance with the requirements of the "Unlform Relocation Assistance and Land Acquisition Pollcles Act of 1970" (see Appendix B) and as amended In 1987. All relocatlons are expectied to be completed in a timely, orderly and humane manner and with minimal economlc Impact to those affected. A lead tlme of 18 to 30 months would
be necessary to effect the required reiocations. Business displacements are addressed in the Right-of-Way Relocation Report available for review at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland.
b. Effect on Regional Business Activities

The Maryland Route 100 Corridor is surrounded by centers of economic activity. These Include the City and Port of Baltimore, the BaltimoreWashington International AIrport, the Fort George G. Meade military Installation and government office complexes located In Annapolis. The long range goal of both Anne Arundel and Howard Count les is to encourage growth of employment centers to compllment residential growth. Currently, Anne Arundel County has six Industrial parks and Howard County has four Industrial parks located within the Maryland Route 100 Corrldor study area.

The proposed project would accommodate the expansion of the Industrial and business sector within the study area by improving access and efficlency of travel. The Improvements also would attract new industry and business. However, the restrictions to the planned expansion of the BWI AIrport imposed by Alternates 2 and 4 would have a limiting effect on growth since much of the industry and business in this area is centered upon airport activities. The State Aviation Administration and the Federal Aviation Administration are opposed to Alternates 2 and 4 (see letters, dated December 26, 1985, and October 2, 1986, respectively, Section VI).

Under the build alternates, Interchange construction would facliItate more direct and quicker access to and from major highways and Industrlal/employment areas in the study corridor.

The residentlal commulties would galn new employment opportunltles within the corrldor and Improved transportation movement for the commuting resIdents.

The Growth Management Program of Anne Arundel County and the Howard County General Plan address the short, medlum and long range trends for future development. HIgiway Improvements are an Integral part of these plans. Both countles' plans show the approximate corrldor of the Alternate 3 - Optlon A allgrment and Include Maryland Route 100 as a needed transportation facillty to accommodate exlstIng and planned development. The constructlon of Maryland Route 100 and the planned Improvements to exlstIng Maryland Route 176 would enable the planned development of housing and employment centers to take place.
C. Effect on Local Business Activity

Except for Alternate 2, the bulld alternates would move a large portion of the through traffic away from the Maryland Route 176 corridor onto a new allgment. This may result in same loss of buslness and less visibility for commerclal enterprises along Maryland Route 176 that depend on drive-by traffic (l.e., restaurants, motels, etc.). However, a new allgrment would reduce congestion along Maryland Route 176 and facilltate access to these establishments, especlally during the peak traffic hours.

The Interchange at U.S. Route 1 would permlt qulcker access to and from the Route 100 BusIness Park. The entrance to this Industrlal park would be moved from Amberton Drive to MIIIs Drive.

The proposed Improvements would generally better accommodate existing and proposed Industrlal development occurring throughout the Maryland Route 176 corr.ldor.

Under the Crossover Alternate, Maryland Route 176 would terminate Just east of the Maryland Route 295 Interchange. Thls may cause some loss of business to commerclal developments along Route 176 since traveling from east of Route 295 to west of Route 295 vla Rldge Road and the Crossover Alternate would be up to approximately 4 ml les longer than travellng alrectly on route 176.

Alternates 2, 3 and the Crossover would also cause disruptions to business development near the exlsting Maryland Routes 176/295 Interchange. Interchange reconstruction would not only block. Maryland Route 176 and travel at thls Dolnt, but also delegate access to the remalning businesses via fragmented Individual access roads. The disjolnted arrangement also would cause a loss of buslness for commerclal development at thls polnt. Alternate 38 (Modlfled), the selected alternate, Includes a bridge over MD. Route 295 to connect Wrlght Road and Race.Road: This brldge malntalns trafflc on the local road system and thus provides local resldences access to businesses in the area.
d. Effect on Tax Base

This project would accommodate the efflclent expansion of proposed development In the study corrldor whlch In turn will have a positive effect on the countles' tax bases

Since the Anne Arundel County General Development Plan - 1978, Howard County General Plan - 1982 and Reglonal Plannlng Councli's General Development Plan - 1986 support growth In the area, and Incorporate the approximate allgment of Alternate 3 - Option $A$ in thelr plans, extensive development of residentlal and Industrial land uses is planned to follow the completion of the project. As the area develops, it is likely that the property values and tax assessments will rlse and the communlty will experlence a rural to urban change In character. Improvements to the
transportation network and the planned expansion of the BWI Alrport would support this pianned transition from a rurai and agricuitural community to a more urbanized communlty.
improved accessibility after construction of a build alternate wIli encourage light industrial and commercial development within the study area. There are currentiy ten Industriai parks located in the Corridor, six in Anne Arundel County and four in Howard County. Anne Arundel County has a seventh Industrlai park under development and Howard County has a fifth industrial park In the planning stages. Additional employment resulting from this industrlal and commercial development wili have a secondary effect of more service oriented empioyment in the study area.

The selected alternate of Maryland Route 100 and p.lanned improvements to Maryland Route 176 are consistent with the pianning goais of Anne Arundel and Howard Countles and would encourage continued deveiopment which is expected to expand the tax base for both countles. The current land use plans and zoning provide for the residentiai and commercial development that would minimize the cost of prom viding pubilc services and facilities.

## 3. Land Use and Land Use Pianning

The growth In the Maryiand Route 100 study area is consistent with the Anne Arundel County General Deveiopment Plan - 1978, the Howard County Generai Pian - 1982 and the Regional Planning Council's Generai Deviopment Plan1986 as well as with the comprehensive zoning of the counties. Anne Arundel and Howard Countles support and encourage growth in the Maryiand Route 100 Corridor where accessibility of employment and adequate highways exist or are pianned to be improved. The study area enjoys good accessibility from the Baitimore and Washington

Metropolitan areas, the CIty of Columbia In Howard County and Annapolis, the State Capital, In Anne Arundel County. The selected alternate for Maryland Route 100 and planned Improvements to Maryland Route 176 are consistent $w /$ th the Development Plans of Anne Arundel and Howard Count les and the Regional Planning Council.

The future growth that is envisioned for the study area will have a significant impact on both the immediate local road system and the major highway system Including Interstate 95 to the west, Interstate 97 (existing Maryland Route 3) to the east and Interstate 695 to the north of the project area. The proposed highway Improvements are needed to accommodate the future growth and to relieve the existing congestion on the transportation system. The count les acknowledge the need to improve this traffic corridor to better serve expanded light industrial development and the associated truck traffic In the BWI AIrport area.

## B. Transportation

The transportation goal of this project is to Identify an alignmint that adequately and safely accommodates the traffic needs of the study area. The 1990 Average Dally Traffic (ADT) and the design year 2010 forecasts for the NoBuild Alternate, Alternates 2, 3 and 4 and the Crossover Opt lon are shown In Figures IV-1 through IV-5. Design year 2010 ADT forecasts, number of lanes and levels of service for the No-Bulld Alternate, Alternates 2,3 and 4 and the Crossover Option are shown in figures IV-6 through IV-10. The higher volumes of the build alternates compared to the No-Bulld Alternate can be attributed to the greater capacity of a high speed controlled access facility versus the constrained capacity of the low speed uncontrolled access roadway of the No-Bulld Alternate. The higher volumes of the freeway facliltles (Alternates 3,4 and the Crossover) versus the urban arterial facility (Alternate 2) can be attributed to the urban arterial having at-grade intersections and the accompanying signalization, lower design speed and subsequent lower
posted speed ( 60 mph design and 50 mph posted for the urban arterial versus 70 mph deslgn and 55 mph posted for the freeway), and a hlgher accident rate (358 accidents per 100 mililon vehicies miles versus 68 accidents per $100 \mathrm{mili} i o n$ vehicle miles). Up to $17 \%$ more east/west traffic would be carried within the study area in the design year (2010) by the freeway alternates compared to the urban arterial alternate since the freeway alternates would open a new corridor and allow existing Dorsey Road to handie local traffic. Also, the introduction of an urban arterlal faclilty linking two major freeways (1-97 and 1-95) would create a bottleneck effect, produce confusion and confilcts between through and local traffic, and otherwise impede the continuous flow of traffic throughout the study area and surrounding region. The urban arterial does not provide for future lane expansion since it traverses between established developments (see Typical Sections, Figure il-46) and it experlences $a^{-}$ level-of service D along a stretch of its ailgment in the design year (2010) indicating that it is approaching capacity.

Traffic operations assoclated with each alternate are discussed below.

No-Bulid Alternate - As shown In Figure IV-1, traffic volume Increases along Dorsey Road between 1990 and 2010 are conslderable (up to 25\%). These increases result in a level-of service F along Maryland Route 176 (Dorsey Road) from U.S. Route 1 to Maryland Route 3 (I-97) as shown In Figure IV-6 even though the volume of traffic moving through the study corridor is significantly lower than the volumes of the bulid aiternates.

The low levels of service on roads intersecting Dorsey Road (notably Maryland Route 295, Maryiand Route 713 and Hammonds Ferry Road) contribute to the overail congestion and constralned capaclty of this alternate.

Alternate 2 - As shown In FIgure IV-2, between 1990 and 2010 traffic volume Increases along this alignment range up to $28 \%$. Figure lV -7 shows that a level-of-service $C$ or better is attained along this alternate from Interstate 95 to Maryland Route 3, except for that part of the allgment from Maryland Route 652 to the Dorsey Road tle-In where there is a level-of service D. These levels of service are higher than the No-Bulld Alternate even though the volumes are up to $125 \%$ greater.

Alternate 3 - Figure IV-3 shows that traffic volumes along this alignment Increase up to $28 \%$ from 1990 to 2010 . It also shows that the total volume of traffic moving through the study corridor is $11 \%$ greater than Alternate 2 at the western end and $16 \%$ greater at the eastern end. This greater capacity is achieved by opening a new highway corridor and allowing Dorsey Road to serve local needs. ABs shown In Figure IV-8, the alternate furnishes a level-of-service $C$ along Its alignmint as well as a level-of-service $C$ along Dorsey Road.

Alternate 4 - This alternate achieves the same traffic volumes as Alternate 3 as shown In Figure IV-4. Alternate 4 also furnishes a level-of-service $C$ along Its alignment as shown on Figure IV-9. As with Alternate 3, Alternate 4 allows Dorsey Road to serve local needs with a level-of-service $C$ or better except for that Dart of Dorsey Road from Maryland Route 170 to the Dorsey Road Intersection with Alternate 4 where there is a level-of-service E.

Crossover Option - By using the alignment of Alternate 3 from Interstate 95 to Maryland Route 295 and then crossing over to the Alternate 4 alignment from New Ridge Road to 1-97, the Crossover Option achieves the same volumes and levels of service as those sections of Alternate 3 and 4 as shown In Figures IV-5 and IV-10.

Alternate 4/3B - This ailgment would have the same volumes and levels of service as Alternate 4 from l-95 to W.B.\& A. Road (Figures iV - 4 and iv9) and the same volumes and levels of service as Alternate 3 - Option B from W.B.\&A. Road to 1-97.

Under conditions similar to those in the study area, it has been found that controliling access to the main traffic routes will reduce the rate of accidents even though traffic volumes and speeds along the routes increase. The freeway bulid aiternates would therefore reduce the high accident rate currentiy in the study area (see page 1-5). Aiternates $3,4,4 / 38$ and the Crossover would reduce the accident rate more than Alternate 2 would because of the greater controi of access and absence of at-grade intersections ( 68 accidents per 100 MM for the freeway alternates versus 358 accidents per 100 MM for the urban arterlai).

An existing 100 space park and ride lot iocated at the intersection of Dorsey Road and Wright Road would be required as part of the seiected alternate's right-of-way. Because Route 100 wili be a major East-West ilink connecting several important North-South freeways (i-95, MD Route 295 and MD Route 3/i-97) that serve a growing number of commuters between Baltimore and Washington, efforts will be made to repiace it with a lot containing up to 150 spaces. Potential reiocation sites inciude, but are not ilmited to, the foilowing vacant tracts: the intersection of Dorsey Road and Fauikner Road, along Dorsey Road between existing Wright Road and reiocated Wright Road, the intersection of Dorsey Road and relocated Ridge Road, and the intersection of reiocated Ridge Road and reiocated Watts Avenue. The terminus of existing eastbound Route 100 west of U.S. Route 1 is also used as. an informai park and ride lot and efforts will be made to repiace it with a lot containing approximateiy 75 spaces. Potential sites for this lot include aiong Dorsey Road east of U.S. Route 1 and the Intersection of U.S. Route 1 and Meadowridge Road.











## C. Natural Environment

1. Effects on Topography, Geology and Sol ls
a. Topography

Topographic modifications will be required to accommodate roadways, Interchanges and grade separations and to provide compatibility with existing land usage. The crossing of natural draInage courses by the roadway will result in alterations in order to malntaln existing flow patterns. Additionally, drainage modifications will be required along the length of each alternate for removal of runoff from the roadway and rerouting of overland flow.

Grade wise, Alternate 2 would provide the least Impact due to Its close proximity to existing Maryland Route 176 which requires the matching of existIng grade. Alternates 3 and 4 would have a greater impact due primarily to the depth of excavation and heights of fill presently proposed. These alternates would have fIll heights of nearly 50 feet and cut depths of nearly 30 feet. Of the two, Alternate 3 would have a lesser Impact due to the more moderate terraIn along lis length, whereas Alternate 4 traverses more severe terrain. In Alternate 4, between the county lIne and the BaltImore-Washington Parkway, topography is more severe than along the other alternate routes and will result in greater topographic modifications such as deeper cuts and side hill cuts and fills. The crossover alternate would be above and below existing grade throughout Its length with fills up to 40 feet in height and cuts up to 35 feet.

In summary, Alternate 4 and the Crossover Alternate would have the greatest Impact upon topography, with Alternate 3 having a lesser Impact, and Alternate 2 having the least of the bulla alternates.
b. Geology and Solis

The majority of all the proposed allgment alternates west of

Stony Run near Harmans are situated over silt-clay deposits, and the alternates east of Stony Run, with the exception of Alternate 4, are located entirely over sandgravel deposits. Alternate 4 traverses an area of additional silt-clay deposits just west of Baitimore-Washlngton International AIrport.

The surface solis in the study area are mapped by the U.S.D.A. SoIl Conservation Service as loamy and clayey land of the Mulrkirk-Evesboro Associatimon over the western half of the project (corresponding to the silt-clay deposits of the Potomac Group) and sandy, gravelly solis of the Evesboro-Ramford-Sassafras Association In the eastern half (corresponding to the sand-gravel deposits).

Generally, geologic and sol features of the study area pose no significant difficulty to roadway design. Cut banks In thick Potomac clay deposits tend to be unstable over long periods of time due to jointing; bank failures during wet weather stemming from slippage along joint planes are common as ls wedging caused by freezing and thawing. Floodplain alluvium, as occur at Deep Run and Stony Run, generally underile the floodplains from one valley wall to the other, and range in thickness from a few feet to as much as 15 feet. Constraints on construction in floodplains are several - the sediments are generally loose and water-saturated due to a perennially high water table and they are subject to Inundation dur lng flood events. The sands and gravels wIll provide better subgrade than clay sand silts for paving operations. The extent of encroachment, if any, on floodplains will be studied In detail during the engIneering design phase. The solis of the Mulrkirk isoClation (predominantly silt and clay) are lIsted as unstable for roadways by the Sol Conservation Service, but the occurrence is very minor and upon compaction and/or capping by granular materials, these solis should provide acceptable subgrade. For the design phase of this project, detailed SCS Sol Surveys will be utilized.

No significant Impact on the mineral resources of the study area are anticipated with any of the build alternates.

The U.S. Sol Conservation Service (SCS) In coordination on this project has performed an extensive evaluation of zoning maps and sol ls data to determine Information regarding the acquisition of farmland. They have determined that the Farmland Protection Policy Act (FPPA) does not apply to any of the Alternatives in Anne Arundel County. However, a small area of statewide important solis was found to be Impacted by Alternate 4 In Howard County. Tabulated below is a summary of their findings on the quantities of Farmland required for each alternate.

| Alternate | PrIme Farmland <br> (Acres) | 0 |
| :---: | :---: | :---: |
| $2 A$ | 0 | Statewide Important Farmland <br> (Acres) |
| $2 B$ | 0 | 0 |
| $3 A$ | 0 | 0 |
| $3 B$ | 0 | 0 |
| $3 B$ (Modified) | 0 | 0 |
| 4 | 0 | 4 |
| $3 / 4$ Crossover | 0 | 0 |
| $4 / 38$ | 0 | 4 |

The Farmland Conversion Impact Rating Form AD-1006 has been completed for this project and is Included In the coordination section of this report.

## 2. Effects on Water Resources

a. Surface Water

As discussed In Chapter III, there are four streams which drain. the study area; PIny Run, Deep Run, Stony Run, and Sawmill Creek. Each of these would be crossed by any of the buIld alternates and would likely be affected both during and after construction.

Highway Improvements and other changes due to Increased urbanlzation of areas may have adverse effects on water resources Including less Inflltratimon and stream base flow, increased surface runoff and stream peak flow, and a reduction in lag time. The potential impacts on water quality in receiving streams
from alteration of drainage patterns and stream characteristics could result in changes Including; sedimentation and erosion, thermal and water contamination.

Highway use results in the accumulation of potential water pollutants from roadway runoff, Including vehicular oil, grease, gasoline and solvents, wear particles from clutches, brake lInings and tires, and exhaust emissions which will collect on the road surface and nearby vegetation. Another source of contamination would be the use of chemicals such as de-lcing compounds, abrasives applied to roadway surfaces, fertilizers, defoliants, and pesticides used in controlling natural areas.

The project will be designed In accordance with the Maryland Stormwater Management Act which lImits Increase In downstream discharges. By lImItIng the discharges Into streams, the quantity of pollutants can also be limited, butthe impact of these pollutants can be greatly reduced by controlling the amount of chemicals used for de-lcing and maintenance, using grassed drainage ditches, stormwater management ponds, and other means for retarding the flow of stormwater runoff.

The close proximity of the build alternatives to the streams make stormwater management critical to maintaining water quality in the study area. Stormwater management features will be incorporated Into the design of a selected alternative in the following order of preferences:
(1) Onsite Infiltration
(2) Flow attenuation by open swale and natural depressions
(3) Stormwater retention structures
(4) Stormwater detention structures

It has been proven that these measures can significantly filter out roadway pollutants as well as control the rate of runoff. Future runoff should not exceed present rates for existing land uses.

Many of the solis in the study area are highly erodible. Siltation and sedimentation, especially during construction, could cause physical damage such as clogging of ditches and conduits and alteration of stream channels. Small waterways, such as the upper reaches of streams in this area, are more susceptable to impacts associated with erosion and silting because of their shallow crosssections and variable flows.

A sediment and erosion control program was adopted by the State Highway Administration in 1970. It Incorporates the standards and specifications of the Sol Conservation Service, and specifies procedures and controls to be used in highway construction projects. These procedures and controls will be stringently applied to limit the generation and transport of silt. Since the alternates will pass through areas of varying slope, soil erodiblilty, stream size, and vegetation<compat>́<compat>ᅮ<compat>ᄂ associations, specific control measures could best be defined after design features have been considered, but will Include:
(1) Staging of construction activities to permanently stableIze ditches at the top of cuts and at the foot of fill slopes prior to excavation and formation of embankment.
(2) Seeding, sodding, or otherwise stabilizing slopes as soon as practicable, to minimize the area exposed at any time.
(3) Appropriate placement and maintenance of sediment traps, temporary slope drains, and other control measures.
(4) Placement of diversion dikes, energy dissipaters, mulches, and netting on slopes too steep to support vegetation.

Impoundments such as sediment ponds wIll be sized and located so as to maintain as much flow as possible, generally by allowing the drainage from undisturbed areas to bypass the construction site and go to its natural drainage
pattern. The construction will be closeiy monitored to minimize the debris and control waste areas. With the application of avaliable erosion control technology, significant impact to surface water quallty will be minimal.

Final design for the proposed improvements will inciude plans for grading, erosion and sediment control, and stormwater management in accordance with state and federal laws and regulations. They will require review and approval by the Maryland Department of Natural Resources - Water Resources Adminlstration (WRA) and the Maryland Department of Health and Mental Hyglene - Offlce of Environmental Protection (OEP).

## b. Groundwater

Potential groundwater effects could result from cut and flll operatlons causing changes in groundwater level and fiow. Deep cuts could expose springs resulting in the reduction of the total amount of water avallable to the aquifer. Since the groundwater recharge area will be changed by construction of the roadway, improved dralnage, and reduced vegetation, groundwater levels could be altered in certaln areas.

Groundwater quallty could be affected by leaching from exposed cuts and contamination from de-icing compounds, solvents, trace metals, herbicides, etc., assoclated with highways.

If it is determined to be required, the State Highway Administration wili conduct a hydrogeologlc study of the area to determine any impacts of the project to groundwater. This study could inciude pre-construction and postconstruction surveys of wells in the area. If signlficant changes to elther the quallty or quantlty of well water occur as a result of the roadway construction, the State Highway Administration will elther provide a replacement well for the affected property or compensate the property owner.
IV-46

## 3. Fioodpialns and Stream Modifications

All of the proposed buIld alternates will cross at least one or more of the streams and their floodplains. During final design, a detailed hydrologic and hydraulic study will be prepared to identify the existing and proposed discharges and floodplains for various storm frequencies. Using these studies, the most appropriate structure for each fioodpialn and stream crossing will be determined. Preliminary hydraulic studies performed by the Bridge Development Section of the State Highway Administration indicate the following numbers and sizes of structures will be required for each alternate:

(Note: BC Indicates Box Culvert)
These structural sizes are prelim iminary only and may change when the final hydrologic and hydraulic studies are performed in the design phase of the project.

Any floodplain encroachment will be reviewed and coordinated with the U.S. Army Corps of Engineers to determine the need for a section 404 Permit. One major impact of encroachments could be a reduction In the efficiency of the natural stream floodplain system to convey water, which can

Increase flood stages upstream. However, through Incorporating standard hydraullc design technlques, any alternate should have a minlmal Impact on the ablilty of the floodplain to convey floodwater.

In accordance with the requirements of FHPM 6-7-3-2, the Impacts of each encroactment were evaluated to determine its significance. A signiflcant encroachment would Involve one of the following:
(1) HIgh probablilty of loss of human IIfe.
(2) Likely future damage that could be substantlal In cost or extent.
(3) Disruption of an emergency or evacuation route.
(4) Notable adverse Impact on "natural and beneficlal floodplaln values".

The use of standard hydraullc design technlques for all waterway openings would Incorporate structures to limlt upstream flood level Increases and approximate exlsting downstream flow rates. Culverts will be set one foot below the exlsting culvert.

All four streams are deslgnated Class I - Water Contact for Recreation and AquatIc LIfe by the Maryland Department of Health and Mental Hyglene. As such, all In-stream construction shall be prohlbited from March 1 through June 15, Incluslve, and stream areas must be stabllized. Rlp Rap wIII be Installed at the Inlet and outlet of all culverts.

Use of the most advanced sedment and erosion control technlques and stormwater management controls avallable will ensure that none of the encroactments will result in risks or impacts to the beneflclal floodplaln values or provide direct or Indirect support to further development within the floodplaln. Prellminary analysis, In accordance with Executlve

Order 11988, Indicates that no significant fioodpialn impacts are expected to occur as a result of any proposed build alternates under consideration.

## 4.

Effect on Wetlands
Pursuant to Executive Order 11990, Protection of Wetlands, wetland areas potentially affected by the proposed project were IdentIfied, based on The NatIonal Wetlands Inventory (U.S.F.W.S.), and are shown on Figure lil-2. Subsequent to this preilminary analysis, a more detailed delineation of wetlands was conducted using sol survey data and field Investigations as discussed and summarized in section lli-c:6c. Ail of the proposed bulla alternatives affect palustrine forested, non-tldal wetlands. Approximate amounts of wetlands that may be affected are listed below. These areas are significantly higher than those presented In the DEIS because of the more recent detailed Investigations.

Location
Alternate 2A
Alternate 2B
Alternate 3A
Alternate 3B
Alternate $3 B$ (Modified)
Alternate 4
Alternate
Crossover /4
Alternate 4/3B

Wet land Acreage(Approx Imate)
48.8
41.6
53.5
54.3
56.9 (Selected Alternate)
79.1
76.5
77.3

Ten separate wetland areas have been identified along the selected alternate corridor (Alternate $3 B$ Modified). These are shown on Figures II-26 through 11-35 and described in Table ill-6. Complete avoidance of these wetlands is not possible since they are ilnear features running continuously along streams running perpendicular to the path of the roadway. Selection of an alternative with lesser total wetland impacts is IV-49
preciuded due to other considerations such as impacts to minority conmunlties, 4(f) properties and BWI Alrport.

Only Alternates $2 A$ and $2 B$ have signiflcantiy smailer wetland impacts than the Selected Alternate, and these do not provide a facility which satisfles the transportation objectives of the project. Alternates $3 A$ and $3 B$, resulting in silghtly smaller impacts on wetlands, would result in severe Impacts on the cohesiveness of the community of Queenstown.

Wetiand W-1 (Figure il-35) borders two streams of Sawmili Creek east of Friendship Park. Shifting this ailgrment to the south to reduce the affected area could not be accomplished without severely impactIng upon the Queenstown community, while shifting to the east is not possible because of engineering-design constralnts. Alternate $3 B$ (Modifled) would impact approximately 7.0 acres of this wetiand.

Wetiand W-2 (Figure il-34) borders Sawmili Creek In the vicinity of W.B.\&A. Road, and shifting of the Alternate 38 (Modifled) aligment in this vicinity to elther the North or South would not significantIy reduce the quantity of area impacted. Approximately 4.9 acres of wetlands would be affected at this iocation.

Wet iand $W-3$ (Figure $11-33$ ) is located within the Department of Natural Resources BuckIngham Forest Tree Nursery, and the Alternate 38 (Modified) aligment through this area has been coordinated with the DNR to minimize impacts on the operation of the facillty. Approximately 7.2 acres of wetlands would be affected.

Wetland W-4 (Figure II-32) borders Stony Run East Of Harmans Road. Reducing the acreage affected at this location could only be accompilshed by shifting the aligrment South to cut through a large residen-
taal subdivision along with several existing homes along Harmans Road. Approximately 5.7 acres would be affected In this wetlands area.

Wetland W-5 (Figure II-31) borders along an unavoidable narrow strip of a Stony Run tributary west of Matthewstown Road. Approximately 4.9 acres would be affected In this area.

Wetland W-6 (FIgure II-31) borders a tributary to Piney Run West of Shlpley Corner. Shifting the Alternate 3 (Modified) alignment to the south at this location would not significantly reduce the area affected, while shifting to the north would result in more severe wetlands Impacts. Approx Imately 1.5 acres would be Impacted.

Wetland W-7 (Figure II-29) borders PIny Run East of the Baltimore Washington Parkway. Comments to wetland W-6 apply also to this area. Approximately 1.8 acres would be Impacted at this location.

Wetland W-8 (Figures II-28 and II-29) borders along tributary to Deep Run West of the Baltimore Washington Parkway In the vicinity of Race Road. ApproxImately 5.8 acres of wetlands would be Impacted In this area.

Wet land W-9 (FIgure II-28) borders along Deep Run In Anne Arundel and Howard Counties and extends over a large area to the West of Deep Run In Howard County. Approximately 17.6 acres of wetlands would be Impacted in this area. This is a reduction in the acreage affected by the original Interchange configuration shown In Alternate 3B (FIg. II-13).

Wetland $W$-10 (Figure II-26) follows along a Deep
Run tributary west of U.S. Route 1. Approx Imately 0.5 acres of wetlands would be Impacted In this area from assocIated Improvements to U.S. Route 1. This Is a reduction from the original configuration of the service road shown in

Alternate 3B (Fig. |i-12)..

Functions of these Impacted wetlands are wildlIfe habitat, food chain support, flood desynchronization; and In the cases of wetlands (W's) 1,7,9 and 10 the opportunity for passive recreation. These same functions were Identified for those wetland areas associated with the other build alternates; with Alternate 4 (passing through Patapsco State Park) having a greater area of impact on the passive recreation wetlands function.

MItigation measures for wetlands Impacts wIll be coordinated with the Department of Natural Resources, the Environmental Protection Agency, and the U.S. FIsh and WIldlIfe Service. All unavoldable wetlands losses, will be enhanced, reconstructed or replaced. All reasonable efforts will be made to locally replace wetlands in-kind in small areas as opposed to large tracts. Some forms of mitigation could be Included with stormwater management ponds, diversion ditches, and check dams. The type of mitigation that will be Implemented at each site will be determined in the. design phase In coordination with the agencies mentioned above. Stringent sediment control measures will be applied and monitored to avoid significant sedImentation from highway construction. All improvements Involving wet land encroachment will require a Section 404 Permit from the U.S. Corps of Engneers.

Based on the above considerations, it is determlIned that there is no practicable alternative to the proposed new construct lon In wetlands and that the proposed action Includes all practicable measures to minImize harm to wetlands which may result from such use.

## 5. Effects on Terrestrial and Aquatic Habitats

Both terrestrial habltats, and to a lesser degree, aquatlc habltats would be affected by thls project. Of the total highway right-of-way requlred by the alternatives under consideration, the following amounts have been Identifled as belng of woodlands and old flelds:


The loss of habltat would be accompanled by a proportional loss in animal populatlons Inhablting these areas. Of the bulld alternates, Alternate 2 would have the least Impact on terrestrlal habltats as it follows the existing Dorsey Road allgment throughout much of lts length. Alternates 3 and 4 would have a greater Impact; however, It should be noted that proposed land use plans (see Figure lll-4) call for essentlally all of the land through which these alternates pass to be developed as elther resldentlal or Industrial land uses.

Potential impacts do Include sedimentation during construction and pollution by roadway runoff. Sediment and erosion control plans will help minlmize the adverse effects of construction activities, and proper stormwater management wIIl reduce the amount of roadway pollutants which reach the stream. The control measures should reduce these potentlal adverse impacts to aquatic Ilfe to negilglble levels.

The selected Alternate, with Its urban dlamond Interchange, will Impact upon the BuckIngham Forest Tree Nursery, by requirlng the acquisition

Of 17.4 acres of the property. This would affect approximately 1.8 acres of the mature Br igham Pine seed orchard, 0.9 acres of the mature Loblolly Pine seed orchard and 0.9 acres of the mature White Pine seed orchard. The rest of the right-of-way would affect fallow fleids, storage areas and uncultivated forests. The right-of-way in the vicinity of MD Route 170 is currently being cleared for seedlIng beds.

Potential Impacts upon both aquatic and terrestrial habitats in the BuckIngham Nursery by Selected Alternate $3 B$ modified could be minimized by bridging of the sensitive area. A special study of the effects of Selected Alternate 38 Modified on the nursery has been coordinated with the Department Of Natural Resources and is available for review at the Maryland State Highway Administration Library, 707 North Calvert Street, Baltimore, Maryland and at ail State Depository Libraries. The Study Concludes that solis of the Nursery should not be significantly Impacted from heavy metals beyond a 35 to 50 meter distance from the edge of pavement, and that SO 2 emissions will not be high enough to damage vegetation of the sight.

The projected quality of runoff from the highway, however, especially the bridge structure does exceed the background levels of the stream and exceeds the EPA chronic and acute criteria for the heavy metals lead, zinc, copper, cadmium and mercury. Cadmium, chromium, lead, and mercury also exceed EPA's domestic water supply criteria. Nutrients, solids, BOD, $\infty$, and TOD are also significantly higher than the background levels of the stream. This potential Impact could be alleviated by the construction of a closed drainage system to carry all stormwater runoff to an off site. percolation pond. In addition, a water quality monitoring program could be conducted during construction and for a period of 2 years of roadway operation
to monitor water quality levels.
Consideration is also being given to relocating the entire Nursery operations. Discussions are currently ongoing with the Maryland Department of Natural Resources to determine if this is a reasonable or feasible solution. In the event it is determined that relocation of the Nursery is not feasible or reasonable, then all reasonable mitigation measures for the nursery will be Incorporated Into the project design.

Secondary Impacts will occur as the Improved highway allows the planned development to take place. This development will further Impact the existing vegetation through the construction of residential subdivisions and commercial and Industrial enterprises. The development resulting from this project, however, has been Integrated Into or will be restricted by the General Development Plans of both Anne Arundel and Howard Count les.

## 6. Effects on Threatened or Endangered Species

Correspondence with the U.S. Fish and WIldilfe Service and Maryland Department of Natural Resources - Wildilfe Administration, Indicates there are no known populations of federally lIsted threatened or endangered species along the study corridor to be Impacted by the selected alternate. Three state rare plants Arundinarlaglgantea (Giant Cane), Carex barrattil (Barratt Sedge) and Helonlas bullata (Swamp Pink) have been reported in the floodplains of Stony Run and Deep Run In the vicinity of Alternate 4. Two of these, C. barrattII and H. bullata, are federal candidate species presently under consideration by the U.S. Fish and WildlIfe Service. for lIsting as threatened or endangered spec les.
7. Visual/Scenlc Resource Impacts
a. Short-Term Effects

Construction related short-term Impacts to visual/aesthetic resources would be conmon to all the bulld alternates. These Include storage of construction materlals and machlnery, cut and flil operations, regrading requlred for the new facliltles, and loss of vegetation.
b. Long-term Effects

Long-term visual/aesthetlc Impacts resulting from construction vary for each alternate. In general, because Alternate 2 more closely follows an exlsting roadway allgment and has fewer grade separated Interchanges, Its potentlal for long term adverse effects to visual scenlc resources would be less that for Alternates 3 and 4.

Alternate 2: This alternate proposes a new Interchange at U.S. Route 1, and an expanded Interchange at the B.W. Parkway, both of which would have visual Impacts upon nearby areas. The new Intersectlon at the Race Road area would also impact visually on surrounding resldences and the expanded roadway would also Impact more severely on nearby residents of the Sandalwood Subdivision.

The Alternate $2 A$ allgrment would be visible from some residences in the Burleytown area, and would also result In major visual impacts to the northeastern portlons of the Queenstown communlty.

The Alternate 2B allgment would result In visual Impacts to the McPherson resldentlal development and Frlendshlp Park, as well as havIng major visual Impacts on the northeastern portion of Queenstown.

Alternate 3: Alternate 3 proposes four grade separated Interchanges which would be visible to nearby residences. The Interchanges
require substantial amount of land and would be dominant visual elements where they occur. These are located at U.S. Route 1, the Race Road area, the B-W Parkway, and the relocated RIdge Road. The new Ridge Road Interchange would have adverse visual impacts to the Shlpley House Historic Site and to Harmans Park, as well as to many residents of the Shlpley Corner area. The Alternate 3 roadway would also result in visual impacts to the community of Matthewstown and to the BuckIngham Forest Tree Nursery.

The Alternate $3 A$ allgrment calls for a new grade separated Interchange at Camp Meade Road which would result in adverse visual impacts to the Munson Heights Subdivision and to the Smith Farm Historical site. The allgrment would also significantly effect the visual environment through Queenstown.

The allgrment of the selected alternate, Alternate 38 (Modified), with Its grade separated Interchange at Camp Meade Road, would have adverse Visual Impacts on Munson Heights and the Smith Farm, as well as to some residents of the Burleytown area and to Friendship Park.

Alternate 4: This alternate allgrment calls for four new grade separated Interchanges which would be visible to nearby residences. These are located at U.S. Route 1, the B-W Parkway, New Ridge Road, and at Dorsey Road. The new Interchange at the Baltimore-Washington Parkway infringes upon property of the Patapsco Valley State Park, and this along with Its associated bridges over Piny Run and Deep Run, would severely Impact upon the visual aesthetic qualities of the area. The alignment would also result in visual Impacts to both the Queenstown Park and Friendship Park recreation areas, as well as to the Queenstown community.
c. Mitigation Measures

Certaln measures can be Incorporated Into the design of the proposed roadway to reduce the potentlal for visual resource conflicts. These mitigation measures fall into several categorles.

1. Vegetation

Existing vegetation, partlculariy mature trees, will be preserved and protected whenever possible. In addition, the right-of-way and medians could be planted with Indigenous declduous and evergreen trees, shrubs, native grasses and groundcover. These would be planted in clumps and masses of varylng conflguratlons to provide varlety and Interest. Preservation and Introduction of plant materlal wlll provide screening of the road from surrounding areas and of unattractive vlews from the road.
II. Grading

Final design of the roadways will correspond to exlsting grades and topography, thus minimizing the amount of cut and fill and regradIng required, and disruption to existing landforms. Finished grading will blend in with the general character of the surrounding physical enviroment.
III. ScreenIng

Visual screening through landscaping and privacy fencing will be incorporated Into the final design of the project where feasible in the vicinlty of resldentlal areas.

## 8. CoordInation

In addition to correspondence with approprlate resource agencles (Section $V I$ ), this project has been coordinated with representatives Of the U.S. FIsh and Wildilfe Service, U.S. Army Corps of Englneers, the Envirormental Protection Agency, the Maryland Department of Natural Resources

Water Resources Administration (DNR - WRA), Forest Park and Wildilfe Service, at the quarterly Interagency review sessions of the State Highway Adminlstracion.
D. AIr Quality Impacts

1. Analysis ObJectives, Methodology and Results

The objective of the air quality analysis is to compare the carbon monoxide ( $\infty$ ) concentrations estimated to result from traffic configuration and volumes of each alternate with the State and National Ambient AIr Quality Standards (S/NAAQS). The NAAQS and SAAQS are identical for $C$ : 35 PPM (parts per million) for the maximum one-hour period and 9 PPM for the maximum consecutive elght-hour period.

A microscaie 0 pollution diffusion analysis was conducted using the third generation California Line Source Dispersion Model, CALINE 3. This microscale analysis consisted of projections of one-hour and elght-hour $\infty$ concentrations at sensitive receptor sites under the worst case meteorlogical conditions. for the Nombuild and the Build Alternates for the design year (2010) and the estimated year of completion (1990).

## a. Analysis inputs

A summary of analysis Inputs is given below. More detailed Information concerning these Inputs is contained in the Maryland Route 100 Air Quality Analysis which is available for review at the Maryland State HIghway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

Background $\infty$ Concentrations - In order. to calculate the total concentration of $\infty$, which occurs at a particular receptor site during worst case meterological conditions, the background $\infty$ concentrations are considered in addition to the levels directly attributable to the facility
under conslderatlon. The background $\infty$ concentratlons were derlved from the appllcation of roilback methodology to on-site monltoring conducted at fort George G. Meade during the perlod February, 1977. The resuiting background concentratlons are as follows:

|  | C, PPM |  |
| :--- | :--- | :--- |
|  | 1 hour 8 hour |  |
| 1990 | 3.3 | 1.7 |
| 2010 | 2.6 | 1.3 |

Trafflc Data, Emisslon Factors, and Speeds - The approprlate trafflc data was utillzed as supplled by the Bureau of HIghway Statlstles (June 1984, and September and October 1985) Of the Maryland State HIghway Admlnistration.

The composite emission factors used in the analysls were calculated using the. Envirommental Protection Agency (EPA) MOBILE 3 (MObile Source Emissions Model) computer program. An amblent alr temperature of 20 degrees Fahrenheit was assumed in calculating the emission factors for both the 1 hour and 8 hour analysls In order to approximate worst case results for each analysis case. Credlt for a vehicie Inspection malntenance ( $I / M$ ) emission control program beginnIng In 1984 was Included In the emlssion factor calculations.

Average vehicle operating speeds used In calculating emlssion factors were based on the capacity of each roadway IInk from immediately adjacent IInks. Average operatlng speed ranged from 20 mph to 55 mph for the No-Bulid and Build Alternates depending upon the roadways under consideration.

Meterological Data - Worse-case meterological conditions of 1 meter/second for wind speed and atmospherlc stablllty class $F$ were assumed for both the 1 hour and 8 hour caiculatlons. In addltion, as stated above, a
IV-60
worst-case temperature of 20 degrees Fahrenheit was assumed.
The wind directions utilized as part of the analysis were rotated to maximize $\infty$ concentrations at each receptor location. Wind directions varied for each receptor and were selected through a systematic scan of O concentrations associated with different wind angles.

## b. Sensitive Receptors

Site selection of sensitive receptors was made on the basis of proximity to the roadway, type of adjacent land use, and changes in traffic patterns on the roadway network. Thirty (30) receptor sites were chosen for this analysis consisting of twenty-three (23) residences, four (4) churches, two (2) parks and Buck Ingham Forest Tree Nursery. The receptor site locations were verified during study area visits by the analysis team. A general receptor site location map is shown on Figure IV-11 and specific sites are shown on Figures 11-1 through 11-34.

Residence, NW US 1 MD 100 Interchange
Resldence, Race Road near Dorsey Road
Resldence, Race Road near Patapsco Valley State Park
Patapsco Valley State Park
ResIdence, NE ND 295/MD 100 Interchange
ResIdence, NE MD 295/MD 100 Interchange
Resldence, Bentwoods Road
St. Marks Church
ResIdence, SW Dorsey Road/RIdge Road Intersection
Shlpley House (HIstorlc)
Harmans Park
Residence, Valley Road
Res Idence, Sanda Iwood
Residence, Matthews Town Road
Residence, SE ND 170/MD 100 Interchange
Resldence, HawkIns Road
BuckIngham Forest Tree Nursery (alr quallty only)
ResIdence, Locust DrIve
Residence, Otis Drive
Smlth Farm (HIstor IC)
Farmhouse, South of Queenstown Road/East of W.B. \& A. Road
ResIdence, W.B. \& A. Road/Dorsey Road Intersection
Res Idence, W. B. \& A. Road/Queenstown Road
ResIdence, W.B. \& A. Road/Dorol Court
Queenstown Park (Tennls Courts)
Metropolltan Church
ResIdence, Queenstown Road
Resldence, Jones Road
Apartments, Old Stage Road
Ermanuel Church (not used)
Resldence, Glenbrook
Calvary Chapel Church, Old RIdge Road


语－63
c. Results of Microscale Analysis

The results of the calculations of $\infty$ concentrations at each of the sensitive receptor sites for the No-Bulid and Build Alternates are shown on Tables IV-1 and IV-2. The values shown consist of predicted $\infty$ concentretrons attributable to traffic on various roadway lInks plus projected background levels. The No-Bulld Alternate assumes only the improvements as discribed in Section 11 are made to Maryland Route 176 and there is no extension Of Maryland Route 100. In addition, the concentrations shown for Alternates 2A, 2B, 3B, 4 and 3 Crossover 4 assume a six (6) lane improvement which is the worst case alternate from an air quality viewpoint. The results of an analysis for the selected alternate, Alternate $3 B$ (Modified), would be the same as those presented for Alternate 3-Option B. The results of an analysis for Alternate $4 / 3 B$ would be the same as those presented for Alternate 4 for sites 1 to 23 and the same as those presented for Alternate 3-Option B for sites 24 to 31. A comparison of the values In Tables $I V-1$ and $I V-2$ with the S/NAAQS shows that no violations will occur for the No-Bulld or with any of the build alternates in 1990 or 2010 for the one-hour or elght-hour concentrations of $\infty$.

The projected $\infty$ concentrations vary between alternates depending on receptor locations as a function of the roadway locations and traffic patterns associated with each alternate. The maximum one-hour concenttrations associated with any of the alternates is only twenty percent (20\%) of the one-hour S/NAAQS while the maximum elght-hour concentration is fifty percent (50\%) of the elght-hour S/NAAQS.
2. Construction Impacts

The construction phase of the proposed project has the potent ai of impacting the ambient air quality through such means as fugitive dust from grading operations and materlais handling. The State HIghway Administration has 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 requirements of the Regulations Governing the Control of Air Pollution in the State of Maryland. The Maryland Bureau of AIr Quality Control found that the specifications are consistent with the requirements for these regulations. Therefore, during the construction period, ali appropriate measures (Code of Maryland Regulations 10.18.06.03D) will be taken to minimize the Impact on the air quality of the area.
3. Conformity with Regional Air Quality Planning

The project is in an air quality nonattalment area which has transportation control measures in the State implementation Plan (SIP). This project conforms with the SIP since it originates from a conforming transportation Improvement program.

## 4. Agency Coordination

Copies of the Maryland Route 100 Air Quality Analysis have been circulated to the U.S. Environmental Protection agency and the Maryland Department of Health and Mental Hygiene - AIr Management Administration and have been approved. The U.S. EPA approved the approach outlined for analyzing the all quality impacts of the project and offered no objections to completing
this portion of the enviroment study (letter dated August 19, 1986). The Maryland Alr Management Administration found that the Alr Quality Analysis for this project is not inconslstent with the Acministration's plans and objectives (letter dated August 13, 1986). Both of these letters are contalned in Section VI.

TABLE IV-I
CO CONCENTRATION* AT EACH RECEPTOR SITE, PPM
1990

|  | NO-BUILD |  | ALTERNATE 2-A |  | ALTERNATE 2-B |  | ALTERNATE 3-A |  | ALTERNATE 3-B |  | ALTERNATE 4 |  | ALT. 3 / ALT. 4 CROSSOVER |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 IRR. | 8 HR. |
| 1 | 3.9 | 2.1 | 4.2 | 2.4 | 4.2 | 2.4 | 4.1 | 2.4 | 4.1 | 2.4 | 4.2 | 2.4 | 4.1 | 2.4 |
| 2 | 4.1 | 1.9 | 4.0 | 2.2 | 4.0 | 2.2 | 3.7 | 2.0 | 3.7 | 2.0 | 3.3 | 1.7 | 3.3 | 1.7 |
| 3 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.5 | 1.7 | 3.3 | 1.7 |
| 4 | 3.6 | 2.0 | 3.6 | 2.0 | 3.6 | 2.0 | 3.6 | 2.0 | 3.6 | 2.0 | 4.4 | 2.3 | 3.6 | 2.0 |
| 5 | 4.9 | 2.2 | 4.3 | 2.4 | 4.3 | 2.4 | 4.6 | 2.4 | 4.6 | 2.4 | 3.4 | 1.8 | $4.5{ }^{\text { }}$ | $2.4{ }^{+}$ |
| 6 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 4.0 | 2.1 | 3.3 | 1.7 |
| 7 | 5.7 | 2.4 | 4.8 | 2.8 | 4.8 | 2.8 | 3.9 | 2.0 | 3.9 | 2.0 | 3.8 | 1.9 | 3.8 | 1.9 |
| 8 | 5.1 | 2.2 | 4.4 | 2.5 | 4.4 | 2.5 | 3.8 | 1.9 | 3.8 | 1.9 | 3.8 | 1.9 | 3.8 | 1.9 |
| 9 | 5.1 | 2.2 | 4.4 | 2.5 | 4.4 | 2.5 | 3.8 | 1.9 | 3.8 | 1.9 | 3.8 | 1.9 | 3.8 | 1.9 |
| 10 | 3.5 | 1.8 | 3.5 | 1.8 | 3.5 | 1.8 | 3.8 | 1.9 | 3.8 | 1.9 | 3.5 | 1.8 | 3.5 | 1.8 |
| 11 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 4.1 | 2.0 | 4.4 | 2.2 |
| 12 | 6.0 | 2.6 | 5.0 | 2.9 | 5.0 | 2.9 | 3.9 | 2.0 | 3.9 | 2.0 | 3.8 | 1.9 | 3.8 | 1.9 |
| 13 | 3.3 | 1.7 | 3.3 | 1.7 | 3.3 | 1.7 | 4.1 | 2.1 | 4.1 | 2.1 | 3.3 | 1.7 | 3.3 | 1.7 |
| 14 | 5.0 | 3.0 | 4.5 | 2.6 | 4.5 | 2.6 | 3.8 | 1.9 | 3.8 | 1.9 | 3.8 | 1.9 | 3.8 | 1.9 |
| 15 | 4.6 | 2.1 | 3.8 | 2.2 | 3.8 | 2.2 | - 3.9 | 2.3 | 3.9 | 2.3 | 3.9 | 2.3 | 3.9 | 2.3 |
| 16 | 4.2 | 2.0 | 3.8 | 2.2 | 3.8 | 2.2 | 3.9 | 2.3 | 3.9 | 2.3 | 3.9 | 2.3 | 3.9 | 2.3 |

*INCLUDING BACKGROUND CONCENTRATIONS
I HOUR = 3.3
A HOIIR $=1.7$
THE S/NAAQS FOR CO: 1 HOUR MAX. $=35 \mathrm{PPM}$ 8 HOUR MAX. $=9$ PPM

TABLE IV-I (cont.)
CO CONCENTRATION* AT EACH RECEPTOR SITE, PPM
1990

*INCLUDING BACKGROUND CONCENTRATIONS
1 HOUR $=3.3$
THE S/NAAQS FOR CO: I HOUR MAX. $=35$ PPM
8 HOUR $=1.7$

TABLE IV-II
CO CONCENTRATION* AT EACH RECEPTOR SITE, PPM 2010


TABLE IV-II (cont.)
CO CONCENTRATION* AT EACH RECEPTOR SITE, PPM 2010

|  | NO-BUILD |  | ALTERNATE 2-A |  | ALTERNATE 2-B |  | ALTERNATE 3-A |  | ALTERNATE 3-8 |  | ALTERNATE 4 |  | ALT. 3 / ALT. 4 CROSSOVER |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR. | 8 HR. | 1 HR . | 8 HR. |
| 17 | 7.7 | 4.5 | 4.5 | 2.7 | 4.5 | 2.7 | 3.1 | 1.6 | 3.1 | 1.6 | 3.1 | 1.6 | 3.1 | 1.6 |
| 18 | 4.3 | 1.8 | 3.4 | 2.0 | 3.4 | 2.0 | 3.5 | 2.1 | 3.5 | 2.1 | 3.5 | 2.1 | 3.5 | 2.1 |
| 19 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 3.2 | 1.8 | 3.1 | 1.7 | 2.6 | 1.3 | 2.6 | 1.3 |
| 20 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 3.1 | 1.7 | 3.2 | 1.8 | 2.6 | 1.3 | 2.6 | 1.3 |
| 21 | 6.9 | 3.9 | 4.3 | 2.5 | 6.3 | 4.0 | 3.1 | 1.6 | 3.1 | 1.6 | 3.1 | 1.6 | 3.1 | 1.6 |
| 22 | 2.6 | 1.3 | 4.5 | 2.8 | 2.6 | 1.3 | 2.6 | 1.3 | 3.1 | 1.7 | 4.5 | 2.8 | 4.5 | 2.8 |
| 23 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 3.2 | 1.7 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 |
| 24 | 2.6 | 1.3 | 4.9 | 3.0 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 4.9 | 3.0 | 4.9 | 3.0 |
| 25 | 2.6 | 1.3 | 5.0 | 3.0 | 4.5 | 2.6 | 3.0 | 1.6 | 2.6 | 1.3 | 5.0 | 3.0 | 5.0 | 3.0 |
| 26 | 2.6 | 1.3 | 4.3 | 2.5 | 4.3 | 2.5 | 4.3 | 2.5 | 2.6 | 1.3 | 4.3 | 2.5 | 4.3 | 2.5 |
| 27 | 2.6 | 1.3 | 5.3 | 3.3 | 5.3 | 3.3 | 3.3 | 1.7 | 3.6 | 2.0 | 5.3 | 3.3 | 5.3 | 3.3 |
| 28 | 5.0 | 3.1 | 5.2 | 3.4 | 5.2 | 3.4 | 5.3 | 3.5 | 5.3 | 3.5 | 5.3 | 3.5 | 5.3 | 3.5 |
| 30 | 8.1 | 4.8 | 4.1 | 2.2 | 4.1 | 2.2 | 3.1 | 1.6 | 3.1 | 1.6 | 3.1 | 1.6 | 3.1 | 1.6 |
| 31 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 2.6 | 1.3 | 3.8 | 1.7 | 3.6 | 1.7 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | $\cdots$ |  |  |  |  |  |  |  |  |  |  |

* INCLUDING BACKGROUND CONCENTRATIONS

THE S/NAAQS FOR CO:
1 HOUR MAX. $=35$ PPM
HOUR $=2.6$
HOUR $=1.3$

## E. Noise impact Analysis

1. Introduction

As discussed in Section lil.E., trafflc nolse impacts cocur when predicted Maryiand Route 100 design year traffic noise ievels exceed 67 dBA Leq or exceed the measured amblent "wlthout alrcraft" levels by 10 dBA or more. Where nolse Impacts occur, nolse abatement methods are examined. This section Identifles areas of nolse Impact for the varlous design alternatives, and then looks at the feasiblilty of using nolse barrlers to minimize or eliminate impacts. The following paragraphs first present the measured levels for the noise sensltive areas, then discuss nolse prediction methods, Identify areas of nolse impact, and finally present an analysls of nolse barrler feasiblilty.

## 2. Amblent Nolse Level Measurements

Twenty-nine nolse sensltive areas (NSA's) were identifled and analyzed In the study area (see FIgure $\mid V-11$ ). All are categorized as Activity Category B in accordance with the FHWA nolse abatement criterla and land use relatlonship shown on Table III-7. These are shown on Table IV-3 in section IV.D. Nolse measurements were conducted at all of the nolse sensltive areas (note that there are 30 numbered areas, but slte number 16 is an alr quallty iocation only). A nolse monltor was used for 20 to 30 minutes at each NSA. At most locatlons, printouts of Lea values permitted separation of nonalrcraft nolse level. The following table describes each NSA and gives the measured results in terms of dBA Leq.

| Nolse Sensitive Area | Mea <br> WIth Alreraft | red Lea WI thout Alrcraft | Description |
| :---: | :---: | :---: | :---: |
| 1 | 66 | 63 | One (1) 2 story frame single famlly residence north side of U.S. Route 1 wlth direct access to U.S. Route 1. |
| 2 | 70 | 61 | One (1) 3 story frame single famlly residence with direct access to Race Road. |
| 3 | 70 | 43 | One (1) 2 story frame slngle famlly residence with direct access to Race Road. |
| 4 | 68 | 42 | Patapsco State Valley Park. |
| 5 | 71 | 68 | One (1) 2 story frame slngle famlly residence with direct access to Maryland Route 176. |
| 6 | 68 | 43 | One (1) 2 story frame single famlly residence with direct access to Bentwoods Road. |
| 7 | 69 | 68 | St. Marks United Methodlst Church Is a one (1) story brlck bullding with direct access to Maryland Route 176. The church is alr condltloned and has no day school. |
| 8 | 70 | 58 | One (1) 1 story single famlly residence with direct access to Maryland Route 713. |
| 9 | 60 | 57 | One (1) 3 story frame single famlly residence with direct access to RIdge Road (Shipley House HIstor IC SIte). |
| 10 | 62 | 61 | Harmans Park - Receptor site Is at the backstop of the baseball fleld. |
| 11 | 76 | 44 | One (1) 1 story stone single famlly residence wlth direct access to Valley Road off of Old Stony Run Road. |
| 12 | 67 | 65 | One (1) 2 story frame single famlly residence located on Sandalwood Lane with access to Maryland Route 176. |
| 13 | 52 | 52 | One (1) 1 story brlck rancher single famlly residence wlth direct access to Matthews Town Road. |

TABLE IV-3 NOISE SENSITIVE AREAS AND AMBIENT NOISE LEVELS (CONTD)

IV -73
table iv-3 noise sensitive areas and anbient noise levels (Cont'd)

| Nolse | Measured Leq |  |  |
| :---: | :---: | :---: | :---: |
| Sensitive Area | With Alrcraft | Wlthout DescriptionAlrcraft |  |
| 28 | 63 | 63 | Apartments 3 story brlck bullding with access to Old Stage Road. |
| 30 | 70 | 70 | One (1) 1 story frame single famlly residence with direct access to Elkrldge Landing Road. |
| 31 | 72 | 52 | Calvary Chapel Church is a 1 story frame church on Old Ridge Road. This Church is alr conditioned and does have a day school. |

3. Predicted Nolse Levels
a. Prediction Methodology

The method used to predict the future nolse levels for the proposed extensIon of Maryland Route 100 was developed by the Federal HIghway Acminlstration of the U.S. Department of Transportation. The FHWA HIghway Trafflc Nolse Prediction Model (FHNA Model) Incorporates data pertalning to normal traffic volume Increases over time, utllizes an experimentally and statistlcally determined reference sound level for three classes of vehlcles (autos, medlum duty trucks, and heavy duty trucks) and applles a serles of adjustments to each reference level to arrive at the predicted sound level. The adjustments Include: 1) traffic flow corrections taking Into account number of vehicles, average vehlcle speed, and specifles a time perlod of consideration; 2) dlstance adjustment comparing a reference distance and actual distance between recelver and roadway; and 3) adjustment for varlous types of physical barrlers that would reduce nolse transmission from source (roadway) to recelver.

Pursuant to the procedures publIshed In the FHWA FHPM 7-73, prediction calculations and noise barrier calculations were performed utlilazing a computer program version of the FHWA Model described in report FHWA-RD-77-108. The calculations do not predict future noise levels 'with aircraft since airplane noise is not generated by this project and cannot be mitigated by noise barriers.
b. Summary of Traffic Parameters

Traffic information for this analysis was prepared by the Maryland State Highway Administration's Bureau of Traffic Engineering and Bureau of Highway Statistics for the Design Year (2010).

In predicting noise levels and assessing noise impacts, the traffic characteristics yielding the worst hourly traffic noise impact on a regular basis for the design year for each alternate were used.
c. Prediction Results

Noise levels projected for the design year (2010) for the "BuIld" and "No-Bulld" alternatives are shown in Tables IV-4 and IV-5.
4. Noise Impact Assessment
a. Impact Analysis and Feasibility of Noise Control

The determination of environmental noise impact is based on the relationship between the predicted noise levels, the established noise abatement criteria, and the ambient noise levels in the project area. The applicable standard is the Federal Highway Administration's Noise Abatement Criterla/Activity Relationship (see Table ill-7) pubilshed In FHPM 7-7-3. When design year Lea noise levels are projected to exceed the abatement riter la or increase ambient conditions by 10 dEA or more, noise abatement masure (in general, noise barriers) are considered to minimize impact. Con-
sideration is based on the size of the impacted area (number of structures, spaclal distribution of structures, etc.), the predominant activities carried on within the area, pubilc input, the visual impact of the control measure, practicality of construction, and economic feasibility.

PROJECT NOISE LEVELS
TABLE IV-4
MARYLAND ROUTE 100 ALTERNATES 2A, 28, 3A, 3B, 48 CROSSOVER 4


PROJECT NOISE LEVELS
TABLE IV-4 (CONT.)
MARYLAND ROUTE 100 ALTERNATES RA, 2B, BA, BB, 48 CROSSOVER 4


## PROJECT NOISE LEVELS TABLE IV-5

MARYLAÑD ROUTE 100-NO BUILD ALTERNATE

| NSA | description | Ambient Leq |  | DESIGN YEAR 2010 Leq |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|c} \text { with } \\ \text { aicroft } \end{array}$ | $\begin{array}{\|l} \text { without } \\ \text { aircroft } \end{array}$ |  |
| 1 | resioential | 66 | 63 | 67 |
| 2 | residential | 70 | 61 | 62 |
| 5 | residential | 71 | 68 | 76 |
| 7 | CHURCH | 69 | 68 | 70 |
| 8 | CHURCH | 70 | 58 | 62 |
| 9 | residential | 60 | 57 | 64 |
| 12 | residential | 67 | 65 | 66 |
| 14 | residental | 62 | 59 | - 65 |
| 17 | residential | 70 | 70 | 76 |
| 21 | residential | 71 | 70 | 76 |
| 30 | RESIDENTIAL | 70 | 70 | 76 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | . |  |  |  |
|  |  |  |  |  |
|  |  |  |  | . |
|  |  |  |  |  |

Economic assessment is based on the following assumptions. An effective barrler should, in general, extend In both alrections to four (4) tlmes the dlstance between recelver and roadway (source). in addition, an effectlve barrler should provide a 7 to 10 dBA reduction of the nolse level, as a preilminary design goal. For the purpose of comparison, a total cost of $\$ 27$ per square foot is assumed to estimate total barrier cost. This cost flgure is based on current costs experlenced by the Maryland State HIghway Administration and Includes the costs of panels, fcotings, dralnage, landscaplng, and overhead. In addltion, the upset IImlt to determine how reasonable a barrler may be is $\$ 40,000$ per residence. This is an average cost figure based on current and projected barrier costs by the Maryland State Highway Adminlstration.

No-Bulld Alternate - For the No-Build Alternate, eleven (11) nolse sensitlve areas were analyzed. Table IV-5 shows deslgn year (2010) Lea nolse levels would increase 1-8 dBA over present levels (without aircraft) and NSA's 5, 7, 17, 21 and 30 would exceed the nolse abatement crlterla of 67 dBA. These increases are due solely to Increased trafflc volumes on Dorsey Road and nolse abatement measures are not recommended for this alternate.

Alternate $2 A$ - Under this alternate, NSA's 12,14, 22, 27 and 30 would be exposed to traffic nolse levels that In the design year (2010) either exceed FHWA nolse abatement crlterla or Increase by 10 dBA or more above current amblent noise levels excluding alrcraft (see Table IV-4). Table IV-6 summarlzes the basic physicai dimensions, estimated effectiveness, cost, number of residentlal units benefiting and the nominal cost per residence of barrlers for each NSA.

At NSA 12, a barrier 14 feet high and 1450 feet In length would provide a maximum of 9 aBA benefit to 19 residences at a total cost of $\$ 548,000$ or a cost per residence of $\$ 29,000$. The construction of a barrier at this location would be considered during final design If Alternate 2A is selected. This NSA is not located within the airport's noise zone.

At NSA 14, a barrier 20 feet high and 1000 feet In length would provide a maximum 5 aBA benefit to one residence at a cost of $\$ 540,000$. This barrier would be neither feasible nor reasonable because of cost and Insufficient benefit and is not recommended.

At NSA 22 a barrier 20 feet high and 2800 feet $\operatorname{In}$ length would provide a maximum 7 aBA benefit to 3 residences at a total cost of $\$ 1,512,000$ or a cost per residence of $\$ 504,000$. This barrier would be feasIbie but not reasonable because of cost and is not recommended.

At NSA 27, a barrier 20 feet high and 800 feet in length would provide a maximum of 8 aBA benefit to one residence at a cost of $\$ 432,000$. This barrier would be feasible but not reasonable because of cost and is not recommended.

The Impact to NSA 30 is due solely to increased traffic along Dorsey Road and barrier construction is not feasible since the barrier would have to be segmented to provide access to cross roads.

Table IV-6 - Barrier EffectIVeness
Alternate 2A

| NSA | Barrler Helght | Dimensions Length | $(F t)$ <br> Beneflt (dBA) |  | Cost | No. of ResIdences Beneflting |  | Cost <br> Per <br> Idence |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 14 | 1450 | 9 | \$ | 548,000 | 19 | \$ | 29,000 |
| 14 | 20 | 1000 | 5 | \$ | 540,000 | 1 | \$ | 540,000 |
| 22 | 20 | 2800 | 7 |  | 512,000 | 3 | \$ | 504,000 |
| 27 | 20 | 800 | 8 | \$ | 432,000 | 1 | \$ | 432,000 |
| 30. | (see | text) |  |  |  |  |  |  |

Alternate 2B - Under this alternate, NSA's 12,14, 21, 27
and 30 would be exposed to trafflc. nolse levels that In the design year (2010) elther exceed the FHNA nolse abatement criterla or Increase by 10 dBA or more above current amblent nolse levels excluding alrcraft (see Table IV-4). Table IV-7 summarlzes the basic physlcal dimensions, estlmated effectiveness, cost, number of residentlal unlts benefltting and the nominal cost per residence of barrlers for each NSA.

The barrlers assoclated with NSA's 12 and 14 would be the same as under Alternate 2A.

At NSA 27, a barrler 20 feet high and 3350 feet In length would provide a maximum 4 dBA beneflt to one residence at a cost of $\$ 1,809,00$. This barrler is not reasonable or feasible and is not recommended.

For NSA's 21 and 30, vehicles on local, unlimlted access roads are responsible for nolse impact, and barrler construction is not feasible.

Table IV-7 - Barrier Effectiveness
Alternate 2B


Alternate 3A - Under thls aiternate, NSA's $1,2,8,9,13,18,20,26,28$ and 30 would be exposed to traffic nolse levels that in the design year (2010) would exceed the FHWA nolse levels exciuding alrcraft (see Table IV-4). A Leq of 61 dBA would occur at NSA 27 and is considered to Impact on that location because of the relatively low amblent levels that exlst when aircraft are not overfiying the area. Table IV-8 summarlzes the basic physlcal dimenslons, estimated effectiveness, cost, number of residential unlts benefltting and the naminal cost per residence of barriers for each NSA.

At NSA 1, a barrier varying in height from 20-28 feet and 900 feet in length would provide a maximum of 7 dBA benefit to 3 residences at a total cost of $\$ 519,000$ or a cost per residence of $\$ 173,000$. This barrler is feasible but not reasonable because of cost and is not recammended.

At NSA 2, a barrier 15 feet in height and 950 feet in length would provide 2 residences a maximm of 7 dBA benefit at a total cost of $\$ 385,000$ or a cost per residence of $\$ 192,000$. This barrier is feasibie but not reasonable because of cost and is not recammended.

At NSA 8, a barrler 20 feet high and 3,200 feet long would provide 5 residences a maximum of 5 dBA benefit at a total cost of $\$ 1,728,000$ or a cost per residence of $\$ 346,000$. This barrler is nelther reasonabie nor feasible and is not recammended.
IV-83

At NSA 9, a barrlerEl 20 feet high and 3,200 feet long would provide six residences a maximum 8 dBA beneflt at a total cost of $\$ 1,728,000$ or a cost per residence of $\$ 288,000$. This barrler is feasibie but not reasonable because of cost and is not recommended.

At NSA 13, a barrier 18 feet high and 900 feet In length would provide 2 resldences a max Imum of 8 dBA benefit at a total cost of $\$ 437,000$ or a cost per residence of $\$ 219,000$. This barrier is feasible but not reasonable because of cost and is not recammended.

At NSA 18, a barrler 18 feet hl gh and 1200 feet In length would provide 4 residences a maximum of 9 dBA beneflt at a total cost of $\$ 583,000$ or a cost per residence of $\$ 146,000$. This barrler is feasible but not reasonable because of cost and is not recommended.

At NSA 20, a barrler 12 feet high and 400 feet long would provide one residence a max Imum of 8 dBA benefit at a cost of $\$ 130,000$. This barrler is feaslble but not reasonable because of cost and is not recommended.

At NSA 26, a barrier 9 feet high and 1000 feet long would provide 6 residences a maximum of 8 dBA beneflt at a total cost of $\$ 243,000$ or a cost per residence of $\$ 41,000$. This barrier would be feasibie but not reasonable because of cost and is not recommended.

At NSA 27, a barrler 20 feet high and 3,360 feet long would provide one residence a maximum of 4 dBA beneflt at a cost of \$1,814,000. This barrler is not reasonable or feasible and is not recommended.

