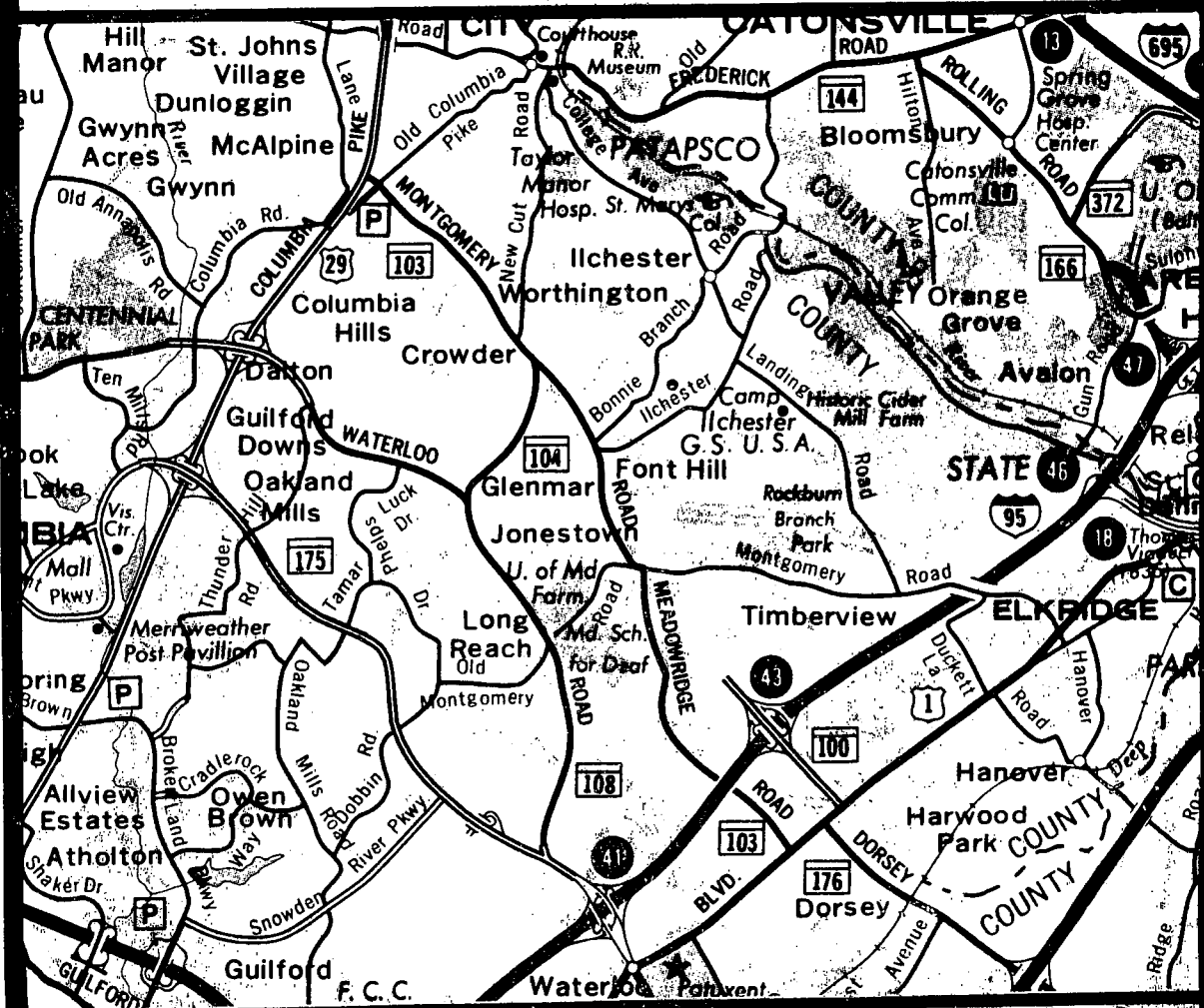


# FINAL ENVIRONMENTAL IMPACT STATEMENT

## SECTION 4(f) EVALUATION

CONTRACT NO. H0661-101-770

### MARYLAND ROUTE 100 U.S. ROUTE 29 TO INTERSTATE ROUTE 95 HOWARD COUNTY



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

and  
MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION



**Maryland Department of Transportation  
State Highway Administration**

David L. Winstead  
Secretary

Parker F. Williams  
Administrator

November 15, 1996

Re: Project No. HO661B21  
MD 100 from MD 104 to I-95 and  
MD 100 from I-95 to US 29  
Howard County, Maryland  
Environmental Reevaluation

Mrs. Susan J. Binder  
Division Administrator  
Federal Highway Administration  
The Rotunda - Suite 220  
711 West 40th Street  
Baltimore MD 21211

ATTN: Ms. Renee Sigel

Dear Mrs. Binder:

The environmental consequences of the currently proposed improvements to MD 100 from west of Snowden River Parkway to US 29 have been reviewed and reevaluated for consistency with the Final Environmental Impact Statement/Section 4(f) Evaluation for MD 100 from I-95 to US 29 (FEIS/4(f)) (FHWA-MD-EIS-87-04-F) and the Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f)) (FHWA-MD-EIS-87-04-FS) for MD 100 from I-95 to MD 104. These documents were approved by the Federal Highway Administration (FHWA) on July 12, 1989 and December 19, 1994 respectively. The Records of Decision (ROD) documenting the selection of Alternate 3 and Alternate 3 Option D Modification 2A were approved on January 5, 1990 and March 13, 1995.

The extension of MD 100 on new location from MD 104 to I-95 was originally approved by the Federal Highway Administration (FHWA) as part of the larger MD 100 study from US 29 to I-95. During pre-permit coordination, the environmental resource agencies requested that supplemental studies be undertaken to evaluate additional wetland avoidance and minimization alternatives in the section of MD 100 between MD 104 and I-95.

These wetlands, located in the Deep Run watershed, were determined by the agencies to be part of a high quality wetland system. FHWA agreed with this recommendation and determined in response to a reevaluation of Preliminary Investigation (P.I.) plans, dated June 1, 1990, that a supplemental document

My telephone number is (410) 545-0411

Maryland Relay Service for Impaired Hearing or Speech  
1-800-735-2258 Statewide Toll Free

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Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95 and  
MD 100 from I-95 to US 29  
Environmental Reevaluation  
Page Two

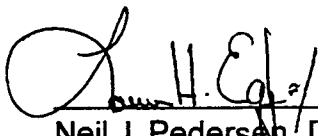
would be required. Consequently, studies were initiated in September, 1991 on a Supplemental EIS to study alignment shifts between I-95 and MD 104.

We have determined that the current design plans discussed at the Final Review meeting on August 26, in comparison to both Selected Alternate 3 and Selected Alternate 3 Option D Modification 2A, as discussed in both the FEIS/4(f) and FSEIS/4(f), will not result in any additional significant socio-economic or natural environmental impacts. This reevaluation has been completed in accordance with 23 CFR 771.129.

We therefore request your concurrence in our determination that both documents remain valid and that no additional environmental documentation is warranted. Should you have any questions or comments, please feel free to call Mr. Joseph Kresslein. Joe can be reached at 545-8550. Enclosed is a copy of the reevaluation.

Sincerely,

Parker F. Williams  
Administrator

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

CONCURRENCE:

  
Federal Highway Administration  
Division Administrator

12/9/96  
Date

Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95 and  
MD 100 from I-95 to US 29  
Environmental Reevaluation  
Page Three

Enclosure

cc: Mr. Charles Adams (w/enclosure)  
Mr. Louis H. Ege, Jr.  
Mr. Robert L. Fisher  
Mr. Gary Gray  
Mr. Joseph Kresslein (w/enclosure)  
Mr. Kirk McClelland  
Mr. Darrell Sacks (w/enclosure)  
Ms. Cynthia Simpson  
Ms. Angela Smith (w/enclosure)  
Mr. Karl Teitt





**Maryland Department of Transportation  
State Highway Administration**

5  
**David L. Winstead**  
Secretary

**Parker F. Williams**  
Administrator

November 15, 1996

Re: Project No. HO 661B21  
MD 100 from US 29 to Interstate 95  
Howard County, Maryland

Mrs. Susan J. Binder  
Division Administrator  
Federal Highway Administration  
The Rotunda - Suite 220  
711 West 40th Street  
Baltimore MD 21211

Attention: Ms. Renee Sigel

Dear Mrs. Binder:

The Maryland State Highway Administration (SHA) is concluding final design studies for MD 100 between Interstate 95 and US 29 in Howard County. A Final Environmental Impact Statement (FEIS) for this project was approved by the Federal Highway Administration (FHWA) on July 12, 1989. A Final Supplemental Environmental Impact Statement (FSEIS) was approved by FHWA for the eastern portion of this project between I-95 and MD 104 on December 19, 1994.

As part of this project, SHA is proposing to widen MD 108 in the vicinity of Howard High School. Included in this improvement, a right turn-only lane would be constructed from westbound MD 108 into Howard High School, requiring a small strip of land (approximately 0.18 acre) from the school. The portion of the property that would be acquired is adjacent to MD 108 and the parking lot of the school (see attached map). This land is not recreationally significant, as stated by Howard County Public Schools in their attached correspondence. Also, because the planned widening of MD 108 at the intersection of MD 104 is in close proximity to recreational fields associated with the school (a portion of one ballfield is constructed within SHA right-of-way), SHA will construct a retaining wall adjacent to the ball fields, but within SHA right-of-way. We are proposing the retaining wall primarily as a safety feature to separate the field from MD 108 and to avoid any right-of-way acquisition from recreational facilities associated with the school. The Howard County Board of Education is in favor of both concepts.

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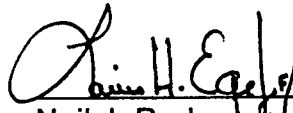
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**Street Address: 707 North Calvert Street • Baltimore, Maryland 21202**

Mrs. Susan Binder  
MD 100  
Page Two

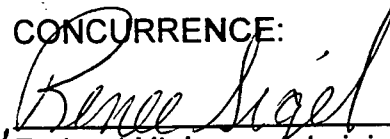
As there are no impacts to property considered significant for public recreational use, we therefore request your concurrence in our determination in the non-applicability of Section 4(f). If you have any questions, please feel free to contact Joseph Kresslein at (410) 545-8550.

Sincerely,

Parker F. Williams  
Administrator

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

CONCURRENCE:

  
Federal Highway Administration  
Division Administrator

12/9/96  
Date

Attachments (5)

- cc: Mr. Louis H. Ege, Jr.
- Mr. Joseph Kresslein
- Ms. Cynthia D. Simpson
- Mr. Darrell Sacks
- Mrs. Angela Smith



**Maryland Department of Transportation  
State Highway Administration**

7  
David L. Winstead  
Secretary

Parker F. Williams  
Administrator

November 15, 1996

Re: Project No. HO661B21  
MD 100 from MD 104 to I-95 and  
MD 100 from I-95 to US 29  
Howard County, Maryland  
Environmental Reevaluation

Mrs. Susan J. Binder  
Division Administrator  
Federal Highway Administration  
The Rotunda - Suite 220  
711 West 40th Street  
Baltimore MD 21211

ATTN: Ms. Renee Sigel

Dear Mrs. Binder:

The environmental consequences of the currently proposed improvements to MD 100 from west of Snowden River Parkway to US 29 have been reviewed and reevaluated for consistency with the Final Environmental Impact Statement/Section 4(f) Evaluation for MD 100 from I-95 to US 29 (FEIS/4(f)) (FHWA-MD-EIS-87-04-F) and the Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f)) (FHWA-MD-EIS-87-04-FS) for MD 100 from I-95 to MD 104. These documents were approved by the Federal Highway Administration (FHWA) on July 12, 1989 and December 19, 1994 respectively. The Records of Decision (ROD) documenting the selection of Alternate 3 and Alternate 3 Option D Modification 2A were approved on January 5, 1990 and March 13, 1995.

The extension of MD 100 on new location from MD 104 to I-95 was originally approved by the Federal Highway Administration (FHWA) as part of the larger MD 100 study from US 29 to I-95. During pre-permit coordination, the environmental resource agencies requested that supplemental studies be undertaken to evaluate additional wetland avoidance and minimization alternatives in the section of MD 100 between MD 104 and I-95.

These wetlands, located in the Deep Run watershed, were determined by the agencies to be part of a high quality wetland system. FHWA agreed with this recommendation and determined in response to a reevaluation of Preliminary Investigation (P.I.) plans, dated June 1, 1990, that a supplemental document

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Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95 and  
MD 100 from I-95 to US 29  
Environmental Reevaluation  
Page Two

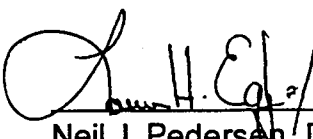
would be required. Consequently, studies were initiated in September, 1991 on a Supplemental EIS to study alignment shifts between I-95 and MD 104.

We have determined that the current design plans discussed at the Final Review meeting on August 26, in comparison to both Selected Alternate 3 and Selected Alternate 3 Option D Modification 2A, as discussed in both the FEIS/4(f) and FSEIS/4(f), will not result in any additional significant socio-economic or natural environmental impacts. This reevaluation has been completed in accordance with 23 CFR 771.129.

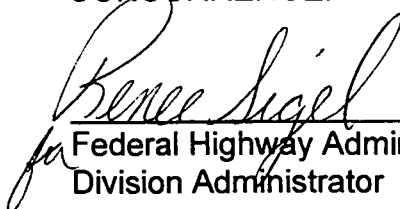
We therefore request your concurrence in our determination that both documents remain valid and that no additional environmental documentation is warranted. Should you have any questions or comments, please feel free to call Mr. Joseph Kresslein. Joe can be reached at 545-8550. Enclosed is a copy of the reevaluation.

Sincerely,

Parker F. Williams  
Administrator

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

CONCURRENCE:

  
Federal Highway Administration  
Division Administrator

12/9/96  
Date

Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95 and  
MD 100 from I-95 to US 29  
Environmental Reevaluation  
Page Three

Enclosure

- cc: Mr. Charles Adams (w/enclosure)
- Mr. Louis H. Ege, Jr.
- Mr. Robert L. Fisher
- Mr. Gary Gray
- Mr. Joseph Kresslein (w/enclosure)
- Mr. Kirk McClelland
- Mr. Darrell Sacks (w/enclosure)
- Ms. Cynthia Simpson
- Ms. Angela Smith (w/enclosure)
- Mr. Karl Teitt



**Maryland Department of Transportation  
State Highway Administration**

10  
**David L. Winstead**  
Secretary  
**Parker F. Williams**  
Administrator

November 15, 1996

Re: Project No. HO 661B21  
MD 100 from US 29 to Interstate 95  
Howard County, Maryland

Mrs. Susan J. Binder  
Division Administrator  
Federal Highway Administration  
The Rotunda - Suite 220  
711 West 40th Street  
Baltimore MD 21211

Attention: Ms. Renee Sigel

Dear Mrs. Binder:

The Maryland State Highway Administration (SHA) is concluding final design studies for MD 100 between Interstate 95 and US 29 in Howard County. A Final Environmental Impact Statement (FEIS) for this project was approved by the Federal Highway Administration (FHWA) on July 12, 1989. A Final Supplemental Environmental Impact Statement (FSEIS) was approved by FHWA for the eastern portion of this project between I-95 and MD 104 on December 19, 1994.

As part of this project, SHA is proposing to widen MD 108 in the vicinity of Howard High School. Included in this improvement, a right turn-only lane would be constructed from westbound MD 108 into Howard High School, requiring a small strip of land (approximately 0.18 acre) from the school. The portion of the property that would be acquired is adjacent to MD 108 and the parking lot of the school (see attached map). This land is not recreationally significant, as stated by Howard County Public Schools in their attached correspondence. Also, because the planned widening of MD 108 at the intersection of MD 104 is in close proximity to recreational fields associated with the school (a portion of one ballfield is constructed within SHA right-of-way), SHA will construct a retaining wall adjacent to the ball fields, but within SHA right-of-way. We are proposing the retaining wall primarily as a safety feature to separate the field from MD 108 and to avoid any right-of-way acquisition from recreational facilities associated with the school. The Howard County Board of Education is in favor of both concepts.

My telephone number is (410) 545-0411

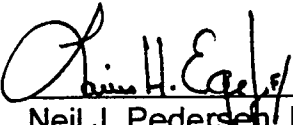
Maryland Relay Service for Impaired Hearing or Speech  
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**Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717**  
**Street Address: 707 North Calvert Street • Baltimore, Maryland 21202**

Mrs. Susan Binder  
MD 100  
Page Two

As there are no impacts to property considered significant for public recreational use, we therefore request your concurrence in our determination in the non-applicability of Section 4(f). If you have any questions, please feel free to contact Joseph Kresslein at (410) 545-8550.

Sincerely,

Parker F. Williams  
Administrator

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

CONCURRENCE:

  
Federal Highway Administration  
Division Administrator

12/9/96  
Date

Attachments (5)

cc: Mr. Louis H. Ege, Jr.  
Mr. Joseph Kresslein  
Ms. Cynthia D. Simpson  
Mr. Darrell Sacks  
Mrs. Angela Smith



**Maryland Department of Transportation  
State Highway Administration**

12  
David L. Winstead  
Secretary  
Hal Kassoff  
Administrator

April 11, 1996  
Re: Contract No. HO 661-201-770  
MD 100 from MD 104 to I-95  
Howard County, Maryland  
PDMS Nos. 132092 and 132062  
Environmental Reevaluation

Mrs. Susan J. Binder  
Division Administrator  
Federal Highway Administration  
The Rotunda-Suite 220  
711 West 40th Street  
Baltimore MD 21211

ATTN: Ms. Renee Sigel

Dear Mrs. Binder:

The environmental consequences of the currently proposed improvements to MD 100 from I-95 to west of Snowden River Parkway have been reviewed and reevaluated for consistency with the Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f)) (FHWA-MD-EIS-87-04-FS) for MD 100 from I-95 to MD 104, approved by the Federal Highway Administration (FHWA) on December 19, 1994. The Record of Decision (ROD) documenting the selection of Alternate 3 Option D Modification 2A was approved on March 13, 1995. The Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation (DSEIS/4(f)) (FHWA-MD-EIS-87-04-DS) was approved by FHWA on October 10, 1992 and a Location /Design Public Hearing was held on December 1, 1992 at Howard High School in Howard County, Maryland.

The extension of MD 100 on new location from MD 104 to I-95 was previously approved by FHWA as part of a larger MD 100 study from US 29 to I-95. The FEIS/4(f) (FHWA-MD-EIS-87-04-F) for the initial study was approved July 12, 1989. FHWA approved a subsequent ROD, documenting the selection of Alternate 3 on January 5, 1990.

During pre-permit coordination, the environmental resource agencies requested that supplemental studies be undertaken to evaluate additional wetland avoidance and minimization alternatives in the section of MD 100 between MD 104 and I-95. These wetlands, located in the Deep Run watershed, were determined by the agencies to be part of a high quality wetland system. FHWA agreed with this recommendation

My telephone number is (410) 333-1110

Maryland Relay Service for Impaired Hearing or Speech  
1-800-735-2258 Statewide Toll Free

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Street Address: 707 North Calvert Street • Baltimore, Maryland 21202



Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95  
Environmental Reevaluation  
Page Two

and determined in response to a reevaluation of Preliminary Investigation (P.I.) plans, dated June 1, 1990, that a supplemental document would be required. Consequently, studies were initiated in September, 1991 on a Supplemental EIS to study alignment shifts between I-95 and MD 104.

We have determined that the current design plans discussed at the Final Review meeting, held on January 26, 1996, in comparison to Selected Alternate 3 Option D Modification 2A, as discussed in the FSEIS/4(f), will not result in any additional significant socio-economic or natural environmental impacts. This reevaluation has been completed in accordance with 23 CFR 771.129.

We therefore request your concurrence in our determination that the FSEIS/4(f) remains valid and that no additional environmental documentation is warranted. Should you have any questions or comments, please feel free to call Joseph Kresslein. Joe can be reached at 545-8550. Enclosed is a copy of the reevaluation.

Sincerely,

Hal Kassoff  
Administrator

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

MD 100 from I-95 to West of  
CONCURRENCE: Snowden Parkway  
River

*Bence Sigel*  
Federal Highway Administration  
Division Administrator

4/25/96  
Date

HK:NJP  
Enclosure

PROJECT  
DEVELOPMENT  
DIVISION  
APR 30 1 25 PM '96

14

Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95  
Environmental Reevaluation  
Page Three

cc: Mr. Charles Adams (w/enclosure)  
Mr. Louis H. Ege, Jr.  
Mr. Robert L. Fisher  
Mr. Gary Gray  
Mr. Howard Johnson (w/enclosure)  
Mr. Joseph Kresslein (w/enclosure)  
Mr. Kirk McClelland  
Ms. Cynthia Simpson  
Ms. Angela Smith (w/enclosure)  
Mr. Karl Teitt

Joe - Here is the  
signed copy -  
Pam

TO: Joe Kresslein  
OPPE  
Pm C-301

**ENVIRONMENTAL REEVALUATION  
MD 100 FROM I-95 TO MD 104**

**INTRODUCTION**

The purpose of this reevaluation is to compare the social, economic and natural environmental impacts of Selected Alternate 3 Option D Modification 2A, as discussed in the Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f)) (Report No. FHWA-MD-EIS-87-04-FS), with the modifications shown on the Final Review plans for the portion of the project from west of I-95 to Snowden River Parkway.

**NEED FOR THE PROJECT**

The MD 100 project was planned to address the need for additional east-west roadway capacity in eastern Howard County resulting from significant increases in the number of households and employment opportunities projected between 1985 and the design year 2010. Between 1985 and 1989 approximately 60 new development proposals were submitted within the Maryland 100 study area which are currently in various stages of the Howard County subdivision process. These newly constructed or planned developments are zoned for uses ranging from single-family/multi-family dwellings to planned office research. This planned development in the study area contributes to a projected 65% increase in the number of households and 126% increase in employment in Howard County between 1979 and 2005. Throughout the study corridor and the regional network, these planned residential and commercial developments result in greater demands on the existing roadway network, affecting traffic operations on MD 103, MD 104, and MD 108. These two-lane roadways were constructed when eastern Howard County was predominantly rural in nature and were not designed to accommodate the existing and projected traffic volumes for this area. Traffic volumes on the existing roadway network were quickly approaching capacity levels during the mid to late 1980's when the initial project planning study was underway. Planned development is continuing at such a pace, that if a new roadway is not constructed, the existing roadway network will not be able to handle the local and through-traffic needs anticipated by the year 2015.

The 1986 average daily traffic on MD 103 varied from 16,700 to 18,400 vehicles per day between US 29 and MD 104 (the western end of the project), 11,000 to 15,000 vehicles per day on MD 108 between US 29 and MD 104 and 9,000 to 11,200 vehicles per day on MD 104 between MD 103 and MD 108. These volumes of traffic resulted in delays during morning and evening peak periods. Traffic forecasted for the year 2015 indicate an average increase of 130 percent in the number of vehicles desiring to use MD 103, 104 and 108 if MD 100 is not constructed. This would result in those roadways operating at capacity. With the Selected Alternate in place, only MD 108 would continue to operate at capacity.

During the Project Planning study, an accident analysis was performed for the study area for the years 1984 through 1986. Within the corridor of the proposed MD 100 extension, three sections of existing roadways comprised the existing highway network, traversing the gap between I-95 and US 29. These sections of highway are: MD 108 from MD 175 to US 29, MD 103 from I-95 to US 29, and MD 104 from MD 108 to MD 103. Collectively, this network experienced a total of 324 reported accidents over the three-year survey period, translating into an accident rate of approximately 193 accidents per every one hundred million vehicle miles of travel (acc/100 mvm). This rate is well below the statewide average rate of 265 acc/100 mvm for all similar design highways. The estimated monetary loss of the general public as a result of these accidents is approximately \$1.8 million per every hundred million vehicle miles traveled.

There were three fatal accidents within the study limits. Two of these occurred during 1986 on MD 108 in the area from MD 104 to US 29. The remaining fatal accident occurred on MD 103 in the section from MD 104 to US 29 during the year 1984. The intersection of US 29 at MD 108 did qualify as a High Accident Intersection for all three years of the study period. This intersection has since been replaced by a full interchange. There was one High Accident Section within the study limits. This location was MD 103 from the entrance to the Maryland State Police to US 29. This 0.25 mile section of highway experienced 14 accidents during the year 1986.