At NSA 28, a barrier 20 feet high and 800 feet long would provide 12 residential units a maximum of 7 dBA benefit at a total cost of $\$ 432,000$ or a cost per resldence of $\$ 36,000$. Thls barrier would be reasonable
and feasible and is being considered under the construction of 1-97.
As for the other alternates, NSA 30 is impacted by noise from traffic on Dorsey Road and barrier construction is not feasible.

Table IV-8 - Barrier Effectiveness
Alternate 3A

*Estimated No. of Apartment Units
Alternate 3B - As shown in Table IV-4, NSA's, $1,2,8,9,13,18,22,27,28$ and 30 would be exposed to traffic noise levels that, In the design year (2010), would exceed the FHWA noise abatement criteria or Increase by 10 aBA or more above current ambient noise levels (excluding aircraft). Table IV-9 summarizes the basic physical dimensions, estimated effecttiveness, cost, number of residential units benefiting and the nominal cost per residence of barriers for each NSA.

At NSA's 1,2,8,9,13,18,28 and 30, the barriers and assoclated effectiveness would be the same as those described In Alternate 3A.

At NSA 22, a barrier 20 feet hlgh and 2800 feet long would provide 3 residences approximately 8 aBA benefit at a total cost of $\$ 1,512,000$ or a cost per residence of $\$ 504,000$. This barrier would be feasible but not
reasonable because of cost and is not recommended.
At NSA 27, a barrler 20 feet high and 2,250 feet long would provide one residence approximately 6 dBA beneflt at a cost of $\$ 1,215,000$. This barrier is feasibie but not reasonabie and is not recommended.


Alternate 38 (Modified) - The selected alternate would have the same nolse impacts as those described for Alternate 38.

Alternate 4 - Under this aiternate, NSA's $1,3,4,6,11,22$, 27, and 28 would be exposed to traffic nolse ievels that, in the design year (2010), would exceed the FHWA nolse abatement criterla or increase by 10 dBA or more above current amblent nolse levels exciuding alrcraft (see Table iv4). Table IV-10 summarizes the barriers for each of the impacted NSA's.

At NSA's 1 and 28, the barrlers would be the same as those described in Alternate 3A and the barriers assoclated with NSA's 22 and 27 would be the same as under Alternate $2 A$.

Át NSA 3, a barrler 12 feet hlgh and 7000 feet long would provide• 8 resldences between a 5 to 10 dBA beneflt of a total cost of $\$ 2,268,000$ or a cost per residence of $\$ 284,000$. Thls barrler would be feasIble but not reasonable and is not recommended.

At NSA 4, a barrler 12 feet high and 2,000 feet long would provide between 7 and 10 dBA beneflt in the park at a total cost of $\$ 648,000$. This barrler is feaslble and wlll be consldered durlng flnal design if Alternate 4 is selected.

At NSA 6, a barrler 12 feet high and 1,000 feet In length would provide 5 resldences a beneflt of between 5 and 10 dBA at a total cost of $\$ 324,000$ or a cost of $\$ 65,000$ per residence. Thls barrler is feaslble but not reasonable and is not recammended.

At NSA 11, a barrler 12 feet hlgh and 4,000 feet long would provide 3 resldences and one church between a 5 to 10 dBA beneflt at a total cost of $\$ 1,296,000$ or a cost per residence of $\$ 185,000$. This barrler is feaslble but not reasonable because of cost and is not recommended.

Table IV-10 - Barrler Effectlveness Alternate 4

| NSA | Barrler Helght | Dimensions Length | $(F t)$ <br> Beneflt (dBA) | Cost | No. of Resldences Beneflting |  | Cost Per sldence |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 20-28 | 900 | 7 | \$ 519,000 | 3 | \$ | 173,000 |
| 3 | 12 | 7000 | 5-10 | \$2,268,000 | 8 | \$ | 284,000 |
| 4 | 12 | 2000 | 7-10 | \$ 648,000 | - |  | - |
| 6 | 12 | 1000 | 5-10 | \$ 324,000 | 5 | \$ | 65,000 |
| 11 | 12 | 4000 | 5-10 | \$1,296,000 | 3 | \$ | 185,000 |

Alternate 3/Crossover/Alternate 4 - Under this alternate, NSA's 1, 2, 11, 22, 27, 28, and 31 would be exposed to traffic noise levels that, in the design year (2010), would exceed the FHWA noise abatement orter la or Increase by 10 dEA or more above current ambient noise levels excludIng aircraft (see Table IV-4).

The barriers for NSA's 1, 2, and 28 are the same as for Alternate $3 A$ and the barriers for 2, 22, and 27 are the same as for Alternate $2 A$.

At NSA 11 and 31, a barrier 12 feet high and 4,700 feet long would provide 5 residences and one church between 5 and 10 dBA benefit at a total cost of $\$ 1,523,000$ or a cost per residence of $\$ 169,000$. This barrier Is feasible but not reasonable due to cost and is not recommended.

Table IV-11 - Barrier Effectiveness Alternate 3/Crossover/Alternate 4


Alternate 4/3B - Under this alternate, NSA's 1, 3, 4, 6, 11, 22, 27, and 28 would be exposed to traffic noise levels that, in the design year (2010), would exceed the FHWA noIse abatement criteria or Increase by 10 aBA or more above current ambient noise levels excluding aircraft. The noise levels for NSA's $1,3,4,6,11$ and 22 are shown in Table IV-4 under Alternate 4 and for NSA's 27 and 28 under Alternate 3B.

The barriers for NSA's 1,3,4,6,11 and 22 are the same as described for Alternate 4 and the barriers for NSA's 27 and 28 are the same as described for Alternate 3B.

## Table IV-12 - Barrier EffectIveness

Alternate 4/3B

b. Construction Impacts

As with any major construction project, areas around the construeton site are lIkely to experience varied periods and degrees of noise impact. This type of project would probably employ the following pieces of equipment which would lIkely be sources of construction noise:

Bulldozers and Earth Movers
Graders
Front End Loaders
Dump and other Diesel Trucks
Compressors

Generaily, construction activity would occur during normai working hours on weekdays. Therefore, nolse intrusion from construction activities probably would not occur during critical sleep or outdoor recreation periods

## F. impact on Historic or Archeological Sites

1. Historic Sites - Consequences

- Seventeen historical sites are located within the study area; two sites are eligibie for the National Register of Historic Places and the remaining 15 sites are not eilgible, but are of Maryiand Inventory Quality. Refer to Table $1 i i-8$ for level of significance.

The two sites eilgible for the National Register are the Smith Farm (c.) and the Shipley House (J.). The Shlpiey House would not be directly impacted by any of the alternates, however, under Alternates 2 and 3, the site would be impacted by the ciose proximity of the allgrments. Alternate 3Option $B$ would require the acquisition of some of the smith farm property but would not directly impact any bulidings or the cemetery on the property. Alternate 3-Option A would be approximateiy 300 feet south of the Smlth Farm and would therefore impact the property, but not adversely, due to the use of landscaping to provide a buffer zone.

The Maryland Historical Trust - State Historic Preservation Officer has determined that Alternate 3-Option B would have no adverse effect on the Shipley House or the Smith farm conditional on landscaping plans which are reviewed and approved by the Maryiand HIstorical Trust (see letter dated March 26, 1987 in section Vi).
2. Archeological Sites

Five sites Identifled by the Maryland Geoiogical Survey as potentially eligibie for the Natlonal Register would be impacted by elther the
selected alternate, Alternate 38 (Modified), or by Alternate 4/3B. Since Alternate 38 (Modified) will Impact four of these sites, phase il archeological studies to determine site extent, degree of impact, and eligibility for the National Register will be undertaken on sites 18AN596, 18AN580, and either 18AN579 or 18AN582. Sites 18 AN 579 and 18AN582 represent the same kind of activity with the same potential for research Information. Site 18AN582 was not recommended for Phase II InvestIgations by the Maryland Geological Survey since site 18AN579 offered superIor site Integrity. This work will be comrdinated with the State HIstorIc Preservation Officer.

If Alternate $4 / 38$ had been selected, phase 11 archeological study would have been undertaken on site 18AN29A. In addition, phase 1 archeologycal reconnaissance would have had to be undertaken of the unsurveyed portions of archeological test tract 12. However, neIther of these areas will be lmpasted by Alternate 38 (Modified), the selected alternate.
G. Relationship between Short-term Effects and Long-term Productivity and Enhancement

All of the Build Alternates would allow traffic to move more efficiently through the study area. The proposed improvements should make the project area more attractive for economic development, thereby increasing employment opportunities In the study area.

Long term environmental effects Include the elimination of active agricultural lands and woodlands and the acquisition of floodplain and wet land acreage. Noise levels would also increase in some areas.

Construction Impacts which would have a short-term effect on the project area Include erosion, siltation and stream turbidity. Dust and noise associated with highway construction would also result in temporary

Impacts. Every effort will be made by the State Highway Administration to minimize effects to the enviroment.
H. Irreversible and Irretrievable Commltment of Resources

The proposed project represents the Irreversible and Irretrlevable commltment of woodlands and agricultural land for the highway right-of-way along with flocdplain acreage and wildife habltat. The land required for the project can be considered as permanently commltted to a transportation corrldor.

1. Energy Impacts

Because of the resulting more efficient operating speeds, each of the freeway bulld alternates would require less operational energy usage than Alternate 2. Energy saved In operational energy requirements would more than offset energy expended in highway construction.
J. $4(f)$ Statement

1. Introduction

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 elther a public park of national, state, or local signiflcance or from any historic site considered ellgible for, or on the Natlonal Reglster of Historlc Places 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.
2. Description of the Proposed Action

The proposed action Involves the construction of Maryland Route 100 as elther a 6 lane urban arterlal highway or a 4 to 6 lane divided
freeway between Maryland Route 3 (proposed $1-97$ ) and 1-95. The alternates which were considered for this study are described In detail in Section limB. Alternate 2 - Options A and B and Alternate 3/Crossover/4 would impact upon Friendship Park. Alternate 4 and Alternate $4 / 3 B$ would Impact upon Friendship Park and the Patapsco Valley State Park. The selected alternate, Alternate 38 (Modified), would Impact upon Friendship Park and the Smith Farm.

## 3. Description of 4(f) Resource

a. Friendship Park

Friendship Park is a 172 acre parcel of land originally acquired by BWI Airport to control the aIrspace for one of their runways. It is now leased by Anne Arundel County from the Maryland State Aviation Administration through the year 1992. The lease can be terminated on a one year notice If the Maryland Avalation Administration determines that the land is needed for airport or other purposes. The bulk of this property is currently forested, unused, and Inaccessible. Its general location In relation to the study area is shown on Figure lili-2. The County has developed a recreation area In the northeast quadrant of the park which currently Includes a recreatimon pond, parking, picnic tables and developed baseball diamonds. The only vehicle access to the recreation area is from Dorsey Road in the northeast corner of the tract. Park signs with regulations are posted at this entrance. NeIther Program Open Space nor Land and Water Conservation Funds were used to acquire or develop Friendship Park. Along the Sawmill Creek valley through Friendship Park is a bridle trail which connects this park with Queenstown Park to the southwest. This is a vital trail link for horsemen traveling between W.B. \& A. Road and the Andover Equestrian Center north of the AIrport.

Border Ing Sawmill Creek through Friendship Park is a wetlands area (see Figure $11-22$ ) extending to a width of up to 500 feet. This is a. Palustrine Forested broadieaf declduous wetlands where the dominant canopy Is $95 \%$ Red Maple with $5 \%$ other specles. Water table can be plus or minus one foot from the surface In thls area during different times of the year, and there are many hummocks. Associated secondary specles in the canopy Include Black Gum, Pin Oak \& Cherry. Understory specles Include Magnolia, WInterberry, Skunk cabbage, Chaln Fern, Clnnamon Fern, wood reed, HIghbrush Blueberry, rhododendron, Unlola Laxa, Red Chokeberry and Lyonla.

Approx Imately a thirty acre portion of thls park property (a strlp approxlmately 600 feet by 2,200 feet, see Figure IV-13) extending general.ly In a north-south direction through the parcel. Is non 4(f) property as per the lease description. This area is dedlcated to runway ilghts for the Baltimore-Washington international Alrport. An additional parcel of land (approximately 9 acres) is fenced off by the alrport.
b. Patapsco Valley State Park

Patapsco Valley State Park is owned by the Maryland Department of Natural Resources. It consists of 11,347 acres (proposed to a total 15,200 acres), is 27 ml les long and has an average wldth of one-half mile according to the "Patapsco Valley Master Plan", December, 1981. The Park is located in Carroll, Howard, Baltimore and Anne Arundel Countles with a north-south orlentation along the Patapsco River. Existing and proposed recreational activitles include canceing, boating, fishing, swimming, multiuse trails for hikers, blcyclists and horseback riders, picnlcking and campIng.

The Park Is divided Into five (5) sectlons (see Figure IV12).. Section 1 - Baltimore HIghlands to Elkrldge, extends along a 5.5 mlle stretch of the Patapsco River and Is located north of exlsting Maryland Route 176. This section Includes three recreation areas: the Seven Ponds Area, the Halethorpe Farm Ponds area and the area located adjacent to the BaltlmoreWashington Parkway. Access to Section I Is provided via Ridge Road, River Road and Elkridge LandIng Road. Most of the land In Section I lles In the floodplalns of Deep Run and the Patapsco River. Famlly and group plenlcking and an organlzed sports area are proposed for section l-c, the Baltimore Washington Parkway area of Section I.

I BALTIMORE HIGHLANDS to ELKRIDGE
1-A Seven Ponds Area
1-B Halethorpe Farm Ponds Area
I-C Baltimore-Washington Parkway PIcnic Area

1 ELKRIDGE to ELLICOTT CITY
II-A Ilchester Recreation Area
II-B Ilchester Camping Area
III ELLICOTT CITY to DANIELS
IIl-A Hollofleld Area

IV DANIELS to MARRIOTTSVILLE ROAD IV-A Woodstock Area
IV.B McKeIdin Nature Interpretive Center

V MARRIOTTSVILLE ROAD to SYKESVILLE
V.A Raincliffe Area

VI SYKESVILLE to PARR'S SPRING

| MARYLAND ROUTE$1-95$ TO MARYLAND ROUTE3 |  |  |
| :---: | :---: | :---: |
| PATAPSCO VALLEY STATE PARK <br> LOCATION PLAN |  |  |
| - martland department of transportation state highway administration |  |  |
| Scale NONE | OATE MAY, 1986 | Figure:II- 12 |

## c. Smith Farm

The Smith Farm is considered to be eligible for the Natonal Register of HistorIc Places. It is located on a 46.3 acre parcel whose general location in relation to the study Area is shown on Figure lli-2. Access to the site is from a drive entrance off of Route 652 (Telegraph Road) approx Imately 700 feet south of Queenstown Road. The Smith Farm is visually dominated by the large, two story, four bay frame house which sits on a hill overlooking the surrounding cropland. This large rambling frame structure, probably built in the third quarter of the nineteenth century by the Smith Family, is complemented by numerous farm buildings of later vintage and a family cemetery located next to the house. The farm is significant as a palpable lng to the agrarian and rural character of this section of Anne Arundel County in the nineteenth and early twentieth century, and for the architectural character of the house and its traditional settling.
4. Impacts of the Alternates, AvoIdance Options and Their Impacts,
a. Friendship Park
I) Impacts of Alternates

Alternate 2-Option A, Alternate 4 and Alternate
3/Crossover/4 would have Identical Impacts on the Friendship Park property. Approximately 4.0 acres of land would be used by the project in the southern extremity of the tract (see Figure IV-13). This amounts to approximately 3.0 percent of the total park property which is considered to be $4(f)$ property. The land being taken' is currently wooded and unused, and is located approxmately 2,500 feet distant from the county developed recreation area. No significant impacts on the recreation area itself would result from the land use change. These alternates would also Impact upon approximately 1.8
acres of wetlands within the Frlendshlp Park property.
Alternate 2-Option B (see Figure IV-14) would Involve a signiflcantly greater land acquisition; as approximately 32.0 acres would be required for right-of-way. This allgment enters the tract from the north and follows along its western boundary to exlt along the southeast boundary IIne. The land required for thls alternate is also currently unused, and at its nearest approach Is approxlmately 1,000 feet distant from the developed recreat lonal area. The Impacts upon the SawmIII Creek wetlands would total approxImately 2.5 acres.

Alternate 3-Option B and Alternate $4 / 3 B$ would also Impact upon Frlendship Park. Although Alternates 4, 3/Crossover/4, 2A and 28 would Isolate. the lower portions of the park property from the remalnder, this Impact would be greater with Alternate $3 B$ or Alternate 4/3B. The proposed allgrment would cut through the lower central portion of the property in an east-west direction and require approximately 14.2 acres of right-of-way. This would essentlally blsect the property and Isolate two major areas of the park. This required right-of-way is, however, also currently unused and is located approximately 800 feet distant from the recreation area. The proposed allgrment is shown on Figure IV-15. Nelther Alternate 3-Option B nor Alternate $4 / 3 B$ would Impact upon wetlands withln the Frlendshlp Park property.

Each of the above discussed alternates through Frlendship Park would, without further mitigation measures, Isolate portlons of the Sawmill Creek stream valley along with potentlal access polnts to Queenstown Park, from Frlendship Park users. They would also cut off the contlnuous


|  |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |


bridal trall along the Sawmill Creek valley whlch connects Frlendshlp Park with Queenstown Park for horsemen and provides a vital trall IInk between W.B. \& A. Road and the Andover Equestrlan Center north of BWI Alrport.

The No-Bulld Alternate would avold the acquisition of park property but would not serve the transportation needs of the study area. Increased congestion and accldent rates would occur along existing Maryland Route 176. The No-Bulid Alternate is not consistent with the Anne Arundel or Howard County General Development Plans.

## 1I) Avoldance Optlons and Their Impacts.

Two avoldance optlons have been developed for minlmizing Impacts upon Friendshlp Park. Development of these avoldance options has been constralned by englneering and design considerations, the existing locatlon of the MD Route 100 - MD Rte. 3 Interchange, and the presence of BWI Alrport north of Dorsey Road. These three factors comblned eliminate the possibllity of developing an avoldance option with an aligrment In a north-south direction east of the park. The first avoldance option is Bulld Alternate 3-Optlon A as developed and detalled in Chapter il of this report. This allgment lies signiflcantly south of Alternates 2,3B, 3/Crossover/4, 4 or 4/3B and avolds the entlre Frlendship Park property.

Alternate 3-Option $A$ avolds the entire Frlendshlp Park property, as well as adjacent Queenstown Park, by providing an allgrment south of both of these areas. However, It would result In severe Impacts on the communlty of Queenstown. This is a unique and distinct communlty because of Its herltage and Its malntenance of a strong sense of ldentity desplte the land use changes occurring around It.

It is a close knit and highly iteractive minority cammunity which has evolved and grown from four original families who first settled In the area in approximately 1900. The original families were the queens, the Gaithers, the Burleys and the Gambrilis. The original families were truck farmers, and the area retained this farming character, as the children grew to adulthood and built homes on family land, up until World War 11 when other economic opportunities developed. A number of additional families moved to the area after the original four, and marriages between these various families have resulted in the existing community where nearly all residents can trace some family relationship to the others. The original family homes still exist and are being occupied.

This Queenstown Community, as perceived by its residents, Includes all homes along Queenstown Road, and on the various side streets off of Queenstown Road, from Telegraph Road to Donaldson Avenue (a length of approximately 1.9 miles). Although current mapping shows two separate commonIt les of Burleytown and Queenstown in the area, the residents view no such distinction, and consider the area to be a single community. The center for community Interaction is the Metropolitan United Methodist Church, originally establIshed in 1917 at Queenstown Road and Donaldson Avenue, and moved to its present location In 1976.

Housing growth In the Queenstown community, which currently consists of approximately 120 homes, has generally occurred as a result of family transactions, as children have tended to stay and settle in the commonty. Thus, ages of homes range from old to new. Economically, the families of Queenstown generally are in the lower to lower middle income range, and it
has been estlmated by communlty members that as many as a quarter of the resldents are retlrees.

Alternate 3-Option A would essentlally blsect thls communIty, partlcularly In the eastern portlons along Queenstown Road, and result In the alsplacement and relocation of a large number of long established residents. Flgures $11-18$ and $11-19$ show the locations of the twelve residences and one buslness whlch would require relocation. Within the Queenstown communlty itself there is essentlally no avallable housing for these relocatlons to take place.

Besldes this upheaval In existing communlty Integrlty, the new highway would have severe lmpacts on the coheslveness of the remalning communlty. Although Queenstown Road would remaln open to allow access between the northern and southern parts of Queenstown, Maryland Route 100 would serve as a visual and psychologlcal barrler to discourage both residentlal Interaction and the malntenance of a communlty Identity.

Sectlon IV-E shows that at two nolse sensltive receptors In the Queenstown commulty, Alternate $3 A$ would result in the sites belng exposed to trafflc nolse levels that will Increase by 10 dBA or more above current amblent nolse levels.

Alternate 3 - Optlon $A$ is therefore felt not to be a feaslble and prudent alternate to the taking of property from Frlendshlp Park.

The second avoldance option, compatible only with Alternate 2 - Option $B$, shlfts the Alternate $2-B$ allgment farther to the west outslde the park to generally parallel the western boundary of the property. This partlal avoldance option is shown on Flgure IV-16. The option stlil

requires a small portion of land (5.2 acres) from the southern tip of friendship Park. However, shifting the allgment farther south to completely avoid Friendship Park property would result in more severe impacts. This would Include a significant acquisition from, and essentially the complete destructon of Queenstown Park, another $4(f)$ property. The partial avoidance option would also result in the taking of the Metropolitan United Methodist Church and nine homes In the Queeenstown Community (a unique and distinct minority community). By having the allgment shifted to the west of Friendship Park, this partial avoidance option would require the acquisition of property from the site of the proposed Landco Business Park and would also Impact severely on the McPherson community. . At the proposed Landon Business Park, currently Cleared for development, approximately 12 acres of the total 100 acre tract would need to be acquired. Through the McPherson residential area, 15 restdental relocation would be required.

While Alternate 4, Alternate $2-0 p t$ lon A, or Alternate 3/Crossover /4 would take less acreage from Friendship Park than the Selected Alternate, these alternates would severely Impact the Queenstown community. Nine residences and one business would require relocation. In addition, approxmately 15 homes along Jones Road would be Isolated from the remainder of the community. Although access would be provided between these 15 homes and the remainder of Queenstown, the construction of MD 100 on fIll would visually and psychologically sever the Jones Road residents from Queenstown. Replacement housing is not available within the community.

Alternate 4, Alternate $3 /$ Crossover /4, and Alternate 4/3B would adversely Impact the proposed expansion of the Baltimore WashIngton Internatonal (BWI) AIrport, which is the major source of the region's economic
vitally and the impetus to the surrounding Industrial development. These alternates traverse BWI AIrport In an area now proposed for runway construetimon. Although it is physically feasible to construct MD 100 in a tunnel under the future runway, the cost of the tunnel would add $\$ 45-65 \mathrm{~m} / 1 / 1$ on to the cost of these three Alternates, making the least expensive of these three Alternates approximately $\$ 23-43$ million more costly than the Selected Alternate. Furthermore, the Federal Aviation Administration has Indicated that the construction of a runway over the highway would be undesirable from a safety aspect. The State Aviation Administration has commented that Alternate 4 is aligned with the filght approach to the existing 10-28 runway, creating a major safety problem for both aircraft and highway vehicles.

In addition to Its Impacts to Queenstown, Alternate 2-Option A proposed an urban arterial type faculty which is inconsistent with the transportation objectives and community development goals of the area. Long distance, hlgh-speed trips between two freeways, with a high percentage of trucks, is the type of traffic more desirably placed on freeway/expressway type facllltles rather than at-grade arterlals with no access control. WidenIng the existing MD 176 corridor would disrupt neighborhoods, create greater conflicts between through traffic and local traffic, result In higher accident rates, Impede the continuous flow of traffic through the study area, be less conducive to large volumes of truck traffic, and would not accommodate the proposed Industrial development.
111) MItigation

Mitigation measures which would be employed for any alter-
nate which Impacts upon Friendship Park would Include landscaping the fill slopes to minimize potential visual and aesthetic impacts on the park recrea-
tlon area. In addition, efforts will be made during final design to develop a feasible solution to provide access across Maryland Route 100 for horsemen and/or users of a park proposed by Anne Arundel County to run along Sawmill Creek. The park property acquisition is not programmed to take place prior to ROW acquisition for the Route 100/1-97 Interchange, currently under design. coordination of this matter will be continued with the Anne Arundel County Department of Recreation and Parks.

Mitigation to any wetlands which would be Impacted in Friendship Park will be coordinated with the Department of Natural Resources, the Environmental Protection Agency, and the U.S. Fish \& Wildilfe Service. Stringent sediment control measures will be applied and monitored to avoid significant sedimentation from highway construction.

## b. Patapsco Valley State Park

1) impacts of Alternates

Alternates 4 and $4 / 38$ would traverse the southernmost portion of the Park, Area $1-C$. They both would require the acquisition of approximately 16.1 acres for right-of-way (Figure $\mid 1-38$ ). This area serves as a watershed protection buffer for Deep Run. The nearest planned recreation area is located approximately 2,200 feet from the edge of right-of-way and is separated from the proposed road by a low ridge. The area affected is forested and the primary impact would be the loss of terrestrial habitat. No federal or state listed threatened, endangered plant or animal species inhabit this area. However, three state rare plants Arundinarla glgantea (Giant Cane), Carex barrattl (Barratt Sedge) and Helonlas bullata (Swam PInk) have been reported In the floodplains of Stony Run and Deep Run In the vicinity. Two of these, C. barrattII and H. bullata, are federal candidate species presently
under consideration by the U.S. Fish and Wildilfe Service for lIsting as threatened or endangered species. There are no recreational uses planned for the area.

A noise analysis (Section IV.E.) Indicates that ambient noise levels in the Park would be approximately 42 dBA without aircraft (NSA 4). The projected noise levels would be approximately 67 dBA without aircraft. A barrier 12 feet high and 2000 feet long would provide between 7 and 10 dEA benefit in the park at a total cost of $\$ 648,000$.
II) AvoIdance Options and Their Impacts

Patapsco Valley State Park Is a II near stream valley park which extends northward through Anne Arundel County. Shifting Alternate 4 further north would affect a proposed recreation area In Section I-C and would also bisect the area. This is not consistent with the previously cited Master Plan. Shifting the allgrment to the south approximately 1,500 feet would avold Park property acquisition. However, sufficient distance would not be provided between the Maryland Route 100/Maryland Route 295 Interchange and the existing Maryland Route 176/Maryland Route 295 Interchange. Furthermore, the Parkway Industrial Center would be divided and eight industrial buildings would be acquired and displaced and the 5 residences on the east side of MD. Route 295 would be relocated. This avoidance alternate is shown on figure IV17.

The No-Bulld Alternate would avold the acquisition of Park property but would not serve the transportation needs of the study area. Increased congestion and accident rates would occur along existing Maryland Route 176. Also, the No-Bulld Alternate is not consistent with either the Anne Arundel or Howard County General Development Plan.

The Crossover Option follows the aligrment of Alternate 3 west of Maryland Route 295 and Alternate 4 east of New Ridge Road. A more detalied description of this Option is provided In Section li.B. This alternate avolds the acquisition of property from Patapsco Valley State Park. It also reduces congestion, separates through and local traffic, improves travel time for Maryland Route 100 travelers and avolds impacts to the Parkway Industrial Center. However, Interchange construction just east of Maryland 295 requires Maryland Route 176 to dead end at Wrlght Road (see Figure il-43).


## 306

## RESERVED FOR

FIG IV-17

Thus local traffic would have to utilize the Interchange at the New RIdge Road Extension. The result would be clrcultous travel and Increased travel time for residents and the FIre Department. In addition, the Crossover Option would have the same direct impacts to the planned expansion of the BWI AIrport and Indirect impacts to the future economic development of the area as would Alternate 4.

Alternates 2A and 2B' avoid Impacts to Patapsco Valley State Park. However, Alternate $2 A$ requires the acquisition of 4.0 acres from Friendship Park while Alternate 23 requires approximately 32 acres. Neither option for Alternate 2 satisfies the transportalon objectives for this proJest.

Patapsco Valley State Park would not be affected by Alternate 3-Opt Ion A or $B$ which are described In detail In Section II.B. Alternate 3 is consistent with Development Plans for both Anne Arundel and Howard Counties. As discussed In Section IV.I.4.a, Alternate 3-Option A is not considered a prudent and feasible alternate due to its impacts on the minority community of Queenstown.
111) Mitigation

If Maryland Route 100-Alternate 4 had been selected, mitigation of Impacts to Patapsco Valley State Park would have been coordinated with the Maryland Department of Natural Resources and the National Park Service. Mitigation could have Included landscaping the fill slopes and replacement of the land required for the proposed alternate. The Selected Alternate does not Impact Patapsco Valley state Park.

Coordination with this agency regarding possible Impacts to Patapsco Valley State Park has been on-golng throughout the project plan-
ning process. See the letter of February 27, 1986, Maryland Department of Natural Resources, In the correspondence section of thls document.

## c. Smlth Farm

## 1) Impacts of Alternates

The Alternate 3-Option B aligrment would cross directly through the west-central portion of thls historlcal property. The right-of way requlred amounts to approximately 9.5 acres, or twenty percent of the entire historlcal property. None of the actual historlcal structures would be affected, however, as this land acquisition is over 500 feet from the historical farmhouse itself, and over 150 feet distant from any other structure on the property. Figure $I V-18$ shows the proposed Alternate 3 - Optlon B allgnment as It affects thls property.

The historlcal boundary of Smith Farm encompasses three separate land parcels, each of which is currently owned by a dlfferent person. Two of these parcels are on the east slde of the Selected Alternate and one parcel is almost entlirely on the west slde.

For the two parcels on the east side, one of which includes the historlcal bulldings and cemetery, access will be silghtly altered as a result of the exlsting entrance drlve (Smlth Road) belng terminated by the Selected Alternate. However, an access road to these parcels would be provided. This access road would begin at Queenstown Road just east of the locatlon where Alternate 3B (Modlfled) goes under exlsting Queenstown Road and would terminate at the historlc bulldings. (See Flgure l|-33). Thus, access from Maryland Route 176 and polnts north would be nearly unchanged. From Maryland Route 170 south of Maryland Route 652, the travel distance would be Increased by approxImately 600 feet.

The parcel of the historic Smith Farm to the west of alternate $3 B$ (Modified) is currently owned by a different owner than the two parcels to the east of the alignment. Although this farm is bisected by the alignment, nearly all of the parcel that is included in the historic smith Farm boundaries falls on the west side of the alignment with access from existing Smith Road. Thus, access from the north will be unaffected. However, access from Maryland Route 170 south of Maryland Route 652 will be circuitous as a result of Maryland Route 652 being terminated just north of the Selected Alternate. The additional travel distance from Maryland Route 170 south of Maryland Route 652 would be approximately 1.9 ml les.

A meeting was held on July 23, 1987 at the Smith Farm. In attendance were representatives of the Advisory Council on Historic Preservatimon, the State Highway Administration and the Federal Highway Administration as well as the three property owners whose property is included In the historIc Smith Farm boundaries. This meeting was to show the revised access roads leading to Smith Farm to the land owners and Advisory Council representatives (See Figure $I V-18$ ). Also, the purpose of the meeting was to explain how SHA was proposing to mitigate the effects of the highway through the use of gradIng and landscaping as requested in the Advisory Council's letter dated July 1, 1987 (See Section VII, Comments and Coordination). Further coordination will continue In the design phase with the affected property owners to implement reasonable access proposals.

Section IV-E shows that the design noise levels at the Smith Farm (year 2010) would be 57 dBA for Alternate 3-Option 8 . The existing ambient noise level at the site, excluding aircraft noise, is 49 dBA.

## 11) Avoidance Options and Their Impacts

it is not possible to shift the alignment of Alternate 3 Option B further south without having a more significant adverse impact on the Smith Farm than does the current ailgrment. Additional right-of-way would be required, and the structures themselves would ilkely be impacted.

Shifting the ailgment to the north to avoid smith Farm is possible, and an avoidance alternate has been developed to achieve this. The avoidance alternate is shown on Figure iV-19. The historical boundary is not Impacted by this alternative; however, as many as eleven additional residences which would not otherwise be affected would be displaced by this avoidance alternate. Nine of these additional reications are minority residences. These residences are part of the minority community of Queenstown.

Access to the Smith Farm would be silghtiy less affected by this avoidance alternate than for Alternate 3-Option B, but access by Telegraph Road from the north would still be eliminated.

Selection of Alternate $2,4,3 /$ Crossover /4 or $4 / 3 B$ would result in no impacts on the Smith Farm Historical Property, but they would result in 4(f) impacts on Friendship Park and/or Patapsco Valley State Park. Alternate 2 would not satisfy the transportation objective of this project. Alternate 3-Option A would not Impact on Smith Farm but would result in the displacement of 12 minority owner-occupled residences and one minority busness from Queenstown, a long established, unique and distinct minority commonIty. Alternates 4, 3/Crossover/4 and 4/38 additionally are not desirable alternatives because of their direct impact to the planned expansion of the BWI Airport and Indirect Impact to the economic development of the area.

1II) Mitigation
Alternate 3-Option $B$ is selected. Mitigation of impacts on the Smith Farm property will be coordinated with the Maryland Historical Trust, and will include landscaping of the fill slopes and screening of the historical structures from the proposed roadway. The Maryland Historical Trust has determined that there would be no adverse effect on the smith Farm conditional on landscaping plans which are reviewed by the Maryland Historical Trust. The Advisory Council has determined that Selected Alternate 38 would have an adverse effect on the smith Farm.
5. Conclusion

Based on the above information, there is no feasible and prusdent alternative to the acquisition of property from Friendship Park and the Smith Farm. All possible planning has been provided to minimize harm to these sites. Coordination regarding possible Impacts to Friendship Park has been ongoing with Anne Arundel County Officials, the State Department of Natural Resources, and planning agencies throughout the project planning process; and further coordination with these agencies will be undertaken. coordination regarding Impacts to Smith Farm has been ongoIng with the Maryland HIstorical Trust and will likewise continue.


## DISTRIBUTION LIST

## V. DISTRIBUTION LIST

$$
\begin{gathered}
\text { Contract No. AA 682-101-570 } \\
\text { Maryland Route } 100 \\
\text { From I-95 to I-97 } \\
\text { FINAL ENVIRONMENTAL IMPACT STATEMENT/ } \\
\text { SECTION } 4 \text { (F) STATEMENT }
\end{gathered}
$$

## FEDERAL AGENCIES

Department of Agriculture
State Conservationist
Soil Conservation Service
4321 Hartwick Avenue, Room 522
College Park, Maryland 20740
Mr. Bruce Blanchard, Director
Office of Environmental Project Review
U.S. Department of the Interior

18th and C. Streets, N.W.
Washington, D.C. 20242
U.S. Environmental Protection Agency
Region III

Ms. Barbara D'Angelo, Acting Chief
NEPA Compliance Section
841 Chestnut Street
Philadelphia, Pennsylvania 19107
Attention: Mr. Jeffrey Alper
Mr. Larry Levine
Environmental Officer
Department of Housing and Urban Development
Curtis Building
Curtis Building
Sixth and Walnut Street
Philadelphia, Pennsylvania 19106

## FEDERAL AGENCIES - cont'd.

Commander
Corps of Engineers
Baltimore District
Box 1715
Baltimore, Maryland 21201
Attention: NABOP-F
Division of NEPA Affairs
Department of Energy
Room 4G 064
1000 Independence Avenue, S.W. Washington, D. C. 20230

Mr. Paul Giordano, Regional Director
Federal Emergency Management Agency
Liberty Square Building 105 South 7th Street
Philadelphia, Pennsylvania 19106
Attention: Mr. Walter Pierson
ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES
Mr. John J. Shanley
Director, Public Works One Harry S. Truman Parkway Annapolis, Maryland 21401
Mrs. Florence B. Kurdle
Planning and Zoning Officer
Arundel Center
Annapolis, Maryland 21401
Mr. Joseph J. McCann, DirectorRecreation and Parks
Arundel Center
Annapolis, Maryland 21401
Mr. George F. Niemeyer
Director, Public Works
3430 Courthouse Drive
Ellicott City, Maryland ..... 21043
Mr. Thomas G. Harris, Jr., Director
Office of Planning and Zoning
3430 Courthouse Drive
Ellicott City, Maryland ..... 21043
Mr. Guy Hagen,
Director Intergovernmental
Assistance Clearinghouse
Department of State Planning
301 W. Preston street
Baltimore, Maryland ..... 21201
STATE AGENCIES
Ms. Kathleen FayState Depository Di
Enoch Pratt Library
400 Cathedral Street
Baltimore, Maryland ..... 21201

```
STATE AGENCIES - cont'd.
Mr. Randy Harrill
Water Resources Administration
Department of Natural Resources
Tawes State Office Building
Annapolis, Maryland 21401
MARYLAND DEPARTMENT OF TRANSPORTATION
Director, Public Affairs
Maryland Department of Transportation
Mr. Clyde E. Pyers, Director
Division of Systems Planning and Development
Maryland Department of Transportation
Mr. Larry Saben
Washington Regional Office
8 7 2 0 ~ G e o r g i a ~ A v e n u e , ~ S u i t e ~ 9 0 4 ~
Silver Spring, Maryland 20910
Mr. John Haifley
Office of Legal Council
Office of the Maryland Secretary of Transportation
Maryland Department of Transportation
Maryland State Law Library
Upper Level Court of Appeal Building
361 Rowe Boulevard
Annapolis, Maryland 21401
STATE HIGHWAY ADMINISTRATION
*Deputy Chief Engineer - Development
Assistant Chief Engineer - Design
District Engineer
Bureau of Highway Design
Bureau of Bridge Design
Bureau of Landscape Architecture
Office of Planning and Preliminary Engineering
Bureau of Project Planning
Bureau of Planning and Program Development
Office of Real Estate
Bureau of Relocation Assistance
Bureau of Acquisition Activities
Federal-Aid Section - Office of Real Estate
```

STATE HIGHWAY ADMINISTRATION - cont'd.
District Chief - Office of Real Estate
State Highway Administration Library
Equal Opportunity Section
Bureau of Highway Statistics
OTHERS
Colorado State Univesity
Document Librarian
Fort Collins, Colorado ..... 20006
Mr. Arthur Jungle
The Liberty Tree Project
P.O. Box 3446
Annapolis, Maryland ..... 21403

* Cover letter only

VI
COMMENTS AND COORDINATION

## VI. COMMENTS AND COORDINATION

## A. ORDINATION

CoordInation efforts with Anne Arundel and Howard Counties, Elected Offclals, the public and appropriate review agencies have been discussed throughout this document and representative correspondence is Included In this secton.

Quarterly State HIghway AdmInIstration Interagency Review MeetIngs that discussed this project were held on July 19, 1984, February 21, 1985 and January 21, 1987. In attendance at the July 19, 1984 meet lng were representatlves from the National Park Service, U.S. Fish and Wildilfe Service and the Environmental Protection Agency. In attendance at the February 21, 1985 meetIng were representatives from the Maryland Department of Natural Resources: Water Resources Administration - Wetlands Division, Environmental Protection Agency, U.S. Fish and WildlIfe Service and the U.S. Army Corps of EngIneers. In attendance at the January 21, 1987 meeting were representatives from the Maryland Department of Natural Resources: Water Resources Administration, MD DNR: Fisheries Division, ND DNR: Tidewater Administration, MD DNR: Wetlands Division, MD DNR: Coastal Resources Division, Maryland Department of State PlannIng, Maryland Department of Health and Mental Hygiene: Office of Envlrommental Programs, U.S. Army Corps of EngIneers, U.S. FIsh and WIIdilfe SerVIce, Federal HIghway Administration, Environmental Protection Agency and NatIonal Mar lIne FisherIes Service.

# CAPITAL PROGRAMS ADMINISTRATION 

TAWES STATE OFFICE BUILDING ANNAPOLIS. MARYLAND 21401

July 2, 1984

Mr. Louis H. Ege, Jr.
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Baltimore, MD 21203
Subject: Maryland Route 100 from MD Route 3 (I-97) to I-95 Contract No. AA 682-101-570

Dear Mr. Ege:
The Heritage Program Data Base include:; no records for any rare species in the immediate vicinity of this project, as delineated in your transmittal of June $26,1984$. However, several state rare plants (Arundinaria gigantea, Carex barrattii, Helonias bullata) have been reported from the floodplain of Storey Run between 1.5 and two miles downstream of the Alternate B Urban Arterial Alignment. Two of these, C. barrattii and H. bullata, are category 2 species presently under consideration by the U.S. Fish and $\bar{W} i l d i f e$ Service for listing as threatened or endangered species.

You map shows that the Alternate A Freeway passes through the Buckingham State Tree Nursery. Comments on that alignment should be requested from the Maryland Forest, Park, and Wildlife Service.

Sincerely,
Arricost Cec
Arnold Norden
Maryland Natural Heritage Program
AN: lw
cc Andy Moser, U.S. Fish and Wildlife Service

# United States Department of the Interior 

FISH AND WILDLIFE SERVICE DIVISION OF ECOLOGICAL SERVICES

1325B VIRGINIA STREET
ANNAPOLIS, MARYLAND $21 \% 01$
July 9, 1984

Mr. Dennis J. Lew
Environmental Management Group Maryland Department of Transportation P.O. Box 717

707 North Calvert St.
Baltimore, MD 21203
Dear Mr. Lew:
This responds to your June 26, 1984 request for information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the impact area of Route 100 Project, Anne Arundel and Howard Counties, MD.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation pursuant to the Endangered Species Act of 1973 is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

The following "candidate" species (those placed under review in the Federal Register to determine suitability for listing) occur in the general project vicinity and may be present in the impact area, if appropriate habitat is present.


Should you require additional endangered species information on this project, please contact Andy Moser or Judy Jacobs of my Endangered Species Staff, 301/269-6324.

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


COREY C. BROWN. MD. SECRETARY

DEPARTMENT OF NATURAL RESOURCES
Maryland Forest, Park \& Wildlife Service
LAWES OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

DEfector

July 10, 1984

Mr. Louis H. Ege, Jr.
Bureau of Project Planning
State Highway Administration
P.O. Box 717/707 North Calvert Street

Baltimore, Maryland 21203-0717
Dear Mr. Age:
There are no known populations of listed threatened or endangered species within the area of project influence for proposed MD Rte. 100 from MD Rte. 3 (I-97) to Interstate Rte. 95, as described in your letter to me of June 26, 1984.


GJT: ba
cc: Carlo Brunori

Maryland Historical Trust

February 21, 1985

Ms. Cynthia D. Simpson
Acting Chief, Environmental Management State Highway Administration
P.O. Box 717, 707 North Calvert Street

Baltimore, Maryland 21203-0717
Re: Maryland Route 100
Maryland Rt. 3 to I-95
Contract No. AA 682-101-570
RF 162-1
Dear Ms. Simpson:
Thank you for your letter of December 28, 1984 regarding the above-referenced project.

We concur with your opinion that the Smith Farm and the Shipley House may be eligible for the National Register; however, we disagree with your opinion concerning Piney Run. We believe Piney Run to be inventory-level and not eligible for the National Register. Because there is disagreement, your office should submit documentation regarding the property to the National Register for a determination of eligibility.

We concur with SHA that the following sites as described in your letter are inventory-level and not eligible for the National Register:
a. Frame dwelling
b. Frame dwelling
d. Frame dwelling and outbuildings
e. Hawkins house (AA 231)
f. Farm on Harmans Road
g. Alpha Assembly of God Church
h. Dwelling (within park property)
k. Frame dwellings, 7114 Wright Street

1. Frame dwelling, Dorsey Rd., east of B-W Pkwy.
m. Frame dwelling, Dorsey Rd., east of B-W Pkwy.
n. Frame dwelling, 1576 Dorsey Road
o. Frame dwelling on Abrahm Road
p. Frame dwelling on Abrahm Road
q. Frame dwelling on Dorsey Rd., west of $B-W$ Pkwy

$$
\therefore \text { 淢 }
$$

If you have any questions, please call Kim Kimlin at 269-2438.

JRL/KEK/bjs
cc: Mr. Christhilf;Ms. Collins
Shaw House. $21^{\circ}$ state

## Sincerely,

7ollich
J. Rodney Little, Director

State Historic Preservation Officer

TORREYC．BROWN．MAO SECRETARY
state of maryeni：d

Ms．Cynthia D．Simpson
Acting Chief
Environmental Management
Department of Transportation
Room 314
707 N．Calvert Street
Baltimore，Maryland 21202

```
Re：Maryland Route 100 from
I－95 to I－97
Contract No．AA 682－101－570
P．D．M．S．No． 022007
```

Dear lis．Simpson：

Given the information attached to your letter of August 26，1985， concerning the above referenced project，it appears that program Open Space funds were used to purchase properties impacted by both Alternate \＃4 and Alternate \＃3．These areas are protected by the Program Open Space law and should be avoided．

If further discussion of this matter is appropriate，please advise．


William A．Krebs<br>Director，Program Open Space

WAK：CP／slt


# Anne Arundel County <br> ANNAPOLIS, MARYLAND 21401 

October 30, 1985

Cynthia D. Simpson, Acting Chief
Environmental Management
Maryland Department of Transportation
P.O. Box 717

707 North Calvert Street
Baltimore, Maryland 21203
Re: Contract \# AA-682-101-570
Maryland Rte. 100 from I-95 to I-97
P.D.M.S. No. 022007

Dear Ms. Simpson:
Neither Program Open Space nor Land and Water Conservation Funds were used to acquire or develop Friendship, Harmons or Queenstown Park.

A copy of the existing lease agreement between the County and the State Aviation Administration is enclosed.

If you require any additional information, please contact me.
Cordially yours,
人
À. James Vouzikas, Chief, Planning, Construction and Environmental Programs

AJV/mlj
cc: Joseph J. McCann, Director

```
TORREYC GROWN M.D
    SECRETARY
    JOHN R. GRIFFIN
    DEPUTY SECAETAAY
```

KENNETH N NEARER
STATE CF MARYLAND
Department of natural resources
MARYLAND GEOLOGICAL SURVEY
THE ROTUNDA
711 W. COth Street. Suite 440
BALTIMORE. MARYLAND 21211

Division of Archeology 338-7236

16 December 1985

Mr. Louis H. Ese, Jr.
Bureau of Project Planning State Highway Administration P.O. Box 717/707 North Calvert St. Baltimore, Maryland 21203-0717

Dear Mr. Age:
A Phase I archeological reconnaissance was conducted on three projected alignments and ancillary roads for the proposed Maryland Route 100 project from U.S. 1 to Maryland Route 3. The work consisted of background research and field reconnaissance.

The background research involved examining historic maps, site reports and site files. The historic maps were used as a guide to locations of early structures. The site reports indicated areas of the project that had been surveyed previously. The site files provided information available on known sites in the project area.

The field work included ground reconnaissance, surface collections, and test pits. The ground reconnaissance involved visually examining the project area. Surface collections of exposed areas and test pits excavations were used to locate sites.

Over 20 miles of project area were examined (figures $l a, 1 b$, and $1 c$ ). Three small segments of the alignment were not examined at this time: two landowners denied access to the land and one landowner was not reached. Each of these three areas has a high potential for archeological sites. If these segments are impacted by proposed construction, a Phase I archeological reconnaissance should be conducted on the effected areas.

A total of 19 sites were examined: 11 prehistoric, 6 historic, and 2 prehistoric and historic multicomponent sites. Sixteen of the sites are not potentially eligible for the National Register and, do not require additional testing, however, they should be considered sensitive areas and avoided if
possible. Two sites located outside the current project alignments will require additional testing to determine their eligibility for inclusion to the National Register if they will be impacted by any construction related activities (figures 2 and 3).

One site within the project area may require additional testing if Alternate 2 or 3 is chosen. This site is a lithic workshop located on a terrace to the south of Deep Run (figure 4). The site is approximately 150 feet by 75 feet with natural geographical boundaries on 1 ts northern and eastern limits. Quartz cobbles are abundant over the entire site area examined. A total of 104 flakes, 8 tools, and 3 possible preforms were found while surface collecting an area approximately 7 feet by 40 feet exposed by a dirt road. Ten flakes and a projectile point were found in 2 test pits. This site may provide information on settlement patterns and specialized site usage. It is recommended that this site be avoided if possible. If avoidance is not possible, a Phase II investigation will be necessary to determine if the site is eligible for inclusion on the National Register.


LF: lw

## cc: Rita Suffness <br> Dennis Curry

STATE OF MARYLAND
Department of natural resources MARYLAND GEOLOGICAL SURVEY

THE ROTUNDA
711 W . 40 TH STREET. SUITE 440 BALTIMORE. MARYLAND 21211
-AGViGANO GEOLOGiCAL SURVEY

Division of Archeology 338-7236

19 March 1986

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

Dear Mr. Ese:
On March 7 and 17, 1986, a Phase I archeological reconnaissance was conducted on Alternate 3, option B for the proposed Route 100 project in Anne Arundel County. Two archeological sites were located: a prehistoric lithic scatter and a farm complex dating to the early 1900s. The lithic scatter (18AN588), of doubtful National Register eligibility, is outside of the right-of-way and will not be affected by the proposed work. The historic site (18AN587) does not appear to be potentially eligible for the National Register and will not require additional testing because of its relatively recent age and replication at other sites. No archeological site was located within the proposed right-of-way that extended within the historic boundary around the Smith Farm complex.


LAF:1w
cc: Cynthia Simpson RIta Suffaess

STATE OF MARYLAND DIRECTOR

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: Maryland Route 100
Modified Alternate 3b Alignment
Dear Mr. Ege:
I recently completed a Phase I archeological reconnaissance of a proposed Maryland Route 100 modified $3 b$ alignment and access roads in Anne Arundel County. The area reconnoitered included: an access road in the Route 100 Industrial Park (Hunters Mill Road) proposed to connect the park with Route 100; a modified 3b alignment which runs between Wright Road and Maryland Route 713; and an access road proposed to connect Watts Avenue with Route 713.

The modified 3b alignment consists of a redesigned Altemate 3 corridor, partially surveyed by Lori. Frye (see File Report 193) in 1985. A portion of this alternate was not accessible during her work and was subsequently recommended for Phase I survey if the alternate was chosen. As well as the areas that would be impacted in the new design, the unsurveyed portion of her study was included in the current project.

The entire project area was surveyed by foot since the proposed alignments traversed areas which were considered to have moderate potential for prehistoric and historic sites. The following is a summary of the work accomplished:

Hunters Mill Road (access road)
The entire area proposed for this access road had been cleared for development and was disturbed. Consequently, no testing was done at this location.

## Alternate Sb Modified (between Wright Road and Maryland Route 713)

The entire alignment was treated as a test locus and traversed on foot. Two small benches and several level hilltops were shovel tested. A total of 9 shovel test pits were placed along this proposed alignment along with surface collection along dirt access roads, yards, and in remnants of previously cultivated fields. No cultural material was found in any of the test pits or in surface collection. However, this alignment crosses the Shipley family cemetery, the site of approximately 30 marked graves dating between the early to late $19^{\text {th }}$ century.

## Watts Road (access road)

The entire area was traversed on foot; however, it consisted of low lying undulating terrain in comparison to its higher surroundings. Ground exposed areas were surface collected ( $40 \%$ visibility). No cultural material was found during visual examination. This alignment also impinges on a small cemetery at the intersection of Watts Road and Route 713, consisting of 4 to 6 marked graves (dates not observed).

As the result of the survey no prehistoric or historic archeological sites were found; however, two cemeteries are within the proposed rights-of-way of the alternates. One cemetery appears to be associated with the Shipley Historic site which parallels the eastern side of Route 713; neither cemetery is of archeological significance.

An addendum report which can be added to the Frye report will be forthcoming; in the meantime if you have any questions about this matter or if I can be of further assistance, please do not hesitate to call me.


Hettie L. Ballweber Archeologist

HLB:1w
cc: Cynthia D. Simpson Rita Suffness

## Maryland Department of Transportation

STATE AVIATION ADMINISTRATION

MEMORANDUM
TO: Hal Kissoff
Administrator
State Highway Administration
FROM: Theodore E. Mathison $\quad$ Administrator
DATE: $\quad$ EA
SUBJECT: Rt. 100 Alternates

| TO: | Hal Kissoff <br> Administrator <br> State Highway Administration |
| :--- | :--- |
| FROM: | Theodore E. Mathis on <br>  <br> Administrator <br> DATE: <br> SUBJECT: $:$ <br> RE. 100 Alternates |

William K. Hellman Dec 301032 AH 85

## RECEIVED

DEC 271985


The SAA has reviewed the alternates for Rt. 100 alignment in the vicinity of Baltimore/Washington International Airport (BNI) (Attachment No. 1). The following are the features of each option, as they relate to the future development of BWI, which are of concern to the SAA.

1. ALTERNATE 2 (Option A)

This option would severely restrict several potential sites for new air carrier runways.
a) The section of roadway between Telegraph Road and Friendship Park would intersect a site for a parallel 15/33 runway (Option G, Attachment No. 2). This runway would parallel Runway $15 \mathrm{R}-33 \mathrm{~L}$ and would be $4,300^{\prime}$ from it to meet Federal Aviation Administration separation criteria. Elimination of the runway could seriously limit BWI's growth:
b) The section from Telegraph Road to WB \& A Road would conflict with a parallel $10-28$ runway alignment at the current separation criteria of 4,300 feet. (Option A, Attachment No. 3).
2. ALTERNATE 2 (Option B)
a) Impacts of la, and b apply.
b) The section from Telegraph Road to Friendship Park would restrict the separation distance between a new parallel runway and the existing $10-28$ runway to 3,000 feet. The FAA is reviewing the

Memorandum
Page 2
and ......
separation distance (4,300) for all landing conditions and may revise downward the criteria. However, no decision is expected for several years. Thus, the SAA is concerned that the option to meet the $4,300^{\prime}$ criteria is not precluded.

## 3. ALTERNATE 3

a) No objections as aligned.
4. ALTERNATE 4 (Option A)
a) Impacts of la, and b apply.
b) In order to allow for a parallel 10-28 or 15-33, the section between Dorsey Road and Camp Meade Road would have to be underground.
c) The section from Camp Meade Road to the west aligns with the existing 10-28 runway. This means aircraft departing and arriving would be flying at very low altitudes directly over traffic. Planes approaching from the west with their high powered landing lights and large physical presence (e.g. B-747 with a 197' wing span) will impact vehicular traffic safety. Conversely, vehicle headlights will create glare in the cockpits of departing and arriving aircraft creating a major air safety problem.
d) The alignment would isolate a sizeable portion of Airport property from the airport proper, and could limit full utilization of the isolated property.
5. ALTERNATE 4 (Option B)
a) The same concerns as stated in 4 c above also apply to this Alternate.
b) An interchange located at the intersection of Rt. 100 and Rt. 170 would encroach on a sizeable portion of airport property.

In summary, the SAA has serious concerns of the effect that either option of Alternate 2 or 4 will have on current and future runway configurations. The only Alternate for which we have no serious objections is Alternate 3.

TEM: lab
Attachments
cc: N. Pederson


Actachment No. 1

## RUNWAV SCENARIOS



## 



US Department of Transportation
Federal Aviation Administration


October 2, 1986 < जा।
Mr. Theodore E. Mat
Administrator
MD-DOT, State Aviation Administration
P. O. Box 8766 , BWI Airport

Baltimore, Maryland 21240
9. SHINGTON AIRPORTS DISTRICT OFFICE

Do S. Washington Street, Room 200 Fills Church, Virginia 22046 NOV 20 OBs

Dear Mr. Mathison:
curs carnie
macizam
RECEIVED
site himation
admimstrantion


We have reviewed your letter dated September 24, 1986, requesting comments on the proposed location of Maryland Route 100 in the vicinity of BWI Airport. While we understand the need for roadway development to alleviate traffic congestion near the airport, we are also concerned that new plans not interfere with airport operations, safety and growth potential.

Our review shows that Alternate 3 A is far enough away from airport property to have no foreseeable adverse impact on the airport. Alternate $3 B$ has only a minimal adverse impact on the airport. Therefore, Alternates 3 A or 3 B are acceptable, with Alternate 3 A being the preferred routing.

The proposed Alternate 4 with tunnels and open cuts presents serious problems that render it unacceptable. Our concerns are as follows:
-The tunnels and open cuts could be designed to satisfy the safety areas and clearances required by airport design advisories for a minimum level of safety. However, any open cuts in the infield area are hazards to aircraft that should be avoided, and are less safe than a full length tunnel or Alternate 3 routing. In addition to aircraft safety problems, the open cuts could present problems with CFR vehicle access in emergencies, airport security and interference from street and auto lights.
-The routing of the road through airport property would increase the cost of future runway and taxiway development. The additional cost of construction due to the road incursion would not be eligible for Federal funding.
-This routing would also limit the flexibility of planned development. Once the tunnels are in place, the runway and taxiway location and alignment would be fixed. This could result in a less than optimum location for the proposed new runway with respect to the FAA separation study underway.
-Alternate 4 with open cuts requires FAA concurrence with the release of airport property. We discourage the release of airport land for non-aviation uses. As a minimum we would require a fair market value be assessed, and these funds placed in a discrete account for airport capital improvements.

The proposed Alternate 4 with a continuous tunnel would eliminate many of the problems that the open cuts present. However, unless the entire length of the tunnel is constructed to support runway and taxiway loads, the additional construction costs and limited flexibility for development still present considerable problems.

We fully understand the position you are in with the conflicts between preserving the local communities, meeting the traffic capacity demands, and continuing to improve the airport. In this regard, we recommend that Alternative 3 A or 3 B be pursued for the location of Maryland Route 100. The effect on the airport of these two alternatives is acceptable. Since Alternative 4 could have an adverse effect on safety, land and construction costs, and future development potential, we consider it unacceptable.
Please keep us apprised of the status of the proposed routing discussions, and do not hesitate to contact us if we can be of further assistance.

Sincerely,


William 'A. Whittle, Manager
Washington Airports District Office

# Anne Arundel County <br> ANNAPOLIS, MARYLAND 21401 

Mr. Louis H. Ese, Jr., Acting Chief
Bureau of Project Planning Maryland Department of Transportation P.O. Box 717/707 North Calvert Street Baltimore, Maryland 21203-0717

Re: Contract No. AA 682-101-570 Maryland Route 100 from I-95 to I-97, P.D.M.S. No. 022007

Dear Mr. Age:
In response to your letter of January 2, 1986 regarding the above-mentioned project, and the effects Alternates $2 \mathrm{~A}, 2 \mathrm{~B}$ and 4 A will have on Friendship and Queenstown Parks.

I am responding to your items 1, 2, and 3 as follows:

1. Friendship Park is critical in meeting the recreational needs of the Greater Glen Burnie area. A trip to this park anytime during the daytime hours, particularly on weekends, will show how much people use this park. There is one ballfield used primarily by picnickers and families on outings. The setting of the park, which is quite obvious upon visiting it, is primarily a quiet place for people to come and relax away from the urban environment of Glen Burnie. Its loss to the community would be significant.
2. The required property is significant to the recreational uses of this property, in as much as it would effect the environment of the park, because of increased traffic, noise and air pollution. It has been proposed that we connect Friendship Park with Queenstown Park which is contiguous. The construction of this road would prevent us from making this connection.
3. I am forwarding herewith a copy of the site plan for Friendship Park as well as a plan indicating a proposed development of the section which will be transversed by this road.

It is unfortunate that all of these Alternates have such an adverse effect on this much used public facility. We wish there were alternatives which would not have such a negative impact on these parks.

January 16, 1986
Mr. Louis H. Ege, Jr., Acting Chief
Bureau of Project Planning
Maryland department of Transportation

## Page (2)

If you have any questions, or need additional information, please contact me by calling 987-9600.

AJV/vif
cc: Joseph J. McCann, Director, Recreation and Parks
William A. Rinehart, Parks Administrator
Jack Keene, Recreation and Parks

ENCLOSURE:

OEFATTVETT CF NATURAL RESORT：


に：こ～こ：

AHA S．ATON SL＇PChVISUR

February 3， 1986
File： 5400
RE：Contract No．AA 682－101－5：
P．D．M．S．No． 022007
Maryland Route 100
From Maryland Route 3 to Interstate 95

Ms．Cynthia Simpson
Maryland Department of Transportation
State Highway Administration
P．O．Box 717
707 N．Calvert Street
Baltimore，Maryland 21203
Dear Ms．Simpson：
This letter is in reference to your inquiry of January 29，1986．I told Mr．Dooley， in a telephone conversation on January 4，1986，that the Bensen Ray property， recently acquired with Program Open Space Funds，will be developed into a seedling production area by this fall．

The development of this new area has been made necessary by the major increase in seedling demands caused by the Chesapeake Bay Program and by the New Federal Farm Reserve Bill．These two demands for reforestation planting stock and the increased planting on stripmines in Western Maryland has caused our production to go from $4,000,000$ seedlings per year to $12,000,000$ seedlings per year．In order to meet this major production increase，we had no choice but to develop the new ground．


JA／jla
VI－24
cc：James Roberts Patrick Bright
-GEREY C. gROWN MD. secaetaay

Department of Natural Resources MARYLAND FOREST, PARK \& WILDLIFE SERVICE Tames Office Building Annapolis, Maryland 21401

DONALD E MACLAUCHLAN director

February 27, 1986

Mr. Louis Ese, Jr.
Maryland Department of Transportation
State Highway Administration
P.O. Box 717

707 North Calvert Street
Baltimore, Maryland 21203-0717
RE: MD Rt. 100 from I-95 to I-97
Contract No. AA 682-101-570
Dear Mr. Age:
In answer to your 17 February 1986 letter concerning proposed Route- 100 through Patapsco Valley State Park, we offer the following comments.

Alternate 4 would irrevocably diminish the value of a parcel of parkland neveral times the size of the 16.1 acres actually needed for the right-of-way. part of the proposed interchange lies squarely on top of the parkland extending along Piney Run. The alignment itself would create an island of land which would no longer function as a wooded buffer protecting Deep Run. To that end, the answer to your first question regarding significance is most assuredly, yes, i.e. passive recreation areas are an integral part of the master plan for Patapsco as well as all our parks.

I'm unclear as to the meaning of your second question. It seemingly establishes a dichotomy in which those lands "chosen" for specific recreational uses are in turn protected by some kind of property relegated to a category called "buffer". This is, of course, not the case. Intensively developed areas are carefully selected and designed so as to allow for safe, controlled public access. An equal number of recreational pursuits rely on the availability of undeveloped (natural condition) tracts. This area of the park serves just such a purpose, and is, in and of itself, as important for recreation as any area of the park. In this context (and in answer to your second question), it most assuredly is recreational, not merely buffer.

Mr. Louis Ege, Jr.
February 27, 1986
Page two

I strongly encourage you to continue investigation of those options depicted in Figure 1 (attached to your 17 February letter) which do not require use of parkland.

Please let me know if you need additional information. Also, as project planning progresses, if it appears that Altermate 4 is the prime candidate, we will have additional corment. By copy of this memo, we ask the Water Resources Administration to keep us abreast of the project as well.


Donald E. MacLauchlan Director

DEM:SEM:dec
cc: J. Burtis
D. Hathway
D. Gavor
J. Bearn
P. Bright
G. Cheers

## ANNE ARUNDEL COUNTY POLICE DEPARTMENT

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

COL. WILLIAM S. LINDSEY

Chief of Police

Mr. Louis H. Ese, Jr.
Deputy Director
Project Development Division
P.O. Box 717/707 North Calvert. St.,

Baltimore, Maryland 21203
Dear Mr. Eke,
As a result of reviewing the proposals for the Maryland Rt. 3/Interstate 97 plans for Anne Arundel County, the following observations were formulated. The Alternate 4, and Alternate 2, Option B plans present what appear to be the most minimal impact on police services to those areas affected. Of particular concern to this department, is the subdividing of present communities, which could result in an increase if response times to calls for service. Consideration should be given to ensure that ample ingress, and egress routes to maximize police and fire response are provided to high density areas.

If I may be of any further assistance, please feel free to contact me at 301-987-4050 Ext. 208.

# Department of Police for Howard County 3410 COURT HOUSE DRIVE. ELLIOTT CITY. MD. 21043 

992-2200

March 12, 1986
Louis H. Ege, Jr.
Deputy Director
Project Development Division
Maryland Department of Transportation
707 North Calvert Street
Baltimore, Maryland 21203
ATTENTION: Cynthia D. Simpson, Chief
Environmental Management

RE: Contract No. AA 682-101-570
Dear Sir:
I have reviewed, as per your request of February 20, 1986, the proposed development of Route 100 from Route 95 eastward into Anne Arundel County.

The overwhelming majority of the proposed highway construction is located in Anne Arundel County and does not impact the Howard County Police Department.

Those parts of the proposed project which are to be located in Howard County appear, from a law enforcement point of view, to be virtually identical in location and impact.

The completed road development project appears to greatly improve both the north-south traffic flow on Route 1 and the eastward flow from Route 95 into Ane Arundel County. Under the current road configuration, Route 95 traffic into Anne Arundel County must exit that highway and use local feeder roadways. The project will allow such traffic to remain on a major highway and eliminate much congestion on local feeder roadways.

I look forward to the completion of the project and feel that it will improve, rather than hinder, the response time for police services in that part of Howard County. This section of the new Route 100 itself will not provide easier access to anything in Howard County. Instead, the traffic it removes from local roadways will permit emergency vehicles a safer and faster response to calls for service.

If you have further questions regarding this or similar matters, please contact Sergeant E. Lawrence Knutson of the Research and Planning Division at 992-2205.

Sincerely,


Colonel Paul B . Rappaport Chief of Police

PHR:sd


# Anne Arundel County <br> ANNAPOLIS, MARYLAND 21401 

DEPARTMENT OF RECREATION AND PARKS
March 17, 1986

Mr. Louis H. Eye, Jr.
Bureau of Project Planning
Maryland Department of Transportation
P.O. Box 717

Baltimore, Maryland 21203-0717

Re: Contract No. AA -682-101-570
Maryland Route 100 from I-95
to I-97 FDMS. No. 022007

Dear Mr. Ege:
Mr. James Vouzikas, who wrote you on Jamary 16 concerning the impact of the proposed Route 100 alignments on Friendship Park, has asked me to convey same additional design requests to you.

First, we have recently met with an active group of Anne Arundel County horsemen who currently use a bridle trail between Queenstown Park and Friendship Park as part of a trail system linking western portions of the County with our Equestrian Center at Andover Park in Linthicum. This group is very concerned that Route 100 will cut this vital access link. We would like to propose that at the point where Route 100 crosses Sawmill Creek or at same nearby point, a large culvert or other structure be provided to maintain the bridle trail. The interior dimensions of the structure would need to be a minimum of eight feet ( $8^{\prime}$ ) wide by ten feet (10') high.