Traffic projections for this corridor show an approximate 130% increase in average daily traffic volumes by the year 2015. Under the No-Build Alternate, congestion resulting from increased traffic on MD 103, MD 104 and MD 108 will compromise the ability of these roads to safely accommodate predicted volumes through the 2015 design year. The Selected Alternate for MD 100 is expected to experience an accident rate of approximately 127 acc/100mvm, while the entire roadway network in the corridor (including existing MD 103, MD 104 and MD 108) is expected to have an overall accident rate of approximately 155 acc/mvm with MD 100 in place.

**PROJECT BACKGROUND**  
**FEIS Selected Alternate 3 (Approved 1989)**

Selected Alternate 3, as approved in the 1989 FEIS/4(f) Evaluation, was designed as a six-lane divided highway on new location with full control of access between MD 104 and I-95 and with partial control of access between the US 29/MD 100/MD 103 interchange and MD 104.

Two lanes of MD 100 with full-depth shoulders have already been constructed along the alignment of the ultimate eastbound roadway between US 29 and MD 104 as a non-federally funded project. This segment currently provides four traffic bearing lanes between US 29 and Long Gate Parkway. Long Gate Parkway (constructed by Howard County), located east of the US 29/MD 100/MD 103 interchange, currently ties into the existing portion of MD 100 via an at-grade intersection. As shown in the FEIS, an interchange will be provided for this connection when the MD 100 roadway is constructed to the ultimate six-lane section. The MD 100 FEIS shows the Selected Alternate 3 alignment continuing in an easterly direction, crossing Red Hill Branch with

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at-grade intersections at Executive Park Drive and Centre Park Drive. Signalization at these intersections will be considered when warranted. Selected Alternate 3 then passes behind Howard Senior High School and connects with MD 104 via an interchange approximately 600 feet north of the MD 108/MD 104 intersection. No property is required from Howard Senior High School.

The Selected Alternate 3 alignment was retained only for the portion of MD 100 between US 29 and MD 104. Subsequent to the approval of the FEIS/Section 4(f) Evaluation, the environmental resource agencies requested that supplemental studies be undertaken to evaluate additional wetland avoidance and minimization alternatives in the section of MD 100 between MD 104 and I-95. These wetlands, located in the Deep Run watershed, were determined to comprise a high quality wetland system. FHWA concurred with these recommendations in response to a reevaluation of Preliminary Investigation (P.I.) plans and studies were initiated in September 1991 on a Supplemental EIS to study alignment shifts between I-95 and MD 104.

#### **Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f) Selected Alternate 3 Option D Modification 2A (Approved 1994)**

The FSEIS/4(f) Selected Alternate 3-Option D Modification 2A consists of a six-lane arterial highway on new location with a 54 foot median from MD 104 to I-95 as opposed to the 34 foot median with 20 foot safety grading (60 mph) beyond the outside curb, proposed in the 1989 FEIS. This increased median width was achieved by shifting 10 feet of the 20 foot outside safety grading from each side of the roadway into the median. This change in the width of safety grading was compensated for by the inclusion of traffic barriers adjacent to the outside shoulders and will accommodate possible future widening in the median.

#### **MD 104 Interchange**

The selected MD 100/MD 104 interchange was reconfigured from its original design to a partial diamond with the eastbound on/off ramp combined to form a "T" intersection at MD 108 approximately 600 feet west of the existing MD 108/MD 104 intersection. This redesign moved the loop ramp east of MD 104, out of wetland 6. MD 104 was also shifted 50 feet west to further minimize impacts to wetland 6, reducing impacts from 4.2 acres to 0.6 acre, a difference of 3.6 acres. This interchange configuration required the widening of MD 108 from approximately 1,500 feet west of MD 104 and included one additional lane in each direction to accommodate projected traffic volumes.

East of MD 104, the FSEIS Selected Alternate continues in an easterly direction for approximately 2,500 feet and impacts 0.6 acre of wetland 7. There was no reduction in wetland impact at this site when compared with original Selected Alternate 3. The FSEIS Selected Alternate then shifts to the north near the Village of Montgomery Run, where the roadway profile was lowered with the use of retaining walls. The northern shift and use of retaining wall in this section resulted in a reduction in wetland impacts at wetland 8 from 2.7 acres to 0.1 acre, a difference of 2.6 acres. As a result, this alignment shift placed the roadway closer to buildings 8611 and 8613 in the Village of Montgomery Run than did the original FEIS Selected Alternate 3 alignment. These two

building were subsequently purchased by the State Highway Administration (SHA) for resale with full knowledge and disclosure of the FSEIS Selected Alternate for the MD 100 alignment. No other community is any closer to the current MD 100 alignment than with original FEIS Selected Alternate 3.

The median width of proposed MD 100 along Deep Run west of the Snowden River Parkway interchange was reduced to 46 feet by shifting the westbound lanes away from Deep Run. In addition to this shift, a portion of the westbound outside shoulder of the proposed roadway was placed on a cantilevered structure supported by a retaining wall. Although a design exception is required for this cantilevered structure, it further reduced impacts to the buffer around Deep Run and adjacent wetlands.

**MD 103 Interchange**

The MD 100/MD 103 interchange ramps located in the northeast and southeast quadrants were realigned or compressed to tie into MD 100 west of wetland 12, thereby reducing the footprint of MD 100 and minimizing wetland and stream impacts.

**Snowden River Parkway**

An extension of Snowden River Parkway from MD 108 to MD 100 and an interchange with MD 100, originally proposed by Howard County in the 1989 FEIS, is proposed for construction by SHA in the FSEIS as part of the MD 100 project.

As discussed in the FSEIS, Snowden River Parkway will transition from a four-lane divided roadway at MD 108 to a two-lane roadway at the interchange with MD 100. A southern shift in the alignment places the proposed Snowden River Parkway interchange approximately 900 feet south of its original location identified in the 1989 FEIS. The interchange was also revised from that shown in the 1989 FEIS by lowering the profile of Snowden River Parkway to pass under MD 100 and included the incorporation of eastbound MD 100 directional ramps on Snowden River Parkway. The new location and revised design of the Snowden River Parkway interchange avoids an additional crossing of the Deep Run main channel and reduces overall impacts at wetlands 9 and 10.

**Old Montgomery Road**

At this location an overpass was provided to carry Old Montgomery Road over MD 100 for the 1989 FEIS Selected Alternative 3. The 1994 FSEIS Selected Alternative 3 Option D Modification 2A includes an overpass which carries MD 100 over the existing Old Montgomery Road structure over Deep Run. The existing Old Montgomery Road structure would not be affected by this alternative.

The reduced typical section, the shift of the westbound lane west of Snowden River Parkway interchange, the design of the cantilevered section and the MD 103 ramp modification reduced overall wetland impacts at wetlands 9, 10, 11, 11A and 12. At wetland 10A impacts increased 0.1 acre, resulting in an overall reduction of wetland by approximately 4.9 acres.

## **CURRENT DESIGN PLAN**

### **West of Snowden River Parkway to I-95**

The current design of MD 100 from I-95 to west of the Snowden River Parkway interchange, as shown on the Final Review plans, proposes construction of MD 100 on new location as a six-lane divided access controlled highway. The east and westbound lanes will be separated by a 54 foot median with 10 foot inside and outside paved shoulders. The shoulders in the vicinity of pipe crossings are reduced to approximately a six foot width to minimize wetland impacts. A request for design exceptions to reduce shoulder widths, eliminating the cantilevered roadway sections, is currently pending. The only changes to the 1994 FSEIS Selected Alternate reflected on the current design plans are the inclusion of the two roundabouts discussed below, which replace at-grade intersections. The use of roundabouts will eliminate the need for intersections which require a full stop traffic condition and will facilitate the flow of traffic.

### **Snowden River Parkway Interchange**

Station 175 marks the take off point for the Snowden River Parkway interchange ramps from east/westbound MD 100 to southbound Snowden River Parkway and MD 108 and from northbound Snowden River Parkway to eastbound or westbound MD 100. Snowden River Parkway will transition from a four-lane section at MD 108 to a two-lane roadway at the interchange ramps. Snowden River Parkway continues through to MD 100 one lane in each direction. At MD 100, Snowden River Parkway forms a 100 foot diameter roundabout which ties into the MD 100 westbound interchange ramps. The roundabout will have a raised landscaped center island, an 18 foot travel lane, a 12 foot truck apron and a 10 foot outside shoulder. The Snowden River Parkway roundabout will accommodate access from westbound MD 100 to MD 108 via southbound Snowden River Parkway and from northbound Snowden River Parkway to eastbound or westbound MD 100. The MD 100 ramps will consist of a 15 foot lane with a 10 foot outside shoulder and a four foot inside shoulder.

### **MD 103 Interchange**

The east and westbound MD 100 interchange ramps will intersect MD 103 via two 120 foot diameter roundabouts. The MD 100/MD 103 eastbound and westbound roundabouts will have raised, landscaped center islands, 18 foot travel lanes, 12 foot truck aprons and 10 foot outside shoulders. Islands at the end of each roundabout guide will separate traffic wanting to access MD 103 northbound or southbound and MD 100 east or westbound.

## **ENVIRONMENTAL EVALUATION**

All of the design changes reflected on the Final Review plans for the portion of MD 100 from I-95 to west of Snowden River Parkway occur within the original footprint of Selected Alternate 3 Option D Modification 2A, and as such do not result in any additional environmental impacts not identified in the 1994 FSEIS (see attached impacts comparison table).

had been destroyed by construction and grading activities associated with the development of the Village of Montgomery Run.

Coordination for preparation of the 1994 FSEIS identified two additional archeological sites 18HO193 and 10HO52 which required Phase II investigation. Based on the Phase II investigation they were determined ineligible for inclusion on the National Register of Historic Places (see attached coordination).

No significant archeological sites or historic standing structures on or eligible for the National Register were identified in the vicinity of any of the proposed wetland mitigation sites (see attached coordination).

**Natural Environment**

All surface waters in the study area are classified as Use I waters by the Maryland Department of the Environment (MDE) for which time of year construction restrictions will be imposed from March 1 through June 15, inclusive. Red Hill Branch is located west of MD 104 in the Little Patuxent River drainage basin, while Deep Run is located in the eastern half of Howard County and associated with the Patapsco River drainage basin.

The 1989 FEIS Selected Alternate 3 alignment required the relocation of approximately 1,400 feet of Deep Run and the channelization of approximately 3,105 feet of unnamed tributaries in the area east of MD 104. West of MD 104, Red Hill Branch has been piped under the portion of MD 100 already constructed. The 1994 FSEIS Selected Alternate 3 Option D Modification 2A alignment required approximately 2,200 linear feet of stream channel impact between I-95 and MD 104, a decrease of approximately 1,305 linear feet from the 1989 FEIS Selected Alternate. The 1994 FSEIS Selected Alternate also avoided a direct crossing of the mainstream of Deep Run by crossing two minor Deep Run tributaries instead. The current design plans indicate that the total amount of stream channel impact from I-95 to west of Snowden River Parkway is approximately 1,555 linear feet.

In accordance with Executive Order 11990 (Protection of Wetlands) and Section 404 of the Clean Water Act, wetlands within the study area have been identified and the impacts quantified. As documented in the 1989 FEIS, Selected Alternate 3 impacted a total of approximately 16 acres of palustrine forested wetlands, approximately 13 acres of which occurred in the area east of MD 104. In comparison, the (1994) FSEIS Selected Alternate 3 Option D Modification 2A alignment reduced wetland impacts to only 4.9 acres east of MD 104. This total has been further reduced to approximately 4.01 acres due to refinements in project design and development-related changes within the study area. The current design plan indicates approximately 2.98 acres of wetland impact in the area between I-95 and west of Snowden River Parkway. Approximately 2.48 acres of wetland buffer (the area 25 feet in circumference from the limits of a non-tidal wetland) will also be impacted. The impact to buffer areas was not identified in the FSEIS.



Woodland impacts were estimated to total approximately 56.5 acres with 1989 Selected Alternate 3, approximately 30 acres of which occurred east of MD 104, while the 1994 FSEIS Selected Alternate impacted approximately 32.5 acres of upland forested area east of MD 104, approximately 23 acres of which occur within the limits of the current design contract from I-95 to Snowden River Parkway.

**Air and Noise Studies**

**Air Quality**

Detailed air quality analyses were performed for both the 1989 FEIS Selected Alternate 3 alignment and for the 1994 FSEIS Selected Alternate 3 Option D Modification 2A alignment between I-95 and MD 104. Neither Selected Alternate resulted in any violations of the one-hour or eight-hour State/National Ambient Air Quality Standards. The current design does not result in any changes in through traffic capacity or closer proximity of the air receptors to the roadway that would require an additional air quality analysis.