Second, of the alignment options sent for our consideration, Alternate 2 Option B (Plan sheet 4) clearly has the greatest adverse impact on Friendship Park. Not only does it occupy the entire west side of the park, as opposed to crossing only the southwest corner as do the other alignments, but its interchange with Dorsey Road would clearly make entering the park fran Dorsey Road much more hazardous.

I thank you for your consideration of these matters in making your final selection of the alignment of Route 100 .


John T. Rene
Capital Projects Officer
Recreation and Parks Department
JIK/vif
cc: Joseph J. McCann, Director, Recreation and Parks William A. Rinehart, Parks Administrator Cynthia E. Young, PATH

## B. COMETS

## 1. Combined Location/DesIgn Public HearIng

A Combined Location/Design Public Hearing for this project was held on June 12, 1986, at Andover Senior High School, LInthlcum, Maryland. Mr. Ed Meehan, District EngIneer for the State HIghway AdmInIstration In DIstrict \#5, presided. Representatives of the State HIghway Adnlnistratlon's Office of Planning and Preliminary Engineering explained the project process and the alternatives under consideration and provided a environmental overview of the study area. Representatives of the State HIghway Administration explained the right-of-way acquisition process and the relocation assistance program. Persons attending the Publ lc Hear lng were provided a copy of the "Combined Location/Design Public Hearing" brochure which summarizes features of the alternates. The Draft Environmental Impact Statement and a public Information display were available for review prior to and at the hearing.

An official transcript was prepared of the Locatlon/Design Public HearIng. The hearing record contains the remarks of 43 speakers, along with several written statements. Copies of the transcript are available for review at the Maryland State HIghway Administration, 707 North Calvert Street, Baltmore, Maryland.

A summary of the comments made at the Public Hearing and the responses thereto follows:
a. Roland Davis (Chief Transportation Planner, Anne Arundel County)

Bert Haws (DIrector of Sales, Dlckenson Heffner, Inc.)
Chuck Pruet (WestInghouse Defense Center)
JIm Vecheck (TImber Ridge Improvement Association)
Comment:
Supports Alternate 3 - Option B.
Response:
Alternate 3-OptIon B, with some modifications, has been chosen.

## b. Arthur Kungle, Jr., - President, The LIberty Tree Project

## Comments:

Opposed Alternate 3 because of the following Impacts:
I. Sulfur Dioxide and acid rain from the highway could hurt the plants and trees In the BuckIngham Forest Tree Nursery.
II. Roadway goes through an established grafted White Pine Seedling Orchard In the nursery.
III. DId not feel that the DEIS addressed any of the sensitive issues pertaining to the nursery.

## Response:

I.-III. Coordination with the Maryland Department of Natural Resources concerning Impacts to the BuckIngham Forest Tree Nursery has been ongoing throughout this project. In addition, a study examining the Impacts of this project on the nursery has been performed and is available for review at the Maryland State HIghway Administration Library, 707 North Calvert Street, Baltimore, Maryland and at all State Depository Libraries.
C. Steve Armsey - Vice President, Oxford

Development Corporation

## Comments

I. Requested that relocated Amberton Drive tie Into U.S. Route 1 at the same location as the entrance to their proposed business park.
II. Requested that the high-speed ramp fran westbound Maryland Route 100 to north bound U. S. Route 1 be located at or near the location where the left-turn movement from this ramp to southbound U.S. Route 1 is in order to provide more weaving distance for motorists desiring to turn left Into their proposed business park.
III. Supports the clover leaf Interchange at U.S. Route 1 as shown on the plans.

## Responses:

1. The relocated Amberton Drive has been located so as to minimize Impacts to an existing residence and an existing nursery.
II. The high-speed ramp as shown on theplans is necessary to achieve the high est level-of-service for the Interchange and to provide for a smooth transition between the two highways for motorists. - Even with this high-speed ramp, there would be sufficient weave distance for motorists desiring to turn left Into the proposed business park at the northern entrance as shown on develop ment plans.
III. The selected alternate, Alternate 38 (Modified), Includes the cloverleaf Interchange at U.S. Route 1 (see FIg. II-26).
d. Curtis Warren

## Comment:

Expressed concern about the clrculty of travel, the mixing of local and through traffic on the new freeway and the separation of the Race Road and Wright Road neighborhoods caused by theclosing of Dorsey Road at Maryland Route 295.

## Response:

A bridge over Maryland 295 connectIng Race Road and Wright Road has been Incorporated Into the selected alternate to provide for local traffic.
e. Raymond B. Davis

## Comments:

I. Stated that the ramps from Alternate 3 that Intersect Dorsey Road at Forest Avenue would Increase traffic on Forest Avenue.
II. Stated that If one of the drawbacks to Alternate 4 was a lack of access to the existing Industrial centers west of Maryland Route 295, ramps from Parkway Drive North to Alternate 4 could be constructed.
III. Stated that the project would adversely affect the air quality In the area.

## Responses:

I. Under the selected alternate, the Race Road Interchange has been revised to a standard diamond configuration.
II. Alternate 4 requires acquisition of land from the Patapsco Valley State Park. Even If Alternate 4 were selected, ramps from the north section ofParkway Industrial Center I could not be furnished because of the geometricilmitations Imposed by the Interchange at Maryland Route 295. These ramps would also require the acquisition of at least 2 businesses and additional land from the Patapsco Valley State Park.
III. As shown in section IV. D, the ambient air quality will be lmproved since the project will enhance the flow of traffic through the area.
f. Paul L. Saval - Saval Food Products

Comment

Opposed the 'Option' for relocatIng Dorsey Road at U.S. Route 1 since It impacts a proposed food distribution warehouse. Stated that the "Opt lon'would be more expensive because of higher right-of-way costs.

## Response:

Under the selected alternate, the 'OptIon' for relocating Dorsey Road at U.S. Route 1 has been chosen and has been shifted slightly to the west onto an existing right-of-way. This 'Option' does not require any residential relocation and would be less expensive to construct than the other allgrment since it is much shorter.
g. Connie Both

## Comment:

Ms. Both favored Alternate 4 with a connection to Alternate 3-Option B. (See her letter and response thereto contained hereinafter).
h. Alexander Brown-President, Sandalwood Improvement Association

## Comments:

Mr. Brown supported Alternate 4 with a connection to Alternate 3Option B because of the following reasons:
I. Alternate 3 B will break and damage community relations in the area by cul-de-sacing many major roadways.
11. Alternate 38 does not separate through and local traffic.

Ill. Alternate 38 will leave north Anne Arundel County with only one direct east-west roadway which will severely imit future expansion.

## Responses:

1. and 11.

Under the selected alternate, abrIdge over Maryland Route 295 connectIng Race Road and Wright Road and bridges forcarrylng Harmans Road and W.B.\& A. Road over the freeway have been provided to alleviate community disruptions.
111. The Anne Arundel County General Plan shows the approximate corrider of Alternate 3-option A and is the basis upon which development in the area has been implemented and planned.
I. Werner E. MInshall - Parkway Industrial Center

Comment:
Mr. Minshall expressed concern about the effects of the project on the Parkway Industrial Center.

Response:
Several meetings were held with Mr. Minshall and his engineering firm to coordinate the impacts of the project on existing and proposed developments In the Parkway Industrial Center.
J. RIChard ZablonskI - Provinces Civic Association

Comments:
Mr. Zablonskl favored Alternate 4 with a connection to Alternate 3Option B for the following reasons:
I. Alternate 4 would reduce RIdge Road traffic by 30-35\% and AIternate 3B would Increase RIdge Road traffic by $37 \%$.
II. Harmans Road would be closed by Alternate 38 .
ll. Alternate 4 would cost $\$ 29$ million less than Alternate 38.

## Responses:

1. As shown In section IV, travel on RIdge Road south of Dorsey Road is expected to reach 11,500 average dally traffic(ADT) In the design year 2010 for the No-Bulld Alternate. Under Alternate 3B, it is expected that the ADT on Ridge Road south of Dorsey Road would be 12,600, an Increase of approximately 10\%. FIgure IV-9 shows that the ADT on New RIdge Road north of Dorsey Road would be 5,000 In 2010. This would be traffic going Into the Baltimore Commons Industrial Park. The 2010 ADT on Ridge Road south of Dorsey Road would be at least 11,500 under Alternate 4.
2. The selected alternate Includes bridging Harmans Road over Maryland Route 100.
3. Due to tunneling costs through the Baltimore Washington International Airport, Alternate 4 wouldcost up to $\$ 36$ million more than the selected alternate.
k. Dale Ross - VIce-President, ROJAC Group

## Comment:

Mr. Ross expressed concern about the effects of the project on access to the Howard Johnson's hotel and restaurant in the Parkway Industrial Center.

## Response:

The selected alternate Includes a standard diamond Interchange at Race Road and provides for access to the Parkway Industrial Center from this Interchange and from Dorsey Road.

1. Steven J. Hartman - MIE Development Corporation

Comment:
Stated that he was originally in favor of Alternate 38, but as a result of listening tocomments at the Public Hearing, he would be in favor of Alternate 4 with a connection to Alternate 3-Opt Ion B.

## Response:

The selected alternate was chosen over Alternate 4/38 for several reasons. First, Alternate 4 requires the acquisition of land from Patapsco Valley State Park which is prohibited under Federal Law if a'feasible and prudent' alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified In the Howard County, Anne Arundel County and the Regional Planning Council Master Plans. This corridor is the basis upon which development In the area has been implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington International Airport, and according to

Federal Aviation Administration regulations, the highway would have to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 3 B$ to be up to $\$ 36 \mathrm{mllil}$ on greater than the selected alternate.
m. WIllIam Cooper - Elmhurst Improvement Association

## Comment:

Objected to the closing of W.B.\& A. Road.

## Response:

The selected alternate provides for bridging W.B.\& A. Road over Maryland Route 100.
n. Tom Dixon - President, Harmans Civic Association

Comments:
Mr. Dixon supported Alternate $4 \mathrm{w} / \mathrm{th}$ a connection to Alternate 3Option B for the following reasons:

1. Alternate 38 severs contInuous travel on Dorsey Road, Harmans Road and Ridge Road.
2. The Alternate 4 Interchange with Maryland Route 295 could be shifted to the south to avoId ImpactIng residences on Race Road and Bentwoods Road.
3. Alternate 4 does not conflict with the planned expansion of the BaltImore Washington AIrport.

## Responses:

1. The selected alternate provides for a bridge over Maryland Route 295 connecting Race Road and Wright Road which allows for local traffic circulation Harmans Road will also brIdge over the selected alternate. ContInuous travel on Ridge Road is provided via the relocated Ridge Road as shown on the plans.
2. Shifting the Alternate 4 Interchange with Maryland Route 295 to the south to avoid any residentlalrelocations would result in greater Impacts to the area of Patapsco Valley State Park east of Route 295, greater impacts to the Deep Run flood plain, decreased weaving distance between this Interchange and the existing Dorsey Road/Route 295 Interchange and would require at least 4 business relocations.
3. Pursuant to Federal Aviation Administrations, a tunnel would have to be constructed for Alternate 4 through the airport property which would make the total cost of Alternate 4 up to \$36 million more than the selected alternate.
4. Irene Hebron - Concerned CItizens for a Fair Route 100

## Comments:

1. Supported Alternate 4 with a connection to Alternate 3-Option B because she felt that Alternate 3 unjustly Impacted black communitles in the area.
2. Stated that many of the required residential relocation are retired persons and that they would find it financially diffflcult to relocate.

## Responses:

1. The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-Option B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law if a 'feasible and prudent' alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as identified in the Howard County, Anne Arundel County and Regional Planning Council Master Plans. This corrider is the basis upon which development in the area has been Implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington International Airport. Federal Aviation Administration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36 \mathrm{milil} \mathrm{m}_{\mathrm{n}}$ greater than the selected alternate.

During the course of the MD Route 100 study, concerns were raised regarding the impacts of the project. The selected alternate, Alternate 38 (Modified), Incorporates several design changes of the 'historical' alignment (Alternate 3-Option A) to address these concerns. These include the alignment shift at the project's eastern end in order to minimize impacts to the community of Queenstown, the standard diamond Interchange at Race Road and selecting the full cloverleaf Interchange at MD. Route 295. In total, the design changes made by the State Highway Administration resulted in a reduction in the number of residences displaced by MD. Route 100 from 43 to 22. Alternate 38 (Modified) also includes several provisions for maintaining traffic on the local road network. These include providing a brIdge across Maryland Route 295 connectIng Race Road with Wright Road, bridging Harmans Road over Maryland Route 100 and bridging W.B. \& A. Road over Maryland Route 100. The State Highway Administration believes that the selected alternate provides the needed service to the area while minimizing lmpacts to local cormunltles. This project has been reviewed by the Equal Opportunity Section of the State Highway Administraton and found to be In compliance with Title VI of the CIvil Rights Act of 1964 (see letter dated June 26, 1986.)
II. The relocation required for this project will be resolved in a timely and humane fashion and will be accomplished In accordance with the Uniform Reloca-tion Assistance and Land Acquisition Policies Act of 1970 (P.L. 91-646) and/or 49 CFR Part 25the new regulations.
p. Howard E. Wagner, Jr.

## Comment:

Supported Alternate 4 wlth a connection to Alternate 3-Option B because Alternate 3-Option B would out through his farm and divide it in half and it would be a 4 to 5 mlle trip to get from one side to the other.

## Response:

The alignment of Alternate 3-Option $B$ in the vicinity of the Smith Form has been located in order to minimize impacts on existing residences. Provisions to provide access between the remaining parcels of the farm and/or acqulsitionof remnant parcels will be investigated during final design.
q. Sylvia Garrison

## Comment:

Supported Alternate 4 wlth a connection to Alternate 3-option B because a disproportioment number of the relocation required under Alternate 3-Optlon B are minorities.

Response:
The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-Option B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law if a "feasible and prudent" alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as identified in the Howard County, Anne Arundel County and RegIonal Planning Council Master Plans. This corraldor is the basis upon which development In the area has been implemented and planned. Alternate 4/3B also traverses the

> VI -40
southwestern corner of the BaltImore WashIngton International Airport. Federal Aviation Administration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36$ million greater than the selected alternate.

During the course of the MD Route 100 study, concerns were raised regarding the impacts of the project. The selected alternate, Alternate 38 (Modified), Incorporates several design changes of the 'historical' alignment (Alternate 3-Option A) to address these concerns. These Include the alignment shift at the project's eastern end in order to minimize impacts to the community of Queenstown, the standard dlamondinterchange at Race Road and selecting the full-clover leaf Interchange at MD. Route 295. In total, the design changes made by the State Highway Administration resulted in a reduction in the number of residences displaced by MD. Route 100 from 43 to 22. Alternate 38 (Modified) also Includes several provisions for maintaining traffic on the local road network. These include providing a bridge across Maryland Route 295 connectIng Race Road with Wright Road, bridging Harmans Road over Maryland Route 100 and bridgIng W.B. \& A. Road over Maryland Route 100 . The State Highway Administration believes that the selected alternate provides the needed service to the area while minimizing lmpacts to local communities. This project has been reviewed by the Equal Opportunity Section of the State HIghway AdmInlstratimon and found to be In compliance with Title VI of the CIvil Rights Act of 1964 (see letter dated June 26, 1986).
r. Melvin Kelly - President, Severn Improvement Association Art Bohl lInger
Sandy Nosher CatherIne Galther VIrginia Warren Lolls Fellinger Barbara Taylor Edward Kennedy Beathsader Womble

## Corment:

Favor Alternate 4 with a connection to Alternate 3-Option B. Response:

The selected alternate was chosen over Alternate 4/3B for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohlbited under Federal Law If a 'feaslble and prudent' alternatlve exists. Also, the selected alternate closely follows the corrldor for the extension of Maryland Route 100 as Identifled in the Howard County, Anne Arundel County and the Reglonal Planning Council Master Plans. This corridor is the basis upon which development in the area has been Implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baitimore Washington International Alrport, and according to Federal Avlation Acministration regulatlons, the highway would have to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 3 B$ to be up to $\$ 36$ mililion greater than the selected alternate.
s. Davld Williams - Assoclate Professor of Blology, Anne Arundel Communlty College

## Comment :

Opposed Alternated 3 due to the potent lal adverse Impacts upon the Buck Ingham Forest Tree Nursery.

Response:
Coordinatlon with the Maryland Department of Natural Resources concerning Impacts to the Bucklngham Forest Tree Nursery has been ongolng throughout this project. In addltion, a study examining the impacts of this projecton the nursery has been performed and is avallabie for revlew at the Maryland State Highway Administration Library, 707 North Calvert Street, Baltimore, Maryland and at all State Depository Librarles.
t. Gerald Talbert - Maryland Department of Agriculture

## Comment:

Stated that whichever route is selected, the impacts on farmland and natural resource areas should be minimized.

## Response:

Minimization of Impacts on agricultural land and natural areas, as well as residential and commercial areas, has been a conslderation throughout the study. Minor allgrment shifts will be considered during final design of the project to reduce impacts as much as feasible.
u. Mary Rosso

Comment:
Supported Alternate 4 wlth a connection to Alternate 3-option B because it minimizes impacts to existing communities.

## Response:

The State HIghway Administration believes that the selected alternate provides the needed service to the area whileminlmizing impacts to communities. The selected alternate, Alternate 38 (Modified). Includes several provisions to reduce both community impacts and the number of relocation required (see Section IV.A).
v. Gene Floyd - President, North Anne Arundel County Chamber of Commerce

Comment:
Stated that the Chamber of Commerce, In an Executive Session, chose not to select one alternate over another, but that the project should proceed as expeditiously as possible.

Response: None required.
w. Jean Creek - PresIdent, Anne Arundel County NAACP

Comment:
Supported Alternate 4 wlth a connection to Alternate 3-option B. Relayed the concerns of the members of the black communities of Harmans and Queenstown regarding the adverse and disproportlonate Impact to those communities.

## Response:

The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-Option B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law If a 'feasible and prudent' alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified in the Howard County, Anne Arundel County and Regional Planning Council Master Plans. This corridor is the basis upon which development in the area has been implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington international Airport. Federal Aviation Administration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36$ million greater than the selected alternate.

During the course of the MD Route 100 . study, concerns were raised regarding the impacts of the project. The selected alternate, Alternate 38 (Modified), incorporates several design changes of the 'historical' alignment (Alternate 3-Option A) to address these concerns. These include the ailgrment shift at the project's eastern end in order to minimize impacts to the community of Queenstown, the standard diamond interchange at Race Road and selecting the full cloverleaf interchange at MD. Route 295. In total, the design changes made by the State Highway Administration resulted in a reduction in the number of residences displaced by MD. Route 100 from 43 to 22. Alternate 38 (Modified) also includes several provisions for maintaining traffic on the local road network. These Include providing a bridge across Maryland Route 295 connecting Race Road with Wright Road, bridging Harmans Road over Maryland Route 100 and bridging W.B. \& A. Road over Maryland Route 100. The State Highway Administration believes that the selected alternate provides the needed service to the area while minimizing inpacts to local communities. This project has been reviewed by the Equal Opportunity Section of the State Highway Administratimon and found to be in compliance with Title Vi of the Civil Rights Act of 1964 (see letter dated June 26, 1986.)
VI -44
X. Marion Blades

## Comment:

Expressed concern about noIse Impacts the project would impose on the area.

## Response:

The effects of noise from the proposed Maryland Route 100 are Judged In accordance with Federal HIghway AdmInIstration standards and MD State Highway Administration guidelines. A discussion of the noise impacts of the proposed project and any multigat ion measures for those Impacts Is contained In section IV. E of this Final Environmental Impact Statement.
y. Theodore Sophecleus - CouncIlman, Anne Arundel County

Comment:
Stated that elected officials and the public have been Involved In this project for several years. Requested that the State Highway Administration Inform the public of the reasons for selecting an alternate.

Response:
The reasons for selecting Alternate 38 (Modified) are presented In this Final Environmental Impact Statement. A news release explaining why Alternate 38 (Modified) was selected was made public in the local news media and sent to everyone was selfected on the project mailing lit.

## 2. BasIl Smith

## Comments:

Supported Alternate 4 wlth a connection to Alternate 3-Optlon 8 for the following reasons:
I. Alternate 3 disrupts local traffic patterns and there-fore lImits access to the existing and proposed Industrial parks in the area.
II. Alternate 4/38 would be $\$ 20 \mathrm{mlll}$ ion less than Alternate 3 B which could be to mitigate the to the Baltimore Washington International AIrport.

## Response:

1. The State Highway Administration believes that the selected alternate provides the needed access to the existing and planned development In the area. The selected alternate, Alternate 38 (Modified), Includes several provisions for maintalning access to the local road network (see Section II.B.4).
II. Federal Aviation Administration regulations would require Alternate 4 to be constructed In a tunnel through the airport property which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36 \mathrm{mllil}$ in greater than the selected alternate.
aa. WIllIs Henry
Comment:
Supported Alternate 4 and requested that W.B.\& A. Road be kept open.

## Response:

Alternate 38 (Modified) has been selected for the reasons discussed In Section II.B.4.

The selected alternate Includes bridging W.B.\& A. Road over Maryland Route 100.

VI -46

> bb. Michele H. Schrock - Preserve Arundel Trails for Horses (PATH)

## Comment:

Supported Alternate 4 with a connection to Alternate 3-Option B. Expressed concern about the project's impact on bridle trails in the area and requested that W.B. \& A. Road be kept open to allow PATH members access to areas through Friendship Park.

## Response:

The selected alternate, Alternate 38 (Modified) includes brigIng W.B.\& A. Road over Maryland Route 100. In addition, the feasibility of including a trail crossing of the roadway will be investigated during final design.
©. Tyras S. Athey - Anne Arundel County Delegate to the Maryland House of Representatives.

## comment:

Expressed concern about the closing of Harmans Road and W.B. \& A. Road.

## Response:

The selected alternate includes provisions for bridging Harmans Road and W.B. \& A. Road over Maryland Route 100.

## 2. Written Comments

Written statements and other exhibits in lieu of or In addition to oral presentations at the Locatlon/Design Public Hearing were accepted by the State HIghway Administration until June 27, 1986 for Inclusion In the "Public Hear lng Transcript". These written statements and responses thereto are contained hereinafter. The "Public Hearing Transcript" is available for public review at the State HIghway Administration, 707 North Calvert Street, Baltimore, Maryland, and at District 45 Headquarters, Defense Highway, Annapolis, Maryland. Those comments received after June 27, 1986, were not included In the "Public Hearing Transcript". However, whenever possible, comments received after that date were considered In the decision making process and all comments were and will continue to be responled to.

Mr. Hal Kassoff
Administrator
Maryland Department of Transportation
Maryland State Highway Administration
P. O. Box 717

707 N. Calvert Street
Baltimore, MD 21203
Dear Mr. Rassoff:
I understand that the Maryland State Highway Administration has agreed to accelerate the construction timetable of Route 100 from Route 3 to Insterstate 95 in Howard County and that there will be a Public Hearing held on Route Alternatives.

Although I will not be able to attend the hearing, it would be appreciated if you would reflect in the public record, my support of "Alternative $3^{\prime \prime}$ as the preferred alignment.

Thanking you in advance.
Sincerely,


David A. Rossi President and General Manager

DAR/drs

|  |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |

Maryland Department ofTransportation
State Highway Administration

William K. Hellmann Secretary

Hal Kassoff Administrator

## IPR 241986

RE: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to
Maryland Route 3 PDMS No. 022007

Mr. David A. Rossi


President and General Manager Gould, Inc.
6730 Baymeadow Drive
Glen Burnie, Maryland 21061
Dear Mr. Rossi:
Thank you for your letter dated April 3, 1986 in which you expressed your support for the Maryland Route 100 project and particularly for Alternate 3.

Due to the increasing need for this facility, construction could start by late 1989 if funding is available.

I regret that you will be unable to attend the Public Hearing scheduled for June 12, 1986; however, you will be informed of developments on the project via the distribution of a hearing brochure to our project mailing list.

Should you have any questions, please feel free to contact Mr. Neil J. Pedersen, Director of the Office of Planning and Preliminary Engineering, at 659-1110.

Sincerely, Orivival SMar or: HAL KASSOFF

Hal Kassoff
Administrator

HK:tlh
cc: Mr. E. H. Meehan
Mr. W. R. Clingan
Mr. N. J. Pedersen
Mr. L. H. Ege, fr.
Mr. R. E. Moon $y$

Note: For additional response, see page VI-64

$$
\begin{gathered}
\text { STATE HIGHWAY ADMINISTRATION } \\
\text { QUESTIONS ANDIOR COMMENTS } \\
\text { Contract No. AA 682-101-570- PDMS No. 022007 } \\
\text { Combined Location/Design Public Hearing } \\
\text { Maryland Route 100 (1-97) }
\end{gathered}
$$

$$
\begin{aligned}
& \text { I-95 to Maryland Route } 3 \text { (I-97) } \\
& 12,1986-7: 30 \mathrm{p} . \mathrm{m} \text {. - Andover Senior High Sch } \overline{\mathbf{o}}
\end{aligned}
$$

Thursday, June 12, 1986-7:30 pm. - Andover Senior High Sch ${ }^{\circ} \mathrm{P}$
name Jesse c. FLY/hors 6. Fly date 13 Ounce 86 PLEASE address ll 25 DOLSER RD.
PRINT CITYITOWN HANOVER STATE MD ZIP CODER ZOTK. I/We wish to comment or inquire about the following aspects of this project:

 ail an ant wining, ozlle lar ont
 $\frac{\text { gout }}{\text { af the }}$


## Staked,



Please add my jour names) to the Mailing List:*
$\square$ Please delete mylour names) from the Mailing List.
*Persons who have received a copy of this brochure through the mall are already on the project Mailer' 'st. VI-5I

Maryland Department of Transportation

July 16, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Interstate Route 97
PDMS No. 022007

Mr. and Mrs. Jesse C. Fly
1125 Dorsey Road
Hanover, Maryland 21076
Dear Mr. and Mrs. Fly:
This is to acknowledge receipt of your comments dated June 13, 1986 expressing your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning the project.


Project Development Division

LHE: tl h
cc: Mr. Neil J. Pedersen
Mr. Edward H. Behan
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-64.
VI -52

# STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS 

Contract No. AA 682-101-570 - PDMS No. 022007 Combined Location/Design Public Hearing Maryland Route 100
I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 p.m. - Andover Senior High
James C. Vecheck, Chairman of Roads \& Highways Committee, Timber Bidge
NAME Improvement Association
7400 Hawkins Drive, Hanover Maryland
please PRINT

## ADDRESS

CITYITOWN. Hanover STATE Md._ZIP CODE 21076

I/We wish to comment or inquire about the following aspects of this project:
Dear Sir: This reply is to confirm basically our position stated at the Andover public. hearing. Timber Ridge contimes to support the Alt 3; alignment, the historic alignment and the only alignment that serves the corridor, the county and 211 other state taxpayers. is the result of SHA bending over backwards to satisfy certain factional groups in the vicinity of Queenstown (at adaitional costs of \$17 Nillion dollars and the taking of valuable parkland)a last mimite deffortto derail this project was started. These groups now feel they have "clout" since they got the 3B concession. This project was designed to relleve trapfic on Dorsey Road. The 125 homecwners in Timber Ridge would be subject to approx 40,000 cars per day in front of our community if alt 4 was selected (per impact statement). The three mator commo unities (Timber Eidge, Sandalwood, Harmans) have always favored the Alt 3 Route until
2 few disgruntled (and one former SHA employee) decided to push AIt 多, A route that
was never. even considered originally by the state.Alt $L$ would destroy BWI Growth, Impact panned develocment of Balt Commons, McCormick Properties, and require Fatapseo Park propertr. No where in the summorwof costs was it mentioned that Alt I woula most likely require expensive tunneling that could cost $\frac{1}{2}$ the price of the total project.
$92 \%$ of the residents live in the 3 communities mentioned yet peonie from miles oround were solicited by these factions to come and support Alt 4 , an alternative that was suggestedby Harmans. Lastly we feel that WB\&ed road be kept open and Queenstown Red be Please add my/our name(s) to the Mailing List.* closed since WB\&A is the onlyother $\square$ Please delete my/our name(s) from the Mailing List North/South hondresy neeriert for *Parsons who ture growth. Final comment *Persons who haverecelved a copy of this brochure through the mail are already
on the project Mailing List.
(Cunt'd) Alt 4 would be $\rightarrow \cdots$.... to and parallel . ... Who needs it?

William K. Hellmann Socretary
Hal Kassoff
Administrator
irlr. James C. Vecheck, Chairman
Roads \& Highways Committee
Timber Ridge Improvement Association
7400. Hawkins Drive

Hanover, Maryland 21076
Dear Mr. Vecheck:
This is to acknowledge receipt of your comments, on behalf of the Timber Ridge Improvement Association, in support of the Alternate 3 alignment for the construction of Maryland Route 100. Your statement, along with the testimony you provided at the public hearing on June 12 , has been entered into the transcript and made a part of the official project record. We appreciate the support of your community for this project, and would like to assure you that your views will be considered before a final decision is made concerning the project.

Thank you for your comments. Via the project mailing list, you will be kept aware of future developments and advised of the decision made by the State Highway Administration.

```
Very truly yours,
Louis H. Ege, Jr.
Deputy Director
Project Development Division
```



Ronald E. Moon
Project Manager
LHE: REM:tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-64

# McCormick IIIT Properties, Inc. 

11011 McCormick Road Hunt Valley, Maryland 21031 (301) 667.7700

Maryland State Highway Administration P.O. Box. 717

Baltimore Maryland 21203
Dear Sirs:
As a major development company on the East Coast, and as a developer in the proposed Route 100 corridor. I. feel that the position of this Company should be made relative to the location and design of Maryland Route 100 from Interstate 95 to Maryland Route 3.

McCormick Properties is in the process of developing a 92.;5 acre site boardering Dorsey Road east of Telegraph Road and west of the Baltimore-Annapolis Boulevard. Our plans call for approximately 10 to 14 professional buildings on this site, As with all of McCormick Properties' business centers. we are concerned not only with our park. but how we impact our neighbors.: We have taken great pains to insulate our neighbors to the south, east and west from our development. With the type of development we are proposing. it is necessary that we have good access and good support from the county and state governments.

McCormick Properties has investigated all alternatives presented concerning the alignment of "Route - IO O as defined above. It is our opinion that Alternate 3. Option $B$ is the preferred Route. This route gives the greatest-flexibility for economic growth-while retaining the residential character of the area.

McCormick Properties strongly supports the economic and comprehensive plans of Anne Arundel County to continue commercial development in the area surrounding the Baltimore -Washington International Airport. It is our professional opinion that this growth is logical and is of great benefit to Anne Arundel County and the State of Maryland.

The other alternatives for locations for Route 100 deny the type of economic growth that Anne Arundel County and the State need. We have exhaustively studied the growth patterns in the Baltimore/Washington/Annapolis region and feel that Alternative 3. Option $B$ best aids all concerned parties.

We would like to have this letter be contained in your analysis of the location of this designated highway.


CAR/wjk

# Maryland Department of Transportation 

Will am K. Hellmann Secretary
Hal Kassoff Administrator

July 29, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
I-95 to Maryland Route 3 (I-97)
PDMS No. 022007

Mr. J. Richard Uhlig
Vice President
McCormick Properties, Inc. 11011 McCormick Road Hunt Valley, Maryland 21031

Dear Mr. Uhlig:
This is in reference to your letter of June 26,1986 stating the position of the McCormick Company relative to the location and design of the proposed Maryland Route 100 from Interstate 95 to Maryland Route 3 .

We appreciate the support of the McCormick Company for this project and have noted your preference for Alternate 3, Option B. I want to assure you that your comments and concerns regarding this project will be fully evaluated and will receive every consideration before an alternate is selected for Maryland Route 100.

Thank you for writing. Your letter will be entered into the public hearing transcript and made a part of the official project record. You will be advised of the decision selecting an alternate for the location of Maryland Route 100 by the State Highway Administration via the project mailing list.


LHE:ss
$\mathrm{cc}: \mathrm{Mr} . \mathrm{N} . \mathrm{J}$. Pedersen
Mr. E. H. Meehan
Mr. R. E. Moon
Mr. J. T. Johnson
Note: For additional response, see page VI-64
My telephone number is
659-1130
Teletypewriter for Impaired Hearing or Speech 383.7555 Baltimore Metro - 565.0451 D.C. Metro - 1.800-492.5062 Statewide Toll Free P.O. Box 7171707 North Calvert St., Baltimore, Maryland 21203.0717

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR.COMMENTS

Contract No. AA 682-101-570 - PDMS No. 022007 Combined Location/Design Public Hearing Maryland Route 100 I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 pom. - Andover Senior High Schorl


PLEASE
PRINT
cITYITOWN. Richmond_state $\qquad$ Va. ZIP CODE 23221

I/We wish to comment or Inquire about the following aspects -of this project:
 one of the freeway alternates for Rte. 100.

I like the way that Option 3 serves
the Rte. 176 corridor, but notice that
Option 4 is considerably cheaper. I would favor Option 3A from a service standpoint.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
4 Please add mylour namo(s) to the Mailing List.*
(f) Grease delete my lour name (s) from the Mailing List.
*Persons who haverecolved a copy of this brochure through the mall are already on the project Mailing List.

## Maryland Department of Transportation

William K. Hellman Secretary
Hal Kassoft
Administrator

July 16, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Interstate Route 97
PDMS No. 022007

Mr. Scott Kozel
3212-A W. Franklin Street Richmond, Virginia 23221

Dear Mr. Kozel:
This is to acknowledge receipt of your comments dated May 31, 1986 expressing. Your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning the project.


Project Development Division

LE: tl h
cc: th r Neil
Mr. Edward H. Meehan
Mr . Ronald E. Moon:
Mr. James T. Johnson
Note: For additional response, see page VI-64
VI -59

My telephone number is _659-1130
Teletypewriter for Impaired Hearing or Speech 383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free P.O. Box 717 / 707 North Calvert St., Baltimore, Maryland 21203 - 0717

## RECEIVED

TATE HIGHWAY ADMINISTRATION
ロIRECTOR, OFFIEF QUESTIONS ANDIOR COMMENTS
PLANRLAE \& PRELMINARY EMGREERIRG
Contract No. AA 682-101-570 - PDMS No. 022007
Combined Location/Design Public Hearing
Maryland Route 100
I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 p.m. - Andover Senior High Schol

NAME SOUTH SHORE DEVELOPMENT CO., INC.
DATE June 9, 1986
PLEASE
PRINT
ADDRESS C/O ANAREX, INC. 503 Ritchie Highway
CITYITOWN Severna Park__STATE_MD_Z_Z____ CODE_21146
I/We wish 10 comment or inquire about the following aspects of this project:
We strongly recommend Alternate 3, Option A, which meets the needs of the commercial and industrial land both existing and planned. A freeway is needed to relieve Dorsey Road and to carry the heavy flows of east-west traffic through Anne Arundel County and Howard County industrial areas.

Alternate 3, Option B, not only costs more than Option A, but, displaces far more parkland, recreation sites, historical sites, industrial sites, woodlands, wetlands, floodplains, and streams. Furthermore, it places an undesirable and unnecessary double curve in the freeway between Mountain Road and Telegraph Road.

Of our closest interest, is the landlocking most of the Landco Business Park which is in a final stage of engineering. Anne Arundel County has requested that you continue W. B. \& A. Road to Dorsey Road to serve industrial land north and south of Route 100. It would become an important link between industrial areas.

Again, we urge you to choose Alternate 3, Option A, but if Option B is chosen, Dlease plan to continue W. B. \& A. Road per our attached sketch and as recommended to you by the Anne Arundel County Office of Planning and Zoning.

Please add mylour name(s) to the Malling List.*
$\square$ Please delete my/our name(s) from the Malling List.

* Persons who havereceived a copy of this brochure through the mail are already on the prolect Malling List.


Maryland Department of Transportation
State Highway Administration

William K. Hellman Secretary

Hal Kassoff
Administrator

July 7, 1986

Re: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to Maryland Route 3 (Interstate Route 97) PDMS No. 022007

South Shore Development Co., Inc. coo Anarex, Inc.
503 Ritchie Highway
Severna Park, Maryland 21146
Gentlemen :
This is to acknowledge receipt of your mailer dated June 9 , 1986 regarding the proposed construction of Maryland Route 100. Your comments will be made a part of the official project record by being entered into the Public Hearing transcript.

We appreciate your support of the project and want to assure you that the concerns you have noted will receive every considerLion before a decision is made concerning this project. You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list.

Very truly yours,
Neil of Pedeser
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering
NJP: tn
cc: Mr. Edward H. Meehan
Mr. Louis H. Eke, Jr.
Mr. Ronald E. Moon
Note: For additional response, see page VI-64

VI -63
My telephone number ls__659-1110
Teletypewriter for Impaired Hearing or Speech

Additional response to letters from:
David A. Ross, dated April 3, 1986
Jesse C. and LoIs E. Fly, dated 13 June 1986
James C. Vecheck, dated June 25, 1986
J. Richard Uhllg, dated June 26, 1986

Scott Kozel, dated May 31, 1986
South Shore Development Co., Inc., dated June 9, 1986
The State HIghway Administration believes that the selected alternate, Alternate 38 (Modified), provides the needed service to the area whlleminimizling Impacts to local commulties. The 'Op ton B' for Alternate 3 was developed specifically to minimize Impacts to the established minority cammulty of Queenstown. Several provisions have been Included In the selected alternate to maintain local traffic circulation. These Include a bridge over MD Route 295 connect lng Race Road with Wright Road, bridging Harmans Road over MD Route 100 and bridgIng W.B. \& A. Road over MD. Route 100.

Mr. Neil Pederson
Director
Office of Planning and Preliminary Engineering State Highway Administration Fast Office Bax 717
Baltimore, Maryland 2120J-0717
Dear Mr. Pederson,
This is in regard to the State's proposal to build Maryland route 100 from 195 in Howard county to Maryland route 3 (soon to be I97) in Anne Arundal County. I have reviewed the materials about this project which your staff has provided me and I have the following comments:

1. Your staff is to be commended for their thorough and comprehensive analysis. As a resident of the affected area for the last ten years, I am well aware that the community opposition has been a significant hinderance to this project, and that a solution which will please everyone is not possible. I understand how difficult it must be for your staff to deal with the frustrations which accompany this project.
2. I think. that it is essential that the option chosen be one of the freeway options. I recognize that my neighbors may object to any of the options. However, I believe that they do not realize that if no freeway option is built soon, "thetrafife from tire explosive commercial growth in the area will be such that they will no longer be able to tolerate $I$ living in the homes which they sought to protect.
S. Irrespective of which freeway option is chosen, the State should keep open all current north-south thoroughfares, particularly Ridge and Harmons Roads. . You amy want to count vehicular traffic on these roads now. I believe that you may be surprised at how much traffic they handle. Moreover, they are essential to maintaining the rapid availability of emergency vehicles. . In particular, access for the police who have to come to us from east county would be significantly limited by closing either of these thoroughfares.
3. Specifically, I would like to offer my support for Alternative \#4, and to present my analysis of the advantages and disadvantages of this option:

## PRO

-- Will disrupt the fewest residences (29) in total and the same number of minority residences as alternative注 38.

- Is significantly less costly then alternative \#ЗB.
- Will have one fewer interchange than alternative \#ت゙E, reducing the potential for accidents which. increases with interchanges which are close together.
-- Will occupy much of the land which is now in the airport's noise zone and which the State will be forced to purchase in the future anyway.
- Will. provide better access to the airport from IOS and I97 since the interchange at Fidge Froad will be closer to the airport passenger entrance.
- Will be supported by the community better than any other option, resulting in faster construction


## CON

- Will require the State to use some of the airport property for a road -- you will have a hard time selling this within your own bureaucracy, but you can argue that the State could expand the airport southeast under alternative \#4 which would not be possible under any of the other alternatives - The industrial park developers will pressure you to select any of the other options so that they can use immediate access to the freeway as .a selling point - you can counter that any freeway, even without immediate access, is better than none.

Thank you for adding me to the mailing list._for this project. I hope that you choose a freeway option since I believe that a limited access highway is essential to the continued economic growth of this area of the state and to the continued viability of our community.


## RECEIVED <br> H714 <br> JUN ${ }^{12} 17$ T886

OLREETOR, OFFICE OF
PLAHMRE \& PRELHMNARY ENGMEERING

Maryland Department of Transportation
State Highway Administration

Will am K. Hellman Secretary

Hal Kassoff
Administrator

July 17, 1986

RE: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to Maryland Route 3 (Interstate Route 97) PDMS No. 022007

Mr. W. H. Heygster
1713 Prairie Court
Severn, Maryland 21144
Dear. Mr. Heygster:
This is in response to your letter of June 13,1986 regarding the proposed construction of Maryland Route 100 from Interstate Route 95 to Maryland Route 3. We appreciate your views and comments in support of a freeway option for Maryland Route 100 , and have noted your preference for Alternate 4. I would like to assure you that your comments will be fully evaluated and will receive every consideration before an alternate is selected.

Thank you for writing and letting us know of your thoughts. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript. In accordance with your request, we have added your name to the project mailing list. Via this list, you will be kept aware of future developments and advised of the decision made by the State Highway Administration.

Very truly yours,
ORel of Pedesen
Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering
NJP:tlh
cc: Mr. Edward H. Meehan
Mr. Louis H. Age, JV':
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-105


19 June 1986

Al: A : Ain: Mr. Hal Kissoff
State Highway Administrator
707 N. Calvert St.
Wi
Dear Mr. Kissoff,
The following members of the MUNSON HEIGHTS Community in Severn strongly support building a Rte. 100 extension, however, we are opposed to Alternate 3b. We support many other communities and business groups in favoring Alternate 4 with the 3 b option, as stated at the Public Hearing on 12 June 1986.

OUR OBJECTIONS TO ALTERNATE $3 b$ ARE FOR THE FOLLOWING REASONS:

1. Obvious disruption of local traffic.
2. Noise pollution - if Alternate 4 is built the need for measures to reduce noise will be far less - the noise will be in primarily nonresidential areas.
3. Illogical flow of traffic proposed, ice. one east-west road vs. two.
4. Concern over fire and police access.
5. Impact on minority communities.
6. Disruption of the BUCKINGHAM Forest Tree Nursery.
7. Environmental impact on woodlands and wetlands.
8. Disparity of costs.


Mf - 18


113 otis Drive


Of ethan DElaney 1150 is pore 12.1 Otis XP. 123 otinisx.


Yound Femend 229 otis ar
william Taplor 201 otis Dr
Kichand M. Jmawite dics otij $D_{R}$.
Melen A. Guth 212 otas DR.
Clandite Bailey 205 OVi DN
Tomps L Henson 209 Oris De
Shedor Lamen 211 OTIS PR
Roburt Wiele 221 oris DR.

Aefty. LiOwersbey 116 gecald he
Chavi; Hohnson 122 berald Di- Did Dr
Dovici Segis 98 OTi土 Dr.
Idua cha Lewesure 5 GeRald C.T.

- hargaret $k$ if 112 Newron Ant

Janaking. Cramom 7708 Telegraph Road
Sandrarl Cochral ${ }^{7} 108$ Jelegrapl Road
Lecth Naldo 7704 telograph
Lavinu v. Reningur
Nowerd E. Renngu
'Merionne fal
Tobus a siona

Sondy Hoplems
Penne Nodine
Shelleyw Jerni
Gugne P E Gad
 1700 selogatel Re.
1700 Seegrigat Rd.

$$
\begin{aligned}
& 1700 \text { Siengrge Rd. } \\
& 117 \text { Othi Chiver }
\end{aligned}
$$

Izn Getes Dn Senem 215 otis Dr Severn 108 OH's DR, Soliwn, Md

Tolit U. Unotof 231 otis Dr Severn, Ind Margir Hustalewn 231 Otis Dr sevein, Md. Llalle tlen 10 \& Dovion DAR sevenNithd. View thozas 114 Gertld Drive Sevore MP Hayla Thomas 114 Heald ich Seiven ma 21144 Bahharal Beert 120 therach Ra. Secera 21144
camall D Drewr 6Gerald ex, devem, ing 21144
 Gohle wiutt. 106 oris de Scim. mo 21144 ceane whit charles M. Masm 106 Gites bri, Seruen mol 21144 $1020+1 s$ Dxive, Severn, MD. 21144 Pamela tay Mazun 102 Btis Dr. Severn, Md. 21144
cc:
Mr. Neil Pederen, Director, Office of Planning and Preliminary Engineering, State Highway Administration

Mr. Edward Meehan, District Engineer, District \#5, State Highway Administration

Mr. Gene Straub, Acting District Engineer, District \#7, State Highway Administration

Mr. Ronald Moon, Project Manager, Project Development Division, State Highway Administration

Mr. James Johnson, Vice President, Century Engineering, Inc.
Honorable O. James Lighthizer, County Executive
Ms. Virginia Clagett, Chairperson, Anne Arundel County Council
Mr. Theodore Sophocleus, Anne Arundel County Councilman
Mr. Michael Gilligan, Anne Arundel County Councilman
Mr. Edward Ahern, Jr., Anne Arundel County Councilman
Mr. Dave Boschert, Anne Arundel County Councilman
Ms. Carole Baker, Anne Arundel County Councilman
Ms. Maureen Lamb, Anne Arundel County Councilman
Senator Michael Wagner, District 32
Mr. Tyras Athey, Delegate, Chairman, Ways and Means Committee
Mr. Patrick Scannello, Delegate
Mr. George Schmincke, Delegate
Concerned Citizens for a Fair Route 100

Maryland Department of Transportation

WIlllam K. Hellmann Secretary

Hal Kassoff Administrator

## JUL 15 1ess

RE: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to Maryland Route 3 (Interstate Route 97) PDMS No. 022007

Mr. Arthur V. Bohlinger 108 Otis Drive Severn, Maryland 21144-1142

Dear Mr. Bohlinger:
This is to acknowledge receipt of the petition, signed by seventyfour members of the Munson Heights Community, favoring Alternate 4 with Option $3-B$ for the construction of the proposed Maryland Route 100. The objections by the community to Alternate 3 for Maryland Route 100 have been noted and will be considered before a decision is made on the project.

The petition will be made a part of the official project record by being entered into the public hearing transcript.

Hal Kassoff Administrator

HK:tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Mr. Louis H. Ege, Jy.
Mr. Ronald E. Moon

Note: For additional response, see page VI-105

Consulting Engineers. Surveyors, Planners \& Landscape.Architects
omee Locatlonis:
Virginle
Palrfas County:
Loudoun County Prince WIlliam County
Virginia Beach
Marytand
Montgomery County Anne Arunded County/Bmi
-
Paul E- Eengtson, P:
John TrDaBell. PRes La
John M. Elajart3ne ins
C Tery Ttun !es:
Rehard En Hurneyip.io Oitbert tix Paige:
Jantes S. Mustanictor
Lugená QuThayeri p.e. Miles Mo Fottere Pa:

Chartep P, Dunalap. ins
Arthur Liomoods, MIA PR
 Willian Rin Lepaerd. CrPa
Robert A, Muqе: P.E:
Lo Claude schuerwinn, ins
Thomas w, Derfickion, Lai:
Heary 1 ellia lus. .
Theodore R. Wolld, P.E.

## $-2+0$ <br> -2

2600. CABOVER DRIVE suite
HAMOVER: MD:21076
(SO1) 768-1193

June 2,1986
Maryland State Highway Administration
Office of Planning and Preliminary Engineering P.O. Box 7.17

Baltimore, Maryland 21203-0717
Atfent1on?MFNe11 J. Pedersen Director

RE: MD: Rte 100
Dear Mr, Pedersen:
Please lnclude our firm on the project malling listert Is not our.intent to introduce any testimony? nor to take any position fn the matter.

Unofficially, we are in support of any road improvement and/or road copstruction projects which wili alleviate the traffic conjestion on Maryland's hy ghways orasthe extent practical and possible, we wll endeavor to enlist the support of our cllents and frlends for this projects.

## Sincerely;

BENGTSON, DeBELL, ELKIN \& TITUS, P:C.
$\therefore$ (
Miles M. Potter, P.E.
Y Diceroresident -
MPP/idb

## RECEIVED

JUN 101986
OLIPETOA, OFFIEE TF
 QUESTIONS ANDIOR COMMENTS

Contract No. AA 682-101-570 - PDMS No. 022007 Combined Location/Design Public Hearing Maryland Route 100
I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 p.m. - Andover Senior High

NAME BENGTSON, DeBELL, ELKIN \& TITUS, P.C.
DATE JUNE 19, 1986

## PLEASE PRINT

ADDRESS 2600 CABOVER DRIVE, SUITE A
CITY/TOWN . HANOVER STATE_MD_ZIP CODE 21076
I/We wish to comment or liquire about the following aspects of this project:

1) We are in support of the immediate construction of Route 100.

|  | We are concerned that all alignments except Alternative 4 replace Rte. 1700 |
| :---: | :---: |
|  | as a continuous anst-west highway. Our concern is that over the years we |
| have seen and experienced the impact on traffic of necessary maintenance |  |
| programs and accidents on limited-access highways. As you are intimately |  |
| aware, it does not take much_torurn enhighway intona parking int or to |  |
| significantly reduce its capacity. |  |
| With the continued development in the BWI area, the availability of a local- |  |
| area, arterial service road as an alternative to Rte. 100 will become |  |
|  | increasingly important. We request that you give some serious consideration |
|  | to maintaining Rte. 176 as an alternative to MD Rte. 100. | area, arterial service road as an alternative to Rte. 100 will become increasingly important. We request that you give some serious consideration to maintaining Rte. 176 as an alternative to $M D$ Rte. 100.

[^2]
## Maryland Department of Transportation

WIlliam K. Hellman Secretary
Hal Kissoff Administrator

July 9, 1986
RE: Contract No. AA 682-101-570 N Maryland Route 100 Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Bengston, BeBel. Elvin \& Titus, P.C. 2600 Cabover Drive
Suite A
Hanover, Maryland 21076
Gentlemen :
This is to acknowledge receipt of your comments dated June 19 , 1986 expressing your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning the project.


Deputy Director
Project Development Division

LHE: tl h
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehap
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105


# THE UNITED COUNCIL OF CIVIC ASSOCIATIONS 

## OF ANNE ARUNDEL CO, INC.

P.O. BOX 263 GLEN BURNIE, MD. 21061

COMMUNITY $\qquad$ CITIZENS $\qquad$

Mr. Louis Ege Jr.
Director Project Development Div.
Rm 301
State Highway Administration
707 N. Calvert St.
Baltimore, Md. 21202
June 24,1986

Dear Mr.Ege
The United Council of Civic Associations Inc., which represents 19 Associations, voted unanimously at our June 23, General membership meeting to support the Severn Improvement Assoc. position for the extension of Route 100 : Using alternatives \# $4 \%$ \#3B. We feel every effort should be made to spare communities from any disruption and it appears this can be accomplished without jeopardizing the public safety. Therefore, we believe it is the State's obligation to use those alternatives which address both the traffic congestion and also maintains the integrity of the communities.

Sincerely
Iriancis Courtney IT
Francis Courtney II President

# Maryland Department of Transportation 

William K. Hellman Secretary

Hal Kissoff AdmInistrator

July 3, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to Maryland Route 3 (Interstate Route 95) PDMS No. 022007

Mr. Francis Courtney, II
President
The United Council of Civic
Associations of Anne Arundel
County, Inc.
P.O. Box 263

Glen Burnie, Maryland 21061
Dear Mr. Courtney:
This is to acknowledge receipt of your letter dated June 24, 1986 supporting the position of the Severn Improvement Association for the extension of Maryland Route 100 using Alternates 4 and $3-\mathrm{B}$. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript, and your comments will be addressed in the Final Environmental Impact Statement.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning the project.


LHE: tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehay
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-105
VI -79

## My telephone number is 659-1130

Teletypewriter for Impaired Hearing or Speech 383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1.800-492.5062 StatewIde Toll Free P.O. Box $717 / 707$ North Calvert St., Baltimore, Maryland 21203-0717

7903 Citadel Drive
Severn, MD 21144
Ronald Moon
State Highway Administration
Project Development Division
P.O. Box 717, Baltimore, MD 21203

Dear Mr. Moon,
I am a resident of the community known as The

June 28, 1986ㄷ. and am resident of the community known as The Provinces,
amer m er of the Provinces Civic Association. I attended the combined location/design public hearing on Maryland Route 100 on June 12, 1986.

I commute and travel regularly over Ridge Road (MD-713) between Annapolis Road (MD-175) and Dorsey Road (MD-176). Prior to April 1. 1986, I worked regularly at the Parkway Industrial Center on Dorsey Road, and I am fully aware of the severe traffic congestion in that area. From 1975 to 1978 F worked off of Elkridge Landing Road In Linthlcum, so that $I$ am also aware of the major increase in traffic over the past 10 years in the Route 100 corridor.

I feel very strongly that the proposed Route .100 extension from MD-3 to I-95 must be built as soon as possible to provide adequate roadways for both private and commercial transportation In this area.

I also urge the SHA to accept the obvious, overwhelming support shown at the meeting for ALTERNATE-4, combined with ALTERNATE-3B, and make the decision to build that alternate. Alternate -3 drew support only from one Anne Arundel County official, a representative of Westinghouse, one commercial developer, and a resident of the Timber Ridge development. It is an alternate that would have an extremely adverse impact on me, and my neighbors, as well as on many residents of other developments south of Dorsey Road. Blocking Harmon Road would greatly Increase traffic on Ridge Chapel Road past Harmons Elementary School and would. I an sure, Increase the travel distances for school buses serving that school. Placing a Route 100 Interchange on Ridge Road south of Dorsey road would make Ridge Road an Inviting alternative to MD-295 for many NSA commuters, Increasing traffic on Ridge Road by over 30\% (according to SHA projections) and seriously impacting traffic access to The Provinces and other Ridge Road communities. ALTERNATE-4 (with ALTERNATE-3B) will definately help our local traffic problems. Alternate -3 helps the commercial developers at our expense.

Sincerely yours,


Michael C. Davie

Maryland Department of Transportation
State Highway Administration

William K. Heilmann Secratary
Hal Kassoff Administrator

July 29, 1986<br>RE: Contract No. AA 682-101-570<br>Maryland Route 100<br>I-95 to Maryland Route 3 (I-97)<br>PDMS No. 022007

```
Mr. Michael C. Davis
7903 Citadel Drive
Severn, Maryland 21144
```

Dear Mr. Davis:
This is to acknowledge receipt of your letter dated June 28, 1986 supporting Alternate 4, combined with Alternate 3B, for the location of the proposed Maryland Route 100. Your letter will be made a part of the official project record by being entered into the public hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views, and assure you they will be considered before a final decision is made concerning the project.


LHE:ss
cc: Mr. N. J. Pedersen
Mr. E. H. Meehan
Mr. J. T. Johnson
Mr. R. E. Moon
Note: For additional response, see page VI-105

VI-81

As a thirteen year resident of the Provinces, I am concerned about plans for the new Route 100 freeway. I strongly support the alternate 4 plan with $3 B$ east of Route 652. I would appreciate your help in this matter.

Sincerely,
Bush t' Aires
Joseph F. Ferraro
7898 North Cartier Ct.
Severn, Maryland 21144

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman Secretary

Hal Kassoff Administrator

July 3, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Maryland Route 3 (Interstate Route 97) PDMS No. 022007

Mr. Joseph F. Ferraro 7898 North Cartier Court Severn, Maryland 21144

Dear Mr. Ferraro:
This is to acknowledge receipt of your letter of June 29, 1986 supporting a combination of Alternates 4 and $3-B$ for the proposed Maryland Route 100. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript, and will be considered before a final decision is made for this project.


Project Development Division

LHE: tl h
cc: Mr. Neil J. Pederseq
Mr. Edward H. Meehaf
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-105

IU6 5. SAREANES

## committifs

16. mOUSINE ANO UARAN APFAIRS
ponilen nebations JOINP ESONOMIG

## 2 lnited Siates Senate

HOBMIMSYOM. D.C. 10810
June 27, 1986

OFFIESS:
50. 33: Diacsen sematt opfict Eumome Wasmimatom, D C. 208 ic 102-224-4624

1B18 PEDEAA ORict Bumpime SAMTMORL. MAATIAAD 81801 cencuss

1110 Iroiza tant
surea grima maryiamo zosio 880-8800
cumarning 733-03:
salisbunt mesessas

Hal Kassoff
State hdministrator
State Highway hdministration
707 North Calvert Street
Baltimore. Maryland 21202
Deat Ms. Kassoff:
I am enclosing for your review letters I received from several constituents. The letters raise some serious cancerns about the alignment of Route 100. Although this is not primarily a federal matter, I would appreciate it if you would address the concerns raised and provide my constituents with an appropriate response.

Your attention to this matter is appreciated.
With best regards,
sincerely.


Paul S. Sarbanes
United States Senator
P5S/C5O
i...: r..8nclosure
¿ ! ・シ
RECEIVED
\#763
JUL 71986
G-11
OIRECTOR Difice ar


The Honorable
Elizabeth Doles
Office is the Secretary
Federal Vep:. of Transportatior.
Foon 10208
46 C 7t, ET.
Washinator., D.C. 20596

Tune 17. 198e
tilomara dinon ja
Per: misel Charia manclican. mu 8toli

Dear Secretary Doles:
A public hearing was held by the Maryjand Highway Adrinistration on June 12. 1986 at the Andover Senior High School in Iinthicum. Maryiand. This was a combined location and design public hearing on Maryland Route 100 from I-95 to Maryland Route 3 (I-97). Ali of the aiternates were presented and by a vocal majority which inciuded 9 Civic Associations and number of corporations. the adternate selected was freeway Alternate 4 connectinc to 3B in Friendship Park to 301 (I-97). This was a decision rendered by both the Elack and White communities and Buckingham State Nursery. We are hoping the Maryiand Highway Administration will submit the result to your office for funding as soon as possible. If this does no: happen. then the Federal Highway Aid Program which wili expire in September is not ilkely to be ipproved by congress this year. It would be in the best interest of the total communities invoived that the results be submitted to your office as soon as possible. The hearing was recorded.


Maryland Highway Administration
Contract No. AA-682-101-570
PD MS No. 022007
The following are the project planning team:

- Neil J. Petersen
-ector
idce of Planning and
iliminary Engineering
e Highway Admin. orth Calvert Street
timore. Md.

11) 659-1110

Mr. Edward H. Meehan
District Engineer
Distriet 5
State Highway Admin. 138 Defense Highway Annapolis. Md. 21401
(301) 841-5460

Mr. Gene Stradma..
Acting District
Engineer Distriet 7
State Highwas Admin.
P.O. Box 30 E

5111 Euckeystown Pike
Frederick. Md. 21701
(301) 662-1171

RE: Contract No. AA 682-101-570
Hal Kissoff

Maryland Route 100
Interstate Route 95 to
Maryland Route 3 (Interstate
Route 97)
PDMS No. 022007

Mr. Thomas A. Dixon, Jr., President
Harmans Civic Association 7677 Ridge Chapel Road Hanover, Maryland 21076

Administrator


Dear Mr. Dixon:
This letter is in reference to your recent correspondence to Secretary Elizabeth Hanford Dole of the J.S. Department of Transportation and the Honorable Paul S. Sarbanes of the United States Senate. Senator Sarbanes forwarded your letter to my office and asked that I reply directly to you.

In regard to the Combined Location/Design Public Hearing held on June 12, 1986 at the Andover Senior High School in Linthicum, I would like to advise you that the purpose of this public hearing was not to select an alternate, but to present the results of our studies and to solicit public comment and testimong pertaining to the Draft Environmental Impact Statement and the alternates being considered for the proposed Maryland Route 100. The decision on the selection of an alternate will not be made until all comments received at and subsequent to the public hearing and as a result of the circulation of the Draft Environmental Impact Statement have been fully considered and evaluated. That decision will be made by this Administration and with the concurrence of the Federal Highway Administration.

Sincerely, ORIGINAL SIGNED BY: HAL KASSOFF

Hal Kissoff<br>Administrator

Note: For additional response, see page VI-105
HK: tl h
cc: Secretary Elizabeth Dole
Senator Paul Sarbanes
bee: Mr. Neil J. Pedersen
Jr. Ronald E. Moon
Mr. Edward H. Meehan
Ms. Angela B. Hawkins
Mr. Louis H. Ese, Jr.


1イAFYL Li: REいT: dG: FRON. J-ge TH d-97

1 EARNESTLY REQUEST THAT YOUR OFFICE GIVE SERIOUS COLI DERATION TO A CONFIGURATION THAT WILL COMEINE ALTERNATE 4 WITH ALERTATE $3 E$ IN THE VICINITY OF FRIENDSHIP PARK. SUCH ADJUSTMENT WILL SAVE FAMILIES. HOMES. AND COMMUNITIES. IT ALSO WILL RID PROJECT 100 OF THE STIGMA OF SEEMING RACISII.

Name
Address


RE: CONTRACT NO. AA 682-102-57C
MARYLAND ROUTE 100
FROM I-95 TD 1-97

I EARNESTLY REQUEST THAT YOUR OFFICE GIVE SERIOUS CONSIDERATION TO A CONFIGURATION THAT WILL COMBINE ALTERNATE G WITH ALTEFPLATE SE IN THE VICINITY OF FRIENDSHIP PARK. SUCH ADJUSTMENT WILL SAVE FAMILIES. HOMES. AND COMMUNITIES. IT ALSO WILL RID PROJECT IC OF THE STIGMA OF SEEMING RACISII.

Name
Address


# Maryland $̈$ üpartment ofTransportatoon 

State Highway Administration
William K. Hellman

Mr. Arthur Turner<br>7864 Bastille Place<br>Severn, Maryland 21144

Dear Mr. Turner:
I am responding on behalf of Senator Paul S. Sarbanes, to your comments concerning the Maryland Route 100 project and your support for a combination of Alternate 4 and Alternate 3-B in the vicinity of Friendship Park. We have received many comments on the Maryland Route 100 project since the public hearing, held on June 12, 1986.

We are currently reviewing all comments received. A final decision will not be made until all comments have been considered. The minimization of impacts to homes and communities will be an important consideration when making the final decision. We appreciate your input in this matter.

Sincerely,

ORIGINAL SIGNED BY:
HAL Hat
Administrator

HK: tl h
cc: Senator Paul S. Sarbanes
Mr. Neil J. Pedersen
Mr. Louis H. Eke, Jr. $\sqrt{ }$
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105

## Maryland Department of Transportation

State Highway Administration
JUL 25 Kind $\quad \begin{gathered}\text { Hal Kissoff } \\ \text { Administrator }\end{gathered}$

RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Mr. Phillip Small
762 Queenstown Road
Severn, Maryland 21144
Dear Mr. Small:
I am responding on behalf of Senator Paul S. Sarbanes, to your comments concerning the Maryland Route 100 project and your support for a combination of Alternate 4 and Alternate 3-B in the vicinity of Friendship Park. Te have received many comments on the Maryland Route 100 project since the public hearing, held on June 12, 1986.

We are currently reviewing all. comments received. A final decision will not be made until all comments have been considcred. The minimization of impacts to homes and communities will be an important consideration when making the final decision. We appreciate your input in this matter.

Sincerely,
ORIGINAL SIGNED BY:
HAL KASSOFF
Hal Kissoff
Administrator

HK: tl h
cc: Senator Paul S. Sarbanes
Mr. Neil J. Pedersen
Mr. Louis H. Ere, If.
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105

My telephone number is 659-1111
Teletypewriter for impaired Hearing or Speech
383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 StatewIde Toll Free P.O. Box 717 I 707 North Calvert St., Baltimore, Maryland 21203 - 0717


FROM: $1-9 \leqslant T C J-97$
1 EARNESTLY REQUEST THAT YOUR OFFICE GIVE SERIOUS COPISIDERATION TO A CONFIGURATION THAT WILL COMBINE ALTERNATE 4 WITH ALTERTATE $3 E$ IN THE VICINITY OF FRIENDSHIP PARK. SUCH ADJUSTMENT WILL SAVE FAMILIES. HOMES. ANE, COMMUNITIES. IT ALSO WILL RID PROJECT IOS OF THE STIGMA OF SEEMING RACISII.

Names
address:


RE: CONTRACT NO. AA 682-101-570 MARYLAND ROUTE 100
FROM 1-95 TO 1-97
1 EARNESTLY REQUEST THAT YOUR OFFICE GIVE SERIOUS CONSIDERATION TO A CONFIGURATION THAT WILL COMBINE ALTERNATE 4 WITH ALTERIATE $3 E$ IN THE VICINITY OF FRIENDSHIP PARK. SUCH ADJUSTMENT MIL SAVE FAMILIES. HOMES. AND COMMUNITIES. IT ALSO WILL RID PROJECT 100 OF THE STIGMA OF SEEMING RACISII.

Name
Address


Maryland Department of Transportation
State Highway Administration

William K. Halimann Secretary


Mr. Joseph Rogers P.O. Box 902

Glen Burnie, Maryland 21061
Dear Mr. Rogers:
I am responding on behalf of Senator Paul S. Sarbanes, to your comments concerning the Maryland Route 100 project and your support for a combination of Alternate 4 and Alternate 3-B in the vicinity of Friendship Park. We have received many comments on the Maryland Route 100 project since the public hearing, held on June 12, 1986.

We are currently reviewing all comments received. A final decision will not be made until all comments have been considered. The minimization of impacts to homes and communities will be an important consideration when making the final decision. We appreciate your input in this matter.

Sincerely,
ORIGINAL SIGNED BY:
HAL KASEOFF
Hal Kissoff
Administrator

HK: tl h
cc: Senator Paul S. Sarbanes
Mr. Neil J. Pedersen
Mr. Louis H. Eg, Jr.
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105

# Maryland Department of Transportation 

William K. Hellman Secretary
Hal Kassoft Administrator

JUL 291986
RE: Contract NO.. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Interstate Route 97
PDMS No. 022007

Ms. Irene Hebron


7468 Race Road
Hanover, Maryland 21076-1114
Dear Ms. Hebron:
I am responding on behalf of Senator Paul S. Sarbanes, to your comments concerning the Maryland Route 100 project and your support for a combination of Alternate 4 and Alternate $3-B$ in the vicinity of Friendship Park. We have received many comments on the Maryland Route 100 project since the public, hearing, held on June 12, 1986.

We are currently reviewing all comments received. A final decision will not be made until all comments have been considerred. The minimization of impacts to homes and communities will be an important consideration when making the final decision. He appreciate your input in this matter.