The MD 100 project is located in Howard County which is an air quality non-attainment area for Carbon Monoxide (CO) and has transportation control measures in the State Implementation Plan (SIP). In accordance with the requirements of the Clean Air Act of 1990, the current improvements have been added to the FY 1996 - 2001 Statewide Transportation Improvement Program (STIP) (# 345-3).

**Noise**

With the 1989 FEIS Selected Alternate 3 alignment, 15 of the 19 noise receptors for the entire project (US 29 to I-95) experienced 2015 noise levels which approached or exceeded the 67 dBA FHWA noise abatement criteria (FNAC) for residential land uses and 16 NSA's, including one receptor which did not exceed the FNAC, were projected to experience noise level increases over ambient levels of 10 dBA or more. The feasibility of noise abatement was assessed for larger noise sensitive areas (NSA's) identified as NSA's A through M for Selected Alternate 3 in the 1989 FEIS. Of these NSA's, A, B, C, K and L are located east of MD 104.

A reanalysis of noise conditions and abatement feasibility was conducted for alignment shifts associated with the selection of Alternate 3 Option D Modification 2A as discussed in the 1994 FSEIS. Of the noise sensitive receptors identified in the 1989 FEIS only five individual receptors are the same as those identified within the segment of the 1994 FSEIS/4(f) for MD 100 from MD 104 to I-95. An additional NSA, "O", was added to the analysis to include a new area west of MD 103 which was affected by alignment shifts in the FSEIS Selected Alternate between I-95 and MD 104. A comparison of the ambient noise and the unabated noise levels associated with the (1989) FEIS Selected Alternate 3 and the (1994) FSEIS Selected Alternate 3 Option D Modification 2A between MD 104 to I-95 is reflected in Table 1 below:

Table 1

Noise Receptor	Sensitive Area	Location	Ambient	1989 FEIS Design year leq	1994 FSEIS Design year leq
3	L	Old Montgomery Road	53	62	62
5	B	8067 Fetlock Ct.	49	68	65
6	K	Edge of r-o-w	49	77	66
7	C	8301 Mitzy Lane	51	72	70
18	C	5311 Waterloo Road MD104	65	70	70

Table two shows the impact analysis for the receptor sites located within the limits of the current design plans from I-95 to west of Snowden River Parkway and compares them to the impact analysis for the 1989 FEIS within the same limits.

Table 2

Table 2

Current Design Plan							
Noise Sensitive Area	Noise Site	Build 2015 dBA	Residence Impacted	Length	Average Height	Total Cost	Cost per Residence
A	87	70	1	600	16	\$158,400	\$158,400
L	3	62	0	N/A	N/A	N/A	N/A
O	27	64	N/A	N/A	N/A	N/A	N/A
	28	68	N/A	N/A	N/A	N/A	N/A
	29	65	N/A	N/A	N/A	N/A	N/A
(1989) Selected Alternate 3							
A	1,19	72	4	1,300	16.75	\$587,500	\$146,900
L	2,3	62	N/A	N/A	N/A	N/A	N/A

Additional noise reanalysis of the entire study area between I-95 and US 29 was conducted subsequent to the completion of the FSEIS to account for additional residential development which has occurred in the study area and changes in SHA's noise policy since 1989 (i.e.: barrier costs in the 1989 FEIS were calculated based on

\$27/sq. ft. which later changed to \$16.50/sq. ft.). See attached noise reanalysis reports. NSA's A, L and O are the only noise sensitive areas which occur within the limits of the Final Review plans from I-95 to west of Snowden River Parkway.

### **NSA A**

NSA A is comprised of a single family residence located south of proposed MD 100 and west of I-95 in the area of Mullineaux Road and multi-family residential developments north of and along MD 103. Existing noise levels were 52 dBA, while the unabated design year (2020) noise levels increase over 20 dBA for the single family home along Mullineaux Road and between 3 to 10 dBA along MD 103. Since the 1994 FSEIS, an earth berm five to six feet in height has been constructed as part of new development between Old Mullineux Road and MD 103. This berm, as well as the variations in natural topography in this area will provide adequate abatement of the future noise impacts at the multi-family residences resulting from the construction of MD 100. According to developer plans, these residences are located outside the 65 dBA contour line with the berm in place (see attached plans). At one remaining receptor (R 87) included in NSA A, but not protected by this berm, noise abatement is not reasonable or feasible. Construction of an effective noise barrier for this one home would exceed \$150,000. This area is also heavily forested and placement of an earth berm for this site would result in an unacceptable loss of mature vegetation. However, as receptor 87 is located behind a reforestation area, the buffer zone between the adjacent receptors and MD 100 will be enhanced and will also include supplemental landscape plantings.

### **NSA L**

This area is comprised of multi-family residential units in the Brightfield townhome community located north of the westbound lanes of MD 100 between Old Montgomery Road and MD 103. The distance from the receptors to the edge of pavement is approximately 600 feet. Existing noise levels were monitored at 55 dBA. Design year (2020) noise levels will increase from 3 to 7 dBA to 58 to 62 dBA. Since these levels do not approach or exceed the FNAC of 67 dBA and do not increase 10 dBA or greater over ambient levels, the consideration of noise abatement is not warranted.

### **NSA O**

This NSA, as described in the 1994 FSEIS, includes only the MD School for the Deaf (receptor 27), located adjacent to the eastbound lanes of MD 100 between Old Montgomery Road and MD 103, the Curtis Shipley historic site (receptor 29) and the University of MD Animal Husbandry Farm (receptor 28), a portion of which has been purchased by SHA for a wetland mitigation site. The design year noise levels at the MD School for the Deaf (64 dBA) and the Curtis Shipley historic site (65 dBA) did not approach or exceed the FNAC. Although noise levels increased 10 dBA from the projected No-Build level (54 dBA) at the MD School for the Deaf, noise abatement was not considered at this location because of the active outdoor recreational uses associated with the site. The receptor area was located in the playground (the only area of outdoor use associated with the site), but away from the main buildings of the school. For the purposes of this analysis, playground was not included as "sensitive receptor" for consideration of noise abatement because of the additional noise

generated by active outdoor recreational uses commonly associated with the sites. As such, no noise abatement is considered reasonable for any of the NSA O receptors.

The balance of NSA's evaluated are located west of Snowden River Parkway, beyond the limits of the current design contract. The following discussion updates the status of noise abatement measures being considered at these locations.

#### **NSA's B & C**

Due to the extensive development that has occurred in the Hunt Country Estates and Glenmar communities, located north of the alignment of the 1994 FSEIS Selected Alternate alignment for MD 100 between Snowden River Parkway and MD 104, a decision was made to combine these areas for analysis of noise abatement feasibility. Non-abated noise levels range from 57 to 74 dBA for 162 impacted residences. These receptors would all receive a minimum reduction of 3 dBA with an average 5 to 9 dBA insertion loss. The cost of abatement would be approximately \$11,000 per residence. Noise abatement at this location is considered reasonable and will be constructed as part of a future design contract.

#### **NSA' D, E & F**

Similar to NSA's B and C, due to extensive development has occurred in these areas since the 1994 FSEIS, the decision was made to combine NSA's D, E, and F for analysis of noise abatement feasibility. This NSA also encompasses the location of NSA I (receptor 11), identified in the 1989 FEIS as edge of right-of-way. The area is comprised of single and multi-family residences in the communities of Timber Run Valley, Knollview and Brampton Hills, located adjacent to the future westbound lanes of the MD 100 alignment between MD 104 and Long Gate Parkway. Non-abated noise levels would be 60 to 76 dBA for 247 impacted residences. The noise receptors would receive a minimum three dBA reduction with an average insertion loss of five to 14 dBA. The cost of abatement would be approximately \$11,000 per residence. Noise abatement at this location is considered reasonable and will be constructed as part of a future design contract.

#### **NSA G**

This NSA is comprised of single family residences in the Colombia Hills community, located adjacent to the future MD 100 eastbound lanes west of Executive Park Drive. Non-abated noise levels range from 61 to 71 dBA for 19 impacted residences. These noise receptors would receive a minimum three dBA reduction with an average five to 10 dBA insertion loss. The cost of noise abatement would be approximately \$42,000 per residence. Noise abatement is considered reasonable at this location and will be constructed as part of a future design contract.

#### **NSA J**

NSA J is comprised only of Howard High School. The school is air-conditioned and with windows closed is not projected to exceed the FNAC for interior noise levels. Similar to NSA O, although the noise analysis discussed in the 1989 FEIS indicates that projected exterior noise levels will be approximately 74 dBA, the area includes active

outdoor recreational uses (athletic fields), which are not considered to be "noise sensitive". Thus, noise abatement is not considered to be reasonable at this location.

**NSA K**

At NSA K, homeowner association property exists adjacent to the proposed MD 100 right-of-way and two berms have been constructed which provide some protection to the first floor residences. A single connecting berm to the south of MD 100 beginning at station 131 and continuing to station 161 could be constructed, enhancing this protection and providing more effective noise abatement. With the additional width from the homeowner association property, this berm will vary in height from three to 36 feet and vary in width from 25 to 165 feet. This berm would tie into and increase the height of the existing berm that is adjacent to the majority of the Village of Montgomery Run and would provide protection for first floor residents. A total of 118,800 cubic yards of material will be needed to construct this berm. Mitigation of noise impacts above the first floor was provided through SHA purchase of those affected units in buildings 8611 and 8613 for resale with full knowledge and disclosure of the location of the FSEIS Selected Alternate alignment for MD 100.

With the berm, the new cost and cost-per-residence of the abatement barrier for this NSA would be \$550,450 and \$4,270, respectively. A total of 1.38 acres of forested lands would be impacted by the construction of this berm. Noise abatement at this location is considered reasonable and will be constructed as part of a future design contract.

Regarding the remaining NSA's identified in the 1989 FEIS, NSA's H and M were and still are edge of right-of-way locations where no development has occurred. As such, no noise abatement is currently being considered in these areas. Should additional development occur prior to final design in the vicinity of these NSA locations, the need for further noise reanalysis will be evaluated.

**MITIGATION**

Applications for Water Quality Certification and permits for in-stream work are currently under review by the Maryland Department of the Environment (MDE). MDE is also reviewing stormwater management and sediment and erosion control plans.

A Section 404 permit application for wetland impacts encompassing the entire MD 100 project from I-95 to US 29 is currently being reviewed by the US Army Corps of Engineers. SHA will be required to mitigate a total of approximately four acres of wetland impacts, approximately 2.98 acres of which occur within the limits of the current design contract from I-95 to west of Snowden River Parkway. No mitigation is required for impacts to wetland buffer areas (the area 25 feet in circumference from the limits of the non-tidal wetland). Wetland mitigation for this project will occur at three sites. At the former University of Maryland Animal Husbandry Farm, mitigation requirements will be fulfilled through both wetland creation and preservation of existing upland and wetland areas. Approximately 3.7 acres of palustrine forested and scrub shrub wetlands will be created at this site and an additional 20.7 acres of the farm will be

preserved. SHA will retain perpetual ownership of both the wetland creation area and the preservation area. The preservation area provides additional protection for the newly created wetland area, increasing the overall functional value. Smaller amounts of palustrine emergent wetlands will be created at Deep Run site in Anne Arundel County (0.05 acre palustrine emergent) and at proposed site for Brampton Hills Park (0.52 acre palustrine forested/emergent). FHWA approved the use of the Animal Husbandry Farm, Brampton Hills Park and the Deep Run sites for wetland mitigation on October 3, 1994, September 22, 1994 and February 18, 1993 respectively (see attached correspondence).

Coordination with the MD State Forester has been initiated to mitigate for 23.1 acres of woodland impacted within the limits of the current design plans from I-95 to west of Snowden River Parkway. Consistent with the recommendations of the State Forester, approximately 5.6 acres of reforestation will occur on-site, with the balance of 17.5 acres to be provided within the Howard County portion of the Patapsco River Lower North Branch watershed.

Consistent with the Memorandum of Agreement for the Curtis-Shipley historic site, the family graveyard located on the property will be hand-cleared as part of the current design contract. Attempts have been made to contact the property owner to gain right-of-entry on to the property to initiate this work (see attached correspondence). To date SHA has not received a reply from the property owner.

FHWA and the Advisory Council on Historic Preservation, it was agreed that SHA would prepare a National Register nomination form for the property and repair the Shipley graveyard on the remaining property by hand-clearing the site of over grown vegetation and debris. The nomination form has been prepared and submitted to MHT. The clearing of the graveyard will be completed in conjunction with construction of the current design segment between I-95 and west of Snowden River Parkway.