Sincerely, ORIGINAL SIGNED BY:
HAL MABSOTF
Hal Kissoff
Administrator

HK: tl h
cc: Senator Paul S. Sarbanes
Mr. Neil J. Pedersen
Mr. Louis H. Ese, JF.
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105

June 30, 1986

```
Mr. Ronald Moon
Project Engineer
Maryland Department of Transportation
State Highway Administration
Office of Planning and
Preliminary Engineering
Box 717
Baltimore, MD 21203
```

RE: Maryland Route 1 ( $\varnothing$ Extension from I-95 to Maryland Route 3 (I-97)

Dear Mr. Moon,
Red Roof Inns is currently operating a motel at the Southwest quadrant of the Baltimore-Washington Parkway at Dorsey Road (Rt. 176) in Anne Arundel County. The property lies at the south entrance to the Parkway Industrial Center.

On Thursday, June 12, 1986 a Red Roof Inns representative attended a combined location/design review public hearing to learn about the various alternatives currently under consideration for the extension of Maryland Route 100 from I-95 to Rt. 3 in Glen Burnie, Maryland.

What we learned was very disturbing.
Under the Alternate Number 3 scenario, the intersection of the Baltimore-Washington Parkway at Dorsey Road would become a closed interchange with access to the Parkway Industrial Center becoming unusually cumbersome and potentially dangerous (a single turn access would be replaced with 4 turns including a 270 degree off ramp with an abrupt left merge and left hand turn into the Parkway Industrial Center).

Alternate \#3 of the Maryland Route løø extension significantly compromises access to this established hospitality interchange and represents a harsh solution to the Dorsey Road traffic congestion problems. The Alternate \#4 location of Rt. 1 dø represents a reasonable and attractive compromise while it simultaneously relieves the traffic congestion on Dorsey Road.

Mr. Ronald Moon
June 26, 1986
Page Two

We strongly urge your reconsideration of the Maryland Route $10 \varnothing$ extension in favor of the Alternate \#4 northern route.

Best regards,
RED ROOF INNS, INC.


WD: Ip
CC: Dale L. Ross
Howard Johnsons Motor Lodge at Dorsey Rd.
6101 Montrase Rd. \#4øØ
Rockville, MD 20852-4816
William F. Grovermann
Department of Economic and Community Development
45 Calvert Street
Annapolis, MD 21401

| $\quad$ August 13, 1986 |  |
| :--- | :--- |
| RE: $\quad$ | Contract No. AA $682-101-570$ |
|  | Maryland Route 100 |
|  | Interstate Route 95 to |
|  | Maryland Route 3 (Interstate Route 97) |
|  | PDMS No. 022007 |

Mr. William Dank, President
Red Roof Inns, Inc.
4355 Davidson Road
Hilliard, Ohio 43026-9699
Dear Mr. Dent:
This is in reference to your letter of June 30, 1986 concerning the proposed extension of Maryland Route 100 from Interstate Route 95 to Maryland Route 3. I would like to thank you for having a representative of your company attend the Public Hearing in June and for letting us know of the concerns you have with the alternates being considered for the location of this proposed highway.

We appreciate your views and the concerns you have with the proposed construction of Maryland Route loo. I want to assure you they will be fully evaluated and will receive every consideration before an alternate is selected for Maryland Route 100.

Thank you for writing and letting us know of your concerns. Your letter has been made a part of the official project record by being entered into the Public Hearing transcript. You will be advised of the decision made by the State Highway Administralion and kept aware of future developments via the project mailing list.

```
Very truly yours,
Louis H. Ege, Jr.
Deputy Director
Project Development Division
```

LHE: REM: th


CC: Mr. N. J. Pedersen
Mr. E. H. Meehan
Mr. J. T. Johnson, Sr.

My telephone number is __659-1106
Teletypewriter for impaired Hearing or Speech 383.7555 Baltimore Metro - 565.0451 D.C. Metro - 1.800.492.5062 Statewide Toll Free P.O. Box $717 / 707$ North Calvert St., Baltimore, Maryland 21203 - 0717

1915 Hilltop Road<br>Jessup, Maryland 20794



June 30, 1986

Mr. Louis H. Ege, Jr., Deputy Director
Project Development Division (Roam 310)
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
Re: Draft Environmental Impact Statement/Section 4(f) Evaluation
Dear Mr. Age:
I have carefully reviewed the DRAFT ENVIRONMENTAL IMPACT STATEMENT/ SECTION 4(f) EVALUATION for Maryland Route 100.

In my opinion, a combination of two alternates should be adopted to provide an acceptable east/west highway. Alternate 4 should be used from Interstate 95 to about the area of WB\&A Road (north of Burleytown) and Alternate 3 Option B can be used from approximately WB\&A Road to the Interstate 97/Route 3 interchange.

The Alternate 4-3B corridor appears to be better suited for the impact of a major highway. since. a majority of the land in that corridor is proposed or actual industrial use due to the close proximity of the airport. The passage of the highway through undeveloped or partially developed land with sparse residential population would have less displacements of homes and businesses. With using the Alternate 33 from north of Burleytown to the interchange with Route $3 / 197$, I count twenty residential and two business displacements according to the maps of Alternates 3 and 4 in the study.

I am concerned about the noise level impacts to residents already settled in this Alternate 4-3B corridor or any of the alternates which may be adopted. I understand that noise from raised roads affects a greater area than noise from roads level to the ground and that roads in cuts provide a suitable way to reduce the noise especially in non-congested areas. Since the draft indicates that building barriers is not feasible for many of the noisy, sensilive areas, I expect that the State Highway Administration will utilize road design and any other planning as a means to reduce the noise generated by Maryland Route 100. Alternate 4, I believe, can give the planners more flexibility in addressing noise reduction since there are fewer established communities (housing developments) within close proximity.

Mr. Louis H. Ese, Jr. June 30, 1986
Page Two

In considering the controversy regarding the airport, I know that the Maryland State Aviation Admin. is opposed to Alternate 4. However, I feel that we must protect the individuals of our established communities especially south of Dorsey Road between Route 1 and Old Telegraph Road from the adverse affects of a major highway. We are already exposed to the airport noise. I trust there is an abundance of ingenuity to overcome any obstacles to airport expansion if Alternate 4 is adopted.

My proposal should not affect the Smith Farm. However, it will have a tremendous impact on Patapsco Valley State Park and Friendship Park. I see giving up the 36 acres of parkland as a trade-off for an individual's right to protect his welfare and property in the midst of tremendous pressures for economic development by the State and County.

The final document should be changed to reflect data compiled from the combination of Alternate 4-3B proposal. These comments do not reflect the opinion of the Jessup Improvement Association since we have not had a meeting in which the matter could be voted upon by the general membership. Thank you for this opportunity to respond to such a major project.


BS/1ms

# Maryland Department of Transportation 

William K. Hellman Steratary
Hal Kassoff
Administrator

August 4, 1986
RE: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to Maryland Route 3 PDMS No. 022007

Ms. Barbara Studer 1915 Hilltop Road Jessup, Maryland 20794

Dear Ms. Studer:
This is to acknowledge receipt of your letter dated June 30 , 1986 supporting Alternate 4 , combined with Alternate $3-B$, for the location of the proposed Maryland Route 100. We appreciate your review of the Draft Environmental Impact Statement and the concerns you have expressed in regard to the impacts resulting from the construction of this project. I would like to assure you that they will be fully considered before any decisions are made and that your concerns will be addressed in the Final Environmental Document.

Your letter has been entered into the public hearing transcript and made a part of the official project record. Via the project mailing list, you will be kept aware of future developments and advised of the decision made by the State Highway Administration.

Very truly yours,


Louis H. Eye, Jr.
Deputy Director
Project Development Division
LHE: tlh
cc: Mr. Neil J. Pedersen
Mr . Edward H. Meehay
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-105

The Provinces Civic Association
P.O. Box 313

Jessup, Maryland 20794
June 23, 1986
Maryland Department of Transportation
State Highway Administration
Office of Planning \& Preliminary Engineering
Box 717
Baltimore, Maryland 21203
Greetings:


The Board of Directors of the Provinces Civic Association favor Alternate 4, with Alternate $3 B$ east of Rt. 652 and 170 , for the location of the new Maryland Rt. 100 between I-95 and Rt. 3 (I-97). The Provinces Civic Association has over 250 members and represents the 900 homeowners in the Provinces subdivision at Ridge and Severn Roads in Severn, Maryland. Our community is approximately one mile from the proposed Alternate 3 location and two miles from the proposed Alternate 4 location. We favor Alternate 4 for the following reasons:

1 - Alternate 4 displaces less residences than Alternate 3.
2 - Alternate 4 does not affect any historical or archeological sites.
3 - Alternate 4 requires far less residential right-of-way, affects less woodland, less wetlands, and less flood plain than 3B.

4 - Alternate 4 would REDUCE Ridge Road traffic past our homes by 30-35\%. Alternate 3 would INCREASE Ridge Road traffic past our homes by 37\%.

5 - Alternate 4 put this industrial/commuter oriented freeway in the industrial zone where it belongs. Alternate 3 puts it right through a residential area!

6 - Alternate 4 would not change any roads south of Dorsey Road, just decrease their traffic flow. Alternate 3 would close Harmans Road access to Dorsey Road and possibly congest and complicate the new Ridge Road access to Dorsey Road. The Alternate 3 changes could increase emergency service response times to our community and others nearby k

7 - Alternate 4 is favored by the Anne Arundel County Police Department.
8 - Alternate 4 will cost NINETEEN to TWENTY NINE MILLION DOLLARS LESS than Alternate 3.

9 - Alternate 3 only helps the industrial developers and outside commuters at the expense of local residents. Alternate 4 helps everyone!

Please maximize the benefit of this much needed freeway, and improve the quality of life for our residents by selecting Alternate 4, with the 3B alternate east of Rt. 652 to help Queenstown residents. Thank you.

# Maryland Department of Transportation 

William K. Hellmann Secretary

Hal Kassoff Adminlatrator

July 24, 1986

```
RE: Contract No.. AA 682-101-570
    Maryland Route 100
    Interstate Route 95 to Maryland
    Route 3 (Interstate Route 97)
    PDMS No. 022007
```

Ms. Laurie Ortel-Daniels President
The Provinces Civic Association P.O. Box 313 Jessup, Maryland 20794

Dear Ms. Ortel-Daniels:
This is to acknowledge receipt of your letter dated June 23, 1986 supporting Alternate 4, with Option 3-B east of Karyland Route 652, for the location of the proposed Maryland Route 100. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views, and those of the Board of Directors of the Provinces Civic Association, and assure you they will be considered before a final decision is made concerning the project.

Very truly yours,
Toil of Yedenew
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering

NJP:tlh
cc: Mr. Edward H. Meehan
Mr. Louis H. Ege, Jr.
Nr. ROnald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105

My tolephone number is
659-1110

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

Contract No. AA 682-101-570 - PDMS No. 022007 Combined Location/Design Public Hearing Maryland Route 100 I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 pom. - Andover Senior High Schorl

NAME $\qquad$ Patterson /Nosher DATE 6-12-86
$\qquad$

CITYITOWN $\qquad$ SEvErn STATE $\qquad$ nd ZIP CODE 21144

I/We wish to comment or Inquire about the following aspects of this project:

SL seems appoint from the public hearing that te reujoicty of Tical commenitig and Sresinussoo along tic proposed R1. 100 sttensin ar s united
in hair opposition to Ceffervate 3 end united in
Chair support for pt t. 4 wish 36. Dow ww of local
Trafie, Environmental inpoet on ks Bradinghon Are
 Tern staled frecymely. Build thE ROAD food t
$\qquad$
$\qquad$
Please add my lour names) to the Mailing List.*
Please delete mylour name (s) from the Mailing List. VI-101
*Persons who have received a copy of this brochure through the mall are already on the project Mailing List.

# Maryland Department of Transportation 

State Highway Administration

Wililiam K. Helimann Secratary
Hal Kassoff Administrator

July 9, 1986<br>RE: Contract No. AA 682-101-570 N<br>Maryland Route 100<br>Interstate Route 95 to<br>Interstate Route 97<br>PDMS No. 022007

Mr. Patterson Mosher
113 Otis Drive
Severn, Maryland 21144
Dear Mr. Mosher:
This is to acknowledge receipt of your comments dated June 12 , 1986 expressing your views on the Maryland Route 100 proiect. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning the project.


LHE: tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehal
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page Vi-105

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

Contract No. AA 682-101-570 - PDMS No. 022007 Combined Location/Design Public Hearing Maryland Route 100 I-95 to Maryland Route 3 (I-97)

 cityitown. ColymbiA state Mo.__zip code 21045
I/We wish to comment or inquire about the following aspects of this project:.

1 THINK ALTERNATE ${ }^{\text {™ }}$ LS THF BEST.
Whend winc the FinAl ROATE BE CHOSEN?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
TZ Please add mylour name(s) to the Malling List.*
$\square$ Please delete mylour name(s) from the Malling List. VI-103
*Persons who have recolved a copy of this brochure inrough the mall are already on the project Mailling Liet.

## Maryland Department of Transportation

State Highway Administration

William K. Hellman Secretary
Hal Kassoff
Administrator

July 9, 1986<br>RE: Contract No. AA 682-101-570 N<br>Maryland Route 100<br>Interstate Route 95 to<br>Interstate Route 97<br>PDMS No. 022007

Mr. Skip Case
c/o Casey, Miller, Borris \& Burns
5457 Twin Knolls Road
Suite 305
Columbia, Maryland 21045
Dear Mr. Case:
This is to acknowledge receipt of your comments dated June 13 , 1986 expressing your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript. A decision will not be made on a final alternate until all comments received during and subsequent to the Public Hearing have been evaluated.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning this project.


LHE:tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehah
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-105

My telephone number is _659-1130
Teletypewriter for Impaired Hearing or Speech

Additional response to letters from:
A. M. Heygster

Munson Heights Community, dated 19 June 1986
Bengston, DeBell, EIkIn \& TItus, P.C., dated June 2, 1986 and June 19, 1986
Franc ls Courtney 11, dated June 241986
Michael C. Davies, dated June 28, 1986
Joseph F. Ferraro, dated June 29, 1986
Thomas A. Dixon, Jr., dated June 17, 1986
Art Turner
Phillip Small
Joseph Rogers
Irene Hebron
William Denk, dated June 26, 1986
Barbara Studer, dated June 30, 1986
Laurie Ortel-Danlels, dated June 23, 1986
Patterson Mosher, dated June 12, 1986
SkIp Case, dated 13 June, 1986
The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-opt lon B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law If a "feasible and prudent" alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified in the Howard County, Anne Arundel County and Regional Planning Council Master Plans. This corridor is the basis upon which development in the area has been Implemented and planned. Alternate 38 (Modified) Incorporates several design changes of the "historlcal" alignment (Alternate 3 -Option A) that has resulted In a reduction of the number of residences displaced by MD Route 100 from 43 to 22. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington International AIrport. Federal Aviation Administration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36 \mathrm{mlillion}$ greater than the selected alternate. Alternate 38 (Modified) Includes several provisions for maintaining traffic on the local road network. These Include providing a brIdge across Maryland Route 295 connectIng Race Road with Wright Road, br IdIng Harmans Road over Maryland Route 100 and bridging W.B. \& A. Road over Maryland Route 100 . The State HIghway Administration believes that the selectted alternate provides the needed service to the area while minimizing impacts to local communities.

# Cynthia E. Young <br> attorney at law <br> 1202 WEST STREET 

ANMAPOLIS MARYLAND 21401
(301) 265-7699

May 15, 1986

Mr. Louis H. Age, Jr.
Bureau of Project Planning
Maryland Department of Transportation
P.O. BOx 717

Baltimore, Maryland 21203-0717
Re: Contract No. AA-682-101-570
Md. Route 100 from I-95 to I-97

PDMS. NO. 022007
Dear Mr. Age:
I am writing you on behalf of PATH (Preserve Arundel Trails for Horses).

PATH is concerned that the above project may have the effect of severing bridle trails from Andover and Friendship Parks to Queenstown Park and south along WB\&A Road. Mr. John T. Keen of the Anne Arundel County Parks Department has already addressed this problem in his letter to you of March li, 1986.

We would appreciate a culvert or other underpass so that our trail system will not be forever disrupted. Attempting to pass under 100 amid traffic on a roadway is extremely dangerous unless there is trail space left which is separated from the roadway by a guard rail or curb. Drivers cannot always see a horse on a road shoulder at dusk in such a location. Therefore, the culvert proposed by Mr. Keens would be greatly appreciated by us and could also serve as a pass-through for Sawmill Creek.

I have in my possession drawings for the design of such an underpass, which I could make available to you if you need them. Let me know what PATH can do to help.

Please do not cut forever what has taken many years of hard labor for us to accomplish. Please provide for PATH and leave our trail intact. Thank you.


State Highway Administration

## William K. Heilmam Secretary

Hal Kissoff Administrator

June 3, 1986
RE: Contract No. AA 682-101-570 Maryland Route 100 I-95 to Maryland Route 3 PDMS No. 022007

Ms. Cynthia E. Young Attorney at Law 1202 West Street Annapolis, Maryland 21401

Dear Ms. Young:
Thank you for your letter dated May 15, 1986 expressing your concerns on behalf of PATH (Preserve Arundel Trails for Horses) as they relate to the Maryland Route 100 project.

Please be advised that during the final development phase of our studies PATH's interest will be given every consideration and efforts will be made to develop a feasible solution.

If you should have any questions or require any information please feel free to contact the project Manager Mr. Ron Moon at 659-1106.


Deputy Director
Project Development Division

LHE:Cd
cc: Mr. N. J. Pedersen
Mr. E. H. Meehan
Ms. C. D. Simpson
Mr. R. E. Moon

The Liberty Tree Project P.O. BOX 8446

ANNAPOLIB, MARYLAND 21408

## Mr Hal Kassoff

State Highway Administrator
Maryland Department of Transportation
P. O. Box 717

Baltimore, Maryland 21203-0717
Gentlesir:
Thank you for the Public Notice, as of May lst, concerning proposed construction of Maryland Route 100 south of BWI Airport. We would likes to have a copy of the Draft Environmental Impact Statement because several versions of the proposed highway would cut through the Maryland= State Tree Nursery in several ways. If this is not possible, we must that the availability of Statements seens well intended, but.it is

May 5, 1986
 inadequate. The hours in which the statement is open for inspection may correspond to the Department's schedule, but this discriminates-like the Library of Congress is now doing-aagainst those who have to be elsewhere at work then. The locations also are certainly spread-out, if not wide-spread. In order to remedy, at least in part, these inadequacies, please arrange to place the Draft Enviromental Impact Statement at:

The Maryland Agricularal Experiment Station, And The University of Maryland, $\checkmark$ College Park, Maryland, 20742
The Deparment of Namual Resources Library, and the Maryland State Library, Rowe Boulevard, Amapolis, Maryland 21401
$\checkmark$ The Enoch Pratt Free Library, Cathedral Street, Baltimore, Maryland.
Thus may better opporamity for stady and comment be open to more, if not all.
Copies: Board of Public Works
The General Assembly
The Agricularal Experiment Station
The State Library
the press

Maryland Department ofTransportation
State Highway Administration

WIIllam K. Hellmann Sacralary

Hal Kassoff
Adminisirator

RE: Contract No. AA 682-101-570 Maryland Route 100 Interstate Route 95 to Maryland Route 3 PDMS No. 022007

Mr. Arthur Kungle, Jr., President
The Liberty Tree Project
Post Office Box 3446
Annapolis, Maryland 21403
'Dear Mr. Kungle:
In response to your letter dated May 5, 1986, I am forwarding you a copy of the Draft Environmental Impact Statement for the Maryland Route 100 project.

The Environmental Impact Statement has been placed in locations convenient to those living in the project area. The document is available at the Linthicum Library, which has evening hours.

Should you require any further information, please contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

ORIGINALEETETEXZ BY:
HAL KASSOFF
Hal Kassoff
Administrator

HK: bh
Attachments
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Mr. Louis H. Ege, Jr.
Ms. Cynthia D. Simpson
Mr. Ronald E. Moon

VI-109
My telephone number is 659-1111


# The Liberty Tree Project 

 P.O. BOX 3446ANNAPOLIS, MARYLAND 21403

July 5, 1986

Mr Louis H. Edge Jr
Deputy Director
Office of Planning and Preliminary Engineering
State Highway Administration
707 North Calvert Street
Room 310
Baltimore, Maryland 21202
Gentlesir:
In comment on the Draft Environmental Impact Statement for Maryland Rouce 100 , it is totally inadequate with regard to the Maryland State Forest Service Buckingham Tree Nursery. More generally the Enivronmental Assessment Form (x-xiv) often answers no what could be yes, i. e. 12, 15, 22, 26-30, 40-47.

With regard to the Tree Nursery, the Statement considers: Stoney Run but not as it goes through the nursery; area parks but not the restorer of parks; threats to flora but not to the sustaining flora of the nursery; threats to water supply but not danger and damage to the rebuilder of forests (see J. Evelyn, Sylva, 1662); threats from air pollution to people but not to plants or soils; costs of moving and building but not really with regard to the Tree Nursery; future impact to the area but not for Maryland and Delaware if we lose one of our best means of countering clearing, concrete--the death of soils and life, and development--which is destruction.

Other serious considerations for us include some probably less familiar to you and the Highway Administration's distinguished analysts: Genetic diversity in species as well as among species (see N. Myers, GAIA, 1985), and paths for plants to move and soils. to grow (see LTP's Sylva, herba and terra--as Time moves on, 1985), the effect of local as well as long distant transport of air pollutants (see, EPA's Acid Deposition and Air Pollutant Transport 198 \& AMVA's "Auto Emissions Conference" Baltimore, 1986). Only a road over, and not through, the Tree Nursery is acceptable--with no fill, no run-off, no leaching, no poisoning water or soil. It is no answer to say the nursery could be moved because if we can't learn to live in a sustainable and 78 -destructive way here and soon, how in heavens name can we expect tosso somewhere and sometime hence? Land Use or Abuse? (Leider, 1986) Nature's Garden for Victory and Peace (Carver, 2/14/42), 'In the end men will destroy the earth. (Scweitzer, 20th cent.) "Which shall it be?' (Wells, of Things to Come).

Alternate 3 would go through the tree nursery, alternate 4 through the airport--to which it too objects--but a buried road through th edge of the BWI airport could safely allow planes to taxi and fly over.
Copies as appropriate

Response to letter from Arthur Kungle Jr., dated July 5, 1986:
The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-Optlon B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law If a "feasible and prudent" alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified In the Howard County, Anne Arundel County and Regional Planning Council Master Plans. This corridor Is the basis upon which development in the area has been Implemented and planned. Alternate $4 / 3 B$ also traverses the southwestern corner of the Baltimore Washington International AIrport. Federal Aviation Administration regulations would require the highway to be constructed In a tunnel through this area which would cause the total cost of Alternate $4 / 3 \mathrm{~B}$ to be up to $\$ 36 \mathrm{mllil}$ in greater than the selected alternate. Coordination with the Maryland Department of Natural Resources concerning the BuckIngham Forest Tree Nursery has been ongoing throughout this project. In addition, a study of the Impact of the project on the nursery was performed and is available for review at the State HIghway Administration LIbrary, 707 N. Calvert Street, Baltimore, Maryland and at all State Depository Libraries.

RECEIVED

Dear (renttemen,(s)
il am a mexaber of y $n t$. Pilguir Maptist chuech, anol. - have beeps a member ao fow bacte as-har eos te can-reseder. My mame is Frante Nundell and el am 10 years old. il feel that yow should not tear it down toc one good reapon, ard that becaure of Phillis Mundell. Phillis tn undell ovext to int. Pidopim ever sinal the was vorn, and wo dial her parentos, and she died when el wav borm at 7 montho. A am her son, and Pheillie munolell is mother. So, el think that eyous houlat let 'th churoh stoy and trey to think of a naw way to-baild a road.
buncerly, FrankMundill

RECEIVED
JUN 111986
2pincerna, office:
punverennilididytuymin de may Concern;
O tare liried here on Horsey Rd and have attended TIt. Pilgrim ßaptiat Chrearch moat of my life. alt saddens me to think that ix jest a yew short month the possibility y losing this priniledge is pesto,

Nat only would l be losirig my Church tome but el stand to lose the ferial resting
place of my arbiter and place of my Aablghter and other foaming and frierde who field a special place in Grayed heart. This church does hold fond memories for ale Who came there since it vas bries in 1921 , almost a century of inspiring old and young christian alikeite meme a waste ter tears dour a church to make sion for a highway: ale the neighbors in purvoumding areas had started here from
a child and although many have left to attend other churches thatrhas been surice thrift, we are have good close relationships one with another, Q know chat progress is good tout it car be consisted of bath the vel and the new. Progress newer has to the destroying abe the ped to make room for one the new -for if this pere true our pola wowed have no.: meed for ale the lenoweedge gained from the early inventors, discoverers, ard geniuses. For this reason al ask of you - please firid a way to build taround ow church and cometary. Compromises car the made in ordn to make -move people happy; if only the time is turn H at so. Put you family a church in our place, surely you cant help but have compassion for us. Sher you le he fair in desiding on this issue, of stile
have hape in my heont that Dad wiel give you a change of heant on the place whene our chunct stand,
at looned sever be the parme - with eut img chunch prext doon, and it inoued prunely sadder my heant to look out anky to firid. That ke row larger car go to worship there, elt wouned be cäd irdend.

Iruely yours, Vitiono 角undele
a member of int. Pitypin Bapt: Chunch.

Maryland Department of Transportation
State Highway Administration

William K. Hellman Secretary

Hal Kissoff Administrator

RE: Contract No. AA 682-101-570 Maryland Route 100 Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Mr. Prank Mundell
Ms. Victoria Mundell
Mount Pilgrim Baptist Church 1429 Dorsey Road
Hanover, Maryland 21076
Dear Mr. Mundell and Ms. Mundell:
This letter has been written in care of the Mount Pilgrim Baptist Church due to the lack of return address information.

In response to your letter concerning the Mount. Pilgrim Baptist Church as it relates to the Maryland Route 100 project, I want to assure you that every consideration is being given to minimize the impacts as presented at the recent Public Hearing. We are currently evaluating means to lessen impacts to the church property. No decisions will be made until these studies have been completed.

Thank you for your letter, and if you should have any questions, please feel free to contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

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

NJP:tln
cc: Mr. Edward H. Meehan
Mr. Louis H. Age, Jr.
Mr. Ronald E. Moon
Ms. Angela B. Hawkins
Note: For additional response, see page VI-144
VI -116

20: When it Nay Cormerri,'
Anar upan a tine in Amenai, the Land af
the Free and the plame of hee Brave the thad Man's," hame is he Castle". Shu Leir twe - How mued benore shace the town of siod the lonked upar los the nothing left in ou mold todal to Yow hame taken ein. Oheme and we-for the pake oy aduarhement, reluctatty mive on. Ne progrestat is vierige but at whet puic muat it cast us.
Church Mt. Polgisim faystitit

And, fresi thet timn- it has seer the nuigelin
 Zrwn ste 0recy nd, Came in for cubretip,

Nht. Pilgrim has givin hape id that , mith all aw hin oun side it Had continue to pingrias, elt may ceem like bo yno bratuer not he tothen finto cansidenation, Lut. sh say that on nation has Keaver many statiow and minumente, reven leat ung famon hostrian

Gow nay lont at sur dowtime aspeanare, land fue enhy save thia

"Llongi let us remember, Llondie juide, a thouk by ite crues; to only
shen the pages are clasely sead ard eta cavely read and elamine pemtenai afe its vialue, centint ante usith.

Hhen yew come in you'll gild a perve the un moth ols Apinitude ande ant these physial. Thoughiout these loys. ve made lata if fiunla this Chove ane cethangh the hone mived poile ine contart. Dling of olese seong with inale of us inhot remain hine lid ow love me to nest Lenc. He unaled not want to oce them dio1

I donit w-int you tho tear doern the chirch aind the cimitary becowse il hawe lowe ones in there and xhats the onh church a gato on Bunndely anch ryou can psut the road some where else.

Angela ldecdon age. 10 , a mnember of

RECETVED
jun - juar
orifcras, 0.ais it

mt. Rilgiom Baptict Church on Donsey had.

Lo whom it May concerns.'
Liam a memlier of mount Pilgiin Baptists Church and live heard about the road constructors thinking about tearing down our church to make Anothervoad. You done just want to Tear down the church but you want to iem-ove the cemitany also.

I was hunt when il heand what you have plarred to do. Et has been these for so long. lt has len there for 60 years. My treat hand Parent, went to that church. Ult might be an old worn out building to you, but to me ito a 'beautiful place to worship Bod's nome, and many beautiful ssemovie. We put so Much lime an es effort into that chench to mabeit something ion us to he proud of. And you want to come along and destroy all of ven hand work ire put into that church.
of you don't feel a lit of sorrow on guilt when Ye think about Tenoning
duet memirien: ariot abot' of hand work.
$\xi$
Sincireles
nareiliz weedon ayp. 15
la mamber of nount Pelgium Boptiait Chunck)
$P S$
We.are not geing to give expou, chunch we thout a finghic. We will (reght till the firiat. I praythat itos Loid wiell touch your heact and mindo and mable you diacide in oun bawo, and leave oun chenchalone!

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman Secretary

Hal Kassoff Administrator

RE: Contract No. AA 682-101-570 Maryland Route 100 Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Mrs. Lora Weedon
Ms. Nanette Weedon
Ms. Angela Weedon
11733 South Laurel Drive
Laurel, Maryland 21078
Dear Mrs. Weedon, Ms. Weedon, and Ms. Weedon:
In response to your letter concerning the Mount Pilgrim Baptist Church as it relates to the Maryland Route 100 project, I want to assure you that every consideration is being given to minimize the impacts as presented at the recent Public Hearing. We are currently evaluating means to lessen impacts to the church property. No decisions will be made until these studies have been completed.

Thank you for your letter, and if you should have any questions, please feel free to contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

Very truly yours,
neil of Yehesew
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering

NJP: th
cc: Mr. Edward H. Meehan
Mr. Louis H. Eke, JJ.
Mr. Ronald E. Moon
Ms. Angela B. Hawkins
Note: For additional response, see page VI-144

## VI -124

My telephone number is
659-1110


# Maryland Department of Transportation 

State Highway Administration

Wililam K. Helimann Secratary
Hal Kassoff
Administrator

July 14, 1986

Re: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Ms. Tonya Ross Mount Pilgrim Baptist Church 1429 Dorsey Road
Hanover, Maryland 21076
Dear Ms. Ross:
This letter has been written in care of the Mount Pilgrim Baptist. Church due to the lack of return address information.

In response to your letter concerning the Mount Pilgrim Baptist Church as it relates to the Maryland Route 100 project, I want to assure you that we are investigating means to try to minimize the impacts as presented at the recent Public Hearing. No decision regarding alternatives will be made until these studies have been completed.

Thank you for your letter, and if you should have any questions, please feel free to contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

Very truly yours,
Neil of Yedeser
Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering
NJP: tn
cc: Mr. Edward H. Meehan
Mr. Louis H. Ege, Jt.
Mr. Ronald E. Moon
Ms. Angela B. Hawkins
Note: For additional response, see page VI-144

VI-126
My toiephone number is 659-1110
Teletypewriter lor Impaired Hearing or Speech

To Whom It May Concern:
I am a member of Mount Pilgrim:Raptist Church. I do not feel that the church and it's erounds should be destroyed for a highway. I am sure you can find a better area to build your highway without destroying our church and it's ground around it.

I am sure you are aware that we have loved ones buried on the church grounds. Surely, you would not like for anyone to remove your loved ones from their resting place. The thought of this makes me ill. I pray night and day that this will not happen.

If the shoe was on the other foot how would you feel and what would you do?

Please take into consideration that this church has been a landmark in our community for many years.

Let your conciencious be your guide, and take your time and consider all the facts and feelings of the community before you make such a drastic decision.

almector, OFFICE OF planning \& preliminary encineening

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman Secretary
Hal Kissoff Administrator

July 11, 1986

Re: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Sister Beverly Dow
Mount Pilgrim Baptist Church 1429 Dorsey Road Hanover, Maryland 21076

Dear Sister Dow:
This letter has been written in care of the Mount Pilgrim Baptist Church due to the lack of return address information.

In response to your letter concerning the Mount Pilgrim Baptist Church as it relates to the Maryland Route 100 project, I want to assure you that we are investigating means to try to minimize the impacts as presented at the recent Public Hearing. No decision regarding alternatives will be made until these studies have been completed.

Thank you for your letter, and if you should have any questons, please feel free to contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

Very truly yours,
Nib of Yederew
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering
NJP: tn
$\begin{aligned} \mathrm{cc}: & \mathrm{Mr} . \text { Edward H. Meehan } \\ & \mathrm{Mr} . \text { Louis H. Ere, JJ. } \\ & \mathrm{Mr} . \text { Ronald E. Moon } \\ & \mathrm{Ms} . \text { Angela } \mathrm{B} \text {. Hawkins }\end{aligned}$
Note: For additional response, see page VI-144

VI-128
My telephone number is $\qquad$
Teletypewriter for Impaired Hearing or Speech 383.7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free P.O. Box $717 / 707$ North Calvert St., Baltimore, Maryland 21203 - 0717

My name is Rodney Wipe. II arr a member of mf Pilge Baptist. I have been one since I was born. my mother started There, so do here, mother and all. The family before, Us. This
is not Just A family church. ail surrounding neighborhood. now If you want to build look at all the areas In back of us. and there would be not need to brother. OUR church. 14 yes.

Ml y name is shawn wise. And I have been a member
$\checkmark$ OF mit. Pilgrim Baptist Charcut Since I wars old. and I born. Think This $\frac{11}{15}$ very, un nessarg, to take our Church and gravy site. Our church has been here for about 60 pears. If. You want to Build more highway's there ere onany surrounding. area to do so. With out pesturbi the resting Place, and our Church. Please eon's', der this. netter, This was the frist Church In Our area and is the one I started A-.

Skidpan Wise II YRS. old
RECEIVED JUN 111986

OLRECTOR, Office of

hoisidio
LN tH $1017 \exists 30$.



William K. Hellman Secretary
Hal Kassoff Administrator

July 28, 1986

Re: Contract No. AA 682-101-570 Maryland Route 100 Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Mrs. Sylvia Wise
Ms. Shawn Wise
Mr. Rodney Wise
Mr: Craig Wise
Mount Pilgrim Baptist Church
1429 Dorsey Road
Hanover, Maryland 21076
Dear Mrs. Wise, Ms. Wise, and Messrs. Wise:
This letter has been written in care of the Mount Pilgrim Baptist Church due to the lack of return address information.

In response to your letter concerning the Mount Pilgrim Bapfist Church as it relates to the Maryland Route 100 project, I want to assure you that every consideration is being given to minimize the impacts as presented at the recent Public Hearing. We are currently evaluating means to lessen impacts to the church property. No decisions will be made until these studies have been completed.

Thank you for your letter, and if you should have any questions, please feel free to contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

Very truly yours,
Sere of Pedesem.
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering
NJP: tn
cc: Mr. Edward H. Meehan
Mr. Louis H. Eke, Jr.
Mr. Ronald E. Moon
Ms. Angela B. Hawkins
Note: For additional response, see page VI-144

VI-133
My telephone number is_ 659-1110


To wher it may conoerms
Concerning the Ounch and it's: property Locatad at 1429 Borsey Road, Hanover MD. 21076, MOWFI PIIORIM BAPMST GKURCA HAS those which are in neod. Mount prigrim has bacome a part of orf life and wer don't whih to dopart from it or it from unro We havo Iove oners Iaid to rest on the greomds and we don't want them distrubed. He Feall that theme isi a. nother romte: that could be used inatead of thil plan route which would interper ralth owr senvicear to tho ArMillint: COD.


# Maryland Department of Transportation 

July 21, 1986

William K. Hellmann Secratery
Hal Kissoff Administrator

RE: Contract No. AA 682-101-570
Maryland Route 100 Interstate Route 95 to Interstate Route 97 PDMS No. 022007

Mr. Charles R. Mundell
Mr. William F. Wheeler
Ms. Rosie B. Wheeler
Mount Pilgrim Baptist Church 1429 Dorsey Road
Hanover, Maryland 21076
Dear Mr. Mundell, Mr. Wheeler, and Ms. Wheeler:
This letter has been written in care of the Mount Pilgrim Baptist Church due to the lack of return address information.

In response to your letter concerning the Mount Pilgrim Baptist Church as it relates to the Maryland Route 100 project, I want to assure you that every consideration is being given to minimize the impacts as presented at the recent Public Hearing. We are currently evaluating means to lessen impacts to the church property. No decisions will be made until these studies have been completed.

Thank you for your letter, and if you should have any questions, please feel free to contact the Project Manager, Mr. Ronald E. Moon, at 659-1106.

Very truly yours,
Oneilf Yedeuen
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering

## NJP: tl h

cc: Mr. Edward H. Meehan
Mr. Louis H. Ese, Jr/.
Mr. Ronald E. Moon
Ms. Angela B. Hawkins
Note: For additional response, see page VI-
My telephone number is

Dear Mr. Federsen,
I have only one question to pose to you. \%yt:
I realize that we are living in a fast paced world, where there must be changes to enhance and male proitress; but Will should we destroy what has cone on before:

Yes, I know you have heard all of this before, but not from we and not for the cause of the most sacred thing that I know of. GOD'S house of worship and resting place for his saints.

There are many sentimental and spiritual reasons that I could give for not :ranting Mt. Pilgrim Baptist Church and it's ground destroyed, but somehow I don't think that they would be good enough in the eyes of "Progress". So I will ask my one and only question. :/HY?

WIIY have you decided to take our church and cemetery? There is vacant ground next door to our church for at least a mile lone., headed in the direction of :Zashinfton Boulevard. This docs not take into consideration how wide this area stretches, but it is there.

TIII take awry something that can scatter COD'S flock, when you have land that could be used instead. The ironic side of this thought is that HO ONE or ANYPHIEAG is on that land.

WHY I ask you, perform something so sacrilegious?
I beg of you, PLEASE consider the possibility of using the land that I have mentioned.

Whatever your final decision might be, I pray that. it is done after total consideration of tue LITHLR PEPLE and LIPTLE CONGREGAIION: winch will be hurt .

Thank you for you g consideration.
Member of Mt. Pilgrim Baptist Church

## RECEIVED

DIRECTOí, Orelige br


Maryland Department of Transportation
State Highway Administration

William K. Hellman Secretary
Hal Kissoff
Administrator

July 14, 1986

```
Re: Contract No. AA 682-101-570
    Maryland Route 100
    Interstate Route 95 to
    Maryland Route 3
    (Interstate Route 97)
    PDMS No. 022007
```

Ms. Alice Sparrow
coo Mt. Pilgrim Baptist Church 1429 Dorsey Road
Hanover, Maryland 21076
Dear Ms. Sparrow:
Thank you for your letter of June 10,1986 expressing your concerns about the effects of the proposed Maryland Route 100 on the Mount Pilgrim Baptist Church and cemetery. We appreciate your views and assure you they will be fully considered before a final decision is made concerning the project. In regard to the effects of the proposed highway construction on the church, I also want to assure you that every consideration is being given to your concerns and that we are investigating what options might be available that would avoid or minimize impacts to the church property.

Again, thank you for letting me know of your concerns. Your letter will be entered into the public hearing transcript and become a part of the official project record. Via the project mailing list, you will be made aware of future developments and advised of the decision made by the State Highway Administration.

Very truly yours,
Nae of Yedesen
Neil J. Pedersen, Director Office of Planning and
Preliminary Engineering
NJP:tn
cc: Mr. Edward H. Meehap
Mr. Louis H. Age, fr.
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-144
VI -137
My telephone number is_ 659-1110
Teletypewriter for Impaired Hearing or Speech

prundelt mundull
Curald Chisley

- Curto crisiay
Ellew 7 ijeb



or

Enmest $\alpha$ mollai
Honace Baker
Olana Joupy
Oairg lay 00
(Belly Thlor
Bellf TA4lor
TMya litifor
Qaunste $\frac{1}{1 A y}$ lor
Minte $\frac{10 y y}{c}$
pmozlc. AAylon.
Maurice FACelon
hicity Tafom
Dayonon praton
Drmpyel pityon:
ovecta forown
Contonio frowns
Sptryar Arown four adgature and address would be greatly appreciated. The Pastior and mabers thanic you.

MP. PINRIM BAPT. $\frac{C H}{N A R E} 2429$ DORSEI RD.

HE MAME

"Aeresa n. Palmer
980 Empine ot. Dunbile mo:" 20754
*baborzh Miles
1940 Ruchalle Ayy*sa4.
Districer itst, mD . $2007+7$

- Ruth ARaulos s6in ELLERATE ST. LANHAMM MD 20706
*-Deborah Adaus 2902 Carlton Ave N.E.
Washi, D C 20018
xpuel Comeliou


Ease spanow 6-colpiond ct Raltumne mod 2i2ar


Igluia R. Bachatone 6332 Meadow indpal. Balt., $M_{21227}$




$$
\text { 3gtos } 3+3+h \text { St }
$$




- VOFF CARMAN 2418 CHAPMBARO.
HYATSVILCE, MD. 20783
* Main C. Jogen

5813 Roannke ave
Riverdale mo 2013 )

* Alicp Abbott

5518 vaition aue
Blatensbuig Md
*haules $\mathcal{F} H_{\text {Higrs }}^{20710}$
$40 u+$ faurence $5 f$
Gena mana me 2022
/RECEIVED•
JUN 281896
minctror arice of



Netbbie Spancw- 796.2403
$\rightarrow$ Cheryl Spacrow. $\qquad$
6436 meadan Ridgeiad
Baltimore ms 21227
Lorm Sparrow Baltimon meoridge RQ. Baltimon, moz 21227

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman Secretary
Hal Kassoff
Administrator

RE: Contract No. AA 682-101-570<br>Maryland Route 100<br>Interstate Route 95 to Maryland Route 3 (Interstate Route 97) PDMS No. 022007

The Reverend William Wheeler c/o Mrs. Alice Sparrow 6 Coolpond Court Baltimore, Maryland 21227

Dear Reverend Wheeler:
The purpose of this letter is to advise you that we have received the petition containing the signatures of members and friends of the Mt. Pilgrim Baptist Church, located at 1429 Dorsey Road in Hanover, Maryland.

In response to the concerns that have been expressed by your church membership about the effects of the Maryland Route 100 project on the church and cemetery, I want to assure you that we are investigating means to try to minimize the impacts as presented at the recent Public Hearing. A decision regarding alternatives will not be made until these studies have been completed.

The petition will be made a part of the official project record and will be entered into the Public Hearing transcript. I would like to thank you and the members of the Mt. Pilgrim Baptist Church for letting us know of your concerns. If you should have any questions or need any further information, please contact the Project Manager, Mr. Ronald E. Moon, at (301) 659-1106.

$$
\begin{aligned}
& \text { Very truly yours, } \\
& \text { neil of Yedeven }
\end{aligned}
$$

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

NJP:th
cc: Mr. E. H. Meehan
Mr. L. H. Ese, Jr.
Ms. A. B. Hawkins
Mr. R. E. Moon ل
Mr. J. T. Johnson
Note: For additional response, see page VI-144

Additional response to letters concerning the relocation of the Mt. Pilgrim Baptist Church:

Under the selected alternate, Alternate 38 (Modified), the alignment of the relocated Ridge Road has been located so as to not require the relocation of the Mt. Pilgrim Baptist Church or the cemetery next to the church (see Figure |l-31).

Timber Ridge Drive Hanover, MD. 21076
May 28, 1986

Mr. Hal Kassoff
State Highway Administrator
State Highway Administration
Post Office Box 717
Baltimore, Maryland 21203-0717
Dear Mr. Kassoff:
Due to previous engagements, I can't be at the MD 100 location/design public hearing on June 12, 1986. I would appreciate it if this letter would be entered into the records regarding community reaction to the project.

There are, in our perception, several problems with the MD 100 project. The first is procedural: the State Highway Administration considers only highway generated noise impact on a community affected by the new alignment, even though another state agency, the State Aviation Administration, is also a noise generator. In the cases of Timber Ridge and Queenstown, at least, the BWI Airport generates easily as much noise within these communities as is expected by the highway. Thus, the highway could easily push the average day-night noise levels of such communities to the point that they don't any longer comply with existing noise standards for residential communities. Thus, we feel that the cumulative impact of Airport and highway noise, both generated by state agencies, should be considered when evaluating environmental impact on our communities. The practical results would be in the form of detailed highway location, the use of sound barriers, berms, trees and highway elevation.

Included in this cumulative noise assessment should be the proposed new 10-2B runway locations now under study by the State Aviation Administration. There we are contemplating a runway half as far from Timber Ridge as the present location. Due to the inverse square law of noise level with distance from the runway, we should anticipate an eventual 6 dB overall increase in airport noise. Add this to a 3 dB increase in highway noise and this puts portions of Timber Ridge up to the 25 dB area.

The other concern is the same as expressed in 1973. The MO $170 / 176$ intersection should be reworked to eliminate the traffic light so as to allow continual free flow of commuter traffic from MD 100 to MD 170 and hence to Westinghouse and NSA in the morning. This is a potential generator of intense air pollution due to the known fact that idling internal combustion engines spew out far more pollution than ones running at their maximum efficiency points. Also, of course, a car driving through the intersection is there less of the time than is one awaiting a light change.

In 1973 we were told that the SAA would not consider this intersection "because it wasn't in the study area". It wasn't there either because the SAA didn't think of it. or didn't want to bother with the issue. In 1986 we would like the MO. D.O.T. to "bother with it" because it directly affects our livelihood which the state is duty bound to protect.
se: T. At hey
HaY A Bjbphocleus
N. J. Pederson

UN 86 11: 17


# Maryland Department of Transportation 

William K. Hellman Secretary
State Highway Administration

Hal Kissoff
Administrator

RE: Contract No. AA 682-101-570 N Maryland Route 100 Interstate Route 95 to Interstate Route 97
PDMS No. 022007

Mr. Dan Buck
916 Timber Ridge Drive
Hanover, Maryalnd 21076
Dear Mr. Buck:
This is to acknowledge receipt of your letter dated May 28 , 1986 expressing your comments on the Maryland Route 100 project.

Your letter will be made a part of the official project record by being entered into the Public Hearing transcript, and your comments will be addressed in the Final Environmental Impact Statement.

We appreciate your views and assure you they will be considered before a final decision is made concerning the project.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list.

Sincerely,

> Hal Kassoff
> Administrator

HK:t lh
cc: Delegate Tyras Athey
Councilman Theodore Sophocleus
Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Mr. Louis H. Ege, Jr.
Ms. Cynthia D. Simpson
Note: For additional response, see page VI-149

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

PLEASE ADDRESS 916 TMBEIR RIDGE DR
CITYITOWN HANEOER STATEMD MIP CODEZIOT6
I/We wish to comment or Inquire about the following aspects of this project:
I REQUEST A COTH OF TAE DRAFT ENUURON MENTAL MMPACT SLATEMENT. HLEU OETHIS, ASSOMIAG SHA-GENERIED UEHLCULAIZ NOSEIS PROPOR: Tlounl TO TRHFFIL Volums, Alt 1 (NO BOLLD) LS BEST)FA2 TIMBER



 IDLINGENGINUS ROTHEN.W, OFTMBER RIDGE ON SCIL DAYS GYLLAS A PHINIATE TMBERRR1 des, THTOS, LUENSED A CLOUERLEAFAT 170/176


 OU PAGE 24 , THU DOCLMENT, MOOT STIU IGNOCES MPACTOF AHRCRAET AOUSE ON TMBER RIDGE, THUS IZEN DERING THE E. IIA USELESS. ALSO, ALJ. 3 REQuIRES ExIENSIUE NOUE ABHEMENT MEASCHRSS OU MO 170 न 176 ADJACENT TO TMBER RIDGE AND AITHE MD/00/17O NTERCHANGE, THLS CHOUID INCLUDE BOTH VERTICHC REFCEETNK WANS AND Conucfed TeEE GROVES FOR SOWN ABSORPTION,

Pleaso add myjour name(s) to the Malling List.*
Please delete my/our name(s) from the Malling Llst. VI-147
*Persons who haverecelved a copy of thls brochure through the mail are already on the project Mailince List.

Maryland Department of Transportation

William K. Hellman Secretary
Hal Kassoff
Administrator

July 16, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Interstate Route 97
PDMS No. 022007

Mr. Daniel C. Buck
916 Timber Ridge Road Hanover, Maryland 21076

Dear Mr. Buck:
This is to acknowledge receipt of your comments dated June 13, 1986 expressing your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. Me appreciate your views and assure you they will be considered before a final decision is made concerning the project.


Deputy Director
Project Development Division

```
LHE:tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. 'Meehan'
Mr. Ronald E. Moon
Mr. James T. Johnson
```

$!$

Note: For additional response, see page VI-149

My telephone number is_659-1130

The State Highway Administration belleves that the selected alternate, Alternate 38 (Modifled), provides the needed service to the area while minimizing impacts to local commulties. An alr quallty analysis was performed for all alternates and was approved by the U.S. Enviromental Protection Agency (letter dated August 19, 1986) and the Maryland Department of Health and Mental Hyglene (letter dated August 13, 1986). This analysis, using 30 receptor sites (one of which was located in Timber Ridge), concluded that there would be no violations of the State and/or National Amblent Alr Quallty Standards for elther the 1-hour or 8-hour concentrations of $\infty$ for any alternates. Thls analysis was based on an at-grade Intersection of MD. 170 and Dorsey Road under Alternate 3. Since this project does not generate alrcraft nolse and because alrcraft nolse cannot be mitigated with normal practices (l.e., nolse barrlers), design year 2010 nolse levels with alrcraft were not calculated.
$\qquad$
$\qquad$
Ci.. Cingenstive tren"Concerned
$\qquad$

- 1 - Seet Cutio Wance...
-1. Jexto ven ware preatotum
$\qquad$
$\qquad$
$\qquad$ CTENED noon
$\qquad$
$\qquad$ Jun 26
 $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$ -Ancorn
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
gure 12, 1986

Mn-mechan and Mr. Moas:
Dacold le to toke thes opportum-

- ity to relate to $y$ on the concema of the troup

Ctie For a $u$ Ronte 100 expresad al a
.... meeting on May 18,1986 and the depth of
ply connictions concerning the currant
plan and degree of reaponi hility that
... is upon the ahoulbers or enery County.

- otale and iederal elected of rictial in any way itrobred in the dichior makeng
- prope cencerning the location and.
- denign of mol Ronto 100 .

ADQ alternate prasentey on the

- Aurad or y under comanothatimexcopt
- alternate 1 our (4) with optio 3 B $\qquad$ in the Qudentown crea pul to mot the otaled purpose of the enture
pojot:... the copity on a men ollocation.
Wholy na facility on a neurllocation. oparations through and suithers the oparations through and nutheor the / wast hifhur 1 acid ity in corridtr.
I sont that any electel sticial
That dippots or recompad an the plan
- haged orithe curpent neads a hould he roted out of of fie at the sonest opporturty--or impached sooner for dereliction.. of dudy: …….......
*. I will gure zo one of many examplas of the typee of sto Altey pataning unrantly
- MD Route 295 Beltate 3 - the vicinity of MD Rote 295 (Baltimosie Woshinto Porkuny) and MD Route 16 ( Dowey Rad) Ilineom
- Present peloming St a desured to viat
- Sontheot reots line ahot Rod to the
- Aontheat wh line hout a mile awa

-... perst hore to travel $/$ mile to west aling Arasy Rod to Foreat Arvenue tranel nogth
to Roulo 100 tinmen A MD 100 trael
Rpproximat ly 2 miles en it at rabocitad
- Rupre Rood and tronel apper armately $1 / 2$
- Porony Rot hak $t$ i Wernht, Road dong
 the deat plaming that a popile thin
This space age:
Srevat, the is hat ope example of
the emph tome to locel the ffic ernur
through treffri. A a stated + Dhe Comined
MDRente il6 eunretly carnen in efecess
of 20,000 rehiches per day im naneral ocn-
local and throughterathom a mix of
Ao-rhatin peur in the propesal
that la heled 1 lternate 3 , ot prea
trappic. Inim of the com pound noture th
purporiely mixing local and through traptic as onn of the harge tracts of Ardinde ped land in nothern A nne Thated hatween MD 295 and MD 713.
The Roce Rod / Wreght Roely R Aldocted in
- . Crean are nore a pla done Riit
.-. te scanty of piamidy elon puit
dead-end and dinided hy roada,
trom lowal and thapacted ly moine
twenty-frea houra a day mocs nounes
- Pepeterie to acquey hane otrugred a phecur comindity and enjoy; a very
- the count commol res ide the sectron thend he the lied 40 practically a then livile siges
- and the net untur or rodo in the area S elose roth thicroch real ent.
Ola indoatrinow this real ble example - woud he ad resely aHf Blach in Althe whe
- 4 worth 3 Boption affocted il Altermate
the final lopation not seldectas
Presmen the atio for M D Roze 100 Ren is arle to walk mother weth 2 childment sune he docanot have he employ. traportat. she ond hea her ongl apprenmately tf mile. 4 theny allermite an unprosi hilityate 4 this worald he is prothikted. At - coulding on a freavaywak hy climitirg pences illegally.
$\qquad$
$\qquad$
$\qquad$
-... So altermato 3 io out umless it comes.
- ruth ar suray on shot-hop an

Commite sernil (0) seco o thrught. enen that wold ke a had deal. $\qquad$
$\qquad$
$\qquad$
$\qquad$
7320 Kace Rd. Honover, md 21076
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Figures II-13; II-14; II-15
The following ex hithits are intended to gene an averinew of the scioneconomic make. up of the community affected by the proper alternate 3 align ament in the Ahupley Corner, Wright Road, and Race Road areas. Most of the input in the study. relating to the economic status of local residents ip from census tract statistics which reflect overall average of the to bal area population and not the Black papulat won which will experience the greatest, impart: The stability and non trament gipality of this Black community is highbored ky the high pence tage of retired and elder $l y$. Thu the negative aspects of am relocation required at this stage of life is compormbled by this factor. Uprooting the elderly is both emotionally traumatic and economically disadvantageous.

Figure II- 13 Race Road \& Dorsey Road Vicinity
Tote: Color code for Minonty B lack homes-
Red-desurnated for taking
Hreen-not designated par taking
Total homes- 21

1. Retired male; widumer
2. Retired female; widow

3 Retried marred coupe; elderly
if Retired marred couple ; elderly; husband diratid.
5 Retired female ; widow
6 Retired tamale; widow
1 Retired tamale; single; heart patient
8 Retired male; single'
9. Retired married couple (RED)

10 Retired tamale; uredour. (RED)
II Retired 'female; widow
12 Male head of household, hear l patient in hrouchode (RED)
13 Female head f/ hownholdi ratanded adult i h hruahod (RED)
14 Female head of household
(RED)
15 Male head of howahold i mentally dented adult in
hounhold.
16 Marred couple; huphand physically deathed


1 Retired female; widow; elderly; heart patent
2 Retired female; single head of houshald
3 Retired female; widow
4 Retired marred couple (RED)
5. Retired female; widow; elderly; heart patient ( $R E=0)$

6 Retired male; widower; physical handicap (RED)
7 Retired female ; angle head of howatold
8 Retries female; simple headof houachold;
mentally handicapped
9 Marred couple; hishond physically handicapped (RED)
10 Angle female; head of howahold; partial by discoed


1 Retired manied couple
2 Retired male; he ed of hounchold
3 Retired marned corple; hoth dieahled
4 Retired female; sungle; head of howchold
5 Retried jemale; zurdow-
6 Retired female; urdow

1440 Dorsey ñoad
Hanover, MD 21076
June 8, 1986

Mr. Neil J. Pedersen - Director Office of Preliminary Planning \& Engineering State Highway Administration

## Gentlemen:

We, the concerned citizens for a fair (alternate) Route $1 \frac{0 \pi}{68}$ are taking this opportunity to inform you of the adverse impact that the proposed alternates one, two and three and the crossover of alternates three and four would inflict upon our minority community, socially, financially and environmentally.

Due to the adverse effect we would like it to be a matter of record that we strongly recommend alternate four without the crossover but including the 3B provisions:

We are a group of concemed minority (Black) citizens from the area roughly bounded by Race and Faulkner Roads on the west, carman Food on the east, the Jessup and Dorsey Park on the south and hanover Road on the north.

This is a wide area but historically we have been forced into widely scattered areas due to convenants and real estate practices supported and/or tolerated by this 'Free State' of Maryland.

Our ancestors settled in this area in this area in the 10001 s as tenant farmers and landholders. Those without land seized every opportunity that presented itself to become landholders.

As early as 1842, before the demise of slavery, one of our ancestors, namely Mr. Peter Gambrill and bis wife Elizabeth, gave a parcel of land to a dedicated group who sought to establish a church for the citizenry of this and adjacent areas. The property was located north of Dorsey Road off Ridge Road.

From this bumble beginning, ${ }^{m o s t}$ revered black institution now known as St. Mark JMC Church evolved and has been in continuous operations for 144 years. In 1992 we are planning a gala celebration to commemorate our one hundred and fiftieth anniversary.

Not long after this church was established another community group affiliated themselves with a society known as the Sons and Daughters of Abraham and located on Abraham hoad which is just east of what is now exchange of the Baltimore-washington Expressway at Dorsey Toad. Abraham Road is also nearly directly across from :rights sad.

This society took upon itself the awesome task of affording opportunities for Blacks to become landowners since Blacks were not able to deal financially with the banks of the period.

Tais was done by pooling money and buying properties from dissatisfled white landowners who had come upon hard times and were reluctant to let their contemporaries know of their plight.

The society known as the Abraham Lodge would purchase the land and sell parcels to interested Blacks and give the purchaser as much time as was needed to pay back the money to the lodge. Most of the black landowners in the area adjacent to the lodge purchased their homes in this manner.

The land for the Old Haman School (Colored) was purchased by the Abraham Lodge and deeded to the county of Anne Arundel in order that the Black Community could avail itself of the nosenwald Grant to get a schon? in the area. Before this was done the only building available to glad children was St. Mark Church. Jere they obtained both their secular and religious training because the county did not provide a building to educate Blacks.

As near as can be ascertained at this time $90 \%$ of this land is still owned by Blacks.

By 1927 when Dorsey Road was first paved the black community had been well established in the aforementioned boundaries which included Dorsey, Jewel Town, Matthews Town, carman, Severn, Linthicum and other areas.

The first church was now in its third building and had moved to Fidge Road. Ten years earlier the people from the Queenstown area had moved out (1917) and established a church on Queenstown road, though a few of the families still attend St. Mark Church.

In 1955 the Board of Education of Anne Arundel County declared the old Barman School and the property on which it stood excess property. The Black community rallied again and purchased the property back from the county. In 1968 the St. Mark Church built its fourth building to house
its congregation on this property that has so much history and fond memories for many of the members of St. Mark. This move placed the church building much closer to its parishioners making the access to the church much less time consuming.

The present estimated value of this property is in excess of threequarters of a million dollars.

All proposed alternates with the exception of alternate four will split this 150 year old + community in several ways thus eviscerating our scattered but closely knitted Black community.

For those of us who live on the western side of the BaltimoreWashington Expressway we find that to get to our beloved church we will be forced to enter a high speed expressway, pass our church and to circle back to it. The same dangerous "and" time consuming task will face us when we embark on our return trip.

The same thing will be true when these people attempt to visit their relatives and friends on Wright Road.

Parishioners and friends beyond the Route 170 will also be forced on high speed highways to get to their church and visit friends.

One half of the homes on this western side of the expressway are inhabited by retired persons and one fourth of the other homes have resideents who will reach retirement age within five to ten years. Thus three fourth of these homeowners will find it most difficult financially if not impossible to avail themselves of relocating efforts. After working thirty, forty and more years the state of Maryland is coming along with three or more proposals that will totally devastotethese people in the years when they are least able to bounce back.

We, the concerned citizens for a fair 100 strongly urge the approval of alternate four without the cross over between alternate three and four but including $3 B$ to save the Queenstown community.
signed,
Irene Hebron
Designated Correspondent

> Dr. Preston Hebron Designated Correspondent

P.S. Fie also are wondering if the principle of gerrymandering has been used in the planning of these alternates. It seems as if there has b a concerted attempt on the part of those responsible for planning to target Black areas for disruption, upheaval or possible demise. Not too many gears ago the Matthews Town community had a gigantic struggle to keep their community intack. The Queenstown -Community has had to fight and is still fighting diligently in an effort to slave. their community from destruction and now the areas mentioned in this letter are targeted. All of these communities are Black communities. As we look at the winding and curving of these alternates and couple this with the battling to save the Black communities we wonder if the principles of gerrymandering isn't being used to get rid of black populated areas.

## COMMITTEES:

KING, HOUSING AND URBAN AFFAIRS foreign relations JOINT ECONOMIC

## 2 Trite States Senate

WASHingTON. D.C. 20310

June 25, 1986

1818 FEDERAl: OFFICE BUILDING
BALTMORE. MARYIAMO 2:201 282-4436

1110 fidien lame
SkIER Spring, Marrano 20910 589-8800

Cumberland: 722-83as
Salisaunr: 5ab-4908

Hal Kissoff
State Administrator
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
Dear Mr. Kissoff:
I am enclosing for your review a letter I received
Irene Hebron, Dr. Preston Hebron and Curtis Warren. The five letter raises some serious concerns about the alignment of Route 100. Although this is not primarily a federal matter, I would appreciate it if you would address the concerns raised and provide my constituents with an appropriate response.

Your attention to this matter is appreciated.
With best regards,


Paul S. Sarbanes United States Senator
PSS/Cso
Enclosure



TUN $\because$ I $\because 88 \mathrm{~F}$


1440 Dorsey Road Hanover, MD . 21076.
June 8, 1986

Mr. Neil J. Pedersen - Director
Office of Preliminary Planning \& Engineering State Highway Administration

## Gentlemen:

We, the concerned citizens for a fair (alternate) Route 100, are taking this opportunity to inform you of the adverse impact that the proposed alternates one, two and three and the crossover of alternates three and four would inflict upon our minority community, socially, financially and environmentally.

Due to the adverse effect we would like it to be a matter of record that we strongly recommend alternate four without the crossover but including the 38 provisions.

We are a group of concerned minority (Black) citizens from the area roughly bounded by Race and Faulkner Roads on the west, Herman Road on the east, the Jessup and Dorsey Park on the south and Hanover Road on the north.

This is a wide area but historically we have been forced into widely scattered areas due to convenants and real estate practices supported and/or tolerated by this 'Free State' of Maryland.

Our ancestors settled in this area in this area in the 18001 s as tenant farmers and landholders. Those without land seized every opportunity that presented itself to become landholders.

As early as 1842, before the demise of slavery, one of our ancestors, namely Mr. Peter Gambrill and bis wife Elizabeth, gave a parcel of land to a dedicated group who sought to establish a church for the citizenry of this and adjacent areas. The property was located north of Dorsey Road off Ridge Road.

From this humble beginning, most revered black institution now known as St. Mark UMC Church evolved and has been in continuous operations for 144 years. In 1992 we are planning a gala celebration to commemorate our one hundred and fiftieth anniversary.

Not long after this church was established another community group affiliated themselves with a society known as the Sons and Daughters of Abraham and located on Abraham Road which is just east of what is now the exchange of the Baltimore-Washington Expressway at Dorsey Road. Abraham Road is also nearly directly across from Wrights' Road.

This society took upon itself the awesome task of affording opportunities for Blacks to become landowners since Blacks were not able to deal financially with the banks of the period.

This was done by pooling money and buying properties from dissatisfled white landowners who had come upon hard times and were reluctant to let their comtemporaries know of their plight.

The society known as the Abraham Lodge would purchase the land and sell parcels to interested Blacks and give the purchaser as much time as was needed to pay back the money to the lodge. Most of the black landowners in the area adjacent to the lodge purchased their homes in this manner.

The land for the Old Herman School (Colored) was purchased by the Abraham Lodge and deeded to the county of Anne Arundel in order that the Black Community could avail itself of the Rosenwald Grant to get a school in the area. Before this was done the only building available to Black children was St. Mark Church. Here they obtained both their secular and religious training because the county did not provide a building to educate Blacks.

As near as can be ascertained at this time $90 \%$ of this land is still owned by Blacks.

By 1927 when Dorsey Road was first paved the black community had been well established in the aforementioned boundaries which included Dorsey, Sewell Town, Matthews Town, Haman, Severn, Linthicum and other areas. The first church was now in its third building and bad moved to fidge Road. Ten gears earlier the people from the queenstown area had moved out (1917) and established a church on Queenstown Road, though a few of the families still attend St. Mark Church.

In 1955 the Board of Education of Anne Arundel County declared the old Harmon School and the property on which it stood excess property. The Black community rallied again and purchased the property back from the county. In 1968 the St. Mark Church built its fourth building to house
its congregation on this property that has so much history and fond memories for many of the members of St. Mark. This move placed the church building much closer to its parishioners making the access to the church much less time consuming.

The present estimated value of this property is in excess of threequarters of a million dollars.

All proposed alternates with the exception of alternate four will split this 150 year old + community in several ways thus eviscerating our scattered but closely knitted Black community.

For those of us who live on the western side of the BaltimoreWashington Expressway we find that to get to our beloved church we will be forced to enter a high speed expressway, pass our church and to circle back to it. The same dangerous and time consuming task will face us when we enbark on our return trip.

The same thing will be true when these people attempt to visit their relatives and friends on Wright Road.

Parishioners and friends beyond the Route 170 will also be forced on high speed highways to get to their church and visit friends.

One half of the homes on this western side of the expressway are inhabited by retired persons and one fourth of the other homes have resi ents who will reach retirement age within five to ten years. Thus three fourth of these homeowners will find it most difficult financially if not impossible to avail themselves of relocating efforts. After working thirty, forty and more years the state of Maryland is coming along with three or more proposals that will totally devastatethese people in the years when they are least able to bounce back.

We, the concerned citizens for a fair 100 strongly urge the approval of alternate four without the cross over between alternate three and four but including $3 B$ to save be Queenstown community.
Signed,
Irene Hebron
Designated correspondent
Design Hebron
Designated Correspondent


PS.

P.S. We also are wondering if the principle of gerrymandering has been used in the planning of these alternates. It seems as if there has been a concerted attempt on the part of those respansible for planning to target Black areas for disruption, upheaval or possible demise. Not too many jears ago the Matthews Town community had a gigantic struggle to keep their community intack. The Queenstown Community has had to fight and is still fighting diligently in an effort to save their community from destruction and now the areas mentioned in this letter are targeted. All of these communities are Black communities. As we look at the winding and curving of these alternates and couple this with the battling to save the Black communities we wonder if the principles of gerrymandering isn't being used to get rid of black populated areas.

# Maryland Department of Transportation 

## 的 181986

William K. Hellman Secretary
Hal Kissoff
Administrator

RE: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to Maryland Route 3 (Interstate Route 97) PDMS No. 022007

Ms. Irene Hebron
Dr. Preston Hebron
Mr. Curtis Warren 1440 Dorsey Road
Hanover, Maryland 21076
Dear Ms. Hebron, Dr. Hebron, and Mr. Warren:
I am writing in response to your letter of June 8, 1986 to $\equiv$ Mr. Neil J. Pedersen, the State Highway Administration's Director of the Office of Planning and Preliminary Engineering, and copied to Senator paul S. Sarbanes, in which you expressed your concerns with the effects of the proposed construction of Maryland Route 100 on your community.