During preparation of the 1989 FEIS a Phase II archeological investigation of site 18HO19 Deep Run 6 indicated that the site was ineligible for listing on the National Register of Historic Places. However, fencing of the historic component of site 18HO19 was recommended by MHT to prevent any impact. A subsequent archeological investigation undertaken for the supplemental EIS study concluded that site 18HO19 had been destroyed by construction and grading activities associated with the development of the Village of Montgomery Run.

Coordination for preparation of the 1994 FSEIS identified two additional archeological sites 18HO193 and 10HO52 which required Phase II investigation. Based on the Phase II investigation they were determined ineligible for inclusion on the National Register of Historic Places (see attached coordination).

No significant archeological sites or historic standing structures on or eligible for the National Register were identified in the vicinity of any of the proposed wetland mitigation sites (see attached coordination).

**Natural Environment**

All surface waters in the study area are classified as Use I waters by the Maryland Department of the Environment (MDE) for which time of year construction restrictions will be imposed from March 1 through June 15, inclusive. Red Hill Branch is located west of MD 104 in the Little Patuxent River drainage basin, while Deep Run is located in the eastern half of Howard County and associated with the Patapsco River drainage basin.

The 1989 FEIS Selected Alternate 3 alignment required the relocation of approximately 1,400 feet of Deep Run and the channelization of approximately 3,105 feet of unnamed tributaries in the area east of MD 104. West of MD 104, Red Hill Branch has been piped under the portion of MD 100 already constructed. The 1994 FSEIS Selected Alternate 3 Option D Modification 2A alignment requires no direct crossing of the mainstem of Deep Run, but does require two crossings of small unnamed tributaries to Deep Run. These crossings require a total of approximately 2,200 linear feet of stream channel impact, a decrease of approximately 1,305 linear feet from the 1989 FEIS Selected Alternate. The current design plans indicate that the total amount of stream

*(west of fence of Deep Run) Subsequent to approval of the FSEIS, a design modification was made to the retaining wall @ W-95 as a result of modifications to a retaining wall between I-95 + MD 104 to approx 2600 L. In order to reduce overall project cost, it was decided to the small stream channel impacts in the portion of the project.*



**Maryland Department of Transportation  
State Highway Administration**

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David L. Winstead  
Secretary

Hal Kassoff  
Administrator

Re: April 11, 1996  
Contract No. HO 661-201-770  
MD 100 from MD 104 to I-95  
Howard County, Maryland  
PDMS Nos. 132092 and 132062  
Environmental Reevaluation

Mrs. Susan J. Binder  
Division Administrator  
Federal Highway Administration  
The Rotunda-Suite 220  
711 West 40th Street  
Baltimore MD 21211

ATTN: Ms. Renee Sigel

Dear Mrs. Binder:

The environmental consequences of the currently proposed improvements to MD 100 from I-95 to west of Snowden River Parkway have been reviewed and reevaluated for consistency with the Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f)) (FHWA-MD-EIS-87-04-FS) for MD 100 from I-95 to MD 104, approved by the Federal Highway Administration (FHWA) on December 19, 1994. The Record of Decision (ROD) documenting the selection of Alternate 3 Option D Modification 2A was approved on March 13, 1995. The Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation (DSEIS/4(f)) (FHWA-MD-EIS-87-04-DS) was approved by FHWA on October 10, 1992 and a Location /Design Public Hearing was held on December 1, 1992 at Howard High School in Howard County, Maryland.

The extension of MD 100 on new location from MD 104 to I-95 was previously approved by FHWA as part of a larger MD 100 study from US 29 to I-95. The FEIS/4(f) (FHWA-MD-EIS-87-04-F) for the initial study was approved July 12, 1989. FHWA approved a subsequent ROD, documenting the selection of Alternate 3 on January 5, 1990.

During pre-permit coordination, the environmental resource agencies requested that supplemental studies be undertaken to evaluate additional wetland avoidance and minimization alternatives in the section of MD 100 between MD 104 and I-95. These wetlands, located in the Deep Run watershed, were determined by the agencies to be part of a high quality wetland system. FHWA agreed with this recommendation

My telephone number is (410) 333-1110

Maryland Relay Service for Impaired Hearing or Speech  
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Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95  
Environmental Reevaluation  
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and determined in response to a reevaluation of Preliminary Investigation (P.I.) plans, dated June 1, 1990, that a supplemental document would be required. Consequently, studies were initiated in September, 1991 on a Supplemental EIS to study alignment shifts between I-95 and MD 104.

We have determined that the current design plans discussed at the Final Review meeting, held on January 26, 1996, in comparison to Selected Alternate 3 Option D Modification 2A, as discussed in the FSEIS/4(f), will not result in any additional significant socio-economic or natural environmental impacts. This reevaluation has been completed in accordance with 23 CFR 771.129.

We therefore request your concurrence in our determination that the FSEIS/4(f) remains valid and that no additional environmental documentation is warranted. Should you have any questions or comments, please feel free to call Joseph Kresslein. Joe can be reached at 545-8550. Enclosed is a copy of the reevaluation.

Sincerely,

Hal Kassoff  
Administrator

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

MD 100 from I-95 to West of  
CONCURRENCE: Snowden Parkway  
River

*Bence Sigel*  
Federal Highway Administration  
Division Administrator

4/25/96  
Date

HK:NJP  
Enclosure

PROJECT  
DEVELOPMENT  
DIVISION  
APR 30 1 25 PM '96

30

Mrs. Susan J. Binder  
MD 100 from MD 104 to I-95  
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cc: Mr. Charles Adams (w/enclosure)  
Mr. Louis H. Ege, Jr.  
Mr. Robert L. Fisher  
Mr. Gary Gray  
Mr. Howard Johnson (w/enclosure)  
Mr. Joseph Kresslein (w/enclosure)  
Mr. Kirk McClelland  
Ms. Cynthia Simpson  
Ms. Angela Smith (w/enclosure)  
Mr. Karl Teitt

Joe - Here is the  
signed copy -  
Pam

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TO: Joe Kresslein  
OPPE  
Rm C-301

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## ENVIRONMENTAL REEVALUATION MD 100 FROM I-95 TO MD 104

### INTRODUCTION

The purpose of this reevaluation is to compare the social, economic and natural environmental impacts of Selected Alternate 3 Option D Modification 2A, as discussed in the Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f)) (Report No. FHWA-MD-EIS-87-04-FS), with the modifications shown on the Final Review plans for the portion of the project from west of I-95 to Snowden River Parkway.

### NEED FOR THE PROJECT

The MD 100 project was planned to address the need for additional east-west roadway capacity in eastern Howard County resulting from significant increases in the number of households and employment opportunities projected between 1985 and the design year 2010. Between 1985 and 1989 approximately 60 new development proposals were submitted within the Maryland 100 study area which are currently in various stages of the Howard County subdivision process. These newly constructed or planned developments are zoned for uses ranging from single-family/multi-family dwellings to planned office research. This planned development in the study area contributes to a projected 65% increase in the number of households and 126% increase in employment in Howard County between 1979 and 2005. Throughout the study corridor and the regional network, these planned residential and commercial developments result in greater demands on the existing roadway network, affecting traffic operations on MD 103, MD 104, and MD 108. These two-lane roadways were constructed when eastern Howard County was predominantly rural in nature and were not designed to accommodate the existing and projected traffic volumes for this area. Traffic volumes on the existing roadway network were quickly approaching capacity levels during the mid to late 1980's when the initial project planning study was underway. Planned development is continuing at such a pace, that if a new roadway is not constructed, the existing roadway network will not be able to handle the local and through-traffic needs anticipated by the year 2015.

The 1986 average daily traffic on MD 103 varied from 16,700 to 18,400 vehicles per day between US 29 and MD 104 (the western end of the project), 11,000 to 15,000 vehicles per day on MD 108 between US 29 and MD 104 and 9,000 to 11,200 vehicles per day on MD 104 between MD 103 and MD 108. These volumes of traffic resulted in delays during morning and evening peak periods. Traffic forecasted for the year 2015 indicate an average increase of 130 percent in the number of vehicles desiring to use MD 103, 104 and 108 if MD 100 is not constructed. This would result in those roadways operating at capacity. With the Selected Alternate in place, only MD 108 would continue to operate at capacity.

During the Project Planning study, an accident analysis was performed for the study area for the years 1984 through 1986. Within the corridor of the proposed MD 100 extension, three sections of existing roadways comprised the existing highway network, traversing the gap between I-95 and US 29. These sections of highway are: MD 108 from MD 175 to US 29, MD 103 from I-95 to US 29, and MD 104 from MD 108 to MD 103. Collectively, this network experienced a total of 324 reported accidents over the three-year survey period, translating into an accident rate of approximately 193 accidents per every one hundred million vehicle miles of travel (acc/100 mvm). This rate is well below the statewide average rate of 265 acc/100 mvm for all similar design highways. The estimated monetary loss of the general public as a result of these accidents is approximately \$1.8 million per every hundred million vehicle miles traveled.

There were three fatal accidents within the study limits. Two of these occurred during 1986 on MD 108 in the area from MD 104 to US 29. The remaining fatal accident occurred on MD 103 in the section from MD 104 to US 29 during the year 1984. The intersection of US 29 at MD 108 did qualify as a High Accident Intersection for all three years of the study period. This intersection has since been replaced by a full interchange. There was one High Accident Section within the study limits. This location was MD 103 from the entrance to the Maryland State Police to US 29. This 0.25 mile section of highway experienced 14 accidents during the year 1986.

Traffic projections for this corridor show an approximate 130% increase in average daily traffic volumes by the year 2015. Under the No-Build Alternate, congestion resulting from increased traffic on MD 103, MD 104 and MD 108 will compromise the ability of these roads to safely accommodate predicted volumes through the 2015 design year. The Selected Alternate for MD 100 is expected to experience an accident rate of approximately 127 acc/100mvm, while the entire roadway network in the corridor (including existing MD 103, MD 104 and MD 108) is expected to have an overall accident rate of approximately 155 acc/mvm with MD 100 in place.

## **PROJECT BACKGROUND**

### **FEIS Selected Alternate 3 (Approved 1989)**

Selected Alternate 3, as approved in the 1989 FEIS/4(f) Evaluation, was designed as a six-lane divided highway on new location with full control of access between MD 104 and I-95 and with partial control of access between the US 29/MD 100/MD 103 interchange and MD 104.

Two lanes of MD 100 with full-depth shoulders have already been constructed along the alignment of the ultimate eastbound roadway between US 29 and MD 104 as a non-federally funded project. This segment currently provides four traffic bearing lanes between US 29 and Long Gate Parkway. Long Gate Parkway (constructed by Howard County), located east of the US 29/MD 100/MD 103 interchange, currently ties into the existing portion of MD 100 via an at-grade intersection. As shown in the FEIS, an interchange will be provided for this connection when the MD 100 roadway is constructed to the ultimate six-lane section. The MD 100 FEIS shows the Selected Alternate 3 alignment continuing in an easterly direction, crossing Red Hill Branch with

at-grade intersections at Executive Park Drive and Centre Park Drive. Signalization at these intersections will be considered when warranted. Selected Alternate 3 then passes behind Howard Senior High School and connects with MD 104 via an interchange approximately 600 feet north of the MD 108/MD 104 intersection. No property is required from Howard Senior High School.

The Selected Alternate 3 alignment was retained only for the portion of MD 100 between US 29 and MD 104. Subsequent to the approval of the FEIS/Section 4(f) Evaluation, the environmental resource agencies requested that supplemental studies be undertaken to evaluate additional wetland avoidance and minimization alternatives in the section of MD 100 between MD 104 and I-95. These wetlands, located in the Deep Run watershed, were determined to comprise a high quality wetland system. FHWA concurred with these recommendations in response to a reevaluation of Preliminary Investigation (P.I.) plans and studies were initiated in September 1991 on a Supplemental EIS to study alignment shifts between I-95 and MD 104.

#### **Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation (FSEIS/4(f) Selected Alternate 3 Option D Modification 2A (Approved 1994)**

The FSEIS/4(f) Selected Alternate 3-Option D Modification 2A consists of a six -lane arterial highway on new location with a 54 foot median from MD 104 to I-95 as opposed to the 34 foot median with 20 foot safety grading (60 mph) beyond the outside curb, proposed in the 1989 FEIS. This increased median width was achieved by shifting 10 feet of the 20 foot outside safety grading from each side of the roadway into the median. This change in the width of safety grading was compensated for by the inclusion of traffic barriers adjacent to the outside shoulders and will accommodate possible future widening in the median.

#### **MD 104 Interchange**

The selected MD 100/MD 104 interchange was reconfigured from its original design to a partial diamond with the eastbound on/off ramp combined to form a "T" intersection at MD 108 approximately 600 feet west of the existing MD 108/MD 104 intersection. This redesign moved the loop ramp east of MD 104, out of wetland 6. MD 104 was also shifted 50 feet west to further minimize impacts to wetland 6, reducing impacts from 4.2 acres to 0.6 acre, a difference of 3.6 acres. This interchange configuration required the widening of MD 108 from approximately 1,500 feet west of MD 104 and included one additional lane in each direction to accommodate projected traffic volumes.

East of MD 104, the FSEIS Selected Alternate continues in an easterly direction for approximately 2,500 feet and impacts 0.6 acre of wetland 7. There was no reduction in wetland impact at this site when compared with original Selected Alternate 3. The FSEIS Selected Alternate then shifts to the north near the Village of Montgomery Run, where the roadway profile was lowered with the use of retaining walls. The northern shift and use of retaining wall in this section resulted in a reduction in wetland impacts at wetland 8 from 2.7 acres to 0.1 acre, a difference of 2.6 acres. As a result, this alignment shift placed the roadway closer to buildings 8611 and 8613 in the Village of Montgomery Run than did the original FEIS Selected Alternate 3 alignment. These two

building were subsequently purchased by the State Highway Administration (SHA) for resale with full knowledge and disclosure of the FSEIS Selected Alternate for the MD 100 alignment. No other community is any closer to the current MD 100 alignment than with original FEIS Selected Alternate 3.

The median width of proposed MD 100 along Deep Run west of the Snowden River Parkway interchange was reduced to 46 feet by shifting the westbound lanes away from Deep Run. In addition to this shift, a portion of the westbound outside shoulder of the proposed roadway was placed on a cantilevered structure supported by a retaining wall. Although a design exception is required for this cantilevered structure, it further reduced impacts to the buffer around Deep Run and adjacent wetlands.

### **MD 103 Interchange**

The MD 100/MD 103 interchange ramps located in the northeast and southeast quadrants were realigned or compressed to tie into MD 100 west of wetland 12, thereby reducing the footprint of MD 100 and minimizing wetland and stream impacts.

### **Snowden River Parkway**

An extension of Snowden River Parkway from MD 108 to MD 100 and an interchange with MD 100, originally proposed by Howard County in the 1989 FEIS, is proposed for construction by SHA in the FSEIS as part of the MD 100 project.

As discussed in the FSEIS, Snowden River Parkway will transition from a four-lane divided roadway at MD 108 to a two-lane roadway at the interchange with MD 100. A southern shift in the alignment places the proposed Snowden River Parkway interchange approximately 900 feet south of its original location identified in the 1989 FEIS. The interchange was also revised from that shown in the 1989 FEIS by lowering the profile of Snowden River Parkway to pass under MD 100 and included the incorporation of eastbound MD 100 directional ramps on Snowden River Parkway. The new location and revised design of the Snowden River Parkway interchange avoids an additional crossing of the Deep Run main channel and reduces overall impacts at wetlands 9 and 10.

### **Old Montgomery Road**

At this location an overpass was provided to carry Old Montgomery Road over MD 100 for the 1989 FEIS Selected Alternative 3. The 1994 FSEIS Selected Alternative 3 Option D Modification 2A includes an overpass which carries MD 100 over the existing Old Montgomery Road structure over Deep Run. The existing Old Montgomery Road structure would not be affected by this alternative.

The reduced typical section, the shift of the westbound lane west of Snowden River Parkway interchange, the design of the cantilevered section and the MD 103 ramp modification reduced overall wetland impacts at wetlands 9, 10, 11, 11A and 12. At wetland 10A impacts increased 0.1 acre, resulting in an overall reduction of wetland by approximately 4.9 acres.

## **CURRENT DESIGN PLAN**

### **West of Snowden River Parkway to I-95**

The current design of MD 100 from I-95 to west of the Snowden River Parkway interchange, as shown on the Final Review plans, proposes construction of MD 100 on new location as a six-lane divided access controlled highway. The east and westbound lanes will be separated by a 54 foot median with 10 foot inside and outside paved shoulders. The shoulders in the vicinity of pipe crossings are reduced to approximately a six foot width to minimize wetland impacts. A request for design exceptions to reduce shoulder widths, eliminating the cantilevered roadway sections, is currently pending. The only changes to the 1994 FSEIS Selected Alternate reflected on the current design plans are the inclusion of the two roundabouts discussed below, which replace at-grade intersections. The use of roundabouts will eliminate the need for intersections which require a full stop traffic condition and will facilitate the flow of traffic.

#### **Snowden River Parkway Interchange**

Station 175 marks the take off point for the Snowden River Parkway interchange ramps from east/westbound MD 100 to southbound Snowden River Parkway and MD 108 and from northbound Snowden River Parkway to eastbound or westbound MD 100. Snowden River Parkway will transition from a four-lane section at MD 108 to a two-lane roadway at the interchange ramps. Snowden River Parkway continues through to MD 100 one lane in each direction. At MD 100, Snowden River Parkway forms a 100 foot diameter roundabout which ties into the MD 100 westbound interchange ramps. The roundabout will have a raised landscaped center island, an 18 foot travel lane, a 12 foot truck apron and a 10 foot outside shoulder. The Snowden River Parkway roundabout will accommodate access from westbound MD 100 to MD 108 via southbound Snowden River Parkway and from northbound Snowden River Parkway to eastbound or westbound MD 100. The MD 100 ramps will consist of a 15 foot lane with a 10 foot outside shoulder and a four foot inside shoulder.

#### **MD 103 Interchange**

The east and westbound MD 100 interchange ramps will intersect MD 103 via two 120 foot diameter roundabouts. The MD 100/MD 103 eastbound and westbound roundabouts will have raised, landscaped center islands, 18 foot travel lanes, 12 foot truck aprons and 10 foot outside shoulders. Islands at the end of each roundabout guide will separate traffic wanting to access MD 103 northbound or southbound and MD 100 east or westbound.

## **ENVIRONMENTAL EVALUATION**

All of the design changes reflected on the Final Review plans for the portion of MD 100 from I-95 to west of Snowden River Parkway occur within the original footprint of Selected Alternate 3 Option D Modification 2A, and as such do not result in any additional environmental impacts not identified in the 1994 FSEIS (see attached impacts comparison table).

had been destroyed by construction and grading activities associated with the development of the Village of Montgomery Run.

Coordination for preparation of the 1994 FSEIS identified two additional archeological sites 18HO193 and 10HO52 which required Phase II investigation. Based on the Phase II investigation they were determined ineligible for inclusion on the National Register of Historic Places (see attached coordination).

No significant archeological sites or historic standing structures on or eligible for the National Register were identified in the vicinity of any of the proposed wetland mitigation sites (see attached coordination).

### **Natural Environment**

All surface waters in the study area are classified as Use I waters by the Maryland Department of the Environment (MDE) for which time of year construction restrictions will be imposed from March 1 through June 15, inclusive. Red Hill Branch is located west of MD 104 in the Little Patuxent River drainage basin, while Deep Run is located in the eastern half of Howard County and associated with the Patapsco River drainage basin.

The 1989 FEIS Selected Alternate 3 alignment required the relocation of approximately 1,400 feet of Deep Run and the channelization of approximately 3,105 feet of unnamed tributaries in the area east of MD 104. West of MD 104, Red Hill Branch has been piped under the portion of MD 100 already constructed. The 1994 FSEIS Selected Alternate 3 Option D Modification 2A alignment required approximately 2,200 linear feet of stream channel impact between I-95 and MD 104, a decrease of approximately 1,305 linear feet from the 1989 FEIS Selected Alternate. The 1994 FSEIS Selected Alternate also avoided a direct crossing of the mainstream of Deep Run by crossing two minor Deep Run tributaries instead. The current design plans indicate that the total amount of stream channel impact from I-95 to west of Snowden River Parkway is approximately 1,555 linear feet.

In accordance with Executive Order 11990 (Protection of Wetlands) and Section 404 of the Clean Water Act, wetlands within the study area have been identified and the impacts quantified. As documented in the 1989 FEIS, Selected Alternate 3 impacted a total of approximately 16 acres of palustrine forested wetlands, approximately 13 acres of which occurred in the area east of MD 104. In comparison, the (1994) FSEIS Selected Alternate 3 Option D Modification 2A alignment reduced wetland impacts to only 4.9 acres east of MD 104. This total has been further reduced to approximately 4.01 acres due to refinements in project design and development-related changes within the study area. The current design plan indicates approximately 2.98 acres of wetland impact in the area between I-95 and west of Snowden River Parkway. Approximately 2.48 acres of wetland buffer (the area 25 feet in circumference from the limits of a non-tidal wetland) will also be impacted. The impact to buffer areas was not identified in the FSEIS.



Woodland impacts were estimated to total approximately 56.5 acres with 1989 Selected Alternate 3, approximately 30 acres of which occurred east of MD 104, while the 1994 FSEIS Selected Alternate impacted approximately 32.5 acres of upland forested area east of MD 104, approximately 23 acres of which occur within the limits of the current design contract from I-95 to Snowden River Parkway.

## **Air and Noise Studies**

### **Air Quality**

Detailed air quality analyses were performed for both the 1989 FEIS Selected Alternate 3 alignment and for the 1994 FSEIS Selected Alternate 3 Option D Modification 2A alignment between I-95 and MD 104. Neither Selected Alternate resulted in any violations of the one-hour or eight-hour State/National Ambient Air Quality Standards. The current design does not result in any changes in through traffic capacity or closer proximity of the air receptors to the roadway that would require an additional air quality analysis.

The MD 100 project is located in Howard County which is an air quality non-attainment area for Carbon Monoxide (CO) and has transportation control measures in the State Implementation Plan (SIP). In accordance with the requirements of the Clean Air Act of 1990, the current improvements have been added to the FY 1996 - 2001 Statewide Transportation Improvement Program (STIP) (# 345-3).

### **Noise**

With the 1989 FEIS Selected Alternate 3 alignment, 15 of the 19 noise receptors for the entire project (US 29 to I-95) experienced 2015 noise levels which approached or exceeded the 67 dBA FHWA noise abatement criteria (FNAC) for residential land uses and 16 NSA's, including one receptor which did not exceed the FNAC, were projected to experience noise level increases over ambient levels of 10 dBA or more. The feasibility of noise abatement was assessed for larger noise sensitive areas (NSA's) identified as NSA's A through M for Selected Alternate 3 in the 1989 FEIS. Of these NSA's, A, B, C, K and L are located east of MD 104.

A reanalysis of noise conditions and abatement feasibility was conducted for alignment shifts associated with the selection of Alternate 3 Option D Modification 2A as discussed in the 1994 FSEIS. Of the noise sensitive receptors identified in the 1989 FEIS only five individual receptors are the same as those identified within the segment of the 1994 FSEIS/4(f) for MD 100 from MD 104 to I-95. An additional NSA, "O", was added to the analysis to include a new area west of MD 103 which was affected by alignment shifts in the FSEIS Selected Alternate between I-95 and MD 104. A comparison of the ambient noise and the unabated noise levels associated with the (1989) FEIS Selected Alternate 3 and the (1994) FSEIS Selected Alternate 3 Option D Modification 2A between MD 104 to I-95 is reflected in Table 1 below:

Table 1

Noise Receptor	Sensitive Area	Location	Ambient	1989 FEIS Design year leq	1994 FSEIS Design year leq
3	L	Old Montgomery Road	53	62	62
5	B	8067 Fetlock Ct.	49	68	65
6	K	Edge of r-o-w	49	77	66
7	C	8301 Mitzy Lane	51	72	70
18	C	5311 Waterloo Road MD104	65	70	70

Table two shows the impact analysis for the receptor sites located within the limits of the current design plans from I-95 to west of Snowden River Parkway and compares them to the impact analysis for the 1989 FEIS within the same limits.