I want to thank you for writing and letting us know of your concerns, and also for the insight that you have provided in regard to the history and background of your community. We appreciate your views, and assure you they will receive every consideration before any decisions are made concerning this project. You can also be assured that, in the event an alternate affecting your community is selected for the proposed Maryland Route 100, the State Highway Administration will make every effort to ensure that the high way would have minimal impact on the community and would be compatible with its surroundings.

Your letter will be entered into the public hearing transcript and made a part of the official project record. You will be advised of the decision made by the State Highway Administralion and kept aware of future developments via the project mailing list.

Sincerely, ORIGINAL SIGNED BY: HAL KASSOFF

Hal Kissoff
Administrator
HK: tl h
cc: Senator Paul S. Sarbanes Mr. Neil J. Pedersen Mr. Edward H. Meehan
Mr. Louis H. Ese, Jr.
Mr. Ronald E. Moon/
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-18a
My telephone number is 659-1111

## COMMITTEES:

housing and urban affairs foreign relations joint economic

## Whited States Senate

## WASMIMETON. O.C. 20510

June 11, 1986

1518 FEDERAL DFFICE EUHDime baltimore, maryland 21201 962-4436

1110 Fiddler lane
SHYER SPRING, MARTLAMO 20910 589.8800

Cumberland: 722.5369
Salisauny: 546-4998

Mr. Hal Kissoff<br>State Highway Administrator<br>707 N. Calvert Street<br>Baltimore, Maryland 21202

Dear Hal:
Enclosed is a copy of correspondence I received from Mr. and Mrs. Willard M. Womble. The letter raises some serious concerns about highway construction in their area. I would greatly appreciate it if you would carefully review this matter and provide me with an appropriate response.

Your attention to this matter is greatly appreciated.
With best regards,


Paul S. Sarbanes United States Senator

PSS/gmp
Enclosure

RECEIVED \#711
JUN 161986
F- 58

PLANING \& PRELIMINARY EHGREERINE

```
&j 之: < %
```

honorable Senate Paul Sarbanes
Z. C. Senate

HASHINGTOI, O. C. 20510

Dear Senate:
There are many reasons why we think that the residence of Writigt road should not
disturbed, and displaced.
Reason number one its that the desinated portion to be changed or families to be ROOTED ARE MINORITY FAMILIES ONLY.

Reason number tho is that wright road its a dead end. Why use a dead end road
an express route?

The third reason is that we were assured the alternate (4) four freeway from uTE 170 - 1-95 wOULD be used for Route 100, and Wright road area would not ae inced.

After we were told that Wright road/Dorsey road area would not. be changed abuse of Route 100, we the area residence had extensive property improvements

To Name a few of the 'improvement: Ado'itionai rooms on our houses, CARPORT ADDED, CITY WATER AND LARGER SCEPTIC TANKS SYSTEM I INSTALLED, LANDSCAPAING, SHRUGY, NEH GRASS, AND FRUIT TREES WERE PLANTED.

None of these communities are being saved, we would recommend alternate 4 away from route 170 to 1-95 be used hnorder that our properties and homes saved

## Sincerely,



William K. Hellman Secretary
Hal Kissoff
Administrator

JUL 081986

RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Maryland Route 3 (Interstate Route 97)
PDMS No. 022007

The Honorable Paul S. Sarbanes
United States Senator
Suite SD 237
Dirksen Senate Office Building
Washington, D.C. 20510
Dear Senator Sarbanes:


This is in response to your letter of June 11, 1986 in regard to concerns that have been raised by Mr. and Mrs. Willard M. Womble about highway construction in their area. I would like to thank you for bringing this matter to my attention, and want to clarify some of the issues that were raised in Mr. and Mrs. Womble's correspondence.

The State Highway Administration has, over the past several years, worked closely and consulted with various community organizations and citizen associations in developing alternates for the construction of Maryland Route. 100 that would minimize community impacts, and yet would still fulfill the primary goal of providing a much needed link in the highway system serving northern Anne Arundel County. This community involvement has resulted in significant changes in our proposed alignments and reductions in the number of residential relocation that would be required, particularly in the Queenstown and Harmans areas. We are continuing to further refine and revise the project alternates so as to reduce even further residential and community impacts.

Recently, a draft Environmental Impact Statement for the proposed Maryland Route 100 was prepared and, with the concurrence of the Federal Highway Administration, circulated for public and agency review and comment. That document discusses the need for the project, the various alternates under consideration, as well as the social, economic, and environmental impacts of those alternates. A Public Hearing was held on June 12, 1986 to present the results of our studies and to gather additional comments and citizen input. Although we have stated a preference for Build Alternate $3-B$ for the Maryland Route 100 project, I want to assure you that a final decision will not be made until all comments have been thoroughly evaluated and considered.

[^3]The Honorable Paul S. Sarbanes
Page Two

With regard to the issues involving the effects of Maryland Route 100 in the vicinity of Wright and Dorsey Roads, either Alternate 2 , or the preferred alternate, Alternate $3-B$, will require a number of residential relocation, all of which are occupied by minority families. I regret that misinformation has been given to the residents of this area by outside sources that an alternate not affecting Wright Road would be used for the proposed Maryland Route 100 and that no changes would be made to the area. In regard to the issue of Wright Road being used as an express route; this will not be the case. The construction of Maryland Route 100 would require a portion of Wright Road to be relocated; however, the character of the road would not be altered and it would still serve as a local access road from Dorsey Road.

I hope that this has provided you with sufficient information to respond satisfactorily to your constituents. Again, thank you for your interest in this much needed highway improvement project.

Sincerely
ORIGINAL SIGMED'BY:
HAH ASSORT
Hal Kissoff
Administrator

HK:t lh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Mr. Louis H. Age, Jí.
Mr. Ronald E. Moon
Ms. Angela B. Hawkins
Mr. James T. Johnson, Sr.
Note: For additional response, see page VI-184

## DEFIES:

## 2 Cited States Senate

masmineten. Dec. sonic

June 18, 1986

1E1E frothy office qua dome SabTNone. Martian 21201

512-443
1190 mouth lane sEven spume. Mantlamo 20810 - 5ce-sto0

Mr. Hal Rassoff
State Administrator
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
Dear Mr. Rassoff:
I am enclosing for your review a letter I received from Virginia Warren. The letter raises some serious concerns about the alignment of the proposed Route 100 from I-95 to Maryland Route $3 / I-97$. Although this is not primarily a federal matter, I would appreciate it if you would address the concerns raised and provide Ms. Warren with an appropriate response.

Your attention to this matter is appreciated.
With best regards,


## Paul S. Sarbanes United States Senator

PSS/Cso
Enclosure

AYE Hilly duly


7997 WRIGHT ROLE Hanover, liarylahise June 2, 1986
honorable Senate paul Sareanes
i. S. SEMATE

Washington, C. C. 2051 C

The Honorable Paul Saraanes:
The Maryland Department of Transportation presented the draft Environmental impact Statement on may 22, 1985 at the harmon Improvement association meeting. The maps REFLECT A CHANGE WHICH HAD NOT BE SHOWN IN THE PREVIOUS MEETING. I AM OPPOSING ROUTE 34 and 38 from 170 to 1-0.j. I am in favor of alternate 4 - Freeway from route 170 to $1-95$.
The communities involved are black Minority, who are retired, widows and widower, disable and elderly. I Live lina unibue community because the forefather purchase the land and willed the land to their chilloren. the residents are related to some dEgree to each er blood as well. as marriage. The pressure 1 have experilence since 1974 mas eric stressful. Comparing Patapsco Valley State park to a community nearly a century ole he saying the value of the life of people ils not equal to destruction of TREES.

The fat has not'made a decision on locations of runways at the bill airport. The planes arrival ane departure by radar and other sophisticated electronic devices.

Each community mas not treated the same, for instance, whish road resididents was NOT INFORMED WERE THEY COULD RELOCATE.
the draft Envistonment impact Statement states improvements of Maryland route 176 WOULD EMABLE THE PLANNED DEVELOPMENT OF HOUSING. WHY TEAR DOWN SOME hOUSES ANO BUILD OTHERS.
the alternate (4) four freeway lis less expensive and would not dietrue or interrupt ANY COMMUNITY.
I would appreciate any assistance you could dive.
Sincerely,
Virginia l. Warren $\frac{\text { Ticeinxis Sionsen. }}{i}$

William K. Hellman Secretary

Hal Kissoff Administrator

JUL 07198

Re: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to Maryland Route 3 (Interstate PDMS No. 022007

Mrs. Virginia I. Warren
7117 Wright Road
Hanover, Maryland 21076
Dear Mrs. Warren:
This is in response to your letter of June 2, 1986 to Senator Paul S. Sarbanes in which you expressed your concerns about the proposed construction of Maryland Route 100 from Interstate Route 95 to Maryland Route 3. Senator Sarbanes has forwarded your letter to my office and asked that I reply directly to you.

We appreciate your views and the concerns you have with the proposed construction of Maryland Route 100. I want, to assure you they will be fully evaluated and will receive every consideration before an alternate is selected for Maryland Route 100.

Thank you for writing and letting us know of your concerns. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript. You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list.

Sincerely, ORIGINAL SIGNED BY: HAL KASSOFF

Hal Kissoff<br>Administrator

- HK: tn
cc: Senator Paul S. Sarbanes
Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Mr. Louis H. Age, Jr.
Ms. Angela B. Hawkins
Mf. Ronald E. Moon
Note: For additional response, see page VI-184

My telephone number is 659-1111
Teletypewriter for Impaired Hearing or Speech $383-7555$ Baltimore Metro - 585-0451 D.C. Metro - 1.800-492-5062 Statewide Toll Free P.O. Box 7171707 North Calvert St., Baltimore, Maryland 21203-0717
-i. sarganes
MARYLAND

COMABITTEES:
ING. HOUSING AND URBAN AFFAIRS foreign nelations JOINT ECONOMIC

## 2 (nite Slates Senate

WASMINGTON. D.C. zOSIO

June 6, 1986
gFETEFS:
SD-332 DURKEEM SEmate Office Runtime WASMMCTON, D. C. 20510

202-224-4E24
1618 FEDEAAL OFFICE BuILDING EALfmone, Mantiamo 2120 i 082-4438

1110 Fioren lame
SILVER SPATE. MARYLAND 20810 8as-8100

Cumazalamd 922-5389



Mr. Hal Rassoff
State Administrator State Highway Administration 707 North Calvert Street Baltimore, Maryland 21202

Dear Mr. Kissoff:
I am enclosing for your review a letter I received from Thomas Dixon. The letter raises some serious concerns about the alignment of Route 100. Although this is not primarily a federal matter, I would appreciate it if you would address the concerns raised and provide Mr. Dixon with an appropriate response.

Your attention to this matter is appreciated.
With best regards,


Paul S. Sarbanes
United States Senator
PSS/cso
Enclosure

\# 687
JUN 10 198.

$$
F-39
$$

araectur, Oillut bi PLANING \& PRELHMARY ENELGE:

The Honorable
Senator Paul Sarbanes U.S. Senate

Mashingtong D. C. 20510
Dear Senator:
This letter concerns the proposed construction of Route 100 from I-95 to the proposed new I-97 formerly Route 301. MJ name is Thomas A. Dixon, Jro, President of the Harmans Civic Association and Chairman of the State Tax Assessment Appeals Board in Anne Arundel County.

We do want to see Route 100 constructed, we feel that It is needed. We do feel however, that of all the alternates, alternate 4 would best suit our total community. We feel that under Section 4 F-771. 135 that an exception should be made because long standing minority communities should not be disturbed. They are families that are related in all communities, starting with Race Road in Dorsey, Maryland, Wright Road in Hanover, Maryland and on Dorsey, Road in the vicinity of St. Marks' Church. 85\% of these individuals are on fixed incomes. This is an even better reason to choose alternate 4 With a.3B crossover in Queenstown.

So under the:Cipil Rights Division of the Federal Department of Transportation in which we are dealing with 3 minority communities, alternate 4 should be chosen. The Chief of Police and Fire Department are concerned about the various dead ending oi f roads under the other proposals they find disturbing. because of response time. :
I'shall await jour reply.

Copies sent to:


Senator Charles McC.Mathias mizabeth Doles office of the Chief Counsel

# Maryland Department of Transportation 

State Highway Administration
William K. Hellman Secretary
Hal Kassoft
Administrator

## JUL 02

RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Maryland Route 3
PDMS No. 022007

Mr. Thomas A. Dixon, Jr., President
Harmans Civic Association, Inc.
7677 Ridge Chapel Road
Hanover, Maryland 21076
Dear Mr. Dixon:
This is in response to your letter of June 1 , 1986 to the Honorable Paul S. Sarbanes of the United States Senate in which you expressed your concerns with the proposed construction of Maryland Route 100 from Interstate Route 95 to Maryland Route 3. Senator Sarbanes has forwarded your letter to my office and asked that I reply directly to you.

The State Highway Administration has, as you know, worked very closely over the past several years with the Harmans Civic Associaton in developing an alternate for the proposed Maryland Route 100 that would have a minimal impact to your community. More recently, we have met on several occasions with the Queenstown community to learn of their concerns and, as a result, have developed a modification to Alternate 3 that avoids disruption to most of that community. This revised Alternate, Alternate $3-B$, was presented at the Public Hearing on June 12, 1986, along with two other Build Alternates, as well as options that were applicable to the basic Build Alternates.

I want to assure you that we are continuing to investigate the reduction of impacts of proposed Maryland Route 100 on residential communities, and in order to avoid any disruption to community services, such as police and fire protection, are reevaluating the proposed closing of Harmans and W.B.\&A. Roads.

My telephone number is 659-1111
Teletypewriter for Impaired Hearing or Speech
383.7555 Baltimore Metro - 565-0451 D.C. Metro - 1.800-492.5062 StatewIde Toll Free P.O. Box 717 I 707 North Calvert St., BaltImore, Maryland $21203 \cdot 0717$

```
Mr. Thomas A. Dixon, Jr.
```

Page Two

Although Alternate $3-B$ remains the preferred alternate of the State Highway Administration, a final decision will not be made until all comments received at the Public Hearing, and as a result of the review of the Draft Environmental Impact Statement, have been fully evaluated and considered.

> Sincerely, ORIGINAL SIGNED BY: MAM MASSOGE

Hal Kissoff
Administrator

## HK:tlh

cc: Senator Paul S. Sarbanes
Senator Charles Mc. Mathias
Secretary Elizabeth Dole
Secretary William K. Hellman
bee: Mr. Neil J. Pedersen
Mr. Edward H. Meehan
Ms. Angela B. Hawkins
Mr. Louis H. Age, Jr. $V$
Mr. Ronald E. Moon

Note: For additional response, see page VI-184

Addltlonal response to letters from:
Curtls Warren, dated June 12, 1986
Irene Hebron, Dr. Preston Hebron and Curtls Warren, dated June 12, 1986
WII lard M. and Beathsader M. Wamble
Virginla I. Warren, dated June 2, 1986
Thomas A. Dlxon, Jr., dated June 1, 1986

The selected alternate, Alternate 38 (Modifled), was chosen over a comblnatlon of Alternate 4 wlth Alternate 3-Optlon B (Alternate 4/3B) for several reasons. First, Alternate 4 requlres the acqulsition of land from the Patapsco Valley State Park whlch is prohlblted under Federal Law If a "feaslble and prudent" alternatlve exlsts. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identifled In the Howard County, Anne Arundel County and Reglonal Plannling Councll Master Plans. Thls corrldor is the basis upon which development In the area has been implemented and planned. Alternate 38 (Modifled) Incorporates several design changes of the "hlstor lcal" allgrment (Alternate 3-Optlon A) that has resulted In a reductlon of the number of residences dlsplaced by MD Route 100 from 43 to 22 . Alternate 4/3B also traverses and southwestern corner of the Baltimore Washlngton Internatlonal Alrport. Federal Avlation Adminlstration regulatlons would requlre the hlghway to be constructed In a tunnel through this area whlch would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36 \mathrm{mlll}$ lon greater than the selected alternate. Alternate 38 (Modified) Includes several provisions for malntalning traffic on the local road network. These Include providing a brldge across Maryland Route 295 connectling Race Road wlth Wright Road, brldgIng Harmans Road over Maryland Route 100 and bridglng W.B. \& A. Road over Maryland Route 100. The State HIghway Administratlon belleves that the selected alternate provides the needed service to the area whlle minimizing impacts to local communltles. This project has been revlewed by the Equal Opportunlty Section of the State HIghway Adminlstration and found to be In complance with Title VI of the Clvil Rights Act of 1964 (see letter dated June 26, 1986).

Thu, Ron Those
We are very concern with alternate 4 , We fol it is os cuffír to the people who now live wi the Benturiads comnuinty, as of now. we cure daily with the these of Airplanes, And yes, we are very.
aware of B WI Howe program. aware of B wI Homie program. Anal nils. Barbara they. Butixictuc of these people can tell us yes or ho in $148 \geqslant$ The Nave program will reach the Bentwood connumity. We doit know when the program will reach our eonrunity wire it the two fees? or ten gears? as nut at al, shat why, 0 coral like the site veightivay Administration, so look oven. the problems we now live with in the Bentwood community.-.
chefore its to late we crie have to deal on a daily boses with roal truffic, rue alreacht. have Giv traffic, the aistraftio comes and gaw. But that raal. traffic is going to ve all the terne. That two much eoncern is giving to the Bentwo ads carmennity, 702 ane we are a weiy orrael cornominty Thayhe the fulings are in the fiture the Hume erogram cirel che in ouv comnuinty, so puct attenate I in Bentword would be fine, Wrany, let mertele yow from my or enserene, vt a living hel, youl don't urant to puit any, more maney inti youv thane, ruit dont knaw what the tutervo. halis for us what thappens. if altermate 4 gou in Benturabs: Ond BWI program dren'teame Thi' far? os thy doxit chave
the moxey to bruy ow homes? whut thuppens thas?

Whank gow
4ho Rnoüt illarsunges
3 L fack ferming
1204 Bentinuade ped
Haronui Mil 21076 859-5389

Willam K. Hollmann Secrstary
Hal Kassoth
Administrator

July 14,1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Maryland Route 3 (Interstate Route 97) PDMS No. 022007

Mrs. Dorothy Horringer 7209 Bentwoods Road Hanover, Maryland 21076

Dear Mrs. Horringer:
This is in reference to your letter to Mr. Ronald E. Moon dated June 10, 1986, expressing your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript. We want to assure you that we appreciate the concerns you have with the effects on your home and the Bentwoods Community should Maryland Route 100 be constructed on the Alternate 4 alignment. I also want to assure you they will be fully considered and addressed before a decision is made on the selection of an alternate for Maryland Route 100.

Thank you for writing and letting us know of your concerns. Via the project mailing list, you will be kept aware of future developments and advised of the decision made by the State Highway Administration.


LHE: tlh
cc: Mr. Neil J. Pedersen
Mr. Edward H. Meeha
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.
Note: For additional response; see page VI-189

My telophone number is_659-1130
Teletypewriter for Impaired Hearing or Speech 383.7555 Baltimore Metro - 565.0451 D.C. Metro - 1.800.492.5062 Statewide Toll Fiee P.O. 80x 717 I 707 North Calvert St., Baltimore, Maryland 21203-0717

Additional respons 1986:

Alternate 4 has not been selected. Questions pertalning to impacts from the
Baltimore Washington international Alrport should Aviation Administration.

State highway administration QUESTIONS ANDIOR COMMENTS

Contract No. AA 682-101-570 - PDMS NO. 022007 Combined Location/Design Public Hearing Maryland Route 100 I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 pom. - Andover Senior High Schorl
James M. Tordella PLEASE adDRESS 10353 MAYPOLE WAY
PRINT
$\qquad$
cityitown Columbia
state $\qquad$ ZIP CODE

IW We wish to comment or inquire about the following aspects of this project:

- I am the president of the MD. Assoc. of Bicycle ORganizations, OUSe member orcanizmions/ the Bmtimores Bicycle CLLB, and the $4-H$ CYecists of A.A. Co, TO wat twa) ARE AFFECTED DY A.LTERNATES 3 AND 4 , AntERSELY AND ILLEGGUY. CURRENTLY BICYCLISTS HAVE ACCESS TO. MD DORSEY ROAD, AND ARE ABLE TO CROSS MAJOR ROADS IA THE AREA, SUCH As LS RT 1, MD RT 295 , ate, WHILE ON DORSEY ROAD.
- If MD RT 100 is constricted as and expressway under Alts 384 , THEN MD LAW AGHAST BICHCUSTS ON EXPRESSWOLS WOULD PROHIbIT
 WOULD BE RESTRICTED TO BEING A NETH GORAHOD NATIVITY. LONGER DISTANCE THKUL-ACCESS, ACCESS TO GRIPE SCHOOLS AND HIGH SCHOOLS, AND ACCESS TO THE MAN BUSINESSES, WHICH ARE IN THE AREA, DiCKCLING IN MD is EXTENSIVE AND GROWIIGG RAPIDLY. IT IS HERTJAFLL, inEXPENSIVE, EFFECTIVE TRANSPORTATION. IT SHOMD NOT BE SO CURTAILED.
- FEDERAL Law requIRES THAT existing brcuele access must be mantonveo. THIS PROJECL Witt Existing MD Lan, GOES AGATAST THIS FEDERIL LAW.
- One option which would se agreeable to mab: revise mp lan to ALLDW BICYCLE ACcess To MD AND LS EXPRESSWARS, WHERE NO OTHER ALTERNATE EXISTS TO PRIOR ACCESS BY BICYCLISTS. ANOTHER OPTION: BI
 $\square$ Please delete my our names) from the Mailing List. $\rightarrow_{A}$ Continuous Service ReAD, OR *Persons who have received a coop y of this brochure through the mall are already
on the project Mailing List. on the project Mailing List.

OTHER LOCAL ACCESS VI-190 - IDES FOR LOCAL CITIEORIRY.

## Maryland Department of Transportation

Willam K. Hellmann Socratary
Hal Kassoff Administrator

July 16, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Interstate Route 97
PDMS No. 022007

Mr. James M. Tordella, President Maryland Association of Bicycle Organizations 10353 Maypole Way

```
Columbia, Maryland 21044
```

Dear Mr. Tordella:
This is to acknowledge receipt of your comments dated June 12, 1986 expressing. your views on the Maryland Route 100 project. Your letter will be made a part of the official project record bv being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concern-
ing the project.


LHE: tln

```
cc: Mr. Neil J. Pedersen
    Mr. Edward H. Meehàn
    Mr. Ronald E. Moon
    Mr. James T. Johnson
    Note: For ădditional response, see page VI-192
```

Additional response to letter from James M. Tordella, dated 12 June 1986:
Alternate 38 (Modified) Includes several provisions for maintaining traffic on the local road network. These Include providing a bridge across Maryland Route 295 connectIng Race Road with Wright Road, bridgIng Harmans Road over Maryland Route 100 and bridgIng W.B. \& A. Road over Maryland Route 100 . Blcycle traffic would be malntalned on those roads where it currently exists.

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

Contract No．AA 682－101－570－PDMS No． 022007 Combined Location／Design Public Hearing Maryland Route 100
 I－95 to Maryland Route 3 （I－97）
Thursday，June 12，1986－7：30 pom．－Andover Senior High Schorl
name Rev．Diane Summerhill
address 6955 Dorsey Road
CITYITOWN Dome y STATE $\qquad$ $M D$ ZIP CODE $2<227$
please
PRINT

My concerns as pastor of Emmaneedi United Methodist Chwreh in Dorsey are two－fold：

1）protection of the tittle zion Cematen near the intersection of Route 1 aude Ambarton Drive，andy
2）the integrity of the communities through which the mad must traverse，with as little disruption d local traffic flow as possible The planners of our nation sometimes forget that the roaches are ultimately，for the people，for their convenience $\sigma$ safety．A plan which is designed to most espedutionsly move vehicles，without taking into ecoxsicieratio the people if affects is a portly conceived plan．

It sounded from comments at the hearing on $\epsilon / 12$ that Alternative if with 36 option best serves human near．

I am also concerned that you decide as sorn as possible，so property courses can make plans accordingly．Many are dangling in uncertainty．
国 Please add my／our names）to the Mailing List．＊
Please delete my／our names）from the Mailing List．
＊Persons who haverecelved a copy of this brochure through the mail are already on the project Mailing List．

Maryland Department of Transportation
State Highway Administration
WIlliam K. Hellmann Secretary
Hal Kissoff Administrator

July 16, 1986
RE: Contract No. AA 682-101-570 Maryland Route 100 Interstate Route 95 to Interstate Route 97
PDMS No. 022007

The Reverend Diane Summerhill 6955 Dorsey Road Dorsey, Maryland 21227
Dear Reverend Summerhill: :
This is to acknowledge receipt of your comments dated June 12, 1986 expressing your views on the Maryland Route 100 project. Your letter will be made a part of the official project record by being entered into the Public Hearing transcript.

You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list. We appreciate your views and assure you they will be considered before a final decision is made concerning the project.


LHE: tl h
cc: Mr. Neil J. Pedersen
Mr. Edward H. Behan
Mr. Ronald E. Moon $\sqrt{ }$
Mr. James T. Johnson
Note: For additional response, see page VI-195

659-1130

Addltional response to letter from the Rev. Dlane Summerhlll, dated June 12,
1986:
As shown on Figure II-26, the Zlon Cemetery near the Intersection of U.S. Route 1 and Amberton Drive will not be directly Impacted by the selected alternate, Alternate 38 (Modifled). Although the direct access to the cemetery from U.S. Route 1 Is blocked by the ramps for the MD Route 100/U.S. Route 1 Interchange, access to the cemetery from Amberton Drive is malntalned.

4351 Garden City Drive
Suite 300
Landover. Maryland 20785 301-45-8700

## Oxford Development Enterprises, Inc.

June 12, 1986

Mr. Ronald E. Moon
Project Manager
Project Development Division
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
RE: Maryland Route 100 Project
Dear Mr. Moon:
Attached is a copy of the statement and exhibits I presented for the public record at the Public Hearing for the referenced project on June 12, 1986.

I am a Vice President with Oxford Development Enterprises, Inc. and am representing the Troy Hill Business Park Partnership. This is a Maryland General Partnership between Transcontinental Properties and Oxford with Oxford being the Managing Partner.

Sincerely,
TROY HILL BUSINESS PARK PARTNERSHIP


SDA/jp
enclosure
4963/PD30.03A

# Presentation to Maryland State Highway Administration at Maryland Route 100 Location/Design Public Hearing 

June 12, 1986

My name is Steven D. Armsey, Vice President of Oxford Development Enterprises, Inc. I am here representing the Troy Hill Business Park Partnership which has submitted a sketch plan to Howard County for the development of a 192-acre site fronting on the west side of U.S. Route 1 just north of the proposed U.S. Route $1 /$ Maryland Route 100 interchange. We have proposed to develop the parcel into a business park, known as Troy $H 111$ Corporate Business Park, under the right of existing zoning.

Given the traffic generated by our proposed development (a large portion of which has already been considered in your planning) and the proximity of the proposed two site access points to the interchange, the eventual design of the interchange will have impact on access to the development and vice versa. In light of the mutual desire for smooth and safe traffic flow for through traffic as well as those desiring access to properties along U.S. Route 1 , I offer the following comments for your consideration:

1. The traffic analysis that we commissioned for our proposed development confirmed that the interchange design as proposed by the Maryland State Highway Administration is needed to meet the traffic demand for all users in the area. An at-grade intersection at this location will eventually become jammed with continued development and traffic growth. The heavy left turn movements from eastbound Maryland Route 100 to northbound U.S. Route 1 and from northbound U.S. Route 1 to westbound Maryland Route 100 require the loop ramp interchange design as proposed. Hence, we support the interchange design as proposed.
2. We offer one minor revision to the interchange design in the interest of safety. We suggest that the high speed off-ramp for westbound Maryland Route 100 traffic to turn right to northbound U.S. Route 1 be aligned to intersect with U.S. Route 1 at or near the same location for the ramp for left turns onto U.S. Route 1. The attached sketch illustrates this concept. We feel this would be desirable because it will provide more weaving distance for motorist desiring to turn left into the Troy $H 111$ Corporate Business Park and other properties that the first access point will serve. As a benefit to the State of Maryland, it will reduce acquisition of right-of-way in that quadrant and reduce construction costs. Such a revision will not adversely affect the overall operation of the interchange.
3. We also support the relocation. of Amberton Drive as proposed by the State. However, we recommend that the exact relocation of Intersection coincide with our proposed southern access point to avoid an undesirable offset intersection situation. The attached sketch plan, as submitted to Howard County, illustrates this alignment.
4. If Howard County approves our development plan, the State may not have to build the service road connection to U.S. Route 1 in the .northwest quadrant. The internal public road system for the Troy Hill Corporate Business Park would include a public road connection to the properties south of our parcel affording them access to U.S. Route 1 . This plan will also reduce the amount of right-of-way acquisition required by the State in the affected area.

Presentation to Maryland State Highway Administration
page three

In conclusion, as a landowner/developer in the area of the proposed Maryland Route 100/U.S. Route 1 interchange, we strongly support the State's planned highway improvement and specifically the interchange design. We trust you will consider our suggested modifications. Furthermore, as our project moves forward, we intend to coordinate with your agency for required improvements along U.S. Route 1 that, will serve the needs of through traffic as well as access to our property and others adjoining us.

Note: For additional response, see page VI-203


Maryland Department of Transportation State Highway Administration
Office of Planning and Preliminary Engineering
Baltimore, MD.

## Gentlemen:

I would like ta offer my comments and objections on proposed Rt. 100 extension from I-95 ta Md. Rt. 3.

First of all, I would like you to know that $I$ am a long time resident of Severn. I have lived my entire life ( 63 years) on our farm (approximately 50 acres) which is coowned by my brother, Charles. E. Wagner and myself, Howard E. Wagner. The Wagner farm is located on the east side of Rt. 652, south of Queenstown road, and north of Rt. 170/652 intersection. This farm has been actively farmed by the Wagner family it, and want to keep it. We have taken care of the land; paid taxes on

The proposed Alternate $3 E$ would seriously effect the farm. The road path would cut the farm in half on a diagonal line from NE Corner of the farm near Queenstown road to SW corner of the farm near Rt. $652 / 170$ intersection. The proposed road path would cut through the most fertile part of the land, and take a tenant house, tractor shed, storage shed, and possibly a barn and garage. The roadway would be within 200 feet of my house. The roadway would take away my access road to Rt. 652 and half of the farm's road frontage to Rt. 652. I am not sure how the State would provide me with access to the other side of the farm, but I would have to travel several miles from my home to reach the other side of the farm. The proposed Alternate $3 B$ would also cut me off from the community of Severn. I would have to travel several miles out of my way to get to the Post Office since Rt. 652 to 170 would be blocked. The net result of this proposal is that the road would destroy our farm and ruin the value of the 1 and.

The Alternate $3 A$ also effects , the farm but not to as great an extent. It cuts through the south end of the farm and would result in many of the disadvantages as the Alternate $3 B$ path. Therefore I am not in favor of Alternate 3 A either.

I would like to know why alternate $3 E$ road path cant be shifted south if our farm and make use of State owned property that the state Roads purchased many years ago.

I would also like to know why the State Road Commission favors Alternate 38 which is the most expensive to construct ( $\$ 153.9 \mathrm{M}$ according to your estimates). I would think that the $3 / 4$ Crossover, which is considerably cheaper ( $\$ 15.8$ M less) would be a more appropriate course It does not effect the Queenstown community any more than alternate $3 B$. And, it keeps the hustle, bustle, traffic, and noise near Rt. 176, the Airport, and the industrial centers for which it is intended to serve. Why destroy what is left of a small rural area and waste additional tax payers dollars.

One final comment. I tried to mail you my comments using the business reply form that was attached to the back of the Combined Location/Design Public Hearing Document (PDMS NO 022007). It was returned to me by the Post Office stamped Return to Sender, Business Reply Permit Cancelled.


Response to letters from Steven D. Armsey, dated June 12, 1986 and Howard E.
Wagner, dated June 12, 1986: Mr. Armsey's letter is a copy of the statement he presented at the Public HearIng. The comments in Mr. Wagner's letter were expressed at the Public HearIng by Howard E. Wagner, Jr. Responses thereto are given in Section
VI.B.1.

Prox,
Atere is a expy of miy specich, as verllas, the aigicatices il collected ( $t$ aidn'toube ang!). Wh. hope thesk and ail the commentio on fune 12, will influence $5 H A$ to baild Altensater 4 .
al have ume additional comerkents to incake. In legad to the levels of service for apt. 4, dousn't it make sense that mise taffic wived/ utiling- the DewRidge Rud Cxtertion inteckinge than pijected? if tuikic on Davsey oven to ... the VFW miteccurres is gaing to be it a berel of $\mathcal{E}$, than nore perple wiwed viow til othin interchange which is frojected at vely a b will of A. Au the high levels of service peojections on $R+.170$ rijlecting, aie the theffic thying to
cet to $R+.100$ ? 2 assulice thet to be the cass get to Rt. 100 ? A assulice thet to be the case. Thevefoee, is the volunne of turfie taken into account when designing interchanges IIF VFi intrelange is not wiel designid fre thas maney, autor. Ssk't here sorve siay of unproving it to wiclude mone coxtixuous flow, instad
 $\bigcirc$ carpes $亠$ faxies?

Also, could you enligtem sui on houthe lerieloog service
 account, whick confusinme liven rioue For example, an Pg. I-le Rt 650 hus 4,800 A.D.T. with 2 lanes and is

is pujected to have 5,000 A.D.T. w.Th Plows, and will be at a reive of $A$. These ciucls ace 隹itarim ratuce, t that section of Newi Ridge world remain as is, sw liky the dis erepancy? There are cthers.

Does $F 10$ do adtuss saurches for everuyone in the caindor? Secause several peope al spoike with didr't sit a green bucturie akadoy time. Wien wes the esidents of Harman's Woids and Tn unsix Heighto ritif.eal? Dsecause reithe of those comnunities has an assiciation: So it possible for me to get a cipyg the Leanclipt? a woied like to have a listofall thise with spoile incbeding thin addresses.
 Lion you soox,


1. At the meeting that Mr. Moon had in April with the Sandalwood Association, it was recognized that Alternate 4 could also utilize the Option B that Alternate 3 uses. Nowhere in the Draft Environmental Impact Impact statement (DEIS) is this pointed out. There was low attendance at that meeting which did not give the State Highway Administration (SHA) or our local officials a good impression. As a result, those of us who did attend were concerned as to how the community actually felt. So. I canvassed the Sandalwood commanity on Saturday (June 7) with a petition. Over $1 / 2$ of the residents were home. No one was in favor of Alternate 3. and I found widespread support for Alternate 4 with Option B. Here are the many signatures.
2. Alternate 4 has the least relocations of homes and businesses. It takes more farmland, but less that Alternate 3 in acres being actively used. Alternate 4 takes less woodland acres than Alternate 3. even with going through Patapsco state Park. It would cost less in right-of-way, relocation, and construction costs. It has less noise impacted sites than Aiternate 3. Alternate 3 Option B affects the nistoric smith Farm property, as well as. three archeological sites. Alternate 4 impacts no historical or archeological sites even utilizing Option $B$ because of where the two would connect.
3. The least amount of stream crossings there are. the better the likelihood of not disrupting existing floodplain levels. Alternate 3 has more stream crossings. and takes almost 4 times as much Eloodplain acreage as Alternate 4 . Alternate 4 also takes less wetland acreage which is essential as a buffer system to flood waters. Section 4. pages 38839 of the EIS discuss all the problems associated with construction across and in floodplains. Our floodplain level is already in jeopardy. Between the builder's grading, and the dumpage of debris into the stream behind us, there is already a threat to Lemon Tree Ct. and Leeds Rd. The EIS also states that floodplain problems could increase fiood stages upstream. These streets would be upstream of Alternate 3 .
4. The EIS states that Alternate 3 would "open a new corridor". That is not true. We currently have one east/west road. Alternate would cul-de-sac Dorsey Rd. and still allow for just one east/west road. If Alternate $s$ were constructed. there would be two uninterrupted thoroughfares that could be utilized. This really should be done. When one examines the projected levels of service, it becomes even more obvious. Levels of service measure the amount of traffic using a road. It goes from $A$ to $F$ with $F$ being stand-stili traffic. Currently. Dorsey Rd. is at a level of $E$. After construction. Rt. 170 would be at levels of $E$ and $F$. and so would part of Dorsey Rd. This makes no sense. With Alternate 4, more traffic would utilize the New Ridge Road Extension than they project, but with Alternate 3 the traffic would still be sitting in line waiting to get on Rt. 100 . If Alternate 4 is built. both roads Would be available for traffic to utilize. The EIS states that the aim of thisproject is "ro relieve existing probiems along major routes in the study area". Alternate 3 does not accomplish this goal at all.
5. The EIS states the "build alternates improve access to parks and keep the existing road network intact". Alternate 3 is a mess! It either cul-de-sacs. relocates or both. every local road it crosses but one (queenstown Rd.). How is that keeping the existing road network intact? The EIS states also that "SHA finds 3 B provides the needed service for transportation with minimal impacts to adjacent communities". Alternate 3 just squeezes by several existing communties. By Alternate 4 l:tilizing Option B. it would provide the least amount of unnecessary disruption.
6. (Page IV-90) In stating a problem of the Crossover Option, the EIS also summarizes Alternate 3. It states that the "interchange Construction just east of Md. 295 requires that Md. 176 deadend at Wright Rd. Thus local traffic would have to utilize the interchange at the New Ridge Rd. Extension. The result would be circuitous Department". If you measure the distresidents and the fire that interchange, it is just over one mile. Where fire House to the distance from the Fire House to the whereas, if you measure interchange utilized with Alternate 3. it Relocated Ridge Road If the Crossover Option is so bad. then so is Alternts to one mile. Alternate 4 was built. the Fire Department 18 Alternate 3.1 If (because it would be left open) or Rt. 100 whichutilize Dorsey Rd. there the quickest. This also applies to whichever would get them additional point to be made for the New Ridge Rd. Ext ridents. One elimination of a large part of the Westinghouse traffic from is the Rd. because they could use that interchange via Stoney Run Rd.
7. The Fire Department is not the only service affected. The Anne Arundel County Police Department submitted a letter to SHA favoring Alternate 4 over Alternate 3. The department is concerned with the "sub-dividing of present communties. Which could result in an increase in response times to calls for service". Plus. Alternate 3 cul-de-sacs Harmans Rd. meaning a tremendous increase in traffic utilizing Ridge Chapel'Road which is right in front of Harmans Elementary School.
8. The airport also submitted a letter to SHA. It states that there are no potential problems with Alternate 3. but lists numerous reasons why Alternate 4 is bad. A major point is the New Ridge Rd. Extension interchange. They are concerned about automobile headights affecting the departing aircraft at the existing stoney Run Runway, as well as, the visibility of the planes being a safety problem for the drivers. Well. if you investigate option B. it shows that these same problems could exist for the current Dorsey Rd. Runway and would be even worse if BWI built its proposed runway 15 L 33 R which would be east of the Dorsey Rd. Runway. But none of this is stated (in the BWI letter). I'm not trying to put down Option $B$. I'm just stating that the airport would like to make Alternate 4 look as bad as possible and Alternate 3 look wonderful. when in actuality. the airport has problems with both proposais because it wants to expand. Besides. we all currently travel down problems.
9. It is going to be tough getting Alternate 4 built through Patapsco State Park. However. if the Federal Highway Administration (FHA) had not considered it a viable alternate, then it would not have been studied in the first place. Now we only have to convince the Department of Natural Resources (DNR) and the Federal Department of Interior. The state would be required to replace the parkland taken and the EIS states that a noise barrier is also feasible for the park. Plus, that section of the park is such rough terrain that it would be difficult for hikers to even utilize it. However. DNR insists that Alternate 4 would be a significant impact, therefore. we must appeal to the Federal Department of Interior. If we influence SHA enough to consider building Alternate 4, and they cant get past DNR permits, then we have got to go above DNR to the Interior Department. The Section (f) evaluation states that "no other feasible and prudent alternative" be available or parkland cannot be taken. We've got to insist that Alternate 3 is not feasible, but utterly ridiculous. I have the address for the Department of Interior, as well as some points to make in a letter to them if you would like to see me afterwards.
10. "The counties acknowledge the need to improve this traffic corridor to better serve expanded light industrial development and the associated truck traffic in the BWI Airport area." Alternate 4 provides excellent access for Landco. Friendship Airpark. BWI Commerce, and Baltimore Commons Industrial Parks. An access road from Alternate 4 to Race Rd. could be provided to accommodate Parkway Industrial if the state wanted to alleviate all the truck traffic. With Alternate 3 only Parkway Industrial truck traffic Would be off of Dorsey Rd. Also. the EIS states that the "local businesses might experience some loss of activity under the build alternates since a large portion of the through traffic would be moved away from the Md. 176 corridor". Well. not only would that be a problem for businesses, but for all the existing traffic. Where would it go? Alternate 4 would cause less traffic tie-ups.
11. The EIS states that "the transportation goal of this project is to identify an alignment that adequately and safely accommodates the traffic needs of the study area". That alignment has been identified, and it is Alternate 4 with Option $B!$ The document states (Page IV-12) that Alternate 4 allows "continued, uninterrupted access and travel for area residents". and that's what we want built!

The following people support the Alternate 4 Option alignment for the extension of $m_{a}$. Route 100.

Nams
ADDRESS

Konnie Both
Alugarne Xoyghis
Jones © Margarat Smith Carol deni
Tom Seub-

$\rightarrow$ Qilfinie swats glaudu


Koutara Hilms


- bril C Puindotou

Sucan Seilils
Hop livias
Walt-z four
7527. Ganbervy Ct. 7521 CRAnberãy Ct. 7017 Crabierry ct. 7513 Sab6rm Count

7511-. Sapting Cunct 7509 Solfron Eomp 7505 saffer Cour $1=$ 2505 da $x$ Com C.
roor Maflian . 7
7506 Saffron $C t$
7510 Saffion of
7512 suftian $C$
2510 , fifionct
1518 Canbery of 2524 Crmberng. Of 7526 Cnaubeny Cf 7527 ciacherg. $0 x$. 1225 Cinnkery 0 1523 Combirnfett 1310 Sthaynem Lao 1308 trawherry Lane 7512 Sandluvo CR 7512 Sendlumel $C x$ 2510 fordteword ot

$\therefore$ The following people suppoiet the Alternate of Option $B$ olignment for the extension of md . Toute 100.

NAME
 Llenda Brown 7504 Ackermanen Ct Hanover Inc
Banty Elfen Ayers) 1505 Ackermann At Thonover It Heven Quers 7505 Aekimann At Henoerer 2115 Wellent Eduogp 1328 Craghell CT Hnvovetiml. Therer R maite. 1326 . Caughill ol Naing mil Foimag Melender 1324 Craghil. Hanorar ins 132 Y CR AGHtll, HANOUER, ñ. Caeline.Mundello 1322 Ceaghill G. Atanaver, Md $=102$ Alefander tfandee 1318 Craighici $c_{1}$. kawover mo sions. Martina V. Cropty 1316 Graighill Ct. Hanover MO 210 Y

1316 Cuphill CD Hanouen, Maref 1323 Unghice co 4tixoms $\because 202$
 Pancia Bressar $130^{2} 2$ Skawbeny In Atanave-md 200 1302 STRAWBENKY LW, HINOUP R, MPL0S6

 Hherges socomb 7525 Crauberry Lt Atanover MD Mo
 $7528 C_{\text {Rowberg }} G$ Hpuow $m y 2107$

Connie L. Both
7527 Cranberry Court
Hanover. Maryland 21076 July 4.1986

Governor Harry R. Hughes The State House.
Annapolis. Maryland 21401


Dear Sif:
I am writing in regard to the proposed extension of Maryland Route 100. The State Highway Administration (SHA) had a Combined Location/ Design Public Hearing on June 12. 1986. At this hearing, it quickly became apparent that local support is overwhelmingly behind the construction of Alternate 4 with Option B. SHA's preferred alignment is Alternate 3 with. Option B. I realize that your term in office is coming to a close, but I also realize that you are very concerned about important local issues. I hope chat you will use your influence to help us in this matter. Our local representatives have not researched all of the ramifications of Alternate 3, and therefore have lent their support rio its construction. Testimony at the hearing brought out facts that they were unaware of. and hopefully, the convincing evidence has swayed them to change their positions.

Alternate 4 has two obstacles. It would traverse Patapsco state park and a corner of the BWI Airport property. Even so, as an environmentalist. I feel that the benefits of Alternate 4 far outweigh its negatives: throughout the entire alignment. Alternate 3 causes more environmental degradation than Alternate. 4. I have enclosed the speech that I presseated at the Public Hearing which highlights these impacts.

A major. concern that I have come to realize (since speaking) is the - impact that Alternate 3 would cause to the Buckingham Forest Tree Nursery. It is the only reforestation nursery for the entire state of Maryland and is presently also supplying Delaware with sapping. The nursery is ideal with rich floodplain soil. surrounding clear ponds. nearby wildlife populations. and good topography. The Department of Natural Resources (DNR) should be more concerned with the devastation caused by Alternate 3 than with Alternate 4. DNR stated that Alternate 4 would cause a significant impact to the park. However. I disagree. That particular section of Patapsco state Park is such rough terrain that it would be difficult for hikers to even utilize it. If Alternate 4 is built. the land would be replaced by SHA acre for acre with much better property. Plus. the Draft Environmental Impact statement states that a noise barrier is feasible for the portion of the park crossed.

BWI Afrport claims that Alternate 4 would cause safety problems.
However. I feel that any alignment that is constructed will cause the airport problems because of its desire to expand. Alternate 4 could be built below grade across the BWI property. This would allow for safe verhead air traffic - safer chan currently exists on Dorsey Road (Route 176).

Aside from the environmental issues. Alternate 4 with Opfion $B$ would allow for two uninterrupted thoroughfares. Whereas, Alternate 3 disrupts the entire local raad network with numerous cul-de-sacs and relocations. including dead-ending Dorsey Road at Route 295. Alternate 4 would also allow Westinghouse traffic to access Route 100 directly via Stoney Run Road. This would further relieve traffic congestion on Dorsey Road.

Alternate 4 is a much more compatible alignment allowing for continued. uninterrupted access and travel for local and through traffic. It has the overwhelming support of local residents, as well as. businesses. Several businesses spoke at the Public Hearing against Alternate 3 and in favor of Alternate 4. SHA had sent them separate letters urging them to support Alternate 3. but they did not. For instance, the BWI Commerce Park supported Alternate 4. While the Parkway Industrial Center chose to point out all of the bad points of Alternates 2 and 3 .
$T$
please consider these points carefully and help us get the best possible road built. Alternate 4 with Option $B$ appeases the majority of chose involved and also causes the least environmental damage.

Thank you for your kind atrention to this matter, and look forward to hearing from you.

Sincerely.
 connie L. Both

1. At the meeting that Mr. Moon had in April with the Sunualwood Association, it was recognized that Alternate could also utilize the Option B that Alternate 3 uses. Nowhere in the Draft Environmental Impact Impact Statement (DelIS) is this pointed out. There was low attendance at that meeting which did not give the State Highway Administration (SHA) or our local officials a good impression. As a result, those of us who did attend were concerned as to bow the community actually felt. So. I canvassed the Sandalwood community on Saturday with a petition. Over $1 / 2$ of the residents were home. No one was in favor of Alternate 3. and I found widespread support for Alternate 4 with Option B. Here are the many signatures.
2. Alternate 4 has the least relocation of homes and businesses. It takes more farmland. but less chat Alt. 3 in acres being actively used. Alt. 4 takes less woodland acres than Alt. 3. even with going through Patapsco State Park. It would cost less in right-of-way. relocation. and. construction costs. It has less noise impacted sites than Alt. 3. Alt. 3 Option $B$ affects the historic Smith Farm property. as well as. 3 archeological sites. Alt. 4 impacts no historical or archeological sites even utilizing option because of where the two would connect.
3. The least amount of stream crossings there are, the better the likelihood of not disrupting existing floodplain levels. Alt. 3 has more stream crossings, and takes almost 4 times as much floodplain acreage as Alt. 4. Alt. 4 also takes less wetland acreage which is essential as buffer system to flood waters. Section 4. pages $38 \varepsilon$ 39 of the EIS discuss all the problems associated with construction across and in floodplains. Our floodplain level is already in jeopardy. Between the builder's grading. and the dumpage of debris into the stream behind us. there is already a threat to Lemon Tree Ct. and Leeds Rd. The EIS also states that floodplain problems could increase flood stages upstream. These streets would be upstream of Alt. 3.
4. The EIS states that Alt. 3 would "open a new corridor". That is not true. We currently have one east/west road. Alt. 3 would cul-de-sac Dorsey Rd.. and still allow for just one east/west road. If Alt. 4 were constructed, there would be two uninterrupted thoroughfares that could be utilized. This really should be done. When one examines the projected levels of service. it becomes even more obvious. Levels of service measure the amount of traffic using a road. It goes from A to $P$ with $P$ being standstill traffic. Currently. Dorsey Rd. is at a level of E. After construction. Rt. 170 would be at levels of $E$ and $F$. and so would part of Dorsey Rd. This makes no sense. With Alt. 4, more traffic would utilize the New Ridge Road Extension than they project. but with Alt. 3 the traffic would still be sitting in line waiting to get on Rt. 100. If Alt. 4 is built. both roads would be available for traffic to utilize. The EIS states that the aim of this project is wo relieve existing problems along major routes in the study area". Alt. 3 does not accomplish this goal at all.

10259
5. She EIS states the build alternai... improve acciu co parks and keep the existing road network intact. Alt. 3 is a mess! It either cul-de-sacs, relocates or both, everyfíoad it croseses but one (Queenstown Rd.). How is that keeping the existing road network Intact? The EIS states also that "SHA finds $3 B$ provides the needed service $\mathbf{t o r}$ transportation with minimal impacts to adjacent communities". Alt. 3 just squeezes by several existing communities. By Alt. 4 utilizing Option $B$, it would provide the least amounc of unnecessary disruption.
6. (Page IV-90) In stating a problem of the Crossover Option. the EIS also summarizes Alt. 3. It states that the "interchange construction just east of Md. 295 requires that Md. 276 deadend at Wright Rd. Thus local traffic would have to utilize the interchange at the New Ridge Rd. Extension. The result would be circuitous travel and increased travel time tor residents and the fire Department". If you measure the distance Irom the fire House to that interchange, it is just over one mile. Whereas, if you measure the distance from the Fire House to the Relocated Ridge Road interchange utilized with Alt. 3. it also amounts to one mile. If the Crossover Option is so bad. then so is Alt. 31 If Alt. 4 was built. the Pire Department could utilize Dorsey Rd. (because it would be left open) or Rt. 100 whichever would get them there the quickest. This also applies to the local residents. One addicional point to be made for the New Ridge Rd. Extenision is the elimination of a large part of the Westinghouse traffic from Dorsey Rd. because they could use that interchange via Stoney Run Rd.
7. The Fire Department is not the only service affected. The Anne Arundel County Police Department submitted a letter to SHA tavoring Alt. 4 over 3. The deparment is concerned with. the "sub-dividing of present communities. which could result in an increase in response times to calls for service". Plus. Alt. 3 cul-de-sacs Harmans Rd. meaning a tremendous increase in traffic utilizing Ridge Chapel Road which is right in fromtof Harmans Elementary School.
a. The airport also submitted a letter to SHA. It states that there are no potential problems with Alt. 3. but lists numerous ceasons why Alt. 4 is bad. A major point is the New Ridge Rd. Extension interchange. They are concerned about automobile headiights affecting the departing aircraft at the existing stoney Run Runway. as well as. the visibility of the planes being a safety problem for the drivers. Well. if you investigate option $B$, it shows that these same problems could exist for the current Dorsey Rd., Runway and would be even worse if BWI built its proposed runway 15 L 33 R which would be east of the Dorsey Rd.. Runway. But none of this is stated (in the BWI letrer). I'm not trying to put down Option $B$. I'm just stating that the airport would like to make Alt. 4. look as bad as possible and Alt. 3 look wonderful. when in actualicy. the airport has problems with both proposals because it wants to expand. Besides, we all currently travel down Dorsey Rd. with aircraft landing over us with no major safery problems.
9. It is going to be tough getting Alt. 4 built through patapsco State Park. However, if the Federal Highway Administration (FHA) had not considered it a viable alternate. then it would not have. been studied in the first place. Now we only have to convince the Department of Natural Resources (DNR) and the Federal Department of Interior. The state would be required to replace the parkland take and the EIS states that a noise barrier is also feasible for the park. Plus. that section of the park is such rough terrain that it would be difficult for hikers to even utilize tu. However. DNR insists that Alt. 4 would be a significant impact, therefore. we must appeal to the Federal Department of Interior. It we influence SHA enough to consider building Alt. 4. and they cant get past DNR permits, then we have got to go above DNR. to the Interior Department. The Section $4(\mathbb{I})$ evaluation states that "no other feasible and prudent alternative be available or parkland cannot be taken. We've got to insist that Alt. 3 is not feasible, but utterly well as some points to address for the Department of Interior. as see me afterwards. make in a letter to them if you would like to
10. "The counties acknowledge the need to improve this traffic corridor to better serve expanded light industrial development and the associated truck traffic in the BWI Airport area." Alt. 4 provides excellent access. for Landco. Friendship Airpark. BWI Commerce, and Baltimore Commons Industrial Parks. An access road from Alt. 4 to Race Rd. could be provided to accommodate parkway Industrial if the state wanted to alleviate all the truck traffic. With Alt. ${ }^{3}$ only Parkway Industrial truck traffic would be off of Dorsey Rd. Also, the EIS states that the "local businesses might large portion of the through traffic would be moved away from the Md. 176 corridor". Well. not only would that be a problem for busiaesses, but for all the existing traffic. Where would it got Alt. 4 would cause less traffic tie-ups.
11. The EIS states that "the transportation goal of this project is to identify an alignment that adequately and safely accommodates the traffic needs of the study arian. That alignment has been identified, and it is Alt. 4 with option Bi The document (Page IV-12) that Alt. 4 allows continued The document states travel for area residents". and chat's what we want built access and .

$\therefore$ The following people suppert the Alternate 4 option
$\quad$ Olignmert for the extension of Md. Route 100.


ADDRESS


7502 sondiniood ${ }^{t}$ t.
BeQ hinalicicodt
7500 . Cendaluacel: 9
750 $\because$ Sanarad f.
:7501 SynNEwaS CT.
7503 dandleurd et.
7s 3' Sauticmall
7505 Sa cle wroodet:
7509 Sardehoed ot.
7509 Sandaluted Q.



thantfous
Vimala Peddi anti.
$\therefore$ Shal FFtanty.
nestes posi Sindlewisd 68.
1509 Jandlentisd Crut 7522 \&timar. Twe ot. .... 7524. Seron. Thue et

7532 fimin Tour G 7532 Remon tive if 7533 Leman Tue $C t$
7533 hemantice lt .
$7 \sqrt{3}$, Lemontw $_{\text {y }} C t$
2529 Lensentect
1500 STCAuberry Lane: 1305 ithauliongyine 7570 Ackenvan Cf. Hen Dos Axiermanm CT HAwiss?
$\therefore \therefore \therefore$ The follewing perte suppet the Alternate 4 Option 3540 olignment for the extension of.ma. Toute 100.

NAHE
 deinda Brown. 7504 Ackirmann. At. Hanaer_ Inct

$\therefore$ O $\because$


…-: Hamag Melende - 1324 Chachill --Hawown mid. 1324 CRAGHIll, HANOUER, ma -



 Jarcia Precen s 1362 Skanibing lis fleurue-md 210







Maryland Department of Transportation

Ms. Connie L. Both 7527 Cranberry Road Hanover, Maryland 21076

Dear Ms. Both:

William K. Hellman Secretary

Hal Kassoft Administrator

RE: Contract No: AA 682-101-570
Maryland Route 100
I-95 to Maryland Route $3 \underset{\tilde{K}}{\mathrm{~K}} \mathrm{I}-97 \pm$ PDMS No. 022007


This is in response to your letter of July 2, 1986 to Senator Paul Sarbanes concerning the proposed construction of Maryland Route 100 from I-95 to Maryland Route 3. Senator Sarbanes forwarded your letter to my office and asked that I reply directly to you.

I want to assure you that your support of Alternate 4, combined with Option 3-B, for the construction of Maryland Route 100 has been noted and that your letter and the testimony you presented at the public hearing will be considered along with all other comments received. We are currently reviewing all comments received as a result of the June 12, 1986 public hearing and from the circulatimon of the Draft Environmental Impact Statement. A final decision will not be made until all comments have been evaluated. The minimization of impacts to homes and communities will be an importhant consideration when making the final decision. We appreciate your input in this matter.

Sincerely, ORIGINAL SIGNED BY: HAL KASSOFF

Hal Kissoff<br>Administrator

HK:bh
cc: Senator Paul S. Sarbanes
Mr. Neil J. Pedersen
Mr. Louis H. Ene, Jr.
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-221

My telephone number ls 659-1111

Response to letters from Connie Both, the transcript of her testimony given at the Public Hear lng and a letter dated July 4, 1986.

The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-Option B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law If a "feasible and prudent" alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified in the Howard County, Anne Arundel County and Regional Planning Council Master Plans. This corridor Is the basis upon which development In the area has been Implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington International AIrport. Federal Aviation Administration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 3 \mathrm{~B}$ to be up to $\$ 36 \mathrm{mlill}$ 脌 greater than the selected alternate. Alternate 38 (Modified), Includes neveral provisions for maintaining traffic on the local road network. These Include providing a bridge across Maryland Route 295 connectIng Race Road with WrIght Road, bridging Harmans Road over Maryland Route 100 and brIdgIng W.B.\& A. Road over Maryland Route 100 . The State HIghway AdmInistration believes that the selected alternate provides the needed service to the area while minimizing impacts to local communities. The project will be designed in accordance with current Water Resources Administration and State HIghway Administration criteria which requires that the construction results in no signiflcant Increase In the 100-year floodplain.

PARKWAY INDUSTRIAL CENTER
7223 PARKWAY DRIVE, SUITE 209
DORSEY, MD. 21076
(301) 796-4446/ WASH. 621-2850

ELN TELEX: 910-350-1615
Mr. Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, Md. 21203
Dear Mr. Pedersen,

REPLY TO:
PRO. BOX 8754
BALTIMORE, MARYLAND $21240 \cdot 0754$


I met with Mr. Ron Moon on June 23, 1986 in reference to State Highway Administration's 2 options to link Routes 103 (Meadowridge Road) and 176 (Dorsey Road) pertaining to Maryland Route 100.

As the developer of Dorsey Business Center I feel it would be beneficial for the State of Maryland to consider linking these 2 roads at the entrance of our new park. Your original designs were predicated on our property maintaining its old character, a speedway. As you know we are developing an excess of $600,000 \mathrm{sq}$. ft. of office space at this location. Due to the change in land use, $I$ am requesting the cooperation of your office to work with us on this matter.

Your office should be in receipt of our traffic study for Dorsey Business Center: Mr. Moon is in favor of my company looking into this matter. I will generate a traffic study by Greenhorn \& O'Mara, Inc. to look at my development's impact on your 2 options.

I am of the understanding that you are approximately 2 weeks away from deciding on one of the two options. I am hopeful you can delay that decision until the results of my traffic study are in. At that time $I$ would like to further discuss this matter with you, in person.

I look forward to working with you on this project.
cc: Mr. Ron Moon
ML: ts
VI-222

Maryland Department of Transportation
State Highway Administration
July 31, 1986

William K. Hellman Secretary
Hal Kissoff Administrator

RE: Contract No. AA 682-101-572
Maryland Route 100
I-95 to Maryland Route 3 (I-97)
PDMS No. 022007
Mr. Mark Levy
Project Manager
Dorsey Business Center
P.O. Box 8754

Baltimore, Maryland 21240-0754
Dear Mr. Levy:
This is in reference to your letter of June 26,1986 concerning the proposed relocation of Maryland Route 176 (Dorsey Road) in the vicinity of the Dorsey Business Center. Your request to modify the options being considered for this relocation, so as to provide a direct connection between Maryland Route 103 and the entrance to the business park, has been taken under advisement and will be investgated during the further development of the project.

I would like to thank you for your interest in this project and for your desire to develop a design for the relocation of Dorsey Road that would be mutually beneficial and in the best interests of both the State Highway Administration and the Dorsey Business Center. We look forward to receiving the results of your traffic study and will advise you of any decisions that are made. However, at this point in time I do not anticipate a final decision being made on either Maryland Route 100 or this section of Dorsey Road for several weeks.

Should you like to discuss this matter further, or if you should need additional information, please let me know.

> Very truly yours,

Mail of Pedeusu
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering
NJP:ss
cc: Mr.E. H. Meehan
Mr. G. R. Straub
Mr. L. H. Eke, Jr.
Mr. R. E. Moon
Mr. J. T. Johnson
Note: For additional response, see page VI-228
My telephone number ls 659-1110
Teletypewriter for Impaired Hearing or Speech

# SIBREA \& BLOOM <br> ATTORNEYS AT LAT <br> 808 W. PENNSYLVANIA AVENUE <br> TOWSON, MARYLAND 8180H 

JOHN R. SIERRA
MILLARD D. BLOOM
SUSAN L. MaCDONALD

June 27, 1986

Mr. Neil. J. Pederson, Director
'Office of Planning \& Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
RE: Contract No. AA 682-101-570 PDMS No. 022007
Md. Rte. 100

I-95 to Md. Rte. 3 (I-97)
Dear Mr. Pederson:
Kindly be advised that this office represents the owners of fee simple property, consisting of approximately one and one-half acres, improved by several buildings, and situated at 6748 Dorsey Road, in Howard County.

- According to the proposals, presently before the State Highway Administration, Rte. 100 will be extended from Rte. 95 to Rte. 3, thus causing Rte 176 (Dorsey Road) to be closed at the intersection with Rte. 1

Our clients presently lease the aforementiond land and buildings to a R.V. dealership, R.V. Unlimited, Inc., which requires pubic exposure to induce the sales and service of R.D. motorhomes, trailers and camping equipment. That the tenants have advised the owners that they will not renew the lease or exercise their option to purchase the property as the change of the traffic pattern will greatly damage their business.

Although our clients are opposed to the pending proposal, they recognize that the extension of Rte. 100 will in fact be accomplished. Therefore, it is our request that the extension be accomplished doing the minimal damage to our clients and perhaps saving the State of Maryland additional expenses.

I call your attention to pages $20 \& 21$ in the green book distributed at the public hearing held on June 12, 1986. Alternate $2 \&$ Alternate 3 show the proposed blocking of Rte. 1 and further establish the relocation
of Rte. 176 (Dorsey Road) beginning opposite the intersection of Md. Rte. 103 (Meadowridge Road) and U.S. Rte. 1 as fully described in the green book on page 13, 3rd paragraph under sub-title "Alternate 2 Urban Arterial".

We are proposing that the "Option" road be considered rather than the present designated road which would tie into Md. Rte. 176 near Magnolia Avenue. After reviewing the site and the plans we believe the "option" road is mere feasible for the following reasons:

1. It would allow the "option" road to exit onto Rte. 176, to the left of clients' property routing traffic in front of the property rather than to the rear of the property as proposed by the original plan.
2. That the construction of the "option" rad is much shorter in length than the proposed road. Considerably reducing the building costs.
3.: That the "option" road would run parallel to Rte. I allowing it be a service road, if necessary.
3. That it is our understanding there are no buildings in the path of the "option" road which would have to be purchased or condemned while the proposed road would require the razing of at least three houses.

We believe that it wald be to the best interests of both the State of Maryland, Howard County, and our clients that the "option" road be given primary consideration in your final plans.

Because of the importance of this matter to both our clients and their tenants, we respectively request an opportunity to meet with you or your Representative at your earliest convenience in order that we can further discuss the ramifications of the existing proposals.

I would appreciate a prompt response in order that appropriate action can be initiated to best protect our clients' interests.

Thanking you for your kindest consideration, I remain


## c/c Mr. Gene R. Straub

Acting District Engineer, District \#7
State Highway Administration
P.O. Box 308

5111 Breckeystown Pike
Frederick, Maryland 21701
c/c Mr. Ronald E. Moon
Project Manager
Project Development Division State Highway Administration 707 N. Calvert Street
Baltimore, Maryl and 21202
c/c Mr. James T. Johnson
Vice President
Century Engineering, Inc. 32 West Road
Towson, Maryl and 21204

# Maryland Department of Transportation 

State Highway Administration
July 16, 1986

RE: Contract No. AA 682-101-570<br>Maryland Route 100<br>Interstate Route 95 to<br>Maryland Route 3<br>(Interstate Route 97)<br>PDMS No. 022007

William K. Hellman Secretary
Hal Kissoff
Administrator

Mr. Millard D. Bloom
SIBREA \& BLOOM
Attorneys-at-Lam
208 W. Pennsylvania Avenue
Towson, Maryland 21204
Dear Mr. Bloom:
This is in reference to your letter of June 27, 1986 expressing the concerns of your clients as to the effects of the proposed relocation of Maryland Route 176 on their property and business situated at 6748 Dorsey Road in Howard County.

We appreciate your views and have noted your preference for an option that would best serve the needs of your clients. I want to assure you that every consideration will be given to your recommendations in the selection of an alternate for the relocaion of Maryland Route 176; however, a decision will not be made until all comments received during and subsequent to the Public Hearing have been evaluated.

Thank you for writing and letting us know of your concerns. Your letter will be made a part of the official project record and will be entered into the Public Hearing transcript. You indicated in your letter that you would like to meet to discuss the ramifications of the proposals for the relocation of Maryland Route 176. I agree with your assessment of the importance of this matter and believe that such a meeting would be mutually beneficial to both your clients and the State Highway Administratin. You may arrange a meeting by calling either my office, at 659-1110, or the Project Manager, Mr. Ronald E. Moon, at 659-1106.

Very truly yours,

Oil g Petersen
Neil J. Pedersen, Director Office of Planning and
Preliminary Engineering
Note: For additional response, see page VI-228

NJP: tl h
cc: Mr. E. H. Meehan
Mr. L. H. Eg, Jr.
My telephone number is 659-1110
Teletypewriter for Impaired Hearing or Speech 383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1.800-492.5062 Statewide Toll Free P.O. Box 717 / 707 North Calvert St., Baltimore, Maryland 21203-0717

Additional response to letters from:
Mark Levy, dated June 26, 1986
Millard D. Bloom, dated June 27, 1986
Under the selected alternate, Alternate 38 (Modified), an adjustment to the 'Op tron' for relocating Dorsey Road at U.S. Route 1 has been chosen (see FIglure (l-27).

## (0) center

PARKWAY INDUSTRIAL CENTER
7223 PARKWAY DRIVE, SUITE 209
DORSEY, MD. 21076
(301) 796-4446/ WASH. 621-2850

ELN TELEX: 910-350-1615

REPLY TO:
P.O. BOX 8754

BALTIMORE, MARYLAND 21240.0754

June 24, 1986

Mr. Ronald E. Moon
State Highway Administration
707 North Calvert St.
P. O. Box 717

Baltimore, Maryland 21203-0717
Re: Route 100 \& Parkway Industrial Center
Dear Mr. Moon:
This letter will serve as a clarification of Parkway Center's recent testimony at Andover High School regarding the development of Route 100 and its impact upon our tenants and our company. As the representative of 40 companies, with more than 5,000 employees, we are understandably concerned that the State Highway Administration is aware of our concerns regarding future access to Parkway Industrial .Center.

The advent of Route 100 is something which we have been waiting for since 1965. It was apparent then, and more so now, that an east west corridor would be necessary for the area to prosper, and we supported all efforts to have the highway constructed, and to that effect dedicated land to the State of Maryland for the proposed interchange at Maryland 295 and Maryland 176. Maryland Route 100, however, was not constructed, and Parkway continued to develop.

In 1980, we acquired and developed Parkway Center II, and in the process spent $\$ 150,000$ on road and signal improvements at the intersection of Parkway Drive and Dorsey Road. These added improvements allowed us to develop Parkway Center II into the premier high-tech office park in Anne Arundel County. Our concept for the development evolved from the existing road patterns. These conditions provided our office tenants with the convenience of immediate access to the Baltimore-Washington Parkway, and to the major "generators" North and South. Additionally, the road patterns enabled us to attract Red Roof Inn, a McDonalds Restaurant, and to develop a retail service center.

These retail developments were undertaken for 2 reasons; our tenants consistently requested the services, and the road patterns allowed for the traffic flows necessary for their successful operation. All of these retail businesses have exceeded their sales projections, and all would be irreparably harmed if the current road patterns were altered.

The harm to Parkway Center's operations would also be significant. Our tenants perception that the now convenient access would be altered to a pattern which is markedly less convenient, would deter the larger expansions many of our tenants are planning. This perception of a less convenient road pattern, although slight in the layman's eyes, is often the most significant factor in a Fortune 500 company's location decision. For this reason it's importance cannot be overstated.

However, having said this, Parkway continues to believe that the development of Route 100 is a needed and important highway project. We believe that its development would be an important step in the future of the Greater BWI Area.

Realizing its importance, we decided at our expense to employ Whitman, Requardt and Assoc. to investigate the impact of the alternative alignments on Parkway Industrial Center's existing access.

Initially Whitman reviewed the Alternative 3-B. Various concepts for exiting and entering Parkway I\& II were explored. Throughout this process it became apparent that a connection between the two parks was essential, and that a more convenient "service" road into Parkway II should be evaluated. The enclosed plans are meant to illustrate our current thinking in regards to the $3-\mathrm{B}$ Alternative. If this alternative is selected, we would like the opportunity to further refine this design.

Whitman also has investigated Alternative-4. We did not develop any drawings for this plan when it became apparent that this alternative would provide Parkway Center with the best access of all alternatives shown, and would not require any re-design. For this reason Alternative-4 is Parkway Center's preferred alignment.

Parkway is interested in seeing the development of the Route 100 project proceed. We believe we have addressed our concerns regarding the importance we attach to the current access we now enjoy. As we have stated, any change to the existing configuration must be measured against the ideal interchange we have now. We believe suitable solations can be designed and only request that these solutions be given proper consideration.


CC: H. Beard - Whitman Requardt
H.Kassof, SHA Administrator
B. Hellman, Secretary of Transportation Curtis Warren - Deep Run Civic Assoc.
Jim Hodges - Deep Run Civic Assoc.
T. Sophocleus, Anne Arundel County Council
B. Athey, Md. Senate, 32nd Legislative District
M. Wagner, Md. Senate, 32nd Legislative District

## WHITMAN, REQUARDT AND ASSOCIATES

EzRa E. WMITMAN, IPE3
Gustav J. Reouanot, 1978


2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218
Kenneth A. MeCono
(301) $235-3430$

July 3, 1986

Mr. Ronald E. Moon
State Highway Administration
707 North Calvert Street
P. O. Box 717

Baltimore, Maryland 21203-0717
Re: Route $100 @$ Parkway Industrial Center
Dear Mr. Moon:
Enclosed are four (4) copies of the "Parkway Center Proposal for Adjustments to Route 100 Alternate $3-B$ " Plan with revised date of July 3, 1986 to be attached to the letter to you dated June 24, 1986, from Mr. Leslie Legum of the Parkway Industrial Center.

If you have any questions, please contact us.
Very truly yours,
WHITMAN, REQUARDT and ASSOCIATES


Harry B. Beard W.O. \#40221
cc: Mr. Legum
Mr. Minshall

Dinectian, defile di
 Combined Location/Design Public Hearing Maryland Route 100
I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 pom. - Andover Senior High ScRoll
The First National Bank of Maryland

> NAME Abram J. Kronsberg, Vice President

DATE July 7,1986
Corporate Facilities Division
PLEASE ADDRESS P.O. Box 1596: BANC 102-191
PRINT
Baltimore
state Maryland ZIP CODE. 21203
We wish to comment or Inquire about the following aspects of this project:

First National Bank of Maryland wishes to submit the following testimony regarding the proposed location/design of Maryland Route 100:

1. A number of legitimate concerns have been raised by various groups regarding the alternates proposed by MDOT/SHA; every alternate will in some way have a negative impact on the community. However, one alternate must be selected. To accept the no-build alternative would be to condemn the business and residential interests in this area to continued failing intersections, increased safety problems, and limited development opportunities inconsistent with the objectives of general plans adopted by the affected counties.
2. Of the remaining altemates, the most desirable is the one that will promote:

- accessibility of cormercial/industrial properties,
- visibility of commercial/industrial properties;
- freedom of turing movements; and
- enhancement of through traffic movements and volumes.

The altemate that best achieves these objectives is Altemate 3, as modified by a proposal submitted by Mr. Minshall of the Parkway Industrial Center.
3. Alternate 4 diverts much of the main flow of traffic away from the commercial/industrial development along Rt. 176 (which development depends on accessibility/visibility) without a significant improvement in the levels of service in that area. Alternate 2 comes closer to maximizing opportunities within the corridor, but the proposal for a straight at-grade intersection at Race Road near the Parkway Industrial Center fails to consider the stressed levels of service such an
intersection will experience, particularly at peak hours. Turning movements will be at risk and safety could deteriorate below current levels due to the need to cross an upgraded multilane facility such as Rt. 100 will be.
4. Altemate 3 is the best altemate, with one enhancement. As Mr. Minshall proposes, a bridge should be constructed at Parkway Drive and Rt. 100 to allow freedom of movement between the north and south sides of the Parkway Industrial Center. This center was designed, marketed and built as an intergrated facility. Certainly, First National Bank depends heavily on business generated from the entire Center, as well as the community at large. Without a bridge at Parkway Drive and Rt. 100, Rt. 100 will constitute a barrier that will impair business. Additionally, a bridge will facilitate the through (north-south) movement of traffic in the Center instead of forcing such traffic to gerrymander its way through various intersections and interchanges. More direct access between the north and south sides of the Center will promote greater safety (fewer intersections and interchanges to negotiate) and will reduce the volumes such intersections and interchanges will be forced to initially carry, potentially adding to their design life.

THE FIRST NATIONAL BANK OF MARYLAND

By: $\frac{\text { Abram J! Kronsberg }}{\substack{\text { Abram } \\ \text { Vice President }}}$
Date: July 7, 1986
cc: David W. Richardson
Alan W. Kempske

# Maryland Department of Transportation 

William K. Bellman Secretary
Hal Kassoff
Administrator

RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Maryland Route 3 (Interstate Route 97) PDMS No. 022007

Mr. Abram J. Kronsberg
Vice President
The First National Bank of Maryland
Corporate Facilities Division
P.O. Box 1596; BANC 102-191

Baltimore, Maryland 21203
Dear Mr. Kronsberg:
This is to acknowledge receipt of your letter regarding the proposed location/design of Maryland Route 100. The testimony submitted by the First National Bank of Maryland will be entered into the public hearing transcript and will become a part of the official project record.

We appreciate the support of the bank for the project and want to assure you that your comments will be considered before a final decision is made concerning the project. You will be advised of the decision made by the State Highway Administration and kept aware of future developments via the project mailing list.

Very truly yours,
neil Y Pedesen
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering

NJP:ss
cc: Mr. Edward H. Meehan
Mr. Louis H. Ege, Jr.
Mr. Ronald E. Moon
Mr. James T. Johnson, Sr.

My telephone number is _659-1110
Teletypewriter for Impaired Hearing or Speech

Response to letters from:
Lesile Legume, dated June 24, 1986
Harry B. Beard, dated July 3, 1986
Abram J. Kronsberg, dated July 7, 1986
Several meetings have been held with representatives of Parkway Industrial Center concerning the impacts of the project. As a result of this coordinatron, Alternate 38 (Modified) Includes a standard diamond interchange at Race Road and an alignment shift Just west of MD. Route 295.
7870 OUARTERFIELD ROAD
SEVERN, MARYLAND 21144
MAY 24,1986

MR. WILLIAM K. HELLMAN, SECRETARY
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
P.O. BOX 717

BALTIMORE, MARYLAND 21203-0717

RE:.. ROUTE $100^{\circ}$ S IMPACT UPON THE QUEENSTOWN COMMUNITY

DEAR MR. HELLMAN:

- TRUTH STOOD ON ONE SIDE AND EASE ON THE OTHER: IT HAS OFTEN BEEN SO.'" WAS IT JUST SIMPLER TO DESTROY THE SINGLE BLACK COMMUNITY THAN TO DISCOMFORT THE OTHERS? IT SEEMS SO. AND IF NOT, YOU HAVE FAILED YOUR RESPONSIBILITY FOR YOU, AS A PUBLIC OFFICIAL, MUST AVOID NOT ONLY THE UGLY FACT BUT ALSO THE SUSPECT APPEARANCE.


CC: T. ATHEY, M. WAGNER

# Maryland Department ofTransportation 

State Highway Administration

William K. Hellman Secretary
Hal Kissoff
Administrator

## JUN 241986

Ms. Nancy W. Gist 7870 Quarterfield Road Severn, Maryland 21144

Dear Ms. Gist:
This is in response to your letter of May 24,1986 to Secretary Hellman.

The State Highway Administration has had several meetings with the Queenstown community and has developed an alternate that avoids disruption to most of the community. This alternate, 3B, was presented at the Public Hearing recently held on June 12, 1986, along with several other options.

All comments received at the hearing and as a result of the circulation of the Draft Environmental Impact Statement will be considered before any final decision is made.

Sincerely,
ORIGINAL SIGNED BY:
HAL MASSOFF
Hal Kissoff
Administrator

HK:bh

cc: Mr. Neil J. Pedersen<br>LAr. Louis H. Age, Jr.<br>Ms. Angela B. Hawkins<br>Note: For additional response, see page VI-260

> VI-239

My telephone number ls

Mary E. Gather 503 Queens town Road Severn, MD 21144

MR. WILLIAM K. HELLMAN. SECRETARY
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
P.O. BOX 717

BALTIMORE, MARYLAND 21203-0717

RE: ROUTE $100^{\circ} S$ IMPACT UPON THE QUEENSTOWN COMMUNITY

DEAR MR. HELLMAN:

I HAVE TO ASK, TO WONDER, AND TO PRAY ABOUT A PUBLIC AGENCY THAT WOULD ALLOW FORTY TO SIXTY MINUTES OF DAILY WEEKDAY TRAFFIC TO DESTROY A COMPAUNITY THAT HAS STOOD SINCE THE BEGINNING OF THE CENTURY. I DO NOT WANT TO MOVE, AND I WILL DO EVERYTHING PRACTICAL AND POSSIBLE NOT TO MOVE. ROUTE 100 CANNOT BE MORE IMPORTANT THAN MY COMMUNITY. MY HOME. MY FAMILY.

SINCERELY,


CC: T. ATHEY, M. WAGNER

## RECEIVED

JUN 2 1986
COmETARY DP DiverriortmatION

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman Secretary

Hal Kassoff Administrator

## JUN 241986

Ms. Mary E. Gather
503 Queenstown Road Severn, Maryland 21144

Dear Ms. Gather:
This is in response to your letter to Secretary Hellman.

The State Highway Administration has had several meetings with the Queenstown community and has developed an alternate that avoids disruption to most of the community. This alternate, 3B, was presented at the Public Hearing recently held on June 12, 1986, along with several other options.

All comments received at the hearing and as a result of the circulation of the Draft Environmental Impact Statement will be considered before any final decision is made.

> Sincerely,
> ORIGINAL SIGNED BY;
> HAL KASSOB'F

Hal Kissoff Administrator

HK: Dh
cc: Mr. Neil J. Pedersen
Mr. Louis H. Ene, Jr.
Ms. Angela B. Hawkins
Note: For additional response, see page VI-260

VI-241
My telephone number ls _659-1111
Teletypewriter for Impaired Hearing or Speech

MR. WILLIAM K. HELLMAN, SECRETARY
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION
POO. BOX 717
BALTIMORE, MARYLAND 21203-0717

RE: ROUTE $100^{\circ}$ S IMPACT UPON THE QUEENSTOWN COMMUNITY

DEAR MR. HELLMAN:

I QUESTION A MOVE THAT WREAKS HAVOC UPON ONE COMMUNITY--A BLACK COMMUNITYー-AND LEAVES NON-BLACK COMMUNITIES UNSCATHED. UNTOUCHED, VIRTUALLY UNDISTURBED. THE ROUTE 100 PROJECT WREAKS NOT ONLY HAVOC--IT REEKS RACISM.


CC: T. ATHEY, M. WAGNER

## The preceeding form letter was also received from:

Bertha Clark, dated May 24, 1986
ClIfton Galther, dated May 24, 1986

# Maryland Department ofTransportation 

State Highway Administration

William K. Hellman Secretary
Hal Kassoff Administrator

## 

Ms. Sylvia Garrison
416 Queenstown Road
Severn, Maryland 21144
Dear Ms. Garrison:
This is in response to your letter of May 24, 1986 to Secretary Hellman.

The State Highway Administration has had several meetings with the Queenstown community and has developed an alternate that avoids disruption to most of the community. This alternate, 3 B , was presented at the Public Hearing recently held on June 12, 1986, along with several other options.

All comments received at the hearing and as a result of the circulation of the Draft Environmental Impact Statement will be considered before any final decision is made.

Sincerely
original signed by:
HAL KASSOFF
Hal Kassoff
Administrator

HK:bh
cc: Mr. Neil J. Pedersen
Mr. Louis H. Age, Jr.
Ms. Angela B. Hawkins
Note: For additional response, see page VI-260

VI -244
My telephone number is 659-1111
Teletypewriter for Impaired Hearing or Speech

The preceeding response was also sent to:
Bertha Clark
719 Queenstown Road
Severn, Maryland 21144
ClIfton Galther
503 Queenstown Road
Severn, MD 21144

# 567 <br> RECEIVED 

JUN 2 198F
certify
of Tivirondation

```
768 QUEENSTOWN ROAD SEVERN, MARYLAND 21144 MAY 24. 1986
```

MR. WILLIAM K. HELLMAN, SECRETARY MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION
POO. BOX 717
BALTIMORE, MARYLAND 21203-0717
RE: ROUTE $100^{\circ} S$ IMPACT UPON THE QUEENSTOWN COMMUNITY
DEAR MR. HELLMAN:

HOW CAN A ROAD GO HAPPILY ALONG SKIPPING FIRST ONE COMMUNITY. THEN ANOTHER, AND THEN INVEIGLE ITSELF THROUGH ONE LONE, BLACK EIGHTY-YEAR-OLD COMMUNITY? THE EFFORT•MADE NO* ATTEMPT AT SUBTLETY: AT FIRST IT WAS THE CHURCH. THEN IT WAS TWOSCORE HOUSES. THEN IT WAS A LITTLE THIS (THE CHURCH'S PARKING LOT J AND A LITTLE THAT-AANYTHING AND EVERYTHING TO WIPE OUT QUEENSTOWN. IT SEEMS THAT A FOOTNOTE TO THE ROUTE 100 PROJECT IS ' GET QUEENSTOWN:' '


CC: T. ATHEY, M. WAGNER

The preceeding form letter was also received from:
Josie E. Warren, dated May 24, 1986
Ralph RobInson, dated May 24, 1986 Verdella Parker, dated May 24, 1986 Sandora Bowyer, dated May 24, 1986

# Maryland Department of Transportation 

William K. Hellman Secretary
Hal Kissoff Administrator

## JUN 241986

Mr. Melvin L. Kelly
768 Queenstown Road Severn, Maryland 21144

Dear Mr. Kelly:
This is in response to your letter of May 24,1986 to Secretary Hellman.

The State Highway Administration has had several meetings with the Queenstown community and has developed an alternate that avoids disruption to most of the community. This alternate, 3B, was presented at the Public Hearing recently held on June 12, 1986, along with several other options.

All comments received at the hearing and as a result of the circulation of the Draft Environmental Impact Statement will be considered before any final decision is made.

Sincerely, ORIGINAL SIGNED BK q HAL KASSOPF.

Hal Kissoff
Administrator

HK:bh
cc: Mr. Neil J. Pedersen
L Mr. Louis H. Eger, Jr.
Ms. Angela B. Hawkins
Note: For additional response, see page VI-260

## VI-248

The preceding response was also sent to:
JosIe E. Warren
7637 Old Telegraph Road
Severn, Maryland ..... 21144
Ralph Robinson
825 Queenstown Road
Severn, Maryland 21144
Verdella Parker
811 Queenstown Road
Severn, Maryland 21144
Sandora Bowyer
810 Queenstown Road
Severn, Maryland ..... 21144

# RECEIVED 

782 QUEENSTOWN ROAD SEVERN, MARYLAND 21144 MAY 24. 1986

MR. WILLIAM K. HELLMAN, SECRETARY MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION
POO. BOX 717
BALTIMQRE, MARYLAND 21203-0717
RE: ROUTE $100^{\circ}$ S IMPACT UPON THE QUEENSTOWN COMMUNITY

DEAR MR. HELLMAN:
I KNOW I OPERATE WITHIN A MOBILE SOCIETY. RECENTLY. I LEARNED THAT I ALSO AM OPERATED BY A MOBILE SOCIETY. ROUTE 100 HAS DECIDED NOT ONLY WHERE I SHOULD LIVE BUT WHEN I MUST MOVE THERE. 'THESE ARE THE TIMES THAT TRY MEN'S SOULS': AND RISK WOMEN'S WRATH. 'TYRANNY, LIKE HELL, IS NOT EASILY CONQUERED: YET WE HAVE THIS CONSOLATION WITH US. THAT THE HARDER THE CONFLICT. THE MORE GLORIOUS THE TRIUMPH.: THE ISSUE OF ROUTE 100 VERSUS THE QUEENSTOWN COMMUNITY PROMISES TO BE LONG AND THREATENS TO BE UNHAPPY. FOR QUEENSTOWN. THIS IS HOME: AND WE ARE IN IT FOR THE DURATION.


CC: T. ATHEY, M. WAGNER

The receding form letter was also received from:
Giorestine Roles, dated May 24, 1986
Mary Kiss, dated May 24, 1986
Thomas W. Thompson, dated May 24, 1986
Elsie M. Totes, dated May 24, 1986
Lavinia Smith, dated May 24, 1986

William K. Mailman Secretary
Hal Kissoff Administrator

## JUN 241986

Mr. Raymond Nicholson
782 Queenstown Road
Severn, Maryland 21144
Dear Mr. Nicholson:
This is in response to your letter of May 24, 1986 to Secretary Hellman.

The State Highway Administration has had several meetings with the Queenstown community and has developed an alternate that avoids disruption to most of the community. This alternate, 3B, was presented at the Public Hearing recently held on June 12, 1986, along with several other options.

All comments received at the hearing and as a result of the circulation of the Draft Environmental Impact Statement will be considered before any final decision is made.

Sincerely
ORIGINAL SIGNED BY:
HAL KASSA FF
Hal Kassoff
Administrator

HK:bh
cc: Mr. Neil J. Pedersen
Mr. Louis H. Ene, Jr. Ms. Angela B. Hawkins

Note: For additional response, see page VI-260
VI -252
The preceding response was also sent to:
Glorestine Coles
724 Queenstown Road
Severn, Maryland 21144
Mary Res
551 Queenstown Road
Severn, Maryland ..... 21144
Thomas W. Thompson
7606 W.B.\& A. Road
Glen Burnle, Maryland ..... 21061
Elsie M. Roles724 Queenstown Road
Severn, Maryland 21144
Lavinia Smith
734 Queenstown Road
Severn, Maryland ..... 21144

I earnestly request that your office give SERIOUS CONSIDERATION TO A CONFIGURATION THAT will combine alltrenge a with mternate 38 IN THE VICINITY OF FRIENDSHIP PARK. SUCH adJustment will save families. homes, and communities. It also will rio project 100 of the stigma of seeming racists.

Name
Address


I earnestly requestíthat your office give SERIOUS CONSIDERATION TO A CONFIGIJRATION that will combine alternate o with alternate jo IN THE VICINITY OF FRIENDSHIP PARK. SUCH adjustment will save families. homes. and COMMUNITIES. IT ALSO WILL RTE PROJECT 100 of the stigma of seeming racist.
Name.
Address

RE, CONTRACT NO. AA 682-101-570
MARYLAND ROUTE 100
FROM I-9S TO I-97
1 Earnestly request that your office give SERIOUS CONSIDERATION TO A CONFIGURATION THAT WILL COMBINE ALTERNATE \& WITH ALTERNATE $3 a^{\prime}$ IN THE VICINITY OF FRIENDSHIP PARK. SUCH ADJUSTMENT WILL SAVE FAMILIES. HOMES, AND COMMUNITIES. IT ALSO WILL RIO PROJECT 100 OF THE STIGMA OF SEEMING RACISM.


RE: CONTRACT NO. AA 682-101-870
MARYLAND ROUTE 100
FROM 1-9S TO I-97
I Earnestly request that your office give SERIOUS CONSIDERATION TO A CONFIGURATION THAT WILL COMBINE ALTERNATE \& WITH MLERNATE BE IN THE VICINITY OF FRIENDSHIP PARK. SUCH ADJUSTMENT WILL SAVE FAMILIES, HOMES. AND COMMUNITIES. IT ALSO WILL RIO PROJECT 100 of the stigma of seeming racisil.


RE, CONTRACT NO. AA 682-101-570 MARYLAND ROUTE 100.
FROM I-9S TO I-97
I EARNESTLY REQUESt that your office give SERIOUS CONSIDERATION TO A -CONFIGURATION that will combine mlernute 4 WITH alternate 38 IN THE VICINITY OF FRIENDSHIP PARK, SUCH ADJUSTMENT WILL SAYEFAMILIES, HOMES, AND COMMUNITIES. IT ALSO WILL RIO PROJECT IO O of the stigma of seeming racism.

Name Address


RE: CONTRACT NO. AA 682-10I-570
IIARYLANO ROUTE 100
FROM I-95 TO I-97
1 Earnestly request that your office give SERIOUS CONSIDERATION TO A CONFIGURATION THAT WILL COMBINE ALTERNATE \& WITH ALTERNATE BE IN THE VICINITY OF fRIENDSHIP PARK. SUCH ADJUSTMENT WILL SAVE FAMILIES. HOMES. AND COMMUNITIES. IT ALSO WILL RIO PROJECT 100 of the stigma of seeming ragis. Name Address

RE: CONTRACT NO. AA 682-101-570
IAARYLANO ROUTE 100
FROM I-95 TO I-97
1 earnestly request that your office give SERIOUS CONSIDERATION TO A, CONFIGURATION that will combine alternate a with alternate $3 B$ IN THE VICINITY OF FRIENDSHIP PARK. SUCH adjustment will save families, homes, and COMMUNITIES. IT ALSO WILL RIO PROJECT 100 of the stigma of seeling racist.
Name
Address


The preceding form letter was also received from:

Wilber Jones, Jr.
Rev. \& Mrs. James H. Graves
Daniel Butler
Marva A. Galther
Gertrude Dalley
Willard M. Wamble
Janis K. Lindsay
Lawreance A. Burley, Jr.
Ellen R. Watkins
Lavinia Smith
Barbara Jones
Sterling Long
Virginia I. Warren
Marie B. Burley
Manuel \& Gladys Jones
Ethel O. Langley
Juile Jones
Phyllis Matthews
Wanda J. Singleton
Lawrence \& Edna Wells
Char les H. Hines
Nancy Gist
Martha Bradford
Alfonso S. Matthews
ClIfton Gaither
Timothy Graham, Jr.
Mary A. Graham
Mr. \& Mrs. Reginald A. Brashears
Basil Jones, Sr.
Sylvia Garrison
Leroy N. Burley
WIllIs G. Henry
Mary E. Gal the
Emerson Hebron
Esther V. Thomas
Rodney Jones
Betty B. Small
Frank Hebron
Elsie M. Totes
Giorestine Roles
Winifred G. Queen
Mr. \& Mrs. Wililam Bowyer
Nellie L. Butler
Lionel Butler
Michael Cornish
Mabel J. Snipes
Irene Hebron
Dorothy V. Faulkner
Daisy Jones
Anita R. Turner

Mr. \& Mrs. Joseph N. Jones
Ernest C. Rogers
Daisy Baker
Ray Moore, Jr.
Evelyn J. Moore
Robert Dally
Mary V. Hebron
Wilson Hebron
Doris Long
Emma C. Hebron

# Maryland Department of Transportation 

State Highway Administration
William K. Hellman Secretary
Hal Kissoff
Administrator
August 5, 1986

RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Interstate Route 97
PDMS No. 022007

Mr. and Mrs. Elmer Alton 655 Queenstown Road Severn, Maryland 21144

Dear Mr. and Mrs. Alton:
I am responding to your comments on behalf of Secretary William K. Hellman and Mr. Louis H. Ege, Jr., concerning the Maryland Route 100 project and your support for a combination of Alternate 4 and Alternate $3-B$ in the vicinity of Friendship Park. He have received many comments on the Maryland Route 100 project since the public hearing, held June 12, 1986.

We are currently reviewing all comments received. A final decision will not be made until all comments have been considered. The minimization of impacts to homes and communities will be an important consideration when making the final decision. We appreciate your input in this matter.

Sincerely,


Administrator

HK: tl
cc: Secretary William K. Hellman
Mr. Neil J. Pedersen
Mr. Louis H. Eke, Jr.
Mr. Ronald E. Moon
Mr. James T. Johnson
Note: For additional response, see page VI-260

VI -256
My telephone number is 659-i111
Teletypewriter for impaired Hearing or Speech 383.7555 Baltimore Metro - 565-0451 D.C. Metro - 1.800.492-5082 Statewide Toll Free

The preceding response was also sent to:


Phyllis Mat thews
509 Queenstown Road
Severn, MD 21142
Wanda J. SIngleton
501 Queenstown Road
Harmans, MD 21077
Lawrence \& Edna Wells 819 Queenstown Road Severn, MD 21144

Charles H. HInes 1411 ValentIne Ave. Glen Burnle, MD 21061

Nancy GIst
7870 Quarterfleld Road
Severn, MD 21144
Martha Bradford
2560 Arunah Ave. BaltImore, MD 21215

Alfonso S. Matthews 509 Queenstown Road Severn, MD 21144

ClIfton Galther
503 Queenstown Road
Severn, MD 21144
TImothy Graham, Jr.
P.O. Box 22

Severn, MD 21144
Mary A. Graham
P.O. Box 22

Severn, MD 21144
Mr. \& Mrs. RegInald Brashears
453 Queenstown Road
Severn, MD 21144
BasIl Jones, Sr.
501 Queenstown Road
Harmons, MD 21077
Sylvia Garrision
416 Queenstown Road
Severn, MD 21144

Leroy N. Bur ley
501 Queenstown Road
Harmans, ND 21077

WIllIs G. Henry
423 Queenstown Road
Severn, MD 21144

Mary E. Galther
503 Queenstown Road
Severn, Md 21133

Emerson Hebron
Box 7318 RIdge Road
Hanover, MD 21076

Esther V. Thomas
326 HIghland Drive
Glen Burnle, MD 21061

Rodney Jones
627 Jones Road
Severn, MD 21144

Betty B. Small
762 Queenstown Road
Severn, MD 21144

Frank Hebron
7468 Race Road
Hanover, MD 21076

Elsie M. Roles
Box 724 Queenstown Road
Severn, MD 21144

Glorestine Roles
Box 724 Queenstown Road
Severn, MD 21144

WInIfred G. Queen
111 N. HollIes Ferry Road
Glen Burnle, ND 21061

Mr. and Mrs. WII lam Bowyer 810 Queenstown Road
Severn, MD 21144

Nell le L. Butler
7837 Clark Stat lon Road
Severn, MD 21144


Mary V. Hebron
7332 Race Road
Hanover, MD 21076

Wilson Hebron
7649 Harmans Road
Hanover, MD 21076

Dor ls Long
7151 WrIght Road Hanover, MD 21076

Emma C. Hebron
7649 Harmans Road Hanover, MD 21076

AddItional response to preceding letters:
The selected alternate, Alternate 38 (Modified), was chosen over a combination of Alternate 4 with Alternate 3-Option B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law if a "feasible and prudent" alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified In the Howard County, Anne Arundel County and RegIonal PlannIng Council Master Plans. This corridor Is the basis upon which development In the area has been Implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington International AIrport. Federal Aviation Administration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36 \mathrm{mllilon}$ greater than the selected alternate.

During the course of the MD Route 100 study, concerns were raised regarding the Impacts of the project. The selected alternate, Alternate 38 (Modified), Incorporates several design changes of the "historical" alignment (Alternate 3-Option A) to address these concerns. These Include the alignment shift at the project's eastern end In order to minimize Impacts to the community of Queenstown, the standard diamond Interchange at Race Road and selectIng the full cloverleaf Interchange at MD Route 295. In total, the design changes made by the State Highway Administration resulted in a reduction in the number of residences displaced by MD Route 100 from 43 to 22. Alternate 38 (Modfled), also Includes several provisions for maintaining traffic on the local road network. These Include providing a bridge across Maryland Route 295 connectIng Race Road with Wright Road, brIdging Harmans Road over Maryland Route 100 and bridgIng W.B.\& A. Road over Maryland Route 100 . The State HIghway Administration believes that the selected alternate provides the needed service to the area while minimizing impacts to local communities. This prolect has been reviewed by the Equal Opportunity Section of the State HIghway Administration and found to be In compliance with title VI of the Civil Rights Act of 1964 (see letter dated June 26, 1986).

## STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

Contract No. AA 682-101-570 - PDMS No. 022007
Combined Location/Design Public Hearing
Maryland Route 100
I-95 to Maryland Route 3 (I-97)
Thursday, June 12, 1986-7:30 pam. - Andover Senior High Schorl
Mr. $\ddagger$ Mrs.
name Robert E. Baxter, SR__odate 9/3/86
please PRINT

$A \quad$| $A$ | $T$ | $R$ | $N$ | $A$ | $T$ | $E$ | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## I/We wish to comment or inquire about the following aspects of this project:

It .. is the only logical choice for a
COST CONS INC E
State Highway Administration !

It is / provides :
J. . Shortest length
2. Minimum disruption on congested Dorsey Road.
3. Fewest residential and business relocation.

5. Finished Project provides:
A. 4 . to 6 lanes of THRU traffic as an outer loop between I-95 and Gibson Island.
B. Local thru traffic unaffected by keeping Improved Dorsey Road in tack.
C. With 8 to 10 lanes for traffic this Alternate 4 plus Dorsey Road will resolve traffic problems until the year 2000 ! ! ! ! ! !

CHOICE
ALTER NA TE 4 !!!!!!!

EX Please add my/our names) to the Mailing List.:
Please delete my lour names) from the Mailing List.
*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

The preceding form letter was also received from:

WIllIam F. Bramer
Nancy Barry
John F. Barry, Jr.
Robin Mahlstedt
Eunice Trap
Edward M. Calvert, Jr.
Lucy BowlIng
Walter A. Harris
Herman D. Sizemore
WIII lIam Henry
Robert Bradshaw
Garnet Ward

Mr. and Mrs. Ernest M. Wallace
Mr. and Mrs. P.E. Harris, Jr.
Mr. and Mrs. W. Leroy Heatwole
John ClIne
Ty Schw.....
Tom Llsowsky
Stephen LIsowsky
Adele K. Karp
Char lott Winters
John S. Bowers
Mr. \& Mrs. Carl L. Cruise, Sr.

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman Secretary
Hal Kissoff
Administrator

October 3, 1986
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to
Maryland Route 3
PDMS No. 022007

Mr . and Mrs. Robert E. Baxter, Sr.
7395 South Afton Court
Hanover, Maryland 21076
Dear Mr. and Mrs. Baxter:
Thank you for your recent comments in which you indicate support for Alternate 4 for the Maryland Route 100 project.

A decision will not be made on the final alternate until all comments received during and subsequent to the public hearing have been reviewed. Your support for Alternate 4 will be given serious consideration.

As requested, your name has been added to the project mailing list.

Very truly yours,
Louis H. Ese, Jr. Deputy Director Project Development Division
by :


LHE:(KEM):cd

Note: For additional response, see page VI-265


In addition, the following response is offered:
The selected alternate, Alternate 38 (Modifled), was chosen over a comblnation of Alternate 4 with Alternate 3-OptIon B (Alternate 4/3B) for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law If a "feasible and prudent" alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identifled in the Howard County, Anne Arundel County and Reglonal Planning Councll Master Plans. This corrldor is the basis upon which development In the area has been Implemented and planned. Alternate 4/3B also traverses the southwestern corner of the Baltimore Washington Internatlonal Alrport. Federal Aviation Adminlstration regulations would require the highway to be constructed in a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36 \mathrm{mllil}$ ion greater than the selected alternate. Alternate 38 (Modifled), Includes several provisions for malntalning trafflc on the local road network. These Include providing a bridge across Maryland Route 295 connect Ing Race Road with Wright Road, bridging Harmans Road over Maryland Route 100 and bridgIng W.B. \& A. Road over Maryland Route 100. The State HIghway Admlnistration belleves that the selected alternate provides the needed service to the area while minlmizing Impacts.

$$
\begin{aligned}
& \text { ALTERNaTE } \\
& \text { STATE HIGHWAY ADMINISTRATION } \\
& \text { QUESTIONS ANDIOR COMMENTS } \\
& \text { - Contract No. AA 682-101-570 - PDMS No. } 022007 \\
& \text { Combined Location/Design Public Hearing } \\
& \begin{array}{r}
\text { Combined Location/Design } 100 \\
\text { Maryland Route } 100
\end{array} \\
& \text { I-95 to Maryland Route } 3 \text { (I-97) }
\end{aligned}
$$

I／We wish to comment or inquire about the following aspects of this project： Dorsey Road is sour a passable route．Improving it 穻 a
or sutton tia Smite d aces Rt 100 ：will ina create th
of \＃左 a mined access Rt 100 ：will ont event th

$\%$


State highway administration QUESTIONS ANDIOR COMMENTS

Contract No. AA 682-101-570 - PDMS No. 022007
Combined Location/Design Public Hearing
Maryland Route 100
I-95 to Maryland Route 3
Thursday, June 12, $1986-7: 30$ p. Maryland Route 3 (I-97)

 arryown. Hamovestare thel zip coos a rozs

FIn

$$
\mathrm{con}^{2}
$$

$$
\begin{aligned}
& \text { Hewe it atlers. } \\
& \text { puidt PA } 100 \text { und uf }
\end{aligned}
$$

Maryland Department of Transportation
State Highway Administration

William K. Hellman Secretary
Hal Kissoff
Administrator

October 3, 1986
RE: Contract No. AA 682-1.01-570 Maryland Route 100
Interstate Route 95 to
Maryland Route 3
PDMS No. 022007

Mr. Author Lisowsky 1366 Weeping Willow Road Hanover, Maryland 21076

Dear Mr. Lisowsky:
Thank you for your recent comments in which you indicate support for Alternate 4 for the Maryland Route 100 project.

A decision will not be made on the final alternate until all comments received during and subsequent to the public hearing have been reviewed. Your support for Alternate 4 will be given serious consideration.

As requested, your name has been added to the project mailing list.

Very truly yours,
Louis H. Ege, Jr.
Deputy Director
Project Development Division
by:


Project Manager

LHE: REM: cd

VI-268
My telephone number is 659-1106
Teletypewriter for impaired Hearing or Speech

Mr. Neil J. Pedersen, Director
Office of Planning and Preliminary Engineering State Highway Administration 707 North Calvert Street
Baltimore, Maryland 21202
Mr. John W. Gladding, Jr., Chief District \#5 Office of Real Estate State Highway Administration 138 Defense Highway Annapolis, Maryland 21401

Gentlemen:
I own property located in the Proposed Route 100 study area. I have reviewed the Draft Environmental Impact Document as well as the State Highway Administration (SHA) document issued on or about May 30, 1986 and titled: Combined Location/Design Public Hearing Maryland Route 100 I-95 To Maryland Route 3 (I-97). In my efforts to fully comprehend and assess the myriad of issues, factors and ramifications associated with Route 100 , and in order to prepare intelligent comments for the public record, I request your responses to the following:
(My questions are oriented, generally, towards the impact of Alternate 3 ( $a$ or b) based upon my understanding that SHA has a preference for that alternate)

1) What consideration has been given to the projection that selection of Alternates $3 \mathrm{~B}, 4$ or Crossover $3 / 4$ would result in disproportionate impact upon "minority" residences (34\% for 3B, 38\% for Alt. 4 and 49\% for the Crossover 3/4)?
2) Utilizing a scaled map and corresponding reference sheet, identify (by owner name, site address and plat number) the "minority" residences affected by Alternate $3 B$.
3) What criteria or definition has SHA utilized in determining whether a residence constitutes a "minority" residence?
4) Utilizing a scaled map and corresponding reference sheet, identify (by parcel and owner name) the projected amount of acreage required for right-of-way in the "residential". "commercial, "industrial", "agricultural" and "parkland/public recreation categories, assuming Alternate $3 B$ is selected.
5) Explain the criteria utilized to categorize required right-of-way acreage as "residential", "commercial". "industrial", "agricultural" and "parkland/public recreation".
6) In estimating the cost of right-of-way (Alternate 3B), what criteria, guidelines and/or standards have been employed? e.g. "best economic use", "present use", "zoning status". If such

- information is contained in policy, procedure or operating manuals, or in memoranda or other SHA documents, provide copies of same.

7) The estimated cost of right-of-way associated with Alternate 3B is $\$ 22.8$ million. On a parcel by parcel basis (or site by site if you prefer), how is estimated cost allocated? e.g. Smith parcel/Hanover-\$150,000improvements/\$55,000acreage. (If confidentiality is a concern, identify sites by numbers or letters within a particular geographic area)
8) The estimated cost of relocation associated with Alternate 3B is $\$ 1$ million. On a parcel by parcel basis, assuming that basis was utilized by the SHA, how is estimated cost allocated?

Gentlemen, these are only a few of the questions $I$ wish to resolve prior to completion of my public comments on Route 100. I shall not, however, burden you with additional questions and concerns at this time inasmuch as there is little time left before the public hearing on June 12. I do -respectfully request your response to my inquiry no later than June 8 so that $I$ can complete my public comments prior to the hearing.

Thank you in advance for your attention in this matter.


REGISTERED MAIL RETURN RECEIPT REQUESTED

RE: Contract No. AA 682-101-570 Maryland Route 100<br>Interstate Route 95 to<br>Maryland Route 3<br>PDMS No. 022007

Mr. William D. Miller, Jr. 7539 Ridge Road<br>Hanover, Maryland 21076

Dear Mr. Miller:
This is in response to the questions you submitted with your letter of June 1,1986 concerning the Alternate 3 alignment for proposed Maryland Route 100 from Interstate Route 95 to Maryland Route 3 and in response to your June 11, 1986 letter to Mr. Jack cladding.

In response to your specific questions in your June 1, 1986 letter, the following is submitted:

1. What consideration has been given to the projection that selection of Alternates 3-B, 4, or Crossover 3/4 would result in disproportionate impact upon "minority" restdences $(34 \%$ for $3-B, 38 \%$ for Alternate 4 , and $49 \%$ for the Crossover 3/4)?

- Consideration of impacts upon minority communities was undertaken as required in 23 CFR, Section 710.405. Furthermore, the study alignments were modified to minimize impacts to all improved properties. During the design stage, additional engineering feasibility studies will be conducted to further minimize impacts.

2. Utilizing a scaled map and corresponding reference sheet, identify (by owner name, site address, and plat number) the "minority" residences affected by Alternate 3-B.

- Attached are scaled maps ( $1^{\prime \prime}=400^{\prime}$ ) of Alternate •3-B. Residences that would be affected by this alternate are indicated by a hexagonal symbol with the letter " $R$ " on these maps. Those residences that are minority occupied are not specifically identified on these maps. The information that has been developed in this stage of

My telephone number is 659-1110

Mr. William D. Miller, Jr.
August 1, 1986
Page 2
the study is for the purpose of estimating costs and determining environmental impacts. Neither the actual ownership of affected properties nor the ethnic background of these property owners will be determined until such time as final plans and metes and bounds plats are prepared. You should be advised that the information regarding occupants of dwellings that may be required for the proposed Maryland Route 100 was obtained from the best source available at the time, and has not been verified by interview.
3. What criteria or definition has the State Highway Administration utilized in determining whether a residence constitutes a "minority" residence?

- The criteria or definition that the State Highway Administration uses in determining whether a residence constitutes a "minority" residence is in accordance with the provisions of 23 CFR , Part 710 - Right-of-Way General. Information including minorities is obtained from visits to the project area and from Census Tract data.

4. Utilizing a scaled map and corresponding reference sheet, identify (by parcel and owner name) the projected amount of acreage required for right-of-way in the "residential", "commercial", "industrial", "agricultural", and "parkland/ public recreation" categories, assuming Alternate 3-B is selected.

- The projected amount of acreage required for a right-ofway for Maryland Route 100 has not yet been determined on a parcel by parcel basis. The individual property owners who may be affected have not been identified during this stage of the study. The actual ownership of affected properties will be determined at such time as metes and bounds plats have been developed and titles researched. The amount of acreage required for rightof -way in the categories you refer to has been estimated from Anne Arundel and Howard County zoning maps, and may not represent the actual land use in all cases.

5. Explain the criteria utilized to categorize required right-of-way acreage as "residential", "commercial", "industrial", "agricultural", and "parkland/public recreation".

- The criteria you refer to categorize the types of land being affected, (i.e., residential, commercial, industrial, etc.), and are based on current zoning maps prepared by Anne Arundel and Howard County. These maps and the designated land use categories are utilized in grouping the different zoning areas being affected.

6. In estimating the cost of right-of-way (Alternate 3-B), what criteria, guidelines and/or standards have been employed, e.g., "best economic use", "present use", "zoning status"? If such information is contained'in policy, procedure, or operating manuals, or in memoranda or other State Highway Administration documents, provide copies of same.

- In the Project Planning stage of the study, right-ofway costs are based on the current zoning use for the land. After right-of-way plats have been developed and individual parcels are identified, land appraisals are initiated. The appraisers investigate each individual property's highest and best use from an economic viewpoint, and evaluate it accordingly to determine its fair market value. This appraisal policy is established by standardized appraisal practices and procedures established by recognized professional appraisal societies. To evaluate the fair market value of property requires considerable research and changes over the time it may take to develop the required right-of-way plats. Therefore, in the Project Planning phase of the study, estimates are based on current zoning.

7. The estimated cost of right-of-way associated with Alternate $3-B$ is $\$ 22.8$ miliion. On a parcel by parcel basis (or site by site if you prefer), how is estimated cost allocated, e.g., Smith parcel/Hanover-\$150,000 improvements/\$55,000 acreage? (If confidentiality is a concern, identify sites by numbers or letters within a particular geographic area), and
8. The estimated cost of relocation associated with Alternate 3-B is $\$ 1$ million. On a parcel by parcel basis, assuming that basis was utilized by the State Highway Administration, how is estimated cost allocated?

- The estimated right-of-way and relocation costs have not been developed on a parcel by parcel basis, or allocated between land and improvements. The estimates that are developed in this stage of the study are for planning purposes only, and are determined from on-site visits to the project area. Detailed appraisals will be completed when actual effects of the project are known.
If you believe that your property may be affected by this project, or if you need additional information regarding rightof way or relocation issues involving the proposed Maryland Route 100, please feel free to contact the State Highway Administration's Office of Real Estate in Annapolis at 841-5464.

Mr. William D. Miller, Jr. August 1, 1986
Page 4

With regard to your June il, 1986 request to Mr. Jack Gadding to obtain detailed information regarding all right-of-way acquisilions in Anne Arundel County, we cannot honor your request due to the size and complexity of the data requested. The staff work required to honor your request would be far greater than can be justified as a public expenditure. If you wish to make copies of files of information which is not confidential, you can make arrangements to do so at a cost of 15 cents per page. As we discussed by telephone; I am investigating what would be involved in compiling summary information for the Maryland Route 176 and I-97 Section $C$ projects and will contact you regarding the availability of these data.

Very truly yours,

# noil of Pedensw 

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

NJP:bh
Enclosure
cc: Mr. Robert Finch
Mr. Nolan Rogers
Mr. Edward H. Meehan
Mr. Jack W. Gladding
Ms. S. K. Bauer
Ms. Angela B. Hawkins
Mr. Louis H. Ene, Jr.
Ms. Cynthia D. Simpson
Mr. Ronald E. Moon

Maryland Department of Transportation
State Highway Administration
Office of Planning and Preliminary
Engineering
Attn: Mr. Neil J. Pedersen Director
707 North Calvert Street
Baltimore, Maryland 21203

Dear Mr. Pedersen:

DiRECTOR, office of
PLAMNMG \& Pracuimary Engimeenl

August 9, 1986


I am in receipt of your letter dated August 1 , 1986 regarding my June 1 , 1986 and June 11 , 1986 requests for certain information concerning proposed Route 100 and completed SHA right-of-way acquisitions in the County of Anne Arundel, respectively.

With regard to your responses to some of the specific questions I posed in my June 1 letter, please consider this $m y$ formal and adamant objection to the evasive, contradictory and patently erroneous responses furnished by your office. I implore you to immediately reconsider your responses to the items discussed below and to provide me with supplemental answers as soon as possible.

ITEMS 2 and 3 (of your response)
You failed to indicate which of the potentially affected properties SHA considered to be "minority" properties. You stated, in pertinent part, that, "( $t$ ) he information that has been developed in this stage of the study is for the purpose of estimating costs and deterring environmental impacts." You later claimed that, " ( $n$ ) either the actual ownership of affected properties nor the ethnic background of these property owners will be determined umtil...final plans and metes and bounds plats are prepared." Nonetheless, you went on to explain that, "(i) a formation including minorities is obtained from visits to the project area, and from Census Tract data." In summary, you then assert that the SHA projections made in accordance with applicable law"...based upon the best source availible at this stage of planning." (emphasis supplied)

Mr. Pedersen, your refusal to supply this information cannot be justified by the reasons advanced in your letter. While you recognize that federal and state laws require study and consideration of minority impacts, your response suggests a SKA unwillingness to subject jour projections to public scrutiny. I suggest that you provide the information requested and I will, at my own expense and time, obtain and supply you with current and accurate information regarding the projected minority impacts of Route 100. I can not stress enough that my request to you was received prior to the Public Bearing in June 1986. Had you actually responded to $m y$ request in a reasonable period of time, I would have been able to "upgrade" the reliability of your projections during the "public comment" phase of the process. There is, of course, still ample time for my data to be compiled and supplied to you prior to the final SHA decision. Obviously, if SHA has no interest in obtaining such accurate information, feel free to disregard this portion of my request.

Mr. Neil J. Pedersen
August 9, 1986
Page 2

ITEMS 7 AND 8. (of your response)
You state that, "The estimated right-of-way and relocation costs have not been developed on a parcel by parcel basis, or allocated between land and improvements." (emphasis supplied) You further state that, "The estimates developed In this stage of the study are for planning purposes only, and are determined from on-site visits to the project area." (emphasis supplied)

This response is especially offensive because it contains patently contradictory and false information. It does, however, have one redeeming feature: Your response clearly acknowledges that SBA's estimates for total right-of-way costs were based upon "on-site visits to the project area". Is it your position that such visits did not result in compilation of parcel by parcel estimated right-of-way costs? Are you actually content to suggest that your estimated cost of $\$ 22.8$ million was arrived at whthout benefit of parcel by parcel estimates? In any event, consider this my formal and adamant supplemental request for parcel by parcel estimated or projected right-of-way costs as previously set forth in my June 1 letter.

With regard to my June 11,1986 request regarding SEA right-of-way acquisitions in Anne Arundel County, this is to fomally request an opportunity to visf your office and review and, as necessary, make cofles of sta files containing information described in said request. (I have attached a copy of that letter for your convenience.) Of course, I shall be prepared to reimburse your office for the costs of copies in the amount of 15 cents per page. Please advise me as soon as possible regarding the exact date, time and place I should report inorder to review your files. My preference is any Monday through Saturday during the month of Angust 1986 after 1:00p.il. In the interest of minimizing your valuable time, I may be accompadied by an auditor who, I'm certain, is more adept at this type of undertaking than the undersigned.

Mr. Pedersen, consider the foregoing request a request pursuant to the applicable "Freedom of Information Act" provisions governing the Maryland Department of of Iransportation/State Highway Administration. Should you find this request deficient or incomplete in any respect, please advise me immediately.


Mr. John W. Cladding, Jr. Chief District \#5 Office of Real Estate State Highway Administration 138 Defense Highway Annapolis, Maryland 21401

Dear Mr. Cladding:
This is a request for information and documents regarding State Highway Administration (SHA) "right-of-way" acquisitions in Anne Arundel County, Maryland.

In particular, please furnish a list of SBA "right-of-way" land and property acquisitions for the past five (5) gears including: 1) location of property and owner name (s); 2) address of property acquired; 3) size of property acquired (by acreage or square footage); 4) zoning of property at time of acquisition; 5) use of property at time of acquisition; 6) amount paid to owner (s) for land, and the amount paid for improvements. Additionally, please supply all SHA reports, memoranda, summaries and correspondence regarding said acquisitions. Finally, for the same five (5) year period, furnish a list and copy of court decisions resolving valuation/ eminent domain disputes between SBA and property owners in Anne Arundel County.

Upon receipt and review of this request, please notify me as to the date upon which you expect to furnish the information discussed above. Thank you in advance for your prompt attention in this matter.


CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Wentand Departanat offensporation
State Highway mamintstration

October 22, 1986

Mr. William D. Miller
7539 Ridge Road
Hanover, Maryland 21076

Whitian K. Hallmark Sucratisy


Dear Mr. Miller:
This is in response to your August 9, 1986 letter and several subsequent telephone conversations in which we discussed your information request.

First, with regard to Items 2 and 3 of my August 1, 1986 letter, we feel that enough time and effort were expended in visits to the project area to determine the percentage of residential displacements which would involve minority families for each of the alternatives studied. We feel our information is supficiently accurate to be used as input to the decision regarding the alignment for Maryland Route 100. If you would like more detailed information regarding the methodology used to determine minority impacts, I can arrange for a meeting with the Office of Real Estate staff who performed the studies. Of course, we would welcome any information which you may wish to provide regarding minority impacts of the alternatives under consideration.

With regard to your request for right-of-way cost estimates on a parcel-byparcel basis for the alternates under consideration for Maryland Route 100, we will not provide this information in order to protect both the State Highway Administration and the owners of the parcels during future right-of-way negotiations. Our refusal to provide you this information is done so under the provisions of Section 10-618 of Maryland Public Law.

During our telephone conversations, you agreed to limit the request containe in your June 11, 1986 letter to only those projects in the vicinity of the Maryland Route 100 corridor which have been constructed in the last five years. Attached you will find a map and list showing all projects in the vicinity of the Maryland Route 100 corridor which have been constructed in the past five years. A review of our records indicates that the only projects for which right-of-way was required were the Maryland Route 176 projects which are currently under construction. Since negotiations are still ongoing with property owners on these projects, we will not release information associated with individual parels under the terms of Section 10-618 of Maryland Public Law.

```
Mr. William D. Miller
October 22, i986
Page Two
```

If you wish to further discuss this matter, please feel free to contact me.
Very truly yours,
Oneal f Pedeaw
Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering

```
NLP:tn
Attachment
CC: Mr. Robert J. Finck
    Mr. Nolan Rogers
    Mr. Barry Ditto
    Mr. Jack Gladding
    Ms, Angela Hawkins
    Mr. Louis H. Ege, Jr.
```


## MD 100 CORRIDOR <br> SPECIAL PROJECTS PROGRAM IMPROVEMENTS COMPLETED OVER LAST FIVE YEARS

1. MD 295 - MD 175 to Hanover Road; resurface; completed FY 84.
2. MO 176 - US 1 to Parkway Drive; safety and resurface; completed FY 84.
3. MD 176 - Parkway Drive to MD 652; widen and resurface and signaliration; completed FY 85.
4. MD 176 - 0.2 mile east of MD 295; carpool lot - 100 spaces; complated FY 81.
5. MD 174 - Old Stage Road to Thelma Avenue; widen and resurface; completed FY 86.

PROJECTS UNDER CONSTRUCTION

1. MD 176 - Bridge 2051 over Amtrak; bridge deck replacement and widening; under construction.
2. MD 176 - MD 652 to Hammonds Ferry Road; widen and resurface; scheduled for fall, 1986.

Michael G. Miller
7522 Ridge Road
Hanover, Maryland 21076
June 25, 1986

Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and Preliminary Engineering
State Highway Administration
707 North Calvert Street
Room 310
Baltimore, Maryland 21202
Re: FHWA-MD-EIS-86-01-D
Dear Mr. Ege:
I am deeply concerned about the plans for Route 100 as described in the environmental impact statement and further discussed in the public hearing of June 12th. Four points summarize these concerns:

All of the alternates reflect a pattern of racial insensitivity and discrimination. Blacks are disproportionately displaced or adversely impacted by noise; compared as a percentage of the total population of the study area.

Alternate 3 involves extensive "dead-ending" of existing roads. Ridge Road is proposed to be dead-ended directly in front of my house and this will result in a significant diminution of my home's value.

I favor the "5th" alternate which was overwhelmingly supported by the civic associations and families present at the June 12th hearing: Alternate 4 to the route 170 area; combined with Alternate $3 b$ east of that vicinity.

I am concerned that there be full recognition of the rapidly escalating property values in the BWI corridor for those of us who may loose property to Route 100. The appraisal process must safeguard the interests of those of us who may loose land that could otherwise be held for substantial gains as the long term development of this economic corridor materializes.

I own property in the proposed right-of-way for Alternate(s) 3 and respectfully request a response to the following questions.

QUESTIONS PERTAINING TO CURRENT RESIDENCE AT 7522 RIDGE ROAD (PINEY RUN HOUSE):

WHy is the alternate 3 alignment drawn so as to take a CORNER OF THIS PARCEL (ON RIDGE ROAD NORTH OF THE DRIVEWAY) WHEN THIS COULD BE REMEDIED BY SHIFTING THE ALIGNMENT SLIGHTLY NORTHWARD WITHOUT IMPACTING THE HISTORIC DISTRICT OF SHIRLEY HOUSE. NOTE: BOTH PROPERTIES ARE HISTORIC AND NEITHER HAS BEEN ACTUALLY ACCEPTED OR REJECTED FOR THE HISTORIC REGISTER.

THE PROPOSED CUL-DE-SAC ON RIDGE ROAD IS DEPICTED IN ALT 3 SOUTH OF MY EXISTING DRIVEWAY. IS THIS ACCURATE? WILL THE STATE PAY FOR A NEW DRIVEWAY FAR REMOVED FROM THE "DEAD-END" that you propose to create. WILI the road be above grade HERE?

WITH THE CUL-DE-SAC, HOW MANY DRIVING FEET ARE THERE BETWEEN MY HOME AND THE NEW PRIME INTERSECTIONS (ROUTE 100 \& NEW RIDGE; AND ROUTE 100 © DORSEY RD). HOW DOES THIS COMPARE TO THE EXISTING DISTANCE BETWEEN MY PROPERTY AND THE CURRENT INTERSECTION AT DORSEY ROAD?

SINCE THE STUDY INDICATES MY PROPERTY WILL SUFFER AN ADVERSE NOISE IMPACT (I.E. GREATER THAN $10 \%$ TO 68db BASED ON RECEPTOR 9) AND THERE ARE NO PLANS TO PERFORM NOISE AbATEMENT; DOES THIS MEAN THAT MY PROPERTY WILL bE pURCHASED by the state or that I will otherwise be compensated? (alt 3)
why is the no-build alternate the only of the 4 Choices in WHICH THE PERCENTAGE OF DISPLACEMENTS FOR BLACKS IS LESS than or equal to the percentage of blacks in the study areas BLACKS COMPRISE ONLY 21\% OF THE STUDY AREA POPULATION? WHAT evidence to you have to allay fears that this is yet another EXAMPLE OF RACIAL DISCRIMINATION?

HOW MUCH OF THE PROJECTED RIGHT-OF-WAY ACQUISITION COST FOR ALTERNATE 3 IS COMPRISED OF YOUR ESTIMATE FOR LAND TO BE taken from my property at 7522 ridge road?

Is the Land I would Lose from my house counted in the PROPERTY OWNER IMPACT STATISTICS? IF NOT, WHAT WOULD BE THE REVISED STATISTICS (TOTAL AND BY RACIAL GROUP) FOR residential land taken, COUNTING loss of some land but where THE OWNER DOESN'T LOSE THE ACTUAL HOUSE?

IN LIGHT OF THE DORCHESTER REZONING DECISION RELEASED ON MAY 30TH, WILL THE RIGHT OF WAY ACQUISITION BUDGET HAVE TO BE INCREASED, OR WAS IT ALREADY ASSUMED THAT ACQUISITION COSTS IN THE RIDGE ROAD \& WRIGHT ROAD AREAS WOULD BE AT COMMERCIAL/INDUSTRIAL PROPERTY VALUE RATES?

Route 100
Response to Impact Statement Michael G. Miller

QUESTIONS PERTAINING TO WRITER'S 5.14 ACRE PARCEL KNOWN AS 7531 RIDGE ROAD:

HOW MUCH OF THIS 5.14 ACRES (PARCEL 248) FALLS WITHIN THE ALT 3 RIGHT-OF-WAY, AND IS THAT THE AMOUNT OF LAND YOU PROPOSE TO TAKE?

UP UNTIL WHAT DATE OR MILESTONE MAY I CONTINUE TO PURSUE MY DEVELOPMENT PLANS FOR THIS PARCEL. ARE COUNTY OFFICIALS FREE TO ENTERTAIN/APPROVE A REZONING, IF ALL NON-ROUTE 100 ISSUES ARE SATISFACTORY? WOULD SHA OPPOSE MY REZONING APPLICATION (FOR 7531 OR 7522 RIDGE ROAD TO C2 OR W1B)?
WHAT DOLLAR ESTIMATE OF RIGHT-OF-WAY COSTS FOR THIS PROPERTY WAS USED TO ARRIVE AT THE GRAND TOTAL ESTIMATED FOR ALT 3 IN THE ENVIRONMENTAL IMPACT STATEMENT?

WHERE DOES THE LOSS OF THIS LAND SHOW UP IN THE TABLE S-1 SUMMARY OF IMPACTS TABLE? IF NOT INCLUDED IN THE TABLE, WHAT WOULD THE TABLE TOTALS BE (TOTAL AND BY RACE) IF LÓSS OF UNDEVELOPED LOTS WERE COUNTED?

PLEASE MAIL ME A COPY OF THE "PRELIMINARY RELOCATION REPORT" REFERRED TO ON PAGE IV-1 OF THE ENVIRONMENTAL IMPACT STATEMENT.

## GENERAL QUESTIONS:

PLEASE EXPAND YOUR TABLE OF ENVIRONMENTAL IMPACTS TO INCLUDE THE FOLLOWING FOR EACH ALTERNATE (GIVING SUBTOTALS BY RACIAL GROUP) :

NUMBER HOUSES DISPLACED?
NUMBER HOUSES LOSING SOME LAND, BUT RESIDENCE NOT DISPLACED.

NUMBER RESIDENCES ADVERSELY IMPACTED BY NOISE (AS DEFINED IN ENVIRONMENTAL IMPACT STATEMENT).
NUMBER OF OWNERS OF CURRENTLY UNDEVELOPED PARCELS BEING WHOLLY TAKEN FOR RIGHT-OF-WAY? NUMBER OF OWNERS LOSING PARTIAL PARCELS?

PLEASE IDENTIFY THE 3 MOST RECENT SHA ROAD PROJECTS WHICH RESULTED IN OVER 5 RIGHT OF WAY ACQUISITION CASES, AND INDICATE THE ROAD RROJECT, TIME FRAME, THE PARCELS ACQUIRED, THE PRICES PAID AND THE DETAILS OR SETTIEMENT, I.E. advance acquisition, negotiated, eminent domain, out of court, etc.

Route 100
Response to Impact Statement Michael G. Miller

Thank you for your interest in citizen concerns. I look forward to a written response the the specific issues raised in this letter.

Sincerely,


MiChael G. Miller
7522 Ridge Road
Hanover, Maryland 21076

# Maryland Department of Transportation 

State Highway Administration

William K. Hellman
Secretary
Hal Kissoff Administrator

October 10, 1986
RE: Contract No. AA 682-101-570 Maryland Route 100
Interstate Route 95 to
Maryland Route 3
PDMS No. 022007

Mr. Michael G. Miller, Jr. 7522 Ridge Road Hanover, Maryland 21076

Dear Mr. Miller:
I am responding to your letter concerning the Maryland Route 100 project from Interstate Route 95 to Maryland Route 3. Before answering your specific questions, I would like to state that the State Highway Administration has given serious consideration to the impacts on minority communities and has revised Alternate 3 to avoid splitting the Queenstown community and to minmize impacts.

In response to your specific questions pertaining to your current residence at 7522 Ridge Road, the following is submitted:

1. Why is the Alternate 3 alignment drawn so as to take a Corner of this parcel (on Ridge Road north of the driveway) when this could be remedied by shifting the alignment slightly northward without impacting the historic district of Shipley House? NOTE: Both properties are historic and neither has been actually accepted or rejected for the Historic Register.

- As stated in the Draft Environmental Impact Statemeat, of the seventeen (17) sites of historical significance in the study area identified by the Maryland Historical Trust, two (2) sites (the Shipley House and the Smith Farm) are considered possibly eligible for the National Register by the State Historical Preservation Officer. The Piney Run House was designated as being of Maryland Inventory Quality only. The alignment of Alternate 3 was drawn not only to avoid the Shipley House historic boundaries, but to minimize impacts to, and the number of relocation from the community along Ridge Road.

VI -285
My telephone number is 659-1130

Mr. Michael G. Miller, Jr.
October 10, 1986
Page 2
2. The proposed cul-de-sac on Ridge Road is depicted in Alternate 3 south of my existing driveway. Is this accurate? Will the State pay for a new driveway far removed from the 'dead-end' that you propose to create? Will the road be above grade here?

- All work necessary to maintain access to residences not required for relocation will be undertaken by the State Highway Administration. Ridge Road will remain at its existing grade. The Alternate 3 alignment will be approximately ten feet (10') lower than the existing grade of Ridge Road.

3. With the cul-desac, how many driving feet are there between my home and the new prime intersections (Route 100 at New Ridge; and Route 100 at Dorsey Road)? How does this compare to the existing dislance between my property and the current intersection at Dorsey Road?

- The distance from your driveway to the Route $100 / \mathrm{New}$ Ridge Road interchange would be approximately 3500 feet. The distance from your driveway to Dorsey Road via the New Ridge Road would be approximately 4500 feet. The existing distance from your driveway to the current Ridge Road/Dorsey Road intersection is approximately 1200 feet.

4. Since the study indicates my property will suffer an adverse noise impact (i.e., greater than $10 \%$ to 68 doa based on Receptor 9) and there are no plans to perform noise abatement; does this mean that my property will be purchased by the State or that I will otherwise be compensated? (Alternate 3)

- The study indicates there would be an ll doa increase in existing noise levels, without contributing aircraft noise, to 68 dba in the design year of 2010. It is not the policy of the State Highway Administration to purchase property experiencing an increase in noise levels or to provide monetary compensation.

Mr. Michael G. Miller, Jr.
October 10, 1986
Page 3
5. Why is the no-build alternate the only one of the 4 choices in which the percentage of displacements for blacks is less than or equal to the percentage of blacks in the study area? Blacks comprise only $21 \%$ of the study area population. What evidence do you have to allay fears that this is yet another example of racial discrimination?

- Consideration of impacts to minority communities was undertaken as required in 23 CFR, Section 7610.405. The study alignments were drawn to minimize impacts to all improved properties. The Draft Environmental Impact Statement has been reviewed by the Equal Opportunity Section of the State Highway Administration and found to be in compliance with Title VI of the Civil Rights Act of 1964. As was stated previously, Alternate 3B was developed to minimize impacts to a minority community.

6. How much of the projected right-of-way acquisition cost for Alternate 3 is comprised of your estimate for land to be taken from my property at 7522 Ridge Road?

- The estimated right-of-way cost has not been developed on a parcel by parcel basis. Specific appraisais will be made when the final acquisition requirements are known.

7. Is the land I would lose from my house counted in the property owner impact statistics? If not, what would be the revised statistics (total and by racial group) for residential land taken, counting loss of some land but where the owner doesn't lose the actual house?

- The following table lists the total residential acreage required for right-of-way for the alternates presented in the DEIS. These totals have been estimated from Anne Arundel and Howard Counties! zoning maps. The projected amount of acreage required for right-of-way has not yet been determined on a parcel-by-parcel basis. Neither the actual ownership of affected properties nor the ethnic background of these property owners will be determined until such time as final plans and metes and bounds plats have been prepared.

Mr. Michael G. Miller, Jr.
October 10, 1986
Page 4

Alternate
2. - Option A

2 - Option B
3 - Option A
3 - Option B
4
$3 / C r o s s o v e r / 4$

Residential Acreage Required
254.5
261.0
400.6
420.2
308.4
335.7
8. In light of the Dorchester rezoning decision released on May 30th, will the right-of-way acquisition budget have to be increased, or was it already assumed that acquisition costs in the Ridge Road and Wright Road areas would be at commercial/ industrial property value rates?

- The property was assessed on the zoning in place at the time the estimate was made in early 1986. Another right-of-way estimate will be prepared for the selected alternate and changes made where necessary.