Table 2

Table 2

Current Design Plan							
Noise Sensitive Area	Noise Site	Build 2015 dBA	Residence Impacted	Length	Average Height	Total Cost	Cost per Residence
A	87	70	1	600	16	\$158,400	\$158,400
L	3	62	0	N/A	N/A	N/A	N/A
O	27	64	N/A	N/A	N/A	N/A	N/A
	28	68	N/A	N/A	N/A	N/A	N/A
	29	65	N/A	N/A	N/A	N/A	N/A
(1989) Selected Alternate 3							
A	1,19	72	4	1,300	16.75	\$587,500	\$146,900
L	2,3	62	N/A	N/A	N/A	N/A	N/A

Additional noise reanalysis of the entire study area between I-95 and US 29 was conducted subsequent to the completion of the FSEIS to account for additional residential development which has occurred in the study area and changes in SHA's noise policy since 1989 (i.e.: barrier costs in the 1989 FEIS were calculated based on

\$27/sq. ft. which later changed to \$16.50/sq. ft.). See attached noise reanalysis reports. NSA's A, L and O are the only noise sensitive areas which occur within the limits of the Final Review plans from I-95 to west of Snowden River Parkway.

#### **NSA A**

NSA A is comprised of a single family residence located south of proposed MD 100 and west of I-95 in the area of Mullineaux Road and multi-family residential developments north of and along MD 103. Existing noise levels were 52 dBA, while the unabated design year (2020) noise levels increase over 20 dBA for the single family home along Mullineaux Road and between 3 to 10 dBA along MD 103. Since the 1994 FSEIS, an earth berm five to six feet in height has been constructed as part of new development between Old Mullineux Road and MD 103. This berm, as well as the variations in natural topography in this area will provide adequate abatement of the future noise impacts at the multi-family residences resulting from the construction of MD 100. According to developer plans, these residences are located outside the 65 dBA contour line with the berm in place (see attached plans). At one remaining receptor (R 87) included in NSA A, but not protected by this berm, noise abatement is not reasonable or feasible. Construction of an effective noise barrier for this one home would exceed \$150,000. This area is also heavily forested and placement of an earth berm for this site would result in an unacceptable loss of mature vegetation. However, as receptor 87 is located behind a reforestation area, the buffer zone between the adjacent receptors and MD 100 will be enhanced and will also include supplemental landscape plantings.

#### **NSA L**

This area is comprised of multi-family residential units in the Brightfield townhome community located north of the westbound lanes of MD 100 between Old Montgomery Road and MD 103. The distance from the receptors to the edge of pavement is approximately 600 feet. Existing noise levels were monitored at 55 dBA. Design year (2020) noise levels will increase from 3 to 7 dBA to 58 to 62 dBA. Since these levels do not approach or exceed the FNAC of 67 dBA and do not increase 10 dBA or greater over ambient levels, the consideration of noise abatement is not warranted.

#### **NSA O**

This NSA, as described in the 1994 FSEIS, includes only the MD School for the Deaf (receptor 27), located adjacent to the eastbound lanes of MD 100 between Old Montgomery Road and MD 103, the Curtis Shipley historic site (receptor 29) and the University of MD Animal Husbandry Farm (receptor 28), a portion of which has been purchased by SHA for a wetland mitigation site. The design year noise levels at the MD School for the Deaf (64 dBA) and the Curtis Shipley historic site (65 dBA) did not approach or exceed the FNAC. Although noise levels increased 10 dBA from the projected No-Build level (54 dBA) at the MD School for the Deaf, noise abatement was not considered at this location because of the active outdoor recreational uses associated with the site. The receptor area was located in the playground (the only area of outdoor use associated with the site), but away from the main buildings of the school. For the purposes of this analysis, playground was not included as "sensitive receptor" for consideration of noise abatement because of the additional noise

generated by active outdoor recreational uses commonly associated with the sites. As such, no noise abatement is considered reasonable for any of the NSA O receptors.

The balance of NSA's evaluated are located west of Snowden River Parkway, beyond the limits of the current design contract. The following discussion updates the status of noise abatement measures being considered at these locations.

#### **NSA's B & C**

Due to the extensive development that has occurred in the Hunt Country Estates and Glenmar communities, located north of the alignment of the 1994 FSEIS Selected Alternate alignment for MD 100 between Snowden River Parkway and MD 104, a decision was made to combine these areas for analysis of noise abatement feasibility. Non-abated noise levels range from 57 to 74 dBA for 162 impacted residences. These receptors would all receive a minimum reduction of 3 dBA with an average 5 to 9 dBA insertion loss. The cost of abatement would be approximately \$11,000 per residence. Noise abatement at this location is considered reasonable and will be constructed as part of a future design contract.

#### **NSA' D, E & F**

Similar to NSA's B and C, due to extensive development has occurred in these areas since the 1994 FSEIS, the decision was made to combine NSA's D, E, and F for analysis of noise abatement feasibility. This NSA also encompasses the location of NSA I (receptor 11), identified in the 1989 FEIS as edge of right-of-way. The area is comprised of single and multi-family residences in the communities of Timber Run Valley, Knollview and Brampton Hills, located adjacent to the future westbound lanes of the MD 100 alignment between MD 104 and Long Gate Parkway. Non-abated noise levels would be 60 to 76 dBA for 247 impacted residences. The noise receptors would receive a minimum three dBA reduction with an average insertion loss of five to 14 dBA. The cost of abatement would be approximately \$11,000 per residence. Noise abatement at this location is considered reasonable and will be constructed as part of a future design contract.

#### **NSA G**

This NSA is comprised of single family residences in the Colombia Hills community, located adjacent to the future MD 100 eastbound lanes west of Executive Park Drive. Non-abated noise levels range from 61 to 71 dBA for 19 impacted residences. These noise receptors would receive a minimum three dBA reduction with an average five to 10 dBA insertion loss. The cost of noise abatement would be approximately \$42,000 per residence. Noise abatement is considered reasonable at this location and will be constructed as part of a future design contract.

#### **NSA J**

NSA J is comprised only of Howard High School. The school is air-conditioned and with windows closed is not projected to exceed the FNAC for interior noise levels. Similar to NSA O, although the noise analysis discussed in the 1989 FEIS indicates that projected exterior noise levels will be approximately 74 dBA, the area includes active

outdoor recreational uses (athletic fields), which are not considered to be "noise sensitive". Thus, noise abatement is not considered to be reasonable at this location.

### **NSA K**

At NSA K, homeowner association property exists adjacent to the proposed MD 100 right-of-way and two berms have been constructed which provide some protection to the first floor residences. A single connecting berm to the south of MD 100 beginning at station 131 and continuing to station 161 could be constructed, enhancing this protection and providing more effective noise abatement. With the additional width from the homeowner association property, this berm will vary in height from three to 36 feet and vary in width from 25 to 165 feet. This berm would tie into and increase the height of the existing berm that is adjacent to the majority of the Village of Montgomery Run and would provide protection for first floor residents. A total of 118,800 cubic yards of material will be needed to construct this berm. Mitigation of noise impacts above the first floor was provided through SHA purchase of those affected units in buildings 8611 and 8613 for resale with full knowledge and disclosure of the location of the FSEIS Selected Alternate alignment for MD 100.

With the berm, the new cost and cost-per-residence of the abatement barrier for this NSA would be \$550,450 and \$4,270, respectively. A total of 1.38 acres of forested lands would be impacted by the construction of this berm. Noise abatement at this location is considered reasonable and will be constructed as part of a future design contract.

Regarding the remaining NSA's identified in the 1989 FEIS, NSA's H and M were and still are edge of right-of-way locations where no development has occurred. As such, no noise abatement is currently being considered in these areas. Should additional development occur prior to final design in the vicinity of these NSA locations, the need for further noise reanalysis will be evaluated.

### **MITIGATION**

Applications for Water Quality Certification and permits for in-stream work are currently under review by the Maryland Department of the Environment (MDE). MDE is also reviewing stormwater management and sediment and erosion control plans.

A Section 404 permit application for wetland impacts encompassing the entire MD 100 project from I-95 to US 29 is currently being reviewed by the US Army Corps of Engineers. SHA will be required to mitigate a total of approximately four acres of wetland impacts, approximately 2.98 acres of which occur within the limits of the current design contract from I-95 to west of Snowden River Parkway. No mitigation is required for impacts to wetland buffer areas (the area 25 feet in circumference from the limits of the non-tidal wetland). Wetland mitigation for this project will occur at three sites. At the former University of Maryland Animal Husbandry Farm, mitigation requirements will be fulfilled through both wetland creation and preservation of existing upland and wetland areas. Approximately 3.7 acres of palustrine forested and scrub shrub wetlands will be created at this site and an additional 20.7 acres of the farm will be

preserved. SHA will retain perpetual ownership of both the wetland creation area and the preservation area. The preservation area provides additional protection for the newly created wetland area, increasing the overall functional value. Smaller amounts of palustrine emergent wetlands will be created at Deep Run site in Anne Arundel County (0.05 acre palustrine emergent) and at proposed site for Brampton Hills Park (0.52 acre palustrine forested/emergent). FHWA approved the use of the Animal Husbandry Farm, Brampton Hills Park and the Deep Run sites for wetland mitigation on October 3, 1994, September 22, 1994 and February 18, 1993 respectively (see attached correspondence).

Coordination with the MD State Forester has been initiated to mitigate for 23.1 acres of woodland impacted within the limits of the current design plans from I-95 to west of Snowden River Parkway. Consistent with the recommendations of the State Forester, approximately 5.6 acres of reforestation will occur on-site, with the balance of 17.5 acres to be provided within the Howard County portion of the Patapsco River Lower North Branch watershed.

Consistent with the Memorandum of Agreement for the Curtis-Shipleigh historic site, the family graveyard located on the property will be hand-cleared as part of the current design contract. Attempts have been made to contact the property owner to gain right-of-entry on to the property to initiate this work (see attached correspondence). To date SHA has not received a reply from the property owner.

FHWA and the Advisory Council on Historic Preservation, it was agreed that SHA would prepare a National Register nomination form for the property and repair the Shipley graveyard on the remaining property by hand-clearing the site of over grown vegetation and debris. The nomination form has been prepared and submitted to MHT. The clearing of the graveyard will be completed in conjunction with construction of the current design segment between I-95 and west of Snowden River Parkway.

During preparation of the 1989 FEIS a Phase II archeological investigation of site 18HO19 Deep Run 6 indicated that the site was ineligible for listing on the National Register of Historic Places. However, fencing of the historic component of site 18HO19 was recommended by MHT to prevent any impact. A subsequent archeological investigation undertaken for the supplemental EIS study concluded that site 18HO19 had been destroyed by construction and grading activities associated with the development of the Village of Montgomery Run.

Coordination for preparation of the 1994 FSEIS identified two additional archeological sites 18HO193 and 10HO52 which required Phase II investigation. Based on the Phase II investigation they were determined ineligible for inclusion on the National Register of Historic Places (see attached coordination).

No significant archeological sites or historic standing structures on or eligible for the National Register were identified in the vicinity of any of the proposed wetland mitigation sites (see attached coordination).

**Natural Environment**

All surface waters in the study area are classified as Use I waters by the Maryland Department of the Environment (MDE) for which time of year construction restrictions will be imposed from March 1 through June 15, inclusive. Red Hill Branch is located west of MD 104 in the Little Patuxent River drainage basin, while Deep Run is located in the eastern half of Howard County and associated with the Patapsco River drainage basin.

The 1989 FEIS Selected Alternate 3 alignment required the relocation of approximately 1,400 feet of Deep Run and the channelization of approximately 3,105 feet of unnamed tributaries in the area east of MD 104. West of MD 104, Red Hill Branch has been piped under the portion of MD 100 already constructed. The 1994 FSEIS Selected Alternate 3 Option D Modification 2A alignment requires no direct crossing of the mainstem of Deep Run, but does require two crossings of small unnamed tributaries to Deep Run. These crossings require a total of approximately 2,200 linear feet of stream channel impact, a decrease of approximately 1,305 linear feet from the 1989 FEIS Selected Alternate. The current design plans indicate that the total amount of stream

*(west of fence of Deep Run) Subsequent to approval of the FSEIS a design modification was made to the retaining wall @ W-95 as a result of modifications to a retaining wall between I-95 + MD 104 & approx 2600 L. ~~the amount of stream channel impact is the same as the 1989 FEIS~~*

Report Number: FHWA-MD-EIS-87-04-F  
Region III

Maryland Route 100 Extended  
from U.S. Route 29 to  
Interstate Route 95  
Howard County, Maryland

Final Environmental Impact Statement  
Section 4(f) Statement  
Submitted Pursuant to 42 U.S.C. 4332 (2)(c) and 49 U.S.C. 303(c)  
CEQ Regulations (40 CER 1500 et. seq.)