In response to your questions pertaining to your 5.14 acre parcel known as 7531 Ridge Road, the following is submitted:

1. How much of this 5.14 acres (Parcel 248) falls within the Alternate 3 right-of-way, and is that the amount of land you propose to take?

As depicted on the tax maps of Anne Arundel County, parcel 248 contains 10.29 acres, of which approximately 6.1 acres are required for the Alternate 3 right-of-way.
2. Up until what date or milestone may I continue to pursue my development plans for this parcel? Are County Officials free to entertain/approve a rezoning, if all non-Route 100 issues are satisfactory? Would SHA oppose my rezoning application (for 7531 or 7522 Ridge Road to C2 or WIB)?

Anne Arundel County is responsible for all rezoning decisions. The State Highway Administration would not oppose the rezoning; however, a recommendation would be made that the portion of the property required for Maryland Route 100 not be allowed to be developed.

Mr. Michael G. Miller, Jr. October 10, 1986
Page 5
3. What dollar estimate of right-of-way costs for this property was used to arrive at the grand total estimated for Alternate 3 in the Environmental Impact Statement?

- Please see response Number 6 on page 3.

4. Where does the loss of this land show up in the Table S-1 Summary of Impacts Table? If not included in the Table, what would the Table totals be (total and by race) if loss of undeveloped lots were counted?

Please refer to the response to Question 7 in the previous section.
5. Please mail me a copy of the "Preliminary Relocation Report" referred to on page IV -1 of the Environmental Impact Statement.

- The Preliminary Relocation Report is a confidential document and is not provided the general public. If you believe your property is affected, please contact Mr. John $W$. Gliding, Jr. of the State Highway Administration's District \#5 Real Estate Office at 138 Defense Highway, Annapolis, Maryland 21401, telephone 841-5464.

In response to your general questions, the following is submitted:

1. Number houses displaced?

- The residential displacements and the minority residential displacements required under each alternate are presented in the Summary of Impacts Table of the DEIS, a copy of which is enclosed.

2. Number houses losing some land, but residence not displaced?

- The projected amount of acreage required for a right-of-way for Maryland Route 100 has not yet been determined on a parcel ky parcel basis. The indvidual property owners who may be affected have not been identified during this stage of the study. The actual ownership of affected properties will be

Mr. Michael G. Miller, Jr. October 10, 1986
Page 6
determined at such time as metes and bounds plats have been developed and titles researched. The amount of acreage required for right-of-way in the categories you refer to has been estimated from Anne Arundel and Howard Counties' zoning maps, and may not represent the actual land use in all cases.
3. Number residences adversely impacted by noise (as defined in Environmental Impact Statement)?

- The following table lists the number of residences determined to experience noise impacts (as defined in the DEIS) in the design year, 2010:

No. Residences Experiencing

Alternate
2 - Option A
2 - Option B
3 - Option A
3 - Option B
4
3/Crossover/4

Noise Impact
24
21
42*
38*
31*
26*

* Includes 12 Apartment Units on Stage Road.

4. Number of owners of currently undeveloped parcels being wholly taken for right-of-way? Number of owners losing partial parcels?

- Please refer to the response to question Number 2.


LHE:bh
cc: Mr. Neil J. Pedersen
Rr. Ronald E. Moon
U.S. Department of Transportation
Office of the Secretary of Transportation

Draft Environmental Impact Statement/Section 4(f)
Evaluation, Maryland - Anne Arundel and
Subject:
Howard Counties, Maryland Route 100
from I-95 to MD 3 (I-97)
Date
FHWA-MD-EIS-86-01-D
From:
Eugenét. Lehizt?
MAY 22 108

Chief', Environmental Division
To:
Eugene W. Cleckley
Chief, Environmental Operations Division, HEV-11

We appreciate the opportunity to review this DEIS. We have no comments.

## United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

In Reply Refer To:
ER 86/693

Mr. Emil Elinsky
Division Administrator
Federal Highway Administration
711 West 40 th Street, Suite 220
Baltimore, Maryland 21211
Dear Mr. Elinsky:
This is in response to the request for the Department of the Interior's comments on the draft environmental/Section 4 (f) statement for $S R-100$ Extended (from I-95 to SR-3/I-97), Anne Arundel and Howard Counties, Maryland.

## SECTION 4(f) STATEMENT COMMENTS

We find that Alternate 3 A is the alternative which would have the least harm to section 4 (f) resources, and the Department of the Interior would have no objection to its approval under 49 USC 303.

Although it appears that there will be no direct impact to historical sites eligible for the National Register, we, nevertheless, recommend with regard to the second proviso of Section 4(f) -- measures to minimize harm -- that appropriate landscaping and screening, as determined necessary in consultation with the State Historic Preservation Officer (SHPO), be used to serve as a visual and sound buffer.

With regard to archeological resources the draft statement indicates the need for Phase II studies, and; accordingly, we recommend the continued coordination and consultation with the sHPO for the protection and preservation of any identified archeological resources.

ENVIRONMENTAL STATEMENT COMMENTS
Eish and Wildifife Resources
We find the document adequate in describing the existing natural resources, but inadequate in its discussion of the extent of impacts upon these resources and efforts to mitigate them.

Section II, Alternates -- Additional alternates deserve serious consideration in order to significantly reduce impacts upon fish and wildife resources. For example, a combination of Alternative $2 B$ and $3 B$ just east of McPherson. Although inclusion of Alternative 3 B at this point would adversely impact Sawmill Creek and its associated wetlands, these impacts could be significantly reduced by inclusion of various mitigation measures such as spanning the wetlands, reducing the median width where possible, and tightening fill slopes to 1.5:1. Similar mitigation measures should also be considered for other alternates, especially Alternate 3A.

Section III,C.6,b, page III-40, second paracraph -- The final document should specify the type and height of the obstructions and what the "other factors" are which restrict anadromous use of the impacted waterways.

Section III, C. $6, c_{\text {e }}$ pages III-40 through III-4I -- It is stated that small areas of wetlands exist along Deep Creek. However, the vegetation along this waterway (see page III-38, second paragraph) is indicative of the presence of temporarily-flooded forest wetlands.
section IV, C.1,b. pace IV-39 and section IV,C.3., pages. IV-43 through IV-44 -- It is stated that a detailed study of floodplain encroachment will be undertaken during the engineering design phase. Since it was not stated what types of structures were assumed to be in place for the preliminary analysis, we recommend that the state Highway Administration perform an analysis to determine the amount of floodplain encroachment involved, i.e., culverts and fill within the 100 -year floodplain. The final document should present the assumptions and results of this analysis for each alternate.

Section IV.C. 4 . pages IV-44 through IV-45 - The final document should state the amount of wetlands impacted at each crossing for each alternate.
The statement that "...wetland reconstruction will be provided where practicable..." should be revised to indicate that all unavoidable wetland losses will be replaced.

Further coordination with the U.S. Fish and Wildife Service (FWS) is recommended in order to determine the presence and extent of wetlands, and the impacts and appropriate mitigation measures before selection of an alternate.

## Mineral Resources

The draft statement provides a detailed description of the sand and gravel and clay deposits within the project area, but does

Mr. Emil Elinsky
not assess potential impacts the project would'have on the resources. Iron has also been produced within or near the study area in the past, but iron deposits are not mentioned in the report.

We suggest subsequent versions of the document identify all mineral resources and mineral producing facilities within the project area and include a brief description of the potential impacts to the mineral environment from project implementation. If no impacts are expected, a statement to that effect would ensure that mineral resources have been considered during the planning process.

## FISH AND WILDLIFE COORDINATION ACT COMMENTS

Because an Army Corps of Engineers permit will be required for placement of fill material in wetlands, the "FWS will review and make recommendations on the permit application.

The FWS advises that its position on an Army Corps of Engineers permit would be to recommend: (1) selection of an. alternate that minimizes or adequately mitigates impacts upon fish and wildlife habitats; (2) implementation of measures to minimize impacts upon wetlands, such as spanning the wetland, tightening fill slopes to $1.5: 1$, and reducing the median width; (3) replacing all unavoidable wetland losses at a ratio to be determined by appropriate habitat evaluation procedures; (4) implementation of a wetland replacement plan that has been coordinated with and approved by the Maryland Department of Natural Resources and the FWS; and, (5) incorporation of an effective sediment and erosion control plan and a stormater management plan. Should Alternafive $3 B$ be selected and efforts are not undertaken to signifycanty reduce impacts to the 15 acres of wetlands along this alignment, the FWS would recommend denial of a permit.

## SUMMARY COMMENTS

The Department of the Interior has no objection to Section $4(f)$ approval of Alternate 3A. At this time, we object to Section 4(f) approval of the other alternates. Further coordination on mitigation for streams, wetlands, and wildlife habitat impacts is recommended with the FWS prior to the circulation of the final statement.

As this Department has a continuing interest in this project, we are willing to cooperate and coordinate with you on a technical assistance basis in further project evaluation and assessment. For matters pertaining to recreational and cultural matters, please contact the Regional Director, National Park Service,

Mid-Atlantic Region, 143 South Third Street, Philadelphia, Pennsylvania 19106 (telephone FTS 597-7013, commercial 215/5977013). For matters pertaining to fish and wirdlife resources, please contact the Field Supervisor, O.S. Fish and Wildlife Service, $1825-B$ Virginia Street, Annapolis, Maryland 21401 (telephone ETS 922-2007, commercial 301/269-5448). Questions on mineral resources should be directed to the Chief, Intermountain Building 20, Denver Federal Center, Denver, Colorado 2 Box 80225 , (telephone Frs 776-0263, commercial 301/236-0263).
Thank you for the opportunity to provide these comments.
Sincerely,


CC:
Mr. Louis H. Age, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering
State Highway Administration
707 North Calvert Street, Room 310
Baltimore, Maryland 21202
Mi. J. Rodney Little

Maryland Historic Trust
John Shaw House
21 State Circle
Annapolis, Maryland 21401

## RESPONSES TO

U. S. DEPARTMENT OF THE INTERIOR

LETTER DATED JULY 11, 1986

1. The selected alternate follows the alignment of Alternate 3A from I-95 to MD Route 170. East of MD Route 170, the Opt lon Ballgrment for Alternate 3 was selected in order to minimize impacts to the unique and distinct minor ty communal ty of Queenstown.
2. The State HIghway Administration will continue coordination with the State HIstoric Preservation Officer to Identify possible measures to minimize harm to any historical sites eligible for the National Register.
3. The State HIghway Administration will continue coordination with the State HIstorIc Preservation Officer with regards to the protection and preservation of any Identified archeological resources.
4. Combining Alternate $2 B$ with $3 B$ just east of McPherson would require the largest land acquisition from Friendship Park of any of the alternates. Also, combining an urban arterial highway (Alternate 3) has several capacity and safety problems as described In Section IV.B.
5. Section III.C.6.b has been revised to Identify the obstructions which restrict anadromous use of the Impacted waterways.
6. Section III.C.G.c Includes detailed delineation of the wetlands In the area.
7. The type of structures proposed for each stream crossing for the selected alternate, Alternate 38 (Modified), are shown on Figures II-26 to II-35. The project will be designed In accordance with the current Maryland Water Resources Administration and State HIghway Administration criteria which require that preconstruction and post-construction hydrologic and hydraulIc models (TR-20 and HEC-2 computer programs) be developed and that the construction results in no significant Increase in the 100-year floodplain.
8. Section IV.C. 4 Incudes the amount of wetlands Impacted at each crossing for the selected alternate, Alternate 38 (Modified). All unavoidable wetlands losses will be replaced, with the first option being replacement within the same watershed. All Improvements Involving wetland encroachmint will require a Section 404 Permit from the U.S. Army Corps of Engainers. A field review was held on November 18, 1986 with representatives of the U.S. Army Corps of EngIneers, the U.S. Fish and WildlIfe Service and the Maryland Department of Natural Resources to Identify wetland areas along the selected alternate. Notes of this field. review are on page VI-298. MItigation measures will be coordinated with the appropriate agencies.
9. Refer to Section IV.H for Information regarding the Impact of the project on mineral resources in the project area.

> VI -296
10. The State Highway Administration will continue coordination with the Maryland Department of Natural Resources to minimize Impacts to wetlands and streams. Whenever reasonable, measures will be Included In the final design of the project to minimize impacts to wetlands. Decisions on the side slopes cannot be made until the final horizontal and vertical align-
ment is known.
11. The State Highway Administration believes that the selected alternate, Alternate 38 (Modified), provides the needed service to the area while minimizing impacts to communities and the natural environment. Coordinathe State Historic Preservation Officer In impacts on the natural environment and cultural order to minimize adverse impacts on the natural environment and cultural resources.

NOTES OF MEETING

Date: November 18, 1986
Project: MD Route 100
Subject: Wetlands field reconnaissance of MD Route 100 Study Area
Contract No: AA 682-101-570
PDMS No. 022007
CEI Contract No. 85-0025-P-41
Prepared By: Century EngIneerIng, Inc.

## Attendees:

| Terry Dean | U.S. Army Corps of EngIneers |
| :--- | :--- |
| Steve Harmon | U.S. Army Corps of EngIneers |
| Diane Echols | U.S. FIsh \& WIIdIIfe Service |
| MIke Hollins | MD DNR-Non TIdal Wetlands |
| Mary Ellen Dore | MD DNR-WetIands DIvIsIon |
| JIm Dooley | MD State HIghway AdmInIstration |
| Alan K. Marteney | Century EngIneerIng, Inc. |
| John Rist | Century EngineerIng, Inc. |

The attendees met at 9:00 a.m. on site at the MD Route 100 Study Area.
Ms. Echols of The U.S. FIsh and WIldlIfe Immediately asked for clarIfication on the purpose of this field visit. JIm Dooley explained that the purpose was to coordinate with these various agencies, to examine the wetlands of the study area which would be affected by the selected alternate (Alternate 3-B), to confirm the general lImIts and types of these wetlands, and to discuss possible mitigation measures.

Ms. Echols voiced strong objection to the fact that an alternate had been selected prior to her Input on the various alternates' Impacts, and before comments on the Draft EIS had been resolved stating that her purpose for coming here was not to mitigate a selected alternate, but rather to Investigate the impacts of several alternates in a scoping process before an alternate was selected. She Indicated that she did not believe the EIS process had properly been performed.

Mr. Hollins seconded this general opinion, stating that there were real questions about whether the NEPA and coordination process had been complied with. It was his feeling that resolution of their comments on the Draft EIS and field Investigation of all alternates should have occurred prior to and been Incorporated Into the selection process. He had expected to examine wetlands for all alternates on this field Investigation.

Mr. Dooley discussed why the other alternates were not particularly feasible based on considerations other than those for wetlands, and that complete avoIdance of wetlands was not possible because they were II near features running perpendicular to the path of the roadway. If they wished to look at wetlands other than for Alternate 3-8, we were prepared to do that also. NOTES OF MEETING (cont Inced)

November 18, 1986
MD Route 100
Page Two
He also explained that it has become the Bureau's policy for recently planned and future projects to Involve these wetlands agencies In the Draft Els stage, but that these same orlterla cannot be retroactively applied to projects that had begun years past, as In the case of MD Route 100.

Ms. Echols stated that the various wetland agencies would write to Ms. Cynthia Simpson of the Bureau of Project Planning's Environmental Division to express their displeasure and to resolve these problems. She also stated later that this was an Issue she would take up with the Federal Highway Administration.

It was then agreed that the group would at least Investigate the wetlands associated with Alternate 3-B on this day. Alternate mapping showing the affected wetlands were passed out and the wetlands reconnaissance began at Sawmill Creek In Friendship Park. Specific comments and descriptions for the several wetland areas visited are attached as separate pages to these notes, but general comments common to all wetlands include the following:

* Ms. Echols stated that each wetland which would be affected by any alternate should be shown on a map with a numerical designation. In the EIS each of these designated wetlands should be discussed Individually, as was done on the Route 29 project.
* Each wetland discussion should contain, as a minimum, a classification of the wetland and a description and lIsting of species of the dominant vegetative canopy and understory, performed by field studies of a competent wetlands specialist.
* The delineation of wetland lImits should be more exactly defined. Mr. Hollins stated that, In general, all floodplain areas will be wetland areas; but SHA cannot simply assume that. Limits should be defined by field investigation of vegetation and hydric Indicators.
* Where the lImits of wetlands cannot be visually defined (as was decided at wetland 3B-5), they should be determined by sol probes. This procedure should be recorded with maps and forms, showing locations of probes and soil profiles. When Mr. Dooley Indicated that In such circumstances the SHAmlght assume the entire floodplain a wetlands as a worst case scenario, Mr. Holing of MD DNR stated that "The Corps of EngIneers requires documentation of wetlands.", (this was agreed to by Mr. Harmon), and making such assumptions could result In misleading Impact data.
* Based on the above revised wetland delineations, new acreages should be developed for Impact determinations on those wetlands.

NOTES OF MEETING (continued)
November 18, 1986
MD Route 100
Page three
After Investigating five (5) wetlands which covered the eastern half of the study area, the group broke for lunch and then reconvened for further site work. Apparently speaking for the other agencies, as well as himself, Mr. Hollis stated that he did not believe any worthwhile purpose was being accomplished on this field survey, that he had many other more pressing matters awaiting him back at his office, and suggested that this field Investigation should be ended. He Indicated that the group should come back together again after the above mentioned recommendations had been accomplished. If this were to delay the scheduling of the project, then it would simply have to be delayed. Ms. Echols and Dore expressed agreement. Ms. Dore also stated that she wanted to see specific Information on each stream crossing with stormwater management and sediment control measures to be applied, along with discussions of Impacts above and below these Individual crossings. Mr. Harmon requested that all stream crossings be clearly shown on the mapping. Ms. Echols requested that mapping show locations and sizes of all bridges and culverts for a worst case scenario.

Mr. Dooley stated that much of the Information that was being requested would not be available until final design, but that their comments would be passed along to higher authorities. The meeting dispersed at approximately 2:00 pom.

## ATTACHMENT 1

## Notes on Wetland SItes

## * Site NO. 3B-1 Sawmill Creek Crossing at Friendship Park: (one system for both crossings)

This is a Palustrine Forested broadleaf deciduous wetlands, of "C" water regime. The wetland is toe to toe in this area and the mapping delineation and acreages affected should be revised. Dominant Canopy is $95 \%$ Red Maple with $5 \%$ other species. Water table can be plus or minus one foot from surface during different times of the year. SoIl is currently 18 Inches to saturation, and there are many hummocks. Associated secondary species in canopy Included Black Gum, PIn Oak and Cherry. Understory species Include Magnolia, Winterberry, Skunk cabbage, Chain Fern, cinnamon fern, wood reed, highbrush blueberry, rhododendron, uniola Laxa, red chokeberry and Lyonla.

* Site No. 3B-2 W.B. \& A Road Vicinity:

This area is classified PFOIA and very similar to site 3B-1. Dominant Canopy Is Sweet Gum (50\%), red Maple (25\%), and white oak (25\%). Hydric Indicators Include high brush blueberry, arrow wood and sweet pepper bush.

* Site No. 3B-3 Buck Ingham Nursery:

All flood plains in this area, which constitute a much larger area than current wetlands mapping, will be wetlands. Acreages will have to be recalculated accordingly. Black Gum and Maple are co-damInant canopy species, with river birch and willows. Different classifications of wetlands occur in the area.

## * Site No. 3B-4 Area near Koppers:

This wetlands area Incudes both Palustrine Forested and Palustrine Emergent areas. Significant areas of standing water occur. Dominant Canopy is Red Maple. Associated species include spagnum moss, sweet bay magnolia, winterberry, viburnum, golden rods, and manna grass. Agencies need to know whether this is bridged or culverted.

## *Site No. 3B-5 Near Harmons Park:

This area is not shown on mapping as a wetlands. Holing stated that solis work will have to be done in here to determine how much of the area is wetlands, as much is questionable. The Immediate stream corridor itself is wetlands. There are scattered oaks in the questionable area. The necessary study will correlate solis with vegetation, and should be a full scale study and delineation. Hollins did not accept the proposition that the entire floodplain could be considered a wetlands as a worst case scenario.

United States Department of Agriculture

Soil
Conservation
Service

4321 Hartwick Road, Room 522
College Park, Maryland 20740

```
Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and Preliminary Engineering
State Eighway Administration
707 North Calvert Street, Room 310
Baltimore, Maryland 21202
Dear Mr. Ege:
```

The Soil Conservation Service has reviewed the draft Environmental Impact Statement/Section $4(f)$ Evaluation for Maryland Route 100, Anne Arundel and Howard Counties, Maryland. We offer the following comments:

Section III, Figure III-3. There are some discrepancies between the map and legend. A forest-cover overlay which is present on the map does not appear in the legend. Large portions of the map have no overlay. What is the land use in these areas?

Page III-30, Soil Associations. The use of soil associations is good for general planning. For the design phase, however, the detailed Soil Survey for Howard County and for Anne Arundel County should be used. The most recent soils interpretations for Howard County can be obtained by contacting the Soil Conservation Service (SCS) or Soil Conservation District (SCD) in Ellicott City. For Anne Arundel County, this information can be obtained from the SCS/SCD office in Annapolis.

Page III-38, Ecology. The sections on vegetation, wildlife, and wetlands are very general. Most of the information appears to have been derived from a review of published maps and reports. We suggest that onsite sampling of flora and fauna be conducted to verify this information.

Page III-41, Wetlands. The report refers to palustrine forested wetlands that are ". . . of temporary or seasonal nature; with smaller areas of temporary, narrow leafed, emergent vegetation.". This sentence is misleading. It should be corrected to state that most of the palustrine forested wetlands were mapped as having either temporarily flooded or seasonally flooded water regimes, while the palustrine emergent wetlands were mapped as having a temporarily flooded water regime.

In addition, you should be aware that the NWI maps were prepared by photointerpretation of color infrared transparencies, with limited ground-truthing. The maps are suitable for general planning purposes but need to be field-checked during the design phase of the project.

Mr. Louis H. Age, Jr.
Page $I V-37$ to IV -47, Natural Environment. The description of effects in this section is very general and would benefit greatly from site-specific information. If detailed information will not be available until later in the planning or design process, we suggest that this be noted in the report.

Thank you for the opportunity to review this draft Environmental Impact Statement.

Sincerely,
$4(a)(a c \cos )$
pearlie s. REED
State Conservationist

CC:
J. B. Newman, Director, Ecol. Sciences Div., SCS, Washington, DC

RESPONSES TO

## U. S. DEPARTMENT OF AGRICULTURE LETTER DATED JUNE 10, 1986

1. The forest-cover overlay which is present on the map is shown in the legend to correspond to Public or Commulty Recreation Areas. The only portion of the map with no overlay is the right-of-way for 1-95 which is a full access-controlled freeway.
2. Detailed soil surveys will be used for the final design of this project.
3. A more detailed wetlands analysis has been performed for those areas that may be Impacted by the selected alternate, Alternate 38 (Modified), which Included onsite Investigation.
4. The referenced sentence has been revised.
5. This document discusses specific impacts to the natural environment to the extent possible (see Section IV.C).

13 June 1986
Planning Division

Mr. Louis H. Ege, Jr., Deputy Director Project Development Division ( 5 Nom 310) State Highway Administration. .
707 North Calvert Street
Baltimore, Maryiand 212202
Dear Mr. E'ges
Reference Neil J. Pedersen's letter of 9 liay 1936 regarding the revicw of the Draft Envirommental Inpact Statenent (DEIS)/Section 4(f) Evaluation for laryland Route 100 in Anne Arunclel County and Howard County, Haryland. The comments provided below address the proposed work as it relates to the Corps of Engineers' areas of concern including flood control hazard potential, permit reçuirements under section 404 at the Clean Water Act, and other direct or incirect impacts on existing or proposed Corps of Engineers' projects.

There are no existing or proposed Corps of Eingineers projects in the vicinity of Haryiland route 100 .

As stated on page IV-43 of the DiEIS, flood plain impacts from the construction will be quantified during final detailed design. This will be adequate for compliance with Federal, state and local flood plain regulations.

The LEIs states that any improvements involving wetland encroachment will require a Section $4 C 4$ Pernit from the U.S. Army Corps of Engineers. The DEIS also mentions that wetlands potentially affected by the projected were identified based on the National Wetlands Inventory (NWI) prepared by the U.S Fish and Wildilfe Service. Since the Corps of Engineers and the Fish and Wildife Service use different criteria in classifying wetlands, delineation and determination of project area wetlands should be done or approved by the corps of Engineers. If you have any cueations concerning wetlands in the project area, please contact Ms. Linda Milchling, Vestern Shore Permita Section at (301) 962-4253.

If you have any other questions concerning these comments, please contact me or have a member of your staff contact ai action officer, Mr. Larry Lower at (301) 962-4710.

## JANUS F. JOHNSON

 Chief, Planning Division
## RESPONSE TO

U. S. ARMY CORPS OF ENGINEERS

LETTER DATED 13 JUNE, 1986

1. No response required.
2. No response required.
3. A more detailed wetlands analysis has been performed for those areas that may be Impacted by the selected alternate, Alternate 3B (Modified). This Included a field review at which representatives from the U. S. Army Corps of Engineers were present. The State Highway Administration will continue coordination with the Corps of Engineers concerning impacts to wetlands.


Mr. Louts Age, Jr.
Deputy Director
Project Development Division (Rm. 310)
Maryland State Highway Administration
707 N. Calvert Street
Baltimore, Maryland 21202
Re: Maryland Rt. 100 DEIS


Dear Mr. Egg:

In accordance with the provisions of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA has reviewed the Draft Environmental Impact Statement (DEIS) for the above referenced project. The DEIS clearly presents the bridge construction options under consideration but EPA has rated the project EC-2 pending selection of the preferred option. A summary of the rating definitions is attached for your reference.

Our particular concerns are outlined below.

## Ground Water

Based on our review of the DEIS, it is not clear whether studies to determine the impact of the highway on ground water supplies, as referenced on page IV -42, will actually be conducted. The document states that these "should" be performed, but offers no assurance that they will in fact be performed. EPA requests that the FEIS make that assurance, since the results of the studies could show adverse effects of the highway on the availability and quality of drinking water from a public water supply system. These impacts must be clearly stated in the FEIS and should be the culmination of a hydrogeologic study of the area. Needless to say, the findings of such a study should play an important role in selecting the final alignment.

## Wet lands

EPA recommends, to the greatest extent possible, that all wetlands associated with each alternative be identified and assessed by field inspections conducted jointly with the appropriate State and Federal agencies, rather than depending solely on the delineation of the National Wetland Inventory. This will supply the SHA with more accurate information from which the final selection can be made.


#### Abstract

We also =ecommend that maximum use be made of structures to span wetlands as necessary, and therefore minimize impacts. During the selection process, careful attention should be given to evaluating the quantity and quality of affected wetlands to reduce encroachment on these sensitive areas. Mitigation for damages shall be coordinated with the appropriate agencies to ensure that definitive mitigation plans are presented in the final document.


## Environmentally Sensitive Areas

If Alternate 3 is chosen as the preferred alignment, the results of the Buckingham Nursery Study should be included in the FEIS.

## Section 4(f) Impacts

All prudent alternatives to the procurement of parkland for the project should be thoroughly explored prior to selecting an alignment. Court challenges involving Section 4 (f) impacts have been particularly effective and failure to include adequate documentation in the FEIS for these acquisitions could cause unnecessary delays in implementing the project.

EPA appreciates having been included in the coordination process for this project and looks forward to participating in future coordination efforts. In particular we wish to be included in any field views scheduled to assess the wetland impacts. We also wish to be afforded the opportunity to review the stream crossing plans scheduled to be developed from the hydrologic and hydraulic studies during the design phase of the project.

Should you have any questions, or if we can be of additional assistance, feel free to contact Jeffrey Alper at 215-597-7817.


Enclosure

## Environmencal Iapsce of che action

LO-Lack of Objections
The EPA reviev has not identified eny potential envifonaencal lmpacts requifing substantive changes to the propoeal. The reviev any have disclosed oppottunities for applifation of aitigacion alasures that could be accompliehed with no sore than alnor changee to the proposal.

EC-Environsental Conceras
The EPA review has identified environaeatal impacte that should be avolded in order co fully protact the enviromant. Corrective seasuree any requife changes to the preferred alceralacive or epplication of aitigation amates that can reduce the environmencel impact. EPA would like to work with the lead agency to reduce these lapecte.

## EO-Envifonmental Objections

The EPA reviev has identified significant envirsamental fepacts cian sust be evolded in order to provide adequate procection for the environment. Corrective weaturee nay require subetanelal changes to the preferfed alterna tive or conelderetion of some other project alcernative (including the no action elternacive of new alternative). EFA intends co work uith the lead agency to reduce these lapacte.

EU-Environmentally Unsatiefectory
The EPA review haa identified edverse environmental iapacts chet ere of sufflcient magnitude chat they are uncetisfectory from the standpoint of public heeleh or velfare of envifonmental quality. EPA Intends so work uith the lead egency to feduce these lmpacts. If the potential unsatistactory impacts are not corfected at the flnal EIS stage, chis proposal will be recomended for referral to the CEQ.

Adequecy of the Iapact Statewent
Category 1-Adequate
EPA believes the draft EIS edequately sete forth the environmental lapact(s) of che praferred alternative and those of the elternetives reesonably evall able to the project or action. No furcher enalysie or daca collection is neceseary, but the reviever any suggest the eddicion of clerifying language or inforation.

Category 2-Insufficient Inforastion
The draft EIS doee not contain eufficient faforantion for EPA co fully assees environmantal lmpacte that should be avoided in order to fully protect the environeant, of the EPA reviever has identified neu reasorably available alternatives that are within the apectrum of alternatives analyzed in the draft ElS, which could reduce the envifonmental lapacts of the ection. The idencified addicional information, data, anslysee, of discussion should be included in che fiaal EIS.

Category 3-Inadequace
EPA does not belleve that the draft EIS edequately aceceee potentially significanc environsental iapacts of the ection, of the EpA reviever has identifled new, reasonably avellable alternativee that afe outalde of the spectrum of elcernativee analyzed in the draft EIS, which should be analyzed In ofder to reduce the potentlally signiflcant environmentel impacte. EPA believer that the identifled additionsl inforation, data, analysee, or discussions ate of such a magnitude that they should have full public review et a dreft stage. EPA does not belleve that the draft EIS is adequate for the purposee of the NEPA end/or Section 309 reviev, and thus should be formally revieed and made avellable for publlc coment in a supplementel or revieed dreftels. $n^{n}$ :he bisls of the potential signifleant iapacts involved. this propoeal could be candidate for referfal to the CEQ.

- From EPA Manuel 1640 Policy and Procedures for the Reviev of federal Actiona lapacting the Environeent.

1. If it is determined to be required, the State HIghway Administration will conduct a hydrogeologlc study of the area to determine any Impacts of the project to groundwater.
2. A more detailed wetlands analysis has been performed for those areas that may be Impacted by the selected alternate, Alternate 38 (modified), that Included the use of detailed sol series mapping and field Investigations (see Notes of Meeting, page VI-298). The State HIghway Administration will contInue coordination with the appropriate State and Federal Agencies concerning the Impact of the project on wet lands.
3. The BuckIngham Forest Tree Nursery Study is provided as a supplement to this Final Environmental Impact Statement.
4. Avoidance alternates for the impacted 4(f) resources are presented In Section IV.I. The hydrologic and hydraulic reports and construction plans will be reviewed by the Water Resources Administration. The U.S. Environmental Protection Agency will also be provided copies for review.

## U.S. Department of Housing and Urban Development <br> Philadelphia Regional Office, Region III Liberty Square Building 105 South Seventh Street Philadelphia, Pennsylvania 19106-3392

## JUL 31986

```
Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and Preliminary Engineering
State Highway Administration
707 North Calvert Street - Room 310
Baltimore, MD 21202
```

Dear Mr. Ese:
We have completed our review of the Draft Evnironmental Impact Statement for Maryland Route 100 Extended from I-95 to Route 3/I-97. In general, we find the document to be comprehensive and complete, however, we do have a number of specific comments, as follows.

1. Figures $\operatorname{III}-3$ and 4 show existing and proposed land uses respectively. We feel that this information would be enhanced if there was included, as well, a tabular summary of the major land uses shown on each map. Also, it is not clear whether the proposed land use map envisions a target year or is an end state plan. However, since the Howard County General Plan appears to use the year 2005, it would be of value to know what changes in anticipated land use are projected to occur throughout the entire study area by that target year.
2. Although impacts upon floodplains and wetlands are discussed on pages IV -43-44, the document makes no reference to compliance requirements required by Executive Orders 11988 and 11990.
3. Table IV -4 - Project Noise Levels, includes Ambient Req both with and without aircraft. Design year 2010 noise levels do not, however, appear to reflect future noise levels contributed by aircraft. Inasmuch as ambient levels with aircraft were included it would seem that the future noise impact picture should be shown on the same basis, namely, with and without aircraft. We believe that this would be a more forthright presentation of noise impacts.
4. Although 4(f) impacts are discussed extensively, we do not feel that we can comment fully on this matter until a firm decision is made on the final alignment.

Thank you for the opportunity to comment.
Sincerely,


Lawrence Levine
Regional Environmental Officer

## RESPONSE TO <br> U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT <br> LETTER DATED JULY 3. 1986

1. The existing land use map is based on the land use maps of the Maryland Department of State Planning, 1981. The proposed land use maps are based on the Howard County and Anne Arundel County master plans.
2. Reference to the compliance requirements of Executive Orders 11988 and 11990 is made in Sections IVC. 3 and.IV.C.r, respectively.
3. Since aircraft noise cannot be mitigated with conventional methods (le. noise barriers), future noise levels 'with aircraft' were not calculated.
4. The State Highway Administration will continue coordination with the appropriate agencies concerning impacts of the project to 4 (f) resources.

UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration :Nashingeon. DC. 20230
office of the acministantor

July 10, 1986
Mr. Louis H. Age, Jr.
Deputy Director Project Development
Division (Roam 310)


State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

## Dear Sir:

This is in reference to your draft environmental impact statement for Maryland Route 100 from I-95 to I-97. Enclosed are comments from the National Oceanic and Atmospheric Administration.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,
davit ítirisham
David Cottingham
Ecology and Conservation Division

Enclosure

UNITED STATES DEFARTMEMT OF SBMMEREE National Oceanic and inmospreric Asministatation ATONAL OCEAN:ES:C *asningron. 2. こ. : inc:

ULUT:9eg


The subject DEIS has been reviewed within the areas of the National Ocean Service's (NOS) responsibility and expertise, and in terms of the impact of the proposed action on NOS activities and projects.

Geodetic control survey monuments may be located in the proposed project area. If there is any planned activity which will disturb or destroy these monuments, NOS requires not less than 90 days notification in advance of such activity in order to plan for their relocation. Nos recommends that funding for this project includes the cost of any relocation required for NOS monuments. For further information about these monuments, please contact Mr. John Spencer, Chief, National Geodetic Information Branch (N/CG17), or Mr. Charles Novak, Chief, Network Maintenance Section (N/CG162), at 6001 Executive Boulevard, Rockville, Maryland 20852.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration NATIONAL MARINE FISHERIES SERVICE
Management Division
Habitat Conservation Branch Oxford Laboratory
Oxford, Maryland 21654
June 27, 1986
Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering
State High Administration
707 North Calvert Street
Baltimore, Maryland 212012
Attn: Mr. Louis H. Ege
Dear Mr. Pedersen:
The National Marine Fisheries Service has reviewed the Draft Environmental Impact Statement (DEIS) entitled Maryland Route 100, Interstate Route 95 to Maryland Route 3. Anne Arundel and Howard Counties, and offers the following comments for your consideration.

Although it stated that blockages preclude the use of streams in the project area by anadromous species (page III-40), it should be noted that several of those streams support migratory fish runs below the obstructions. It would be useful to include a map illustrating the limit of migration in relation to the proposed highway alignments. Prohibiting in-stream construction from 1 March to 15 June (page IV -44) should reduce impacts to anadromous species spawning downstream. Furthermore, implementation of sediment control (page IV-41) and stormwater management measures (page IV-40) should reduce habitat degradation during construction and operation of the proposed highway.

It appears from the analysis provided in the document that Alternate $2 B$ will result the least overall natural environmental impacts. This alternate is also one of the least expensive options.

We appreciate having had the opportunity to comment on the subject DEIS.

## RECEIVED

JUN 301986
DIRECTOr, OFFICE OF
planning \& Piellmanary encineeang
Sincerely,
-


RESPONSE TO
U. S. DEPARTMENT OF COMMERCE

Letter dated jury 10, 1986

1. Letter from National Ocean Service, dated July 7, 1987.

If any geodetic control survey monuments are disturbed or destroyed by the project, the State Highway Administration will notify the National Ocean Service and provide for their relocation.
2. Letter from National Marine Fisheries Service, dated June 27, 1986.

All in stream construction for Class I streams will be prohibited from March 1 to June 15, Inclusive. The standard erosion and sediment control practices, as developed by a Joint State Highway Administration/Water Resources Administration Task Force in 1984, will be used on this project. These practices will be monitored and strictly enforced.


OFFICE OF ENVIRONMENTAL PROGRAMS DEPARTMENT OF HEALTH AND MENTAL HYGIENE 201 WEST PRESTON STAEET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 - 383-

TTY FOR DEAF: Baito. Area 383-7555
D:C. Metro 565-0451
Adele Wilzack, R.N., M.S., Secretary
William M. Eichbaum, Assistant Secretary

August 13, 1986

Ms. Cynthia D. Simpson, Acting Chief Environmental Management
Bureau of Project Planning (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

```
RE: Contract No. AA 682-101-570
Maryland Route 100
Interstate Route 95 to Interstate Route 97 PDMS No. 022007
```

Dear Ms. Simpson:
We have reviewed the Draft Air Quality Analysis for the above subject project and have found that it is not inconsistent with the Administration's plans and objectives.

Thank you for the opportunity to review this analysis.


Edward L. Carter, Chief Division of Air Quality Planning and Data Systems
Air Management Administration

ELC/Cp

UNITED STATES ENVIRONMENTAL FOCTEOTION AGENCy:
AESICN:14
Qa; Chestnut Juicing
Phiacetonia. Eennisvivania 19:07

## AUG 191986

Cynthia D. Simpson, Chief
Environmental Management
Project Development Division (Rm. 310)
MD State Highway Administration
707 North Calvert Street
Baltimore, MD. 21202
Re: MD Route 100
Draft Air Quality Analysis
Dear Ms. Simpson,


In accordance with the responsibilities delegated to EPA under Section 309 of the Clean Air Act and the National Environmental Policy Act, EPA Region III has reviewed the above referenced document. We are satisfied with the approach outlined for analyzing the air quality impacts of the project and offer no objections to completing this portion of the environmental study.

Thank you for including EPA in the coordination process: Should you have any questions, or if we can be of additional assistance, please contact Jeffrey Alper at 215/597-7817.



STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

Ronald E. Moon
State Highway Administration
707 N. Calvert Street
Wayne A. Cawiey, Jr. Secretary Hugh E. Binks Deputy Secretary

Baltimore, Maryland 21202
REF: Comments - Maryland Route 100 Project
Dear Mr. Moon:

The Maryland Department of Agriculture has an interest in the proposed Maryland Route 100 Project. I wish to submit the following statement which was read at the Public Meeting on June 11, 1986 but has not previously been submitted in writing:

The Maryland Department of Agriculture has an interest and a responsibility to promote the retention, conservation and preservation of productive agricultural and forest land. The Governor's Executive Order on Policies to Guide State Actions for the Physical and Economic Development of Maryland requires State agencies to "...conduct State projects, programs and investments such as highways..." and "...to minimize the conversion of productive agricultural and forest land...". Further on, however, the Executive Order also calls for "...the efficient provision of transportation services...".

This project clearly requires a decision which balances the public's need for improved transportation, for retention of natural resources and agricultural land and for environmental protection. We would expect that with whichever route is selected, the impact on farmland and on natural resources areas such as the state's only tree nursery, for example, would be minimized to any possible extent such that their productive capacity and environmental quality would be maintained.

Thank you for the opportunity to express our views.


WAC: oj

## RESPONSE TO

MD DEPARTMENT OF AGRICULTURE LETTER DATED JUNE 30, 1986

Minimization of impacts on agricultural land and natural areas, as well as residential and commercial areas, has been a consideration throughout the study. Minor alignment shifts will be considered during final design of the project to reduce impacts as much as feasible.


HARRY HUGHES GOVERNOR

## MARYLAND

DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
EALTIMORE. MARYLAND 21201-2365
CONSTANCE LIEDER
July 1, 1986

## RECeIVED

JUL 7 1986

Mr. Neil Pedersen
Department of Transportation
Office of Planning and Preliminary Engineering
DRELTOM, QuOit st
707 N. Calvert Street
Baltimore, Md., 21201-0717
SUBJECT: REVIEW AND RECOMMENDATION
State Application Identification Number: MD860514-0369
Applicnat: MDOT - State Highway Administration
Description: Draft EIS/Section 4(f) Evaluation - Md. Rte. 100
From I-95 to I-97, AA682-101-570
Location: Anne Arundel County

## Dear Mr. Pedersen:

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 16.02 .03 , the State Clearinghouse has coordinated the intergovernmental review of the referenced subject. As a result of the review, it has been determined that the subject is generally consistent with Maryland's plans, programs and objectives as of this date. Several environmental issues will require further analysis prior to any decision regarding alternatives. It is requested that the additional information needed be circulated for review before finalizing the EIS document.

All directly affected State and local public officials were provided notice of the subject. Review comments were requested from the following local jurisdictions and regional and State agencies:

Anne Arundel County, Regional Planning Council, Department of Pubic Safety and Correctional Services, Department of Budget and Fiscal Planning, Department of Economic and Community Development, including the Maryland Historical Trust (SHPO), office of Environmental Programs of the Department of Health and Mental Hygiene, Department of Natural Resources, including the Coastal Zone Resources Division, Department of General Services, Department of Education, and the Department of State Planning.

The following specific comments are provided for your consideration:
The State Historic Preservation Officer has determined that the subject may affect archeological or historic resources listed in, or possibly eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act and the federal Advisory Council on Historic Preservation's
regulations ( 36 CFR Part 800 ) require that the Advisory Council be given the opportunity to comment when a federal undertaking will affect resources listed in or eligible for the National Register. In accordance with a 1981 suspension of Section 800.4 of the Advisory Council regulations, the time in which a "determination of effect" is made can be decreased, if the federal agency and the State Historic Preservation Officer concur that resources are eligible for listing on the National Register. It is recommended that the federal agency or State agency or local government to which compliance responsibility is delegated prepare and submit the requisite documentation to the Keeper of the National Register for a formal "determination of eligibility" within one year from the date the State Historic Preservation Officer and the federal agency concurred that resources are eligible for listing. If the federal agency does not agree with the opinion of the State Historic Preservation Officer, a "determination of eligibility" must be requested from the National Register before proceeding. For more information about the requirements of Section 106 and the Council's regulations, the applicant should contact the State Historic Preservation Officer. The Trust indicated that MHT is working closely with the State Highway Administration to complete the Section 106 requirements.

Department of Education noted that there appears to be no direct impact on any of the five school sites within the study area: Waterloo Middle, Barman Elementary,
Severn Elementary, Quarterfield Elementary and North Arundel Voc. Tech. Alternate No. 3. does propose the closing of Harmans Road. The impact of this road closing should be studied with regard to any increases in traffic on nearby roads. In particular, the potential impact on Ridge Chapel Road which provides access to Barman Elementary School should be studied.

Department of Natural Resources advised that correspondence (copies attached) dated June 27 th and June 12 th were forwarded to the applicant, summarizing the Department's comments. The Department noted that sediment and erosion control measures and stormwater management will. require review and approval by the Administration. Also, any wetland impacts will require mitigation. A survey should be made of the location to determine whether any rare plants are present. The Department also had comments relating to irrigation, water supply, air quality and circulation and access to the Buckingham State Nursery. Further environmental analysis and discussions are requested.

Department of State Planning noted (copy attached) that the reference subject was reviewed and in general the Department has no objection to the proposed construction. However, the Department feels that the building alternatives could adversely affect parkland, wetland, streams, the Patuxent River Primary Management Area and other environmentally sensitive locations. It is suggested that the Patuxent River Policy Plan be used to guide construction decisions within the Patuxent Primary Management Areas. Since there appears to be a considerable number of environmental concerns, further environmental analysis should be conducted and reviewed prior to any decision on an alternative route.

Regional Planning Council noted (copy attached) that the subject is consistent with regional plans and programs. The Office of Planning and Zoning has been coordinating with the State Highway Administration on this study and is preparing written comments for the record, in addition to previous correspondence. This subject is being reviewed concurrently by the Transportation Steering Committee.

July 1, 1986
Page Three

In response to the review request, this letter with attachments constitutes the initial review. The applicant is required to include a copy of this letter with attachments and a statement of consideration given to the comments and recommendation with the application that is submitted to the federal approving authority. A copy of this statement should also be submitted to the State Clearinghouse. Additionally, you are required to place the State Application Identification Number (SAI) on the application for financial assistance.

The Clearinghouse must be informed if the recommendation cannot be accommodated by the federal approving authority. The Clearinghouse recommendation is valid for a period of three years from the date of this letter. If the approving authority has not made a decision regarding the subject within that time period, information should be submitted to the Clearinghouse requesting a review update.

We appreciate your attention to the intergovernmental review process and look forward to continued cooperation.


GWH:SB:mk
Attachment

```
cc: Bruce Gilmore - DNR
    Clyde Pyers - DOT
    Ed Wise - DECD
    Max Eisenberg - OEP
    Daryl Rawlings - RPC
    Louis Stettler - DBFP
    Frank Hall - DPS&CS
    Betsy Barnard - DHMH
    Eric Walbeck - DGS
    Skipp Sanders - DOE
    William Smith - DSP
    Emory Harrison - DSP
```

Mr. Guy W. Hager, Director Maryland State Clearinghouse
for Intergovernmental Assistance Department of State Planning 301 West Preston Street Baltimore, Maryland 21201

Re: Metropolitan Clearinghouse Review and Referral Memorandum, Project: 0369-86094 Draft EIS/Sec. 4(f) Evaluation

State Clearinghouse \#: 860514-0369
Dear Mr. Hager:
The attached review and referral memorandum is certification that the above referenced project has undergone review and comment by the Regional Planning Council and a zecommended action has been determined based on the Council's findings.

Comments on this project were sequested from: Anne Arundel County.

We appreciate your attention to Metropolitan Clearinghouse procedures. If you have any questions, please contact us at 383-7110.

Sincerely,

Daryl L. Rawlings, Conrdiator Metropolitan Clearinghouse

## Attachment

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218

RPC Meeting: June 20, 1986

ANNE ARUNDEL COUNTY
Project: 0369-86094 Draft EIS/Sec. 4(f) Evaluation. MDOT-SHA have submitted an EIS for MD Rt. 100 Extended under Sec. 4(f) Evaluation for Anne Arundel County. The purpose is to study proposed alternates for the construction of MD 100 from I-95 in Howard County to MD Rt. 3/I-97 in Anne Arundel County. It also includes improvements to existing highways in the area involved.

Referral Source: Department of State Planning COMMENTS
This project is consistent with regional plans, programs, and policies.

The Office of Planning and Zoning has been coordinating with the State Highway Administration on this study and is preparing written comments for the record, in addition to previous correspondence.

This project is being reviewed concurrently by the Transportation Steering Committee.

Recommendation: Endorsement is recommended.

I HEREBY CERTIFY that at its 258 th meeting, which was held on June 20, 1986, the Regional Planning Council concurred in this Review and Referral Memorandum and incorporated it into the minutes of that meeting.



## RE: REFERRAL COORDINATOR REVIEW SUMMARY

Project: Draft EIS/Sec. 4(f) Evaluation
R\&RFile Number: 0369-86094
Comments should be return by: 6/10/86

This project has been forwarded to the following local departmints or agencies (check appropriate blanks and attach comments from the reviewing agencies):

## Planning

Environmental Protection Others (Specify)

Pubilc Works Human Relations

JURISDICTION'S COMMENTS

## Check One

- This jurisdiction has no comments on this proposal.
___ This project is consistent with or contributes to the fulfillment of local comprehensive plans, goals, and objectives.

This project raises problems concerning compatibility with local plans, or intergovernmental, environmental, or civil rights issues, and a meeting with the applicant is requested.

This project raises problems concerning compatibility with local plans, or intergovernmental, environmental, or civil rights issues; however, a meeting with the applicant is not requested.

This project is generally. consistent with local plans, but quaitying comments are necessary (attach comments).

RETURN TO:
Coordinator, Metropolitan Clearinghouse Regional Planning Council 2225 North Charles Street Baltimore, Maryland 21218


Agency: DIANNINS \$7 ZONIING. Date:

TO: Ms. Jackie McMillan
Date: May 20, 1986
Office of Planning and Zoning
Arundel Center
Annapolis, Maryland 21401

RE: PROJECT REVIEW FORM
Project: Draft EIS/Sec. 4(f) Evaluation
$R \& R$ File Number: 0369-86094

Comments should be returned by:
Check One
_ This agency has no comments on this proposal.
$\qquad$ This project is consistent with or contributes to the fulfillment of local comprehensive plans, goals, and objectives.
$\qquad$ This project raises issues concerning compatibility with local plans or intergovernmental problems, and a meeting with the applicant is requested. (Explain below.)
$\qquad$ This project raises issues concerning compatibility with local plans or intergovernmental problems; however, a meeting with the applicant is not requested. (Explain below.)
$\checkmark$ This project is generally consistent with local plans, but qualifying comments are necessary. (Explain below.)
comments Thus Office has been coordinating with the State Kighuery Adusinustretion an this stunt ant is preparing writion comments for the record, in addition to previcus carrisperteqce.
$\qquad$
$\qquad$

RETURN TO LOCAL REFERRAL COORDINATOR NAMED ABOVE



STATE OF MARYLAND

## WATER RESOURCES ADMINISTRATION

 ANNAPOLIS, MARYLAND 21401BDPGATSTEPABME
'June 27, 1986

RECEIVED
eR -1 1988

TO: Sam Baker, State Clearinghouse 301 W. preston St. RM 1104 Baltimroe, Md. 21201

SUBJECT: . MD 860514-0369 TEWED
1: PR PERE

FROM:
Virginia Tuber

Regarding our phone conversation of this morning, I am attached all additional information that $I$ have received on the subject Clearinghouse Project.

Thank You.

State Identification Number: MD860514-0369


Applicant: MDOT - State Highway Administration
Description: Draft EIS/Section 4(f) Evaluation - Md. Rte. 100 from I-95 to I-97, AA 682-101-570

Responses must be returned to the State Clearinghouse on or before $\qquad$ June 20, 1986

Based on a review of the notification information provided, we have determined that: Check One:

1) It is consistent with our plans, programs, and objectives. For those agencies which are responsible for making determinations under the following federal consistency requirements, please check the appropriate response:
$\qquad$ It has been determined that the subject has "no effect" on any known archeological or historic resources and that the requirements of Section 106 of the National Historic Preservation Act and 36 CR 800 have been met for the subject.

It has been determined that the requirements of Maryland Coastal Zone Management Program have been met for the subject in accordance with 16 USC 1456, Section 307(c)(1) and (2).
2) It is generally consistent with our plans, programs, and objectives, but the qualifying comment below is submitted for consideration.
3) It raises problems concerning compatibility with our plans, programs, or objectives, or it may duplicate existing program activities, as indicated in the comment below. If a meeting with the applicant is requested, please check here $\qquad$ .
4) Additional information is required to complete the review. The information needed is identified below. If an extension of the review period is requested, please check here $\qquad$ -
5) It does not require our comments.

COMMENTS:
PLEASE SEE ATTACHED COMMENTS
(Additional comments may be placed on the back or on separate sheets of paper)


Name: Dr. Askew Skip Sanders

To:
Skip Sanders
From. Al abend fer
Subject. Intergovernmental Review: MD. RTE 100 from I-95 to I-97


Skipp, I have reviewed the above proposal for impact upon public school facilities.

- i There appears to be no direct impact on any of the five school sites within the study area: Waterloo Middle, Harman Elementary, Severn Elementary, Quarterfield Elementary ans North Arundel Vow. Tech. Alternate No. 3 does propose the closing of Harmans Road. The
"' impact of this road closing should be studied with réoard to any increases in traffic on nearby roads. In particular, the potential impact on Ridge Chapel Road which provides access to Harman Elementary School should be studied.

1. ACA/1pj
cc: Yale Stenzler

- 



VI-332


STATE OF MARYLAND
department of natural resources
WATER RESOURCES ADMINISTRATION
tames state office building
ANNAPOLIS, MARYLAND 21401

June 27, 1986

## MEMORANDUM

TO: Virginia Tuber
Clearinghouse Coordinator

FROM: Wanda Adams wO
EIS Comments Coordinator

SUBJ: MDOT - State Highway Administration MD 86051400369

Please find attached copies of comments sent directly to SHA regarding the DEIS for MD 100 from I-95 to I-97, WRA No. 71-PP-0004, SHA No. AA -682-101-570.

WDA: dis
Attachment

STATE OF MARYLAND
department of natural resources
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILOING
ANNAPOLIS. MARYLAND 21401

June 27, 1986
$?$
$?$

Mr. Louls H. Ege, Jr.
Project Development Division
State Highway Administration
Room 310
707 N. Calvert Street
Baleimore, MD 21202
Re: WRA File No. 71-pp-0004
SHA NO. AH-682-101-570
MD 100 from I-95 60 I-97
DEIS/Section $4(E)$ Evaluation
Dear Mr. Ege:
The above referenced project was circulated chroughout the Administration and 50 other Agencies within the Deparmment of Natural Resources for review and comments. The following represents a summary of comments provided by che Divisions within the Water Resources Administration. Comments provided by the Maryland Forest, Park and Wildiffe Service were forwarded directly to Mr. Hal Kassoff.

As stated within the document, sediment and erosion concrol measures, as well as scormwater management for the project, will be subject co review and approval by the Administration in accordance with Sections 3-1105 and 8-11A-05, respectively, of the Natural Resources Arcicle, Annotaced Code of Maryland.

In accordance with Section 8-803 of the Natural Resources Article, Waterway Construction Permits will be required, as discussed in the document, for any project activities which will alcer the course, current, or cross-section of Deep Run, Piney Run, Sawill Creek or Scony Run. Any werlands impaces will require mitigacion.

No mention was made as to whecher a fleld survey for aquatic species was performed; such a survey should be performed.. In addition, documentation that. streams in "the study corridor are not known co serve as spawning areas because of obstructions and other factors" should be provided (see Page III-40).

Mr. Louis H. Ese, Jr.
June 27, 1986
Page Two

As two Maryland State rare plants, Helonias bullate and Care barrattil, could occur within the project area if appropriate habitat is present and as both species are "candidates" for listing as threatened or endangered by the U. S. Fish and Wildlife Service (Section V), a survey should be made of the project area to determine whether they are present.

Since the subject document was not of sufficient detail to render a decision on the alternate which would have the least impact, the Sediment and Stormwater Division has recommended Alternate $2 B$ be selected. Either of Alternate 2 would involve the least soil disturbance. Option 2B involves slightly less wetlands as well as soil of poor quality. Alternate 4 involves more streams and more terrain and, therefore, has greater potential for soil problems than the other ones. Alternate 38 would be the most objectional due to the size of the area and large amount of wetlands involved. The Administration recommends the selection of the alternate to have the least impact on the stream channels, floodplains and environment. Furthermore, the Flood Management Division of this Administration will have a new hdyrologic and hydrualic analyses available in the near future for Dorsey Run.

Finally, further elaboration should be made as to whom would be responsible for locating and defining the uses of all active wells within the affected area (Page IV-42).

# Sincerely, <br> Randy Hamill 

Randy L. Harrill
Chief, Waterway Permits Division
RLH:WDA:das
ce: Earl Shaver, WRA Sediment \& Stormwater Division Virginia Tauber, Clearinghouse Coordinator

# Department of Natural Resources 

torrey c. afown. m.D. sechetaay

Tawes Office Buiding Annapolis, Maryiand 21401

June 12, 1986

Mr. Hal Kassoff
Administrator
State Highway Administration
P. O. Box 717/707 North Calvert Street

Baltimore, Maryland 21203-0717


MARYLAND FOREST, PARK \& WILDLIFE SERVICE
appreciate the excellent cooperation that you and your staff have provided in regards to the extension of Maryland Route 100.

Since you and Assistant Secretary Harrison met in December 1984, our nursery staf has been in contact with your staff regarding the possible location through the Buckingham State Nursery.

To date, the following actions have occurred regarding the nursery.

1. The intersection with Maryland Route 170 has been redesigned to reduce the amount of seedling production space which will be lost.
2. A study has been initiated by the State Highway Administration to determine the environmental impacts upon air and water quality. I would request that the study be completed as soon as possible so that we can have a better understanding of the potential problems facing us in order to react accordingly.
3. Discussions with your design people have continued regarding the bridge to pass over the railroad. He have requested an extension to provide for access as well as for improved air flow. This is still in the discussion phase. I would ask for your support in the redesign.

For the public hearing of June 12, 1985, : would request that the following concerns be entered into the hearing record. These concerns.involve bath the construction phase and the potential impacts following construction.

## A. Irrigation Water Supply

1. Runoff water from highway containing salt and other chemicals.

The land along the right-of-way and all surrounding land drains into the nursery irrigation system pands. The preliminary plan indicates that the road surface will also drain in the direction of the irrigation system supply. Salt or any other chemical run-? off from the highway will make it unfit for irrigation purposes. Contaminated water cannot be allowed access to the underground supplies since some of the irrigation supply comes from springs.
2. Interference with supply stream that crosses the proposed right-of-way.

Water is supplied to the irrigation ponds by a combination of springs and a stream that flows across the highway right-of-way that is the carrier of surface water as well as water from additional holding pords on the southwest corner of the nursery. Current and future projected irrigation requirements for the nursery are 90,000 gallons per hour. Under normal conditions, this would require 720,000 gallons of water twice a week during the growing seasnn. - Additional water is used during the spring for frost protection. In order that this supply be maintained, the stream flow across the right-of-way must be uninterrupted during the construction phase as well as after the construction is complete.
3. Runoff water during construction permitting chemicals and silt to access the irrigation supply.

The amount of loose soil involved with the proposed construction and fill makes siltation a major concern. Also, chemicals and oils that may be present around a large construction froject such as this must be prevented from entering the drainage system.
4. Chemical spilis due to highway accidents.

Accidents along any highway are always possible no metter what precautions are taken to prevent them. Any accident invoiving oil and chemical spills can spell disaster should it get into the water supply system. Some type of safeguard and backup system will have to be provided in case such a spill occurs.
8. Air Quality and Circulation

1. Pollutants from highway traffic.

The volume of traffic this highway will carry and its elevation raise grave concerns about pollutants such as carbon monoxide (CO), nitrogen oxides ( $\mathrm{NO}_{x}$ ), hydrocarbons, unburned gasoline vapors plus heavy metals

Mr. Hal Kassoff
Page three
June 12, 1986
and other related aerosol/particulate matter. These materials released into the air and caused to settle onto the nursery during major inversions can cause serious damage if not total destruction to many of our crops and/or seed orchards.
2. Creation of non-circulating air pockets caused by the proposed construction.
The proposed fill poses a serious problem with air flow in a north, south direction. The railroad grade running along the west side of the nursery and the higher ground near Route 170 already cause a problem with the east, west flow of air. The fill will cause the creation of pockets of still air, increasing frost damage in early spring and providing an opportunity for air pollutants to settle. The proposed bridge will offer some help but will have to extend at least 1200 feet from the railroad to provide protection to the critical area.
3. Salt spray from the highway.

Salt spray thrown into the air in the winter by vehicles and snow plows can have an adverse impact on seed orchards and production ared next to the highway. The highway will go right by two major seed orchards on one side and part of the seedling production area on the other. The elevation of the highway only magnifies the distance from the roadway this spray can carry with the air currents.
C. Access to Southern Part of the Nursery

1. Access and security during and after construction.

The highway will cut the property in half. It is imperative that access be provided across the right-of-way during construction as well as after the highway is operational. The location of the access is critical because of the large aerial platform used to work in the seed orchards. The highway location will eliminate the existing east, west access from the western boundary along the railroad to the seed orchards. Due to the security requirament of the nursery, the right-ofway will have to be fenced. It will also have to be fenced during construction.
2. Access of construction vehicles to construction site.

Access to the construction site by construction vehicles is also a concern. Using existing roads through the nursery will have adverse impact on the operation. Existing roads are light duty and would not take heavy loads.
D. Loss of Property and Productivity

1. Seed orchard preservation.

The construction area lightly impacts the "seed orchards" on the south side of the construction. The damage can be minimized if care is taken with minimal disturbance or one-sided construction techniques.
2. Loss of "Brigham White Pine" seed orchard.

The proposed $R-0-W$ and fill proposed would eliminate the "Brigham White Pine" seed orchard. This two-acre orchard produces now, from 400 to 500 pounds of seed worth about 540,000 a year for improved seed on the open market. It would take us about 30 years to develop another orchard of present capacity for this strain of white pine. Extension of the bridge and minimal impact techniques could save about half of the existing orchard.
3. Loss of approximately 15 acres in addition to the white pine orchard.

The R-O-W proposal will consume approximately 17 acres. The area presently is occupied by the Brigham seed orchard and our mulching area. Production expansion is planned for this area. We must maintain the area capable of seedling production. We are very limited in the amount of adjacent land that could be acquired due to permanent improvements that surround the property on all sides.
E. Maintain constant coordination during the design phase to assure satisfactory accomplishment of the criteria.

Constant negotiations will be required at every step of the planning process to resolve such issues as bridge length, access, contain runoff to protect water supply, airborne pollutants and one-sided construction methods.
In summary, there are many potential problems outlined which would severely hinder plant production at the nursery. The nursery serves as the only source of seedlings, wildlife plants and shade trees for our state forestry program. Both public and private ownerships depend upon the nursery for planting materials. Unless the impacts and problems are addressed in a satisfactory manner, production at the nursery will be seriously reduced or eliminated. Should this occur, the only alternative is to relocate the nursery, at a cost which could exceed eight (8) million dollars.

We look forward to hearing from you on further updates and to a continuing cooperative working relationship.


Donald E. MacLauchlan
Director
DEM/JBR/IS

TO:

THROUGH:
FROM:


SUBJECT: Draft EIS Section $4 E$ Evaluation
DATE: June 27, 1986

The comprehensive section has reviewed this proposal and in general has no objection to the roadway. We do however, feel that the build alternatives could adversely affect parkland, wetland, streams, the Patuxent River Primary Management area and other environmentally sensitive areas. (specific comments are enclosed) Secretary Lieder has also received a letter (copy enclosed) from the Liberty Tree Project expressing concern about the affect of the proposed highway on Buckingham State Tree Nursery.

Since there is a considerable number of environmental concerns about this project, the State Highway Administration should consider a meeting with this Deparlmi (or any other State agency that has expressed concern) before a decision on the alterative is made on July $7,1986$.

It is also suggested that a member of this Department attend the quarterly review meetings for this project.

HG:WMS:alg

```
    Harvey Gold
    A-95 Comment
Draft EIS section 4f Evaluation
    MD Rte 100 From I-95-I-97
```

Portions of this project are in the Patuxent River Primary Management area and are subject to the Patuxent River Policy Plan adopted by the General Assembly in 1984. The Policy Plan is a component of the States' comprehensive program to restore the Patuxent River. It addresses such problems as non source pollution, water quality, aquatic resources and growth through The Primary Management Handbook.

All of the build alternatives proposed would adversely affect the streams (Piney Run, Stones Run, Deep Creek and Sawmill Creek) floodplains and wetlands in the Primary Management area.

It is felt that these facts should be considered in the alternative selection and that if a build alternative is selected, the Primary Management Area Handbook should be used as a guideline to help mitigate the effect of the highway on these.

It is also suggested that a representative of this Department be included at the quarterly interagency review sessions for this project.

HG: alg

## Harvey,

I've reviewed the draft E.I.S. for Maryland 100 and offer the following general comments:

- The most significant issue from the SCORP prospective is the impact on State-owned recreation and open space lands, especially Patapsco State Park (Alternate 4). Buckingham Nursery is impacted by Alternate 3. I would recommend against Alternate 4 due to its impact on the State Park. DNR is dealing with MDOT on this issue.
- Friendship Park is heavily impacted by Alternates 2B and $3 B$, and to a lesser extent by Alternate 2 A and 4.
- All alternates involve stream crossings, wetland destruction, and destruction of prime farmland and woodland. From a review of the "Summary of Impacts" on page vii in the EIS, all of the alternates are in conflict with policies/recommendations in the Maryland Recreation and Open Space Plan in one form or another. Actions proposed in the EIS which are inconsistent with the State Recreation and Open Space are:
- the destruction of wetlands - all alternates
- destruction of prime farmland/forest land - all alternates
- impact State recreation/open space land alternates $3 \& 4$
- impact local parkland - alternates 2A, 2B, 3B, 4
- impact historical sites - alternate 3B
- impact archaeological sites - all alternates

Harvey,

Given the short amount of time available, I have only general comments:

1. East-West traffic in N. AA. Co. is heavy/facilities need improvement.
2. 

All alternates involve potential environ. impacts resulting from streams wings, infringement on forest/park areas, etc.
3. Most significant issue to State vis-s-vis environment appears to involve intrusion into State-owned lands; DNR is involved to deal with these issues; Roland's group can look at, also.
4. I have no preference re alternative 非3 affects Buchingham Nursery, \#4 affects Patapsco Park; all others affect Sawmill Creek Park. If ocher considerations are o.k., perhaps, go with alt. that traverses Sawmill Park only at the southern end (to minimize impact); avoid Patapsco.

Larry D.
$\left\{\begin{array}{lll}5050\end{array}\right)$

The Maryland Department of Agriculture has an interest and a responsibility to promote the retention, conservation and preservation of productive agricultural and forest land. The Governor's Executive Order on Policies to Guide State Actions for the Physical and Economic Development of Maryland requires State agencies to "... conduct State projects, programs and investments such as highways.....to minimize the conversion of productive agricultural and forest land..." Further on, however, the Executive Order also calls for "the efficient provision oj transcortation services."

This project clearly ze=yires a decision which balances the publish's need for improved transportation, Esr retention of natural resources and agricultural land and for environmental تৈstestion. We would expect that with winichever route
 State's only tree nursery, fiE Example, would be minimized to any fusible extent


## SUMMARY UT IMHACIS table sol

## ALTERNATES

| NO- <br> BULL | $2 A$ | $2 日$ | $3 A$ | 38 | 4 | GROS <br> OVER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

SOCIOECONOMIC IMPACTS


COSTS ( $x \$ 1,000,000$ )

| RIGHT OF WAY |
| :--- |
| RELOCATION |
| CONSTRUCTION |



## RESPONSES TO COMMENTS FROM

 MARYLAND STATE CLEARING HOUSE1. The State Highway Administration will continue coordination with the State Historic Preservation Officer to minimize impacts of the project on archeological and historical resources.
2. Under the selected alternate, Alternate 38 (Modified) Harmans Road will bridge over MD Route 100 and, therefore, no significant increase In traffic is expected on Ridge Chapel Road.
3. The State Highway Administration will continue coordination with the Maryland Department of Natural Resources to minimize impacts on the natural environment. Detailed sediment and erosion control measures and stormwater management plans will be developed during final design and will be reviewed by the Water Resources Administration. Ail improvements involving wetland encroachment wii require a Section 404 Permit from the U.S. Army Corps of Engineers. A detailed study of the impacts of the project on the Buckingham. Forest Tree Nursery is available for review at the State Highway Administration Library, 707 North Calvert Street, Baltimore, Maryland and at ail State Depository Libraries.
4. The State Highway Administration will continue coordination with the appropriate agencies to minimize impacts on the natural environment. Ail streams and drainage basins affected by the project drain into the Patapsco River.
5. See responses to letters from the Office of Planning and Zoning of Howard County, the Anne Arundel County Department of Recreation and Parks and the Anne Arundel County Department of Public Works.

Maryland Historical Trust

Ms. Cynthia Simpson, Manager
Environmental Management
MDOT-SHA
707 North Calvert Street
P. O. Box 717

Baltimore, Maryland 21203-0717
May 12, 1986

RE: Contract No. AA 682-101-571
Maryland Route 100
from Maryland Route 3 (I-97)
to Interstate Route 95
F.A.P. No. RF 162-1
P.D.M.S. No. 022007

Dear Mr. Simpson:
Our office has reviewed your letter of December 20, 1985, and plans for this project. After site visits we have made the following determinations of effect:
A. for Alternate 2

1. Smith Farm - no effect
2. Shipley House - no adverse effect
B. for Alternate 3
3. Smith Farm - no adverse effect provided that an adequate landscaping is reviewed by our office and then implemented. If there is disagreement regarding landscaping, the matter must be referred to the Advisory Council for resolution pursuant to 36 CFR 800.6(b).
4. Shipley House
a. Alternate 3 as shown on the MD Rt. 713 option plan sheet - adverse effect
b. interchange option as shown on Plan Sheet 2 adverse

In addition, we agree with SHA that Calvary Chapel, 7300 Ridge

Ms. Cynthia Simpson, Manager
May 12, 1986
Page 2

Road, is not elibilbe for the National Register.
We have also reviewed your letter of May 1 , 1986, and the maps showing Alternate 3 Option $B$. This alignment would have an adverse effect on the Smith Farm.

Please call George Andreve if you have any questions or comments.


## JRL/GJA/mme

$$
\begin{aligned}
C C: & \text { Eleni Silverman } \\
& \text { Rita Suffness } \\
& \text { Ms. Lina Collins }
\end{aligned}
$$



## Maryland Historical Trust

July 3, 1986

Mr. Louis H. Eger, Jr.
Deputy Director State Highway Administration
Maryland Department of Transportation P. O. Box 717

707 North Calvert Street
Baltimore, Maryland 21203-0717
RE: Contract No. AA 682-101-570
MD Rt. 100 from MD Rt. 3
(I-97) to I-95
P.D.M.S. No. 022007

Anne Arundel and Howard Counties
State Clearinghouse \#MD860514-0369
Dear Mr. Age:
We have received your letter of 26 June 1986 regarding the archeological concerns for the abovereferenced project, and we have examined the draft EIS for the project.

We understand that an additional Phase I archeological reconnaissance survey of the expanded project area was conducted during 1985-86. According to Table IV -II in the DEIS (pg IV -78), the 1985-86 survey identified 17 new archeological sites and reexamined six previously recorded sites in the study area. We have not, however, received any detailed information concerning the survey results, specifically: site descriptions and exact locations, explanation of testing methodology and results, and documented assessments of the sites' significance. Therefore, we are unable to accurately evaluate the project's effects on archeological resources or to determine the need for further work. To allow us to complete our evaluations of the identified sites, we requested that you provide us with a copy of the project survey report or a detailed executive summary which includes this information. Upon receipt of this information we will promptly complete our review. Thank you for your assistance.

Mr. Louis H. Eger, Jr.
July 3, 1986
Page 2

If you have any questions, please contact Ms. Beth Brown of our staff at (301) 269-2438.

Sincerely,


> Richard B. Hughes
> State Administrator of Archeology

## RBE/BCB/mme

CC: Mr. Paul Wettlaufer
Mr. Sam Baker
Mr. Tyler Bastion
Mr. George Andreve
Ms. Donna Ware


Maryland Historical Trust

$$
\text { July 21, } 1986
$$

Ms. Cynthia Simpson
Manager, Environmental Management
Maryland Dept. of Transportation
State Highway Administration
P. O. Box 717

707 North Calvert Street
Baltimore, Maryland 21203-0717
RE: Contract No. AA 682-101-570
AA 682-101-571
Md. Rt. 100 from Md. Rt. 3 (I-97) P.D.M.S. No. 02207

Dear Ms. Simpson:
Our office has reviewed SHA's letters and proposed alternates for Maryland Route 100. After visiting the sites, we have made the following determinations of effect:

1. For Alternate 2 (Plan Sheet 2), we agree that there will be no adverse effect on the Sh1pley House.
2. For Alternate 3:
a. We agree with SHA that there will be no adverse effect on the Smith Farm conditioned on the utilization of a landscaping plan, subject to our review and comment. This alignment was shown on Plan Sheets 3 and 4.
b. Shipley House-adverse effect for alignments shown on the Md. Rt. 713 option plan sheet and Plan Sheet 2.
3. For Alternate 3, Option B-adverse effect on the Smith Farm.

Ms. Cynthia Simpson

## July 21, 1985

Page 2

In addition, we agree with SHA that Calvery Chapel (formerly St. Marks Church) at 7300 Ridge Road would not be eligible for the National Register.

Please call George Andreve if you have any questions or comments.

Sincerely,

J. Rodney Little

Director
State Historic Preservation Officer

## JRL/GTA/mmc

CC: Ms. Linda Collins
Harrison B. Wetherill, Jr.

## Maryland Department of Transportation

State Highway Administration
William K. Hellman Secretary
Hal Kassotf Adminitatrator

June 26, 1986

MEMORANDUM
TO: Mr. Louis H. Ege, Jr. Deputy Director, Project Development Division (Room 310)

FROM: Walter Owens, Jr. Deputy Chief,
Equal Opportunity Section
SUBJECT: Draft Environmental Impact Statement Contract Number: AA 682-101-570 Maryland Route 100

The subject document has been reviewed and found to be in compliance with Title VI of the Civil Rights Act of 1964.

Should you have any questions, please contact me on extension 1513.


VI-357
My telephone number is

DIVISION OF LAND DEVELOPMEN AND ZONING ADMINISTRATIC JOHN W. MUSSELMAN. CHIEF 992-2352

DIVISION OF COMPREHENSIVE AND TRANSPORTATION PLANNING AMAR 5. BANDEL. CHIEF 992-2357

## OFFICE of PLANNING \& ZONING of HOWARD COUNTY

GEORGE HOWARD BUILDING
3430 COURT HOUSE DRIVE. ELLICOTT CITY. MARYLAND 21043-4589

July 7, 1986

Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering
Maryland Department of Transportation
State Highway Administration
p. O. Box 717/707 North Calvert St.

Baltimore, Maryland 21203-0717
Re: Maryland 100 Draft Environmental
Impact Statement, I-95 to Maryland Route 3 Combined Location/Design Public Hearing on June 12, 1986

Dear Mr. Pedersen:
Enclosed are the coordinated comments and recommendations of this office and the Deparment of Public Works concerning the above mentioned project. Please note that these comments address only those portions of the project area which are within, adjacent to, or of direct impact on Howard County.

The comments from this office are by letter of June 30, 1986, from Carl Balser, and the comments from the Department of Public Works are by letter of June 20, 1986, from Elizabeth A. Calla.

If you have any questions concerning the enclosed comments and/or recomendations, please call me at your convenience.

TGH, JR.:st
Encls.

cc: George F. Neimeyer William A. Riley
Amar S. Bandel
File: 10.224

DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION JOHN W. MUSSELMAN. CHIEF

992-2352
division of comprehensive and TRANSPORTATION PLANNING ama S. Banded Chief 992-2357

OFFICE OF PLANNING \& ZONING of HOWARD COUNTY GEORGE HOWARD BUILDING
3430 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21043.4589
June 30, 1986

## MEMORANDUM

TO: AMAR S. BANDEL, Chief Division of Comprehensive \& Transportation Planning

FROM: CARL BALSER, Transportation Planner Transportation Planning Section

RE: MD 100 DRAFT ENVIRONMENTAL IMPACT STATEMENT

The following represent coordinated staff comments of this office and the : toward County Department of Public Works (reference Attachment A) regarding the Draft EIS for the proposed extension of MD 100 from I-95 in Howard County to MD 3 (I-97) in Anne Arundel County. These comments primarily address those portions of the proposed roadway which lie within or immediately adjacent to Howard County.

- Under all alternatives, the bridge over the $B \& O$ Railroad tracks and $0^{\prime}$ Connor Road should accommodate the potential expansion of $O^{\prime}$ Connors Road to a Major Collector ( $60^{\prime}$ to $80^{\prime}$ R.O.W.) as shown on the 1982 Howard County General Plan.
- Alternate No. 3 and the Crossover Alternate from No. 3 to No. 4 provide the most efficient access to nearby areas of Howard County including Dorsey, Lennox Park, Elkridge, Deep Run and Hanover Park. In particular, by providing a grade separation at Race Road, this alternate will provide the greatest accessibility to the existing industrial area of Hanover Park, as indicated on the General Plan, and the projected Deep Run industrial area, located east of the B \& 0 tracks, west of the County line, north of MD 176 and south of Hanover Road. This office, therefore, endorses either Alternate 3 or the Crossover Alternate.
- Alternate 4 provides the least favorable access to adjacent areas of Howard County. This alternate also requires acquisition of a significant swath of land through Patapsco State Park, a pristine and sensitive wooded and streamside environment of regional significance. Such an alignment can be expected to seriously degrade the aesthetic qualities of this irreplacible natural resource.

Furthermore, Alternate 4 subdivides the Deep Run area in such a manner as to seriously reduce the accessibility to and development potential of the remaining parcels. This office is, therefore, opposed to Alternate 4.

- The population and housing data for Howard County appear to be Round II forecasts. A Round III forecast was developed in 1983 and agreed to by RPC and DSP. The correct data should be used for this study. Attachments $B$ and $C$ indicate corrected data for Tables III-1 and III-2 respectively.
O. Associated with the U.S. I/MD 100 interchange is the proposed relocation of access to the Route 100 Business Park approximately 1,100 feet north of the present entrance at Amberton Drive. The proposed relocated access drive, as shown under all alternates, would cross the 100 year floodplain and possibly require relocation of the stream. The potential impacts of this crossing should be more fully explored with the Howard County Department of Public Works. If possible the relocated entrance should be repositioned to avoid the floodplain or to at least minimize any adverse impacts.
o In a related matter a citizen has brought to the attention of this office and the Department of Public Works that the relocated access road as shown would likely pass through one or more of his -commercial greenhouses which he alleges are not shown on the alignment maps. SHA should verify the exact location of these buildings relative to the relocated access road and either adjust the alignment to avoid these buildings or indicate the presence of the buildings to be displaced by the interchange improvements.
- SHA should also show the proposed entrance to the Troy Bill Business Park to be located west of U.S. 1 opposite the relocated entrance to the Route 100 Business Park. It appears from recently submitted subdivision plans that the entrance may not be fully compatible with SHA's intersection design or the western service road. This area should be further analyzed.
- Under Alternate No. 2, it is anticipated that the at-grade intersection with MD 100 which ties into Dorsey and Race Roads will be inadequate to accommodate the projected growth of future commuter and industrial (i.e., truck) traffic in this vicinity. This office does not favor Alternate 2.
- Of the two relocation options for MD 176 immediately east of U.S. 1 , the option which connects to existing MD 176 closest to J.S. 1 (i.e., the dotted line option depicted on page II-21, et al) will create the least adverse impact to residents in the Lennox Park area. Furthermore, this alignment provides the most direct access to existing and proposed employment sites along MD 176, but does not encourage through trips on MD 103/MD 176. This option is also compatible with Howard County Capital Project J-4070B for the extension of Dorsey Run Road. These offices, therefore, endorse the western or dotted line connection.
george f. nemmeyer वunecton 202.2400

Deaf TDD Number 202-2000

$\qquad$。


## DEPARTMENT Of PUBLIC WORKS of HOWARD COUNTY 3430 COURT MOUSE DRIVE EUCOTT CIT. MARY AND 21043

## Bureau of Engineering

 whim $E$ Ruby. CumBureau of Environmental Services swan or. turin Chin
Bureau of Facilities tom atomic. Clive
Bureau of Mighwors Gremvilo w. worsens aver
Bureau of Inspections. Licenses, and Permits M. Robert Gemmate oven Bureau of Utilities


June 20, 1986

## MEMORANDUM

TO:
Amer S. Bandel, Chief
Division of Comprehensive
and Transportation Planning
THROUGH:

FROM:
William E. Riley, Chief
Bureau of Engineering
Elizabeth A. Calla, Chief G Cl Coleen
Division of Roads, Bridges and Storm Drainage
SUBJECT:
MD 100 from I-95 to I-97

In review of the alternates presented at the public hearing on Thursday, June 12, 1986, all alternatives within Howard County are essentially the same. The route location from Anne Arundel County towards the location of the interchange with US 1 is fixed.

Within Howard County, existing MD 176 (Dorsey Road) would be terminated with a cul-de-sac just east of US 1. The SHA is proposing two options of tying Dorsey Road to US 1. Both options call for a new roadway link from Drosey Road to end opposite the existing intersection of MD 103 (Meadowridge Road) and US 1. Howard County prefers the westernmost option for this link which calls for turning off Dorsey Road near the proposed cul-de-sac and running parallel to US 1 and turning west to be opposite the MD 103/US 1 intersection. This alignment is compatible with Howard County Capital Project J-4070B Dorsey Run Road Extension. Attached is a vicinity map from the completed alignment study showing our new alignment for Dorsey Run Road and the SHA connection to MD 176. We wish that the Dorsey Run Road alignment be shown on the SHA plans. We anticipate that approximately 90 acres industrially zoned acreage will utilize the northern leg of the proposed roadway yielding an ADT of approximately 6,700 . We believe this volume will be in excess of that on the SHA connector road and that Dorsey Run Road should be treated as the "through road" with the SFA link connecting perpendicular19.

Amar S. Banded
June 30, 1986
Page three

- The future extension of Dorsey Run Road to relocated MD 176 should be shown on schematic drawings for all alternates.
- Since this project encompasses two jurisdictions, all discussions and graphic summaries of impacts (e.g. displacements, acreage required, noise impact zones, etc.) should include a breakdown by jurisdiction.

If you have any questions concerning the attached or the above, please contact me at your convenience.

$\mathrm{CB} / \mathrm{mjh}$
Attachments
cc: $\begin{aligned} & \text { William E. Riley } \\ & \text { Elizabeth Calla } \\ & \text { David R. Holden } \\ & \text { Paula O'Connor } \\ & \text { File, TR 2(a) } \\ & \\ & \text { 2490B }\end{aligned}$

Amer S. Banded, Chief Division of Comprehensive and Transportation Planning

MD 100 from I-95 to I-97

$$
-2-
$$

In the alternate SHA link option, the relocated roadway skirts the existing floodplain and requires the taking of one house. The total taking is approximately $50 \%$ more than Howard County's preferred option. The topography in that area is also much more rolling increasing the overall construction cost. The link road itself would be approximately $50 \%$ longer under this option. The community of Lennox Park has expressed a desire that commercial traffic be kept out of the community. The westernmost option keeps commercial traffic as far from this community as possible.

Regarding the relocation of the entrance to Route 100 Industrial Park, the proposed location of the intersection occurs at or very near the slump of 1 and lies within a 100 year floodplain on both sides of OS 1. Much of the western service road lies within the floodplain. The proposed entrance road may also require the taking of one of the existing commercial businesses (greenhouses). We would like the SHA to consider locating the proposed entrance further away from the interchange at the crest of the hill through Lot 6 of the business park. We assume this will again be a signalized intersection and should provide ample sight distance, eliminate taking any business, and remove the intersection from the floodplain. Recently Troy Rill submitted a subdivision for review that locates one of their entrances opposite the proposed entrance to the Route 100 Business Park. This entrance conflicts with and may require some minor redesign of the western service road.

This division endorses Alternate 3 with the above in consideration. If there are further questions related to this memorandum, please contact Charles Dampers of this Division or myself.

## TABLE III-1

## REGIONAL POPULATION DATA


(Source: U.S. Bureau of Census, Maryland Department of State Planning)

## Attachment E

TABLE 111-2
study area population

*Howard Co.
Census

$\begin{gathered}\text { STUDY AREA } \\ \text { TOTAL: }\end{gathered} \quad-\quad 33341 \quad 37699-54149 \quad-\quad 107871292420803$
* refer to Figure 111-1

## 

$\qquad$
$-\cdots-\cdots-\cdots-\cdots-\cdots-\cdots$
$\qquad$


EXHIBIT 2

RESPONSE TO
OFFICE OF PLANNING \& ZONING OF HOWARD COUNTY
LETTER DATED JULY 7, 1986
A. Transportation Planning Section, letter dated June 30, 1986.

1. The bridge over the B8O Railroad tracks will be designed to accommodate the potential expansion of $O^{\prime}$ Conner Road.
2. and
3. Alternate 3 has been selected In this area.
4. The referenced data has been Incorporated.
5. and 6. Under the selected alternate, the relocated entrance to the Route 100 Business ark has been located so as to minimize impacts to the greenhouses and a residence which currently exist In the area. Further coordination with the Howard County Department of Publ lc Works will be undertaken to minimize Impacts and ensure that the entrance to the proposed Troy HIII Business Park is compatible with the relocated road.
6. Alternate 2 has not been selected.
7. Under the selected alternate, a modification of the 'option' for relocating Dorsey Road at U.S. Route has been chosen (see Figure I I-27).
8. The future extension of Dorsey Run Road is shown on the plan sheets and labeled as 'Proposes County Road by Others'.
9. The Impacts are shown per alternate for the entire study area.
B. Department of Public Works of Howard County, letter dated June 20, 1986.
10. Under the selected alternate, a modification of the 'Option' for relocating Dorsey Road at U.S. Router has been chosen. The proposed Dorsey Run Road Extension is shown on the plan sheets and is treated as the through road.
11. See above response A.5.
12. Alternate 3 has been selected In this area.



# Anne Arundel County <br> ANNAPOLIS, MARYLAND 21401 

June 11, 1986

Mr. Louis H. Ege, Jr., Deputy Director
Project Development Division (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Edge:
This letter builds upon this department's previous comments on the proposed alignment of Route 100 as it impacts upon Friendship Park, which were sent to you on January 16 and March 17, 1986. After examining the Draft Environmental Impact Statement for Route 100, we were distressed that the recommended alignment 3-B bisects the park, isolating the Sawmill Creek Stream Valley and potential access points to Queenstown Park from Friendship Park users. Should 3-B be the final alignment selected we urge the use of landscaping to mitigate the road's impact on the park as much as possible.

Our principal concern, however, is to maintain the integrity of the bridle trail between Friendship and Queenstown Parks. As mentioned in my March 17 letter, we would like to see a large culvert ( $8^{\prime}$ wide X 10' high-minimum demensions) adjacent to the Sawmill Creek crossing to accommodate the horsemen in the park. With option 3-B, the actual stream crossing occurs outside the park boundaries, but since the Route 100 right-of-way is directly contiguous to the park property, I believe the trail could still be accamodated.

This structure would maintain this vital trail link for horsemen traveling between WB\&A Road and the Andover Equestrian Center north of the airport, and in addition would permit access to the Sawmill Creek Stream Valley for pedestrians and small maintenance vehicles.

Thank you for your consideration of this request. Please do not hesitate to contact me should you need additional information concerning this proposal.


John T. Mene
Capital Projects Officer

## JIK/vif

cc: Joseph J. McCann, Director, Recreation and Parks William A. Rinehart, Parks Administrator Roland Davis, Planning and Zoning Cynthia Young, PAIT



```
DEPARTMENT OF PUELIC WORKS
```

1 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401

June 30, 1986

Mr. Louis H. Ege, Jr., Deputy Director Project Development Division (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202
Re: Draft Environmental Impact Statement for Maryland Route 100 Extension
Dear Mr. Ese:
Our Bureau of Engineering has reviewed the Draft Environmental Impact Statement for Maryland Route 100 and feels there is no question that this project is needed to relieve the existing traffic (which is operating at capacity now) and the expected traffic growth on Dorsey Road due to the development planned for this area.

Dorsey Road, as you know, is the only East-West corridor in the North County area. It is for this reason that the "No Build Option" would not be in Anne Arundel County's best interest, nor would it be in agreement with the General Development Plan for Anne Arundel County (1978) or the Regional Planning Council General Development Plan (1982).

While reviewing the remaining alternate routes proposed for Maryland Route 100, we considered the impact to our County roads, environment, and the citizens. We feel that Alternate 2 , which would be an "at grade" boulevard, would still create traffic congestion due to the intersecting roadways.

Alternate 3 would impact the existing local County Roadway System the most. This alternate would call for cul-de-sacs of local roads including Dorsey Road at Wright Road (19 closing with Alt. 3A and 21 with Alt. 3B). By using this alternate, it would also cause a severe impact to the Anne Arundel County Fire Station on Dorsey Road. The closing of Ridge Road would reduce the response time to communities north and south of the

Mr. Louis H. Ege, Jr.
-2-
June 30, 1986
station. A general overview of Alternate 3 shows that the extensive closing of local roads would sever communities and cause existing travel patterns to be severely changed.

Alternate 4 with Option 3B around the community of Queenstown is the best alignment for Anne Arundel County in our opinion. We offer the following reasons for this option.

1. Dorsey Road would remain "as is" for an alternate East-West movement for local residents.
2. Existing businesses along Dorsey Road would be less impacted.
3. Police and Fire Departments' response time would not be affected.
4. B\&A Boulevard would remain open for access to Glen Burnie for local residents.
5. Requires the least amount of residential property
6. Displacement of residential, business and farm residents would be minimized.
7. There would be no impact to archeological or historic sites.
8. The total amount of acreage required would be less than any other alternate except for Alternates 2 and "No Build".
9. Total cost of the project would be less than Alternates 3.

Thank you for giving us the opportunity to comment on this matter.
Very truly yours,
DEPARTMENT OF PUBLIC WORKS


OGB/vkw
cc: Charles D. Storm

RESPONSE TO<br>ANE ARUNDEL COUNTY DEPARTMENT OF RECREATION AND PARKS LETTER DATED JUNE 11, 1986

Since Alternate 3B (Modified) has been selected, further coordination with the Anne Arundel County Department of Recreation and Parks will be undertaken in an effort to maintain access between the areas of Friendship Park Isolated by the project.

RESPONSE TO
ANE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS
LETTER DATED JLNE 30, 1986

1. The No-Bulid Alternate has not been selected
2. Alternate 2 has not been selected.
3. Under Alternate 36 (ModIfied), several provisions to minImize Impacts on the local road system have been Included. These Include a bridge over Maryland Route 295 connectIng Race Road and WrIght Road, brIdgIng Harmans Road over Maryland Route 100 and bridging W.B.\& A. Road over Maryland Route 100. A relocated Ridge Road is provided to maintain access between communities north and south of the alignment.
4. The selected alternate was chosen over Alternate 4 with a connection to Alternate 3-Option B for several reasons. First, Alternate 4 requires the acquisition of land from the Patapsco Valley State Park which is prohibited under Federal Law If a 'feasible and prudent' alternative exists. Also, the selected alternate closely follows the corridor for the extension of Maryland Route 100 as Identified In the Howard County, Anne Arundel County and the RegIonal Planning council Master Plans. This corridor is the basis upon which development in the area has been implemented and planned. Alternate 4/3B also traverses International AIrport and according to Federal Aviation Administration regulations, the highway would have to be constructed In a tunnel through this area which would cause the total cost of Alternate $4 / 38$ to be up to $\$ 36$ million greater than the selected alternate.

Soil
Conservation Service

10 W。 College Terrace
Room 230
Frederick, Maryland 21701

July 17, 1986

Ms. Cynthia D. Simpson
Chief, Environmental Management
Maryland Dept. of Transportation
State Highway Administration
P.O. Box 717

707 North Calvert St.
Baltimore, MD 21203-0717

Re: Farmland Protection Policy Act Form AD-1006 for MD Route 100 from I-95 to I-97 in Howard and Anne Arundel Counties, Maryland.

Dear Ms. Simpson:
An extensive evaluation of the zoning maps and soils data was made for the alternative routes in this project. The FPPA does not apply to any of the alternatives in Anne Arundel County due either to preclusion from FPPA by current zoning or to lack of soils qualifying as prime or of statewide importance in those areas not precluded by zoning. A small area of statewide important soils was found in alternative 4 in Howard County. For this reason, the information in Part II of the attached $A D-1006^{\prime}$ s pertains only to Howard County.

For clarification purposes, the percentages in Part II are based on the total land area in the county, and the percentage in Part IV.D. is based on total farmland as defined in FPPA.

If I can be of further assistance, please contact me at 301-694-6822 in Frederick, MD.

Sincerely,


CARL E. ROBINETTE
Area Soil Scientist

## Enclosures

cc:
Jack Helm, District Conservationist, SCS, Ellicott City, MD James Wist, District Conservationist, SCS, Annapolis, MD

The Soil Conservation Service is an agency of the
United States Department of Agriculture

## FARMLAND CONVERSION IMPACT RATING

PART 1 (To be compleited by Federal Agency)
Name Ot Project
Maryland Route 100 (Form 1 of 2)
Proposed Land Use
See Attachment
PART II (To be completed by SCS)(Data for Howard Co. only)

Date Of Land Evaluation Request
23 May 86
Federal Agency Involved
Federal Highway Administration
County And State
Anne Amundel and Howard Counties
Date Request Received By SCS 6-5-86

Does the site contain prime, unique, statewide or
IIf no, the FPPA does not apply - do not compl
Maior Crop/s/
Corn Small Grain, Soybeans, Hay
vame Of Land Evaluation System Used
Howard Co. LESA
Does the site contain prime, unique, statewide or local important farmland?

Farmable Land In Govt. Jurisdiction Acres: $86,200 \quad \% \quad 54$ Name Of Local Site Assessment System
Howard Co. LESA System
$\% \quad 54$
 Howard Co. LESA System

| Acres Irrigated | Average Farm Size |
| :--- | :--- |
| None | 117 |
| Amount Of Farmland As Defined in FPPA |  |
| Acres: $70,600 \quad \%$ | 44 |
| Date Land Evaluation Returned By SCS |  |
| $7 / 17 / 86$ |  |

Alternative Site Rating

| PART III (To be completed by Federal Agency) |  | Site A 2A | Site B2B | Site C3A | Site D3B |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A. Total Acres To Be Converted Directly |  | 246.8 | 368.0 | 520.1 | 564.3 |
| B. Total Acres To Be Converted Indirectly |  | 0 | 0 | 0 | 0 |
| C. Total Acres in Site |  | 246.8 | 368.0 | 520.1 | 564.3 |
| 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 |  | 100 | 100 | 100 | 100 |
| PART V (To be completed by SCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of O to 100 Points) |  | 0 | 0 | 0 | 0 |
| PART VI (To be completed by Federal Agency) <br> Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b) | Maximum |  |  |  |  |
| 1. Area In Nonurban Use |  |  |  |  |  |
| 2. Perimeter In Nonurban Use |  |  |  |  |  |
| 3. Percert Of Site Being Farmed |  |  |  |  |  |
| 4. Protection Provided By State And Local Government |  |  |  |  |  |
| 5. Distance From Urban Builtup Area |  |  |  |  |  |
| 6. Distance To Urban Support Services |  |  |  |  |  |
| 7. Size Of Present Farm Unit Compared To Average |  |  |  |  |  |
| 8. Creation Of Nonfarmable Farmland |  |  |  |  |  |
| 9. Availability Of Farm Support Services |  |  |  |  |  |
| 10. On-Farm Investments |  |  |  |  |  |
| 11. Effects Of Conversion On Farm Support Services |  |  |  |  |  |
| 12. Compatibility With Existing Agricultural Use |  |  |  |  |  |
| TOTAL SITE ASSESSMENT POINTS | 160 |  |  |  |  |
| PART VII (To be completed by Federal Agency) |  |  |  |  |  |
| Relative Value Of Farmland (From Part V) | 100 |  |  |  |  |
| Total Site Assessment (From Part V/above or a local site assessment) | 160 |  |  |  |  |
| TOTAL POINTS (Total of above 2 lines) | 260 |  |  |  |  |
| Site Selected: $\quad$ Date Of Selection |  |  | $\begin{array}{r} \text { as A Local Si } \\ Y \in s \end{array}$ | Assessment $U$ <br> - | $\square$ |

## FARMLAND CONVERSION IMPACT RATING



[^4]Step 1 - Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts 1 and 111 of the form.

Step 2 - Originator will send copies A, B and C together with maps indicating location of site(s), to the Soil Conservation Service (SCS) local field office and retain copy D for their files. (Note: SCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the SCS State Conservationist in each state).

Step 3 - SCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 - In cases where farmland covered by the FPPA will be converted by the proposed project, SCS field offices will complete Parts $11,1 \mathrm{~V}$ and V of the form.

Step 5 - SCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained for SCS records).

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form.
Step 7 - The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

## INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.
Assign the maximum points for each site assessment criterion as shown in $\S 658.5(\mathrm{~b})$ of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria \#5 and \#6 will not apply and will be weighed zero, however, criterion $\# 8$ will be weighed a maximum of 25 points, and criterion \#11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total weight points at 160 .

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points", where a State or local site assessment is used and the total maximum number of points is other than 160 , adjust the site assessment points to a base of 160 . Example: if the Site Assessment maximum is 200 points: and alternative Site "A" is rated 180 points: Total points assigned Site A $=180 \times 160=144$ points for Site "A."
Maximum points possible

## Maryland Historical Trust

Ms. Cynthia Simpson, Chief
Environmental Management
Maryland Department of
Transportation
State Highway Administration
P. O. Box 717

707 North Calvert Street
Baltimore, Maryland 21203-0717
Re: Contract No. AA 682-101-570
AA 682-101-571
Md. Rt. 100 from Md. Rt. 3
(I-97)
P.D.M.S. No. 02207

Dear Ms. Simpson:
Our office has reviewed the additional information provided by Rita Suffness concerning the effects of this project on the Shipley House and Smith Farm. Based on this, we now concur in a determination of no adverse effect on both properties, conditional on landscaping plans which are reviewed and approved by this office.

As noted in staff discussions, it is our understanding that State Highway Administration will meet with the owners of the Smith Farm to discuss satisfactory egress alternatives required by the destruction of the historic driveway. Your cooperation in this regard will be greatly appreciated.

If you have any further questions or comments, feel free to contact AI Luckenbach at 974-4450.

JRL/AHL/meh

ce: Mr. Harrison B. Wetherill, Jr.
Ms. Linda Collins
Ms. Donna Ware
Mr. Paul Wettlaufer
Ms. Rita Suffness
VI-378

## KIDD CONSULTANTS, INC.

Subsidiary of Kidder, Inc

## MEMORANDUM OF MEETING

TO: Distribution List
FROM: Elaine L. Cappucci / R. Scott Sternberger
DATE: March 30, 1987
TIME: 8:30 a.m.
SUBJECT: MD 100 Wetlands Field Review J.O. No. 01-86173A2

## IN ATTENDANCE:

Steve Herman
Diane Eckles
Mike Slattery
Gas Teherian
Lee Carrigan

Elaine Cappưci
Scott Sternberger

Army Corps of Engineers U.S. Fish and Wildlife Service MD Dept. of Natural Resources MD Dept. of Natural Resources MD State Highway Administration MD State Highway Administration Kidde Consultants, Inc. Ride Consultants, Inc.
I. Introduction

Ride Consultants opened the meeting by explaining the agenda for the field review. They gave all attendees a set of plans showing the wetlands and the soil boring locations and a booklet with information about the vegetation, soils, and hydrologic characteristics of each wetland. The consultants explained that they had deliniated wetlands only in the path of the alternate alignments $\{2,3 \mathrm{~A}$, and 4). The selected alignment, 3B modified, was deliniated previously by another firm. Ride asked that any questions about the selected alignment be directed to the State Highway Administration (SHA). Kidde pointed out that they did not deliniate the wetlands in the areas where the alternate alignments overlap mainly at the western end to the I-295 interchange and at the eastern Route 3 interchange.

The resource agencies then had the following questions:

1. The Fish and Wildlife Service (FWS) asked what lists were used to determine plant indicator status. Kidde stated that they used the 1986 edition of "Wetland Plants of the State of Maryland" to indicate regional status. When no listing was available on the

## RIDE CONSULTANTS, INC. <br> Subsidiary of Kidder, Inc.

Memorandum of Meeting
Subject: MD 100 Wetlands Field Review March 30, 1987
Page 2
state list for a particular plant, the FWS* northeast region list was used and is indicated with an asterick. A dashed line is used when no listing was found for a plant in either publication.
2. The FWS asked when the project would go under construction.

The SHA stated that they were not certain of the scheduling for this project. They said that normally when a project is in the state that this one is, it takes about five years to get it to construction. The SHA said they must also coordinate these projects with the counties to develop planning priorities.

## II. Field View

Kidde Consultants conducted the field view. The wetlands sites are presented here in numerical order although they were not visited in that order during the field view. Due to time limitations all the deliniated wetlands were not visited during the field view. The wetlands visited were those that the consultants felt had the highest values or those with questionable boundaries which the consultants felt the agencies should review. The Army Corps, DNR, and FWS agreed with the boundaries of those wetlands not viewed based on Ride's descriptions of the areas. The agency said that they would have to look at these areas if any of these alternates go into final design. The resource agencies' comments for each site are included and any changes they requested will be incorporated into final plans and report.

## A. ALTERNATE 2

## W2-1

This wetland was not visited during the field view, but all were in agreement with the boundaries set by Kidde Consultants based Ride's description of the area.

W2-2

## KHOCE CONSULTANTS, INC.

Subsidiary of Kidde, Inc.

```
Memorandum of Meeting
Subject: MD 100 Wetlands Field Review
March 30, 1987
Page 3
```

This wetland was viewed from the road. All of the.wetland could not be seen because it lies within the airport property. All agencies agreed with the boundaries.

W2-3
This wetland includes a drainage channel which runs adjacent to Dorsey Road, part of Piney Run Creek, and two forested areas.

The Army Corps stated that it appears that the wetland receives runoff from Dorsey Road but asked where the wetland drains. Kidde responded that there are drainage channels in the wetland that lead into the larger drainage channel feeding Piney Run Creek.

Everyone agreed on the boundaries of this wetland.
W2-4, W2-5
These wetlands were viewed from the road, no changes were requested.

W2-6
After field checking the wetland, all agencies agreed with the boundaries of this wetland.
B. ALTERNATE 2A

This alignment is the same as the portion of Alternate 4 from Dorsey Road to Maryland Route 3. For the wetlands which fall in this alignment, see W4-23, W4-24, W4-25, W4-26, W4-27, and W4-28.

## RUHEE CONSULTANTS, INC.

Subsidiary of Kidde, Inc.

```
Memorandum of Meeting
Subject: MD 100 Wetlands Field Review
March 30, 1987
Page 4
```


## C. ALTERNATE 2B

W2B-1, W2B-2
This wetland was not visited during the field view, but all were in agreement with the boundaries set by Kidde Consultants based Kidde's description of the area.

W2B-3
The review team observed several great horned owls nesting in the wetland. All were in agreement with the boundaries of this wetland.
C. ALTERNATE 3A

W3A-1
The review team observed several great horned owls nesting in this wetland during the field view. All were in agreement with the boundaries of this wetland.

W3A-2, W3A-3
This wetland was not visited during the field view, but all were in agreement with the boundaries set by Kidde Consultants based Kidde's description of the area.
E. ALTERNATE 4

W4-1

1. The Army Corps questioned whether the fill material (Erom the adjacent industrial development along the northern edge of the wetland) was in place when the wetland was being deliniated.

Kidde Consultants explained that the fill was being placed at the time of the deliniation however, additional material had been placed in the area

## NIDE CONSULTANTS, INC.

Subsidiary of Kidde, Inc.
Memorandum of Meeting Subject: MD 100 Wetlands Field Review March 30, 1987
Page 5
since that time.
2. The Army Corps asked what is the water source for the pond?

Ride stated that the pond is fed by a small tributary and possibly from groundwater. The pond outlets into a small stream which runs through the wetland.

The FWS, DNR and the Army. Corps indicated that the boundaries were adequate for preliminary assessment. If this alternate went into final design, another field view would be required.

W4-2
The wetland is bisected by the Baltimore and Ohio Railroad tracks. The area South of the tracks has hydric soils, but most of the vegetation are not wetland species. The area is dominated by Red Maple but there are scattered River Birch. Soil samples taken during the field view show a very gray top layer which is probably derived from the railroad. The soil is very sandy. The FWS stated that the area near the tracks is a transition area and maybe should be taken out. The Army Corps stated that the entire area should probably be left in, although it would require further study if this alignment were selected. At that time more definite boundaries could be set.

The Army Corps asked what the source of water is for this wetland. Ride Consultants said that the area is fed by runoff from the ridge at the northwest end of the wetland, and probably by groundwater.

The FWS asked what soil series is present here. Kidde Consultants checked the Howard County Soil Survey book and found that it is the Fallsington Series a poorly drained soil with a chroma of 1 to 3 in the $A$ horizon.

## RIDE CONSULTANTS, INC.

Subsidiary of Kidder, Inc.

```
Memorandum of Meeting
Subject: MD 100 Wetlands Field Review
March 30, 1987
Page 6
```

All agreed to leave the boundaries at the locations set by Ride, but that they would need to be examined more closely in the future.

W4-3
All were in agreement with Ride's boundaries for this wetland.

W4-4

1. DNR asked what type of structure would be used at Piney Run Creek.

The SHA said that they did not know at this point.
2. The FWS asked if Gide had used the topography to determine the wetland boundaries.

Ride Consultants said that topography was used to determine the boundaries.

The boundaries were not changed.
W4-5
Ride stated that they wanted the resource agencies to thoroughly check this wetland because they had found hydric soils on the slopes and plateaus and were uncertain if these areas should be called wetland. In order to be conservative these areas shown on the field view plans.

The FWS and Army Corps took several soil samples on the slope area. The FWS said that the soil probably is light colored because it is acidic, not because it is hydric. Iron may be leaching out due to the acidity. The FWS felt the soil was more white (showing acidity) than gray or black.

## HYDE CONSULTANTS, INC. <br> Subsidiary of Kidde, Inc.

```
Memorandum of Meeting
Subject: MD 100 Wetlands Field Review
March 30, 1987
Page 7
```

The FWS said that on the floodplain areas, alluvium is present and the soil is definitely hydric. DNR agreed. There is mottling in both the $A$ and $B$ horizons and the vegetation shows the area to be wetlands. The Army Corps anrood and said that there is no mottling present on soils further up the slope.

The FWS asked what soil series is present here. Ride checked this later in the Anne Arundel County Soil Survey and discussed it with the FWS. The soil belongs to the keyport and Fallsington series. The Fallsington series is highly acidic.

The agencies said that the slopes and plateaus should be taken out but the floodplain areas should be left in.

W4-6, W4-7
This Wetland was not visited during the field view, but all were in agreement with the boundaries set by Ride Consultants based on Ride's description of the area.

W4-8, W4-9
All were in agreement with the boundaries of these wetlands based on their field view.

W4-10, W4-11, W4-12, W4-13, W4-14
Kidde Consultants explained that these wetlands are located in Patapsco Valley State Park. They are mainly upland drainage channels and headwater areas. The consultants said the areas are similar to wetlands W4-17 and W4-18 on the other end of the park which were reviewed earlier in the day. The agencies decided not to look at these wetlands at this time, but said they would need to look at them if any action were taken on this alternate. all the agencies agreed on the boundaries, based on Kidde's descriptions of the areas.

## KIDIE CONSULTANTS, INC.

Subsidiary of Kidde, Inc.

```
Memorandum of Meeting
Subject: MD 100 Wetlands Field Review
March 30, 1987
Page 8
```

W4-15
DNR stated that the buttressed tree trunks and
pockets of standing water were good evidence of the
presence of wetlands.
All agreed with Kidde's boundaries for this
wetland.
W4-16

This wetland was not reviewed as it is within the airport property. All agreed with the boundaries based on Kidde's description of the area.

W4-17
The Army Corps stated that maybe only the lowest swale areas should be included in this wetland, but that the boundaries could be left as they are at this time. The FWS and DNR agreed.

W4-18, W4-19
All agreed with the boundaries set by Kidde.
W4-20
All present agreed that this is a very high value wetland. The boundaries were not changed.

W4-21, W4-22
These wetlands were not visited, but all were in agreement with the boundaries set by Kidde Consultants based on Kidde's description of the areas.

## KIDDE CONSULTANTS, INC.

Subsidiary of Kidde, Inc.

Memorandum of Meeting<br>Subject: MD 100 Wetlands Field Review March 30, 1987<br>Page 9

W4-23, W4-24
The FWS and DNR questioned why the consultants did not consider the small area between these two wetlands to be wetland, Kidde explained that there is a ridge between the two which does not have hydric soils or wetlands vegetation. After field checking the area, the agencies agreed with Kidde's boundaries.

W4-25, W4-26, W4-27
These wetlands were not visited, but all were in agreement with the boundaries set by Kidde consultants based on Kidde's descriptions of the areas.

W4-28
The field review team observed several great horned owls nesting here during the field view. No changes to the boundaries were requested.
F. CROSSOVER ALT. 3 TO ALT. 4

None of the wetlands in this alignment were vistied. The resouce agencies said they may want to review them in the future.

WC-1, WC-2
Kidde described these wetlands to the agencies. They lie just east of w4-20. All agreed to the boundaries based on Kidde's description.

WC-3
This wetland is a swale carrying upland runoff to a tributary of Piney run Creek. As it lies in a fenced off private property, the agencies decided not to look at it, but accepted the boundaries based on Kidde's description.

## IIIDOE CONSULTANTS, INC.

Subsidiary of Kidder. Inc.

```
Memorandum of Meeting
Subject: MD 100 Wetlands Field Review
March 30, 1987
Page 10
```

WC -4
Side explained that this wetland includes Piney Run Creek only. The Creek banks are several feet high and no hydric soils or wetlands vegetation was found at the top of the banks. The agencies agreed with the boundaries.

Conclusion
The agencies stated that if any of the alternate alignments were selected they would want to review the wetlands more carefully. Some questionable areas were left in during this field view in order to be conservative.

CC: All Attendees Dave Manly


The Old Post Office Building
1100 Pennsylvania Avenue, NW, \#809
Washington, DC 20004


## Jl. I 1987

Mr. Emil Elinsky
Division Administrator
Federal Highway Administration
The Rotunda, Suite 220
711 West $40 t h$ Street
Baltimore, MD 21211-2187
REF: Construction of Maryland Route 100
Smith Farm and Shipley House
Anne Arundel County, MD
Dear Mr. Elinsky:
On June l0, 1987, the Council received your letter requesting our comments on the referenced project in accordance with Section 106 of the National Historic Preservation Act. While we concur with your determination that the Shipley House will not be adversely affected, we are unable to agree with your determination in regard to the Smith Farm.

Alternate 3-B Modified, the proposed alignment for Route 100, will separate roughly one-third of the Smith Farm cropland from the farmhouse and outbuildings; alter the physical environment of the property, removing the main buildings from their historic association with the land; and introduce audible, visual and atmospheric elements which are out of character with the rural setting of the National Register property. Since the information submitted indicates that the setting is one of the most significant elements of the historic property, such alteration and intrusions meet the criteria of adverse effect set forward at 36 CFR $\$ 800.9$ of the Council's regulations.

Accordingly, you should initiate consultation on ways to avoid, reduce, or mitigate this adverse effect with the Maryland State Historic Preservation Officer and the Council pursuant to \$800.5(e) of the Council's regulations.

We believe that the proposed grading and landscaping of the roadway might adequately mitigate this adverse effect. However in light of the expressed opposition of the property owners and other interested persons, we feel that alternative alignments should be further explored. We suggest that a meeting be arranged on site to discuss the planning issues involved, and the landscape plans.

Pending receipt of the Council's comments, you should refrain from taking or sanctioning any action that could result in an adverse effect to the property or that would foreclose the consideration of alternatives to avoid or reduce the adverse effects.

Please contact Betsy Updike at 202-786-0505 to arrange the details of such a meeting.


of Eastern Division
project Review

## VII <br> LIST OF PREPARERS

This Final Environmental Impact Statement was prepared by the Maryland Department of Transportation, State HIghway Administration In consultation with the Federal HIghway Administration. The following personnel were Instrumental In the preparation of this document:

## STATE HIGHWAY ADMINISTRATION

Bureau of Project Planning:
Mr. LouIs H. Ege, Jr.
Ms. CynthIa D. SImpson
Mr. Ronald E. Moon
Mr. James E. Dooley, Jr.
Deputy Director, Office of Planning and PrelIminary EngIneer Ing Chief, Environmental Management, Office of Planning and Preliminary Engineer Ing Project Manager Environmental Manager

## ONSULTANTS

Mr. James T. Johnson, Sr.
Mr. John Rust
Mr. Joel K. OppenheImer

Century EngineerIng, Inc. Century EngIneerIng, Inc. Century EngIneerIng, Inc.

PRINCIPAL REVIEWERS FROM FEDERAL HIGHWAY ADMINISTRATION
Division Office

Mr. Paul R. Wettlaufer
Mr. Nicholas A. Artimovich
Headquarters
Mr. Bruce Turner

Environmental Protection SpecialIst Area EngIneer

Environmental Reviewer

$$
715
$$

## APPENDIX A - GLOSSARY OF TERMS

## GLOSSARY OF TERMS

(These terms may appear either In the EIS or as noted on the drawings.)
Arterial HIghway
Auxiliary Lane
Average Dally Traffic-
A.D.T.

## Control of Access

Design Hour Volume DIV

DesIgn Speed

Expressway

Freeway
A highway primarily for thru-traffic, usually on a continuous route.

The portion of roadway adjoining the traveled way for parking, speed change, or for other purposes supplementary to the thru-traffic movement.

The total volume of auto and truck traffic passing a given point in both directions during a given time period (greater than one day and less than one year) In whole days, divided by the number of days in that time per tod.

Full-Complete restriction of access on a thru facility except at Interchanges. Grade separations for all crossings.

Uncontrolled-Access control lImited only to safe geametrics. All crossroads, driveways, etc., may have points of Ingress or egress.

The percent of average dally traffic (ADT) generally accepted as the criterion used in geometric design of rural and urban highways. Ideally the 30th highest hourly volume during a year, the DHN is commonly found to vary from $8 \%$ to $12 \%$ of the ADT.

A speed selection for purposes of design and correlation of those geometric features of a highway, such as curvature and sight alitrance, upon which safe operations is dependent.

A divided arterial highway for thru-traffic with full or partial control of access and generally with grade separations at major highways.

An expressway with full control of access, grade separations at all roadway crossings. Access is permitted only at Interchanges.

$$
\text { villi- } 2
$$

## Frontage Road

Grade SeparatIon

Housing of Last Resort

Interstate Freeway

Levels of Service

A road contiguous to and generally parallelIng an expressway, freeway, parkway or thrustreet. Designed to Intercept, collect and distribute traffic desiring to cross, enter or leave such highways and may furnish access to property that otherwise would be isolated as a result of the controlled access. (Also referred to as a Service Road.)

Bridge structure such as an underpass or overpass that vertically separates two or more intersecting roadways, thus permitting traffic to cross without interference.

A Maryland SHA program to rehouse people who are displaced by right-of-way acquisition for highway projects when the cost to do so exleeds the 1 limits of the Uniform Relocation Act.

A freeway primarily for thru-trafflc with full. Interchanges for access. Interchange spacing is generally greater than that for a freeway.

Levels of service are a measure of the condotons under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel time, traffic Interruptions, maneuver lng freedom, safety, driving comfort, economy, and of course, the volume of traffic.

Levels of service on expressways and freeways with uninterrupted flow conditions are ranked from $A$ to $F$ (best to worst) as follows:

Level A - free traffic flow, low volumes;
high speeds.
$\frac{\text { Level } B}{\text { restrictions. stable traffic flow, some speed }}$
$\frac{\text { Level } C}{\text { volumes. }}$ - stable flow; Increasing traffic
Level $D$ - approaching unstable flow, heavy traffic volumes, decreasing speeds.
Level E- low speeds, high traffic volumes
approaching roadway capacity; temporary
delays.

VIII- 3

Ma Jor HIghway

MedIan

RIght-of-Way (LIne) R/W, R.O.W.
Level F - forced traffic flow at low speeds;
low volumes and high densities; frequent
delays.

For Interrupted flow conditions, such as major highways and arterlals with traffic signals, the following levels of service apply.
$\frac{\text { Level } A}{\text { signals. }}$ - free flow, no delay at traffic $\frac{\text { Level } B}{\text { signals. }}$ - occasional delays at traffic

Level C - Increasing volumes; moderate delays at traffic signals.

Level D - lower speeds; Increasing volumes, frequent delays at traffic signals.

Level E - low speeds; high traffic volumes; signal backups almost to the previous lIght.

Level $F$ - forced traffic flow; successive backups between signals.

An arterial highway with Intersections atgrade and direct access to abutting property, and on which geometric design and traffic control measures are used to expedite the safe movement of thru-trafflc.

That portion of a divided highway separating the travelled ways for traffic In opposite directions.
|nita| - to be constructed Initially.
Ultimate - the configuration subsequent to future construction.

The outer lImIts, InsIde which the State owns and maintains, for a highway facIlity.

| Section 4(f) | Section 4(f) of the Department of Transportation Act requires that the publicly-owned land from a park, recreation area, wildilife and/or waterfowi refuge, or historic site of national, state or local signiflcance can be used for Federal-Ald Highway projects only If there is no feasible and prudent alternative to its use, and if the project includes all possible planning to minimize harm to "4(f) lands". |
| :---: | :---: |
| Service Road | See "Frontage Road" |
| Shoulder | That portion of a highway adjacent and parallel to the travelled roadway for the acconmodation of stopped vehicles for emergency use and for lateral support. May or may not be fully paved. |
| Slde Slopes | The slope of earth permissible in given locations, as a ratio of horizontal to vertical measurement (2:1, 4:1, 6:1). |
| Vehicle Recovery Area | That portion of ground adjacent to the travelled roadway that is clear of any fixed obstructions. For safety operation, generally no less than 30 feet measured from the edge of the travelled lane. |
| Wet lands | The term "wetlands" refers to those areas that are Inundated by surface or groundwater with a frequency sufficlent to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic Ilfe that requires saturated or seasonally saturated soll conditions for growth and reproduction. Wetlands generally Include swamps, marshes, bogs, and simllar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. |

## "SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE

## STATE HIGHWAY ADMINISTRATION OF MARYLAND"

All State Highway Administration projects must comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (Public Law 91-646) and/or the Annotated Code of Maryland, Real Property, Title 12, Subtitle 2, Sections 12-201 thru 12-212. The Maryland Department of Transportation, State HIghway Administration, Bureau of Relocation Assistance, actinlsters the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State HIghway Adminstration 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 ilmits of the replacement housing payments are $\$ 15,000$ for owner-occupants and $\$ 4,000$ for tenant-occupants. Certain payments may also be made for Increased mortgage Interest costs and/or Incldental.. expenses, provided that the total offal 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 cost payments to persons, businesses, farms and non-proflt organzations. Actual moving costs for residences Include actual moving costs up to 50 ml les or a schedule moving cost payment, Including a dislocation allowance, up to $\$ 500$.

The moving cost payments to businesses are broken down Into several categorles, which include actual moving expenses and payments "In lieu of" actual moving expenses. The owner of a displaced business is entitled to receive a payment for actual reasonable moving and related expenses in moving his bushness, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable expenises are 1 limited to a 50 mlle radius. The expenses claimed for actual cost commercial moves must be supported by 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, not to exceed the lowest acceptable bia 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 mentloned above, the displaced business is entitled to recelve payment for the actual direct losses of tanglble 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 relmbursable moving expenses. If the business is to be re-established, and the personal property is not moved but is replaced at the new location, the payment would be the lesser of the replacement cost minus the net proceeds of sale (or trade-In value) or the estimated cost of moving the item. if the business is being discontinued or the Item is not to be replaced in the re-established business, the payment will be the lesser of the difference between the value of the Item for cont Inued use In place and the net proceeds of the sale or the est imated cost of moving the Item. When personal property is abandoned without an effort by the owner to dispose of the property for sale, unless permitted by the State, the owner will not be entitled to moving expenses, or losses for the Item Involved.

The owner of a displaced business may be relmbursed for the actual reasonable expenses In searching for a replacement business up to $\$ 1,000$. All expenses must be supported by recelpted bilis. Time spent in the actual search may be relmbursed on an hourly basis, within the maximum ilmit.

In lleu of the payments described above, the business may elect to recelve a payment equal to the average annual net earnings of the business. Such payment shall not be less than $\$ 2,500$ nor more than $\$ 10,000$. In order to be entitled to thls payment, the State must determine that the business cannot be relocated without a substantlal loss of its existing patronage, the business Is not part of a commerclal enterprise having at least one other establistment In the same or simllar business that is not belng acquired, and the business contrlbutes materlally to the Income of a displaced owner during the two taxable years prlor to displacement.

Considerat lons 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 cllentele. The relative Importance of the present and proposed locations to the displaced business, and the avallability of sultable replacement sites are also factors.

In order to determine the amount of the "In Ileu of" moving expenses payment, the average annual net earnings of the business is consldered 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 perlod that would be more representative. Average annual net earnings include any compensation pald by the business to the owner, his spouse, or his dependents during the perlod. Should a business be in operation less than two years, the owner of the business may still be ellgible to recelve the "In lleu of" payment. In all cases, the owner of the business must provide Information to support its net earnings, such as Income tax returns, for the tax years in
questlon.

For displaced farms and non-proflt organizations, the actual reasonable moving costs generally up to 50 mlles , 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 $\$ 2,500$ to a maximum of $\$ 10,000$, based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "In lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-proflt organizetion is eligible to receive "In lieu of" actual moving cost payments, In the amount of $\$ 2,500$.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-proflt organizations is available In Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons Individually in the future along with required preliminary notice of possible displacement.

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 sanktary housing within their financial means or that such housing is in place and has been made available to the displaced person.

## APPENDIX C

## REPRESENTATIVE ANIMALS OF THE

 ROUTE 100 STIDY AREAFIsh<br>Blacknose dace, Rhinlchthys atratulus<br>Blueglll, Lepalls macrochirus<br>Bluespotted sunfish, Enneacanthus glorlosus<br>Brown bullhead, Ictalurus nebulosus<br>Eel, Angullla rostrata<br>Fallfish, Semotilus corporalls<br>Golden shiner, Notemigonus crysoleucas<br>Kllllfish, Fundulus sp.<br>Largemouth bass, MIcropterus salmoldes<br>Madtom, Noturus gyr Inus<br>Pumpk Inseed, Lepomis glbbosus<br>Redbreast sunfish, Lepamis aurltus<br>Shiner, Notropls sp.<br>Tesellated darter, Etheostoma olmstedl<br>Whiteperch, Morone amer Icana<br>Yel lowperch, Perca flavescens<br>Frogs<br>Bullfrog, Rana catesbelana<br>Chorus frog, Pseudacris triserlata<br>Crlcket frog, Acris crepitans<br>Fowler's toad, Bufo Woodhousel<br>Green frog, Rana clamltans<br>Green tree frog, Hyla clnerea<br>Leopard frog, Rana plplens<br>Spring peeper, Hyla cruclfer<br>Salamanders<br>Mud salamander, Pseudotriton montanus<br>Red-backed salamander, Plethodon clnereus<br>Red salamander. Pseudotriton ruber<br>Spotted salamander, Ambystoma maculatum<br>Two-LIned salamander, Eurycea bisilneata<br>Turtles<br>Box turtle, Terrapene carollna<br>Mud turtle, Kinosternon subrubrum<br>Palnted turtie, Chrysemys pleta<br>Snapplng turtle, Chelydra serpentina

## Snakes

Black racer, Coluber constrictor Black rat snake, Elaphe obsoleta Copperhead, Agkistrodon contortrix
Corn snake, Elaphe guttata
Garter snake, Thamnophis siratallis
Green snake, opheodrys aestivus
Hognose snake, Lampropeltis getulus
Ringneck snake, Diadophis punctatus
Ribbon snake, Thamnophis sauritus
Water snake, Natrix slipedon
Worm snake, Carphophis amoenus

## Blrds

Amer Ican egret, Casmerodius albus
Barn owl, Tyto alba
Barred owl, Strix varia
Black vulture, Coragyps atratys
Blue bird, slalla slalls
Blue Jay, cynaocitta cristata
Bobwhite quall, colinus virginianus
Canada gcose, Branta canadensis
Cardinal, Rictmondena cardinalis
cattle egret, Bubulcus lbls
Common crow, cornus brachyrhynchs
Common grackie, quiscalus gulscula
Fish crow, Corvus ossifragus
Great blue heron, Ardea herodlas
Gren heron, Butorides virescens
Herring gull, Larus argentatus
Junco, Junco hyemalls
Least tern, Sterna albifrons
Laughing guli, Larus atricilia
Mal lard duck, Anas platyrhynchos
Mocking bird, Mimus polyglottos
Mourning dove, Zenaldura macroura
Osprey, Pandion hallaetus
Pheasant, Phaslanus colchicus
Pled-billed grebe, Podllymbus podiceps
Quall, Colinus virginlanus
Red-talled hawk, Buteo Jamaicensis
Redwing blackblrd, Agelalus phoeniceus
Ruffled Grouse, Bonasa umbelius
Sparrow hawk, falco sparverlus
Starling, Sturnaus vulgaris
Turkey vulture, Cathartes aura
White-throated sparrow, Zonotrichla albicollis
Woodcock, Philohela minor

## Appendlx C (cont'd.)

## Marmals.

Cottontall rabblt, Sylvilagus florldanus
Eastern mole, Scalopus aquaticus
Fiylng squirrel, Claucomys volans
Grey squirrel, Sclurus carolinensis
Grey fox, Urocgon clnerdargenteus
House mouse, Mus musculus
MInk, Mustela vison
Muskrat, Odantra zlbetnlca
Opossum, Didelphls virginlana
Otter, Lutra canadensis
Racoon, Procyon lotor
Red fox, Vulpes vulpes
Red Squirrel, Tamlasclurus hudsonlcus
Shrew, Blarina brevicauda
Strlped Skunk, Mephltis mephitis
Virginla deer, Odocolleus virginlanus
White footed mouse, Peromyscus leucopus
Woodchuck, Marmota monax

## appendix D - REPRESENTATIVE VEGETATION OF THE STUOY AREA

APPENDIX D
representative vegetation of the stuoy area
Alder, Alnus sp.
Amer ican holly, llex opaca
Arrow-arum, Peltandra Virginica
Arrowhead, Saglttarla sp.
Arrowwood, Vaccinium dentatus
Ash, Fraxinus sp.
Aster, Aster sp.
Begger-tick, Bldens sp.
Big cordgrass, Spartina cynosuroldes
Black Cherry, Prunus serotina
Black gum, Nyssa Syivatica
Black Jack oak, Quercus mariliandica
Black willow, Sailx nigra
Bramble, Rubus sp.
Burrweed, Sparganium sp.
Buttonbush, Cephaianthus occidentalis
Cattall, typha sp.
Chestnut Oak, quercus prinus
Duckweed, Lemna SD.
Eiderberry, Sambucus canadensis
Elodea, Elodea SD.
Flowering dogwood, Cornus florida
Glant reed, Phragmites carmunis
Golden rod, Solidago sp.
Grape, Vitis sp.
Green ash, Fraxinus pennsyivanica
Greenbrler, Similax sp.
Hickory, Carya sp.
Honeysuckie, Lonicera Japonica
ironwood, Carpinus caroliniana
Jewelweed, impatiens capensis
Joe-pye-weed, Eupatorlum dubium
Llzard's tall, Saururus cernuus
Loosetrife, Lynthrum sp.
Magnolia, Magnolia sp.
Nettie, Urtica dioica
Oaks, Quercus sp.
Panic grass, Panicum clandestinum
Pickerel week, Pontederia cordata
Poison ivy, Rhus radicans
Pondweed, Potamogeton
Post oak, Quercus stellata
Red mapie, Acer rubrum
River Birch, Betula nigra
Rose maliow, HIblscus moscheutos

Saltmeadow cordgrass, SpartIna patens
Sassafras, Sassafras albldum
Sedges, Carex sp
Silppery elm, Ulmus rubra
Smartweed, Plygonum punctatum
Spatteredock, Nuphas advena
Splcebush, LIndera benzoln
Splkerush, Eleocharls
Sumac, Rhus SD.
Swamp Rose, Rosa palustrus
Sweet gum, Llauldambar styracliflua
Sycamore plantanus occidentalls
Tear Thumb, Ploygonum sagittatum
Three Square, ScIrpus amerlcanus
Tullp poplar, Lirlodendron tullplfera Virginla creeper, Parthenocissus qulnquefolla Water Illy, Nymphaea odorata
Water willow, Decadon verticlilatus
White oak, Quercus alba

APPENDIX E - REFERENCES

## REFERENCES

* Baltimore-Washlngton Internatlonal Alrport Master Plan, ENVIRONMENTAL REPORT, Maryland Department of Transportation, State Avlation Adminlstration.
* Maryland Route 100 Corrldor Study, FInal Report, MD DOT., July 1979.
* TopographIc Map of Anne Arundel County, State of MD Department of Natural Resources, Maryland Geologlcal Survey, 1975.
* TopographIc Map of Howard County, State of MD Department of Natural Resources, Maryland Geologlcal Survey, 1974.
* Baltimore-Annapolis Transportation Corridor Study, Final Envirormental Impact Statement, U.S. Dept. Of Transportat Ion FHA and Maryland Department of Transportation SHA, 1980.
* Geologlcal Factors Affecting Land Modlflcatlon - Anne Arundel County, John D. Glaser, Maryland Geologlcal Survey, 1976.
* MIneral Resources and MIned Land Inventory - Anne Arundel County, Karen R. Kuff, Maryland Geologlcal Survey, 1976.
* Geologlcal Map of Anne Arundel County, John D. Glaser, Maryland Geologlcal Survey, 1976.
* Geologic Map of Maryland, Maryland Geologlcal Survey, 1968.
* Soll Survey of Anne Arundel County, Maryland, U.S. Department of Agrlculture, Soll Conservation Service, 1973.
* Soll Survey of Howard County, Maryland, U.S. Department of Agrlculture, Soll Conservation Service, 1968.
* Maryland State Yearly Alr Quallty Data Report, MD Department of Health \& Mental Hyglene, March 1985.
* The Quantlty and Natural Quallty of Groundwater In Maryland, MD D.N.R., Water Resources Adminlstration, 1982.
* VegetatIon Map of Maryland, The ExlstIng Natural Forest; Brush, Lark, and
Smlth; The Johns HookIns University. Smlth; The Johns Hopkins University, July 1976.
* Natlonal Wetlands Inventory, U.S. Department of the Interlor, Flsh and WIIdilfe Service, Savage, MD and Relay, MD, 1981.


## REFERENCES (cont'd.)

* Summary Statlstlcs-Population, Housing, Income and Employment; Anne Arundel County Office of PlannIng and ZonIng, AprIl 1983.
* Howard County Data Book, Howard County Office of Planning and Zoning, November, 1982.
* Howard County, Maryland, Brief Economic Facts, Maryland Department of Econom lc and Community Development, 1985.
* Anne Arundel County, Maryland, Brief Economic Facts, Maryland Department of Economic and Community Development, 1985.
* Maryland, Brief Economic Facts, Maryland Department of Economic and Cormunlty Development, 1985.
* General Development Plan, Anne Arundel County, Office of Planning and ZonIng, July, 1978.
* General Plan for Howard County, Office of Planning and Zoning, August,

1982. 

* Sol.l Survey of Anne Arundel County, United States Department of Agrlcul-
ture, Sola Conservation Service tore, Sol Conservation Service, 1973.
* Ground Water Supplies for Industrial and Urban Development In Anne Arundel County, Freder lock K. Mack, State of Maryland, Board of Natural Resources, Department of Geology, Mines and Water Resources, Bulletin 26, 1962.
* A Policy on Geometric Design of HIghways and Streets, AmerIcan Association of State HIghway and Transportation Offlclais, 1984.
* Highway Development Manual, Maryland Department of Transportation, State Highway Administration, Division of Highway Development, 1983.


## 734

## APPENDIX F - INDEX

```
    A
    Alr Quallty
    Archeologlcal Resources lll
    B
    Business DIsplacements IV-20
    C
    Communlty Facllitles
    Costs
    |I|-12 IV-8
    Table S-1, ||-18
    D
    Demographics
    E
    Employment Projections
    ExistIng Land Use
    1|1-13
    |1|-20
    F
    Floodplalns
    4-F Evaluations
G
Geology
Groundwater
Growth
    Employment
    Household
|||-13
111-7
H
HistorIcal Resources
Housing
L
Land Use PlannIng
III-20, IV-26
N
Nolse
III-57, IV-90 III-7, IV-1
|||-29, IV-41
I|I-38, IV-46
|||-53, IV-71

Residentlal DIsplacement \(\quad\) IV-1
s
Solls
Streams
Summary
Surface Water
I
Tax Base
Terrestrial Habltats Threatened and Endangered' Specles
Topography Traffic Growth
Trafflc Operations
Trafflc Volumes

V
Vegetation
W
Water Quallty
Water Resources
Wetlands
WIIdife

IV-25
III-41, IV-53
III-42, 43, IV-55
|||-28, |V-41
III-25, IV-27
III-26, IV-27
III-25, IV-27

III-41, IV-54
III-33, IV-41
III-35, IV-47
1
III-36, IV-43
|||-36, IV-43
|||-35, IV-43
III-43, IV-49
III-42, IV-53```


[^0]:    * Refer to FIgure lll-1

[^1]:    Alternate 3B (Modified) - The selected alternate has the same business relocation as Alternate 3-Option B.

[^2]:    Slease add my/Xr namess) to the Mailling List.*
    Please delete my/our name(s) from the Malling List.
    *Persons who haverecelved a copy of thls brochure through the mail are already on the project Malling List.

[^3]:    My telephone number is 659-1111
    Teletypewriter for Impaired Hearing or Speech
    383.7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492.5062 Statewide Toll Free P.O. Box $717 / 707$ North Calvert St., Baltimore, Maryland 21203-0717

[^4]:    