U.S. Department of Transportation  
Federal Highway Administration  
and  
Maryland Department of Transportation  
State Highway Administration  
Cooperating Agency  
U.S. Army Corps of Engineers

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

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

Date 4/12/89

Robert E. Stet  
Federal Highway Administration  
Region 3  
Director, Office of Planning  
and Program Development

The purpose of the project is to provide an extension of Maryland Route 100 from U.S. Route 29 in Howard County to Interstate Route 95 in Howard County. The project is compatible with local and State plans.

Environmental impacts associated with the project include right-of-way acquisition and the displacement of residents. There are floodplain and wetland involvements.



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**Summary**

SUMMARY

1. Administrative Action

(Federal Highway Administration)

- ( ) Draft Environmental Impact Statement
- (X) Final Environmental Impact Statement
- (X) Section 4(f) Statement

2. Informational Contacts

The following persons may be contacted for additional information concerning this document.

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 State Highway Administration  
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 Hours: 8:15 a.m. - 4:15 p.m.

3. Description of Proposed Action

This project consists of the study of the completion of the final five-mile section of Maryland 100, located between U.S. 29 and Interstate 95 in Howard County, Maryland.

The purpose of Maryland 100 is to provide a controlled access east-west highway that will relieve congestion on the existing roadway network, and to provide a safe and efficient highway link that will move people, goods, and services more quickly and directly. Maryland 100 has been constructed from Maryland 177 to Maryland 3. The section of Maryland 100 from Maryland 3 to Interstate 95 is currently in the final design process.

The project is consistent with State and local plans.

4. Alternates Considered

The No-Build Alternate and four build Alternates were originally considered will provide only minor improvements to existing roads. An interchange proposed at Maryland 103 and U.S. 29, an interchange constructed at U.S. 29 and Maryland 108, and a two-lane developer road connecting MD 103 and MD 104 are considered in the No-Build network. These interchanges were discussed in separate environmental documents and have received location and design approvals. Regardless of what happens to Maryland 100, under the County's General Plan a two-lane developer road will be extended from the interchange termini at U.S. 29/Maryland 103 to Maryland 104, and Phelps Luck Drive will be extended from Maryland 108 north to the two-lane developer road. The developer road is

intended to serve proposed industrial development in the area. These improvements will not improve the ability of the existing east-west roads (Maryland 103, 104 and 108) to accommodate predicted traffic increases through the design year (2015), creating unsafe conditions.

The State Highway Administration has considered the following preliminary alternates including the No-Build for Maryland 100. Public comments, coordination with elected officials and various state and Federal agencies, and environmental and engineering studies have resulted in the identification of a selected Build Alternate with various options. (See the Alternates Section beginning on page II-1 for the reasons Alternates 2, 4 and 5 were dropped from the study.)

Alternate 2

Alternate 2 proposed the reconstruction of Maryland 103 to a five-lane curbed road within a 100-foot right-of-way from the U.S. 29/Maryland 103 interchange terminus to its intersection with Maryland 104. The fifth lane (center lane) would function as a continuous left turn lane. Maryland 104 would continue south as a four-lane open section roadway with two ten-foot shoulders to the intersection of Maryland 104 and Maryland 108. The alignment continues in a northeasterly direction, on new location as a six-lane expressway within a 200 to 300-foot right-of-way on an alignment common to all alternates, where it connects to the existing Maryland 100/Interstate 95 interchange.

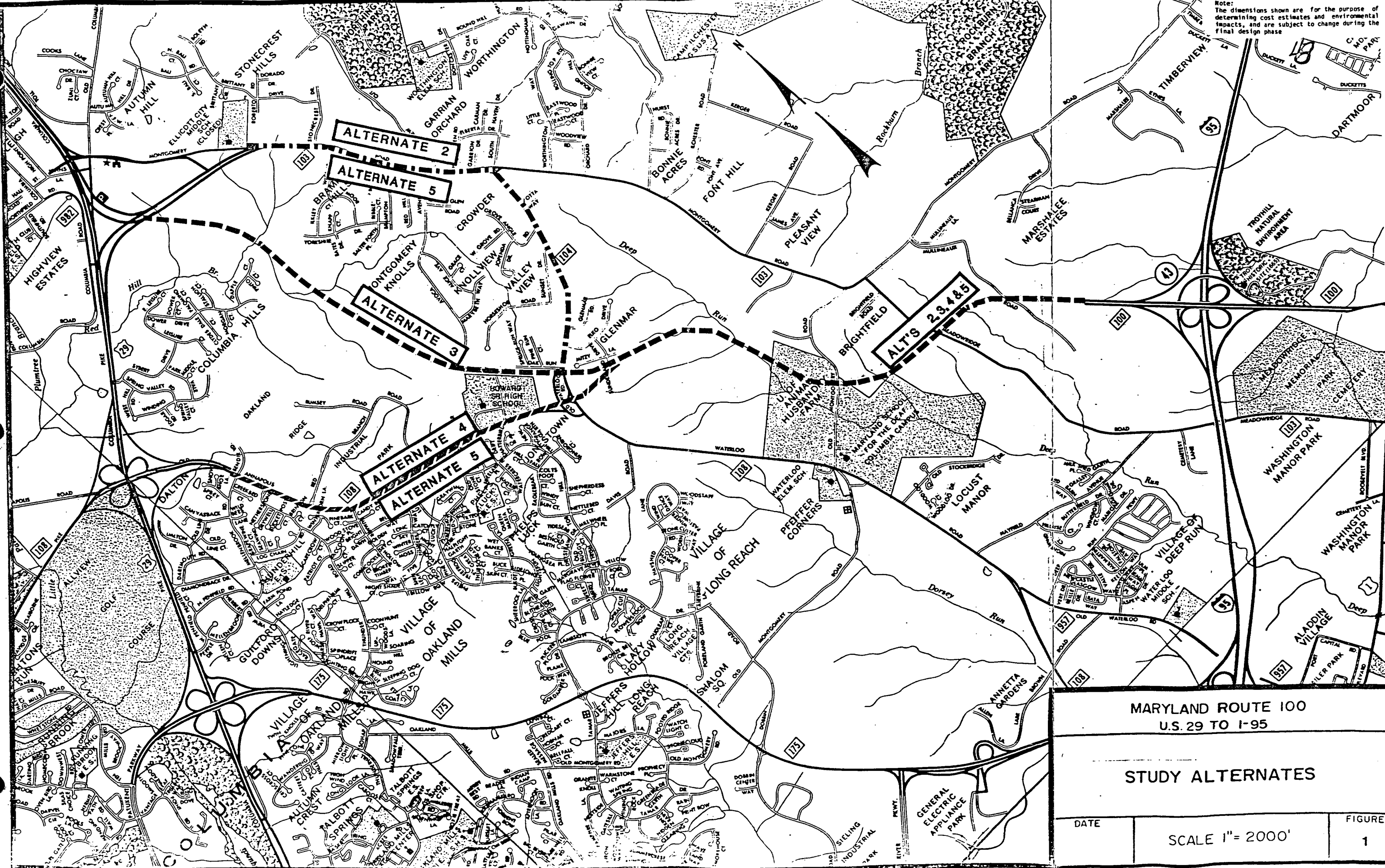
Alternate 3 (Selected Alternate)

Alternate 3 swings southeast from the proposed U.S. 29/Maryland 100/Maryland 103 interchange, crossing Maryland 104 approximately 600 feet north of the existing Maryland 108/Maryland 104 intersection. The alignment then swings northeast where it connects to the existing Interstate 95/Maryland 100 interchange. Connections are being considered at proposed Long Gate Parkway, Executive Park Drive, Center Park Drive, Maryland 104, the proposed extension of Snowden River Parkway (proposed by others) and Meadowridge Road (Maryland 103). SHA will construct 4 lanes of the ultimate 6 lane highway from the terminus of the U.S. 29/Maryland 103 interchange toward Md. 104. From Md. 104 to I-95, 6 lanes will be constructed. A more detailed description of the Selected Alternate is provided in the Alternates Section beginning on Page II-I.

Alternate 4

Alternate 4 proposed the reconstruction of Maryland 108 to a four-lane curbed roadway from the U.S. 29/Maryland 108 interchange termini to the intersection of Maryland 108 and Maryland 104. Reconstruction would have occurred along the existing alignment within a 100-foot right-of-way, except where additional right-of-way is required to provide right and left turn lanes. The alignment east of Maryland 104 continues in a northeasterly direction, on new location as a six-lane expressway within a 200 to 300-foot right-of-way on an alignment common to all alternates, where it connects to the existing Interstate 95/Maryland 100 interchange.

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



MARYLAND ROUTE 100 U.S. 29 TO I-95		
STUDY ALTERNATES		
DATE	SCALE 1" = 2000'	FIGURE 1

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## Alternate 5

Alternate 5 consisted of the combination of Alternates 2 and 4 for the reconstruction of Maryland 103, 104, and 108. Maryland 100 would be designed as in Alternates 2, 3, and 4 for the area between Maryland 104 and the existing Interstate 95/Maryland 100 interchange.

### 5. Areas of Controversy/Unresolved Issues

Since the publication and distribution of the DEIS, the State Highway Administration met with several individuals, community associations and committees to discuss their areas of concern. Issues of right-of-way impact and acquisitions, noise mitigation, fencing and access relocations were addressed. The communities involved with the Maryland 100 project realize the need for improved access between U.S. 29 and Interstate 95, and requested to be involved and kept up-to-date as the project continues. The State Highway Administration will make every effort to keep all concerned individuals and community organizations informed regarding these issues as more detail is developed in the design phase.

### 6. Permits Required

Construction of this project would require review and approval for the following permits:

U.S. Army Corps of Engineers -- Section 404 Permit

Maryland Department of Environment -- Approved Sediment Control Plan

Maryland Department of Environment -- Approved Stormwater Management Plan

Maryland Department of Natural Resources -- Waterway Construction Permit

Maryland Department of the Environment -- Water Quality Certificate

### 7. Summary of Environmental Impacts

Table 1 compares the significance of impacts associated with all alternates.

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TABLE 1  
Summary of Impacts  
Maryland 100 Extended

	ALTERNATES				
	No Build 1	2	Selected 3	4	5
<u>Socioeconomic Impacts</u>					
Residential Displacements	0	0	3	2	2
Business Displacements	0	0	0	0	0
Brampton Hills Community Park (acres)(proposed park)	0	0	5.67	0	0
Historic Sites from which land is acquired (acres)	0	3	0	1	4
Archeological Sites Affected	0	0	1	0	0
Air Quality Sites Exceeding S/NAAQS	0	0	0	0	0
Noise Sensitive Areas Exceeding Abatement Criteria Consistent with Master Plan	2 No	N/A No	16 Yes	N/A No	N/A No
<u>Natural Environment Impacts</u>					
Stream Relocations (feet)	0	1,800	1,800	1,800	1,800
Wetlands (acres)	0	18.53	16	18.03	18.53
Floodplains (acres)	0	4.2	4.87	4.22	4.22
Wooded (acres)	0	29.12	56.49	28.70	31.51
Threatened or Endangered Species	0	0	0	0	0
<u>Costs (\$ Millions)</u> as of (12/87)*					
Project Engineering		4,357,000	2,915,000	4,050,000	4,925,000
Right-of-Way and Relocation		2,789,000	4,552,000	2,688,000	2,903,000
Construction and Design		40,868,000	42,730,000	38,111,000	45,330,000
Total		48,014,000	50,197,000	44,849,000	53,158,000

\*Cost to nearest (\$ million)  
 N/A Noise Studies were not completed for these Alternates.

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Section 1

**Purpose  
and  
Need**

## I. PURPOSE AND NEED

### A. Project Location and Description

The study area portion of Maryland 100 is located in eastern Howard County (see Figure 2). The study area is bordered on the west by U.S. 29, on the east by Interstate 95, on the north by Maryland 103 and on the south by Maryland 108 (see Figure 3).

Alternate 3 is the selected alternate and is proposed as a controlled-access, east-west highway which will form a link in a proposed regional facility extending to eastern Anne Arundel County. Additional information on this alternate, as well as the other alternates that were considered but dropped from the study, is available in Section II.

### B. Background

The concept for an "Outer Beltway" first originated in the early 1960's, around the time of the opening of the Baltimore Beltway. Initial plans were to construct a continuous, controlled access, high-speed highway around Baltimore City just like the original Beltway, only farther from the City. The "Outer Beltway" would have provided a more direct connection between new suburban communities that had developed outside the original suburbs.

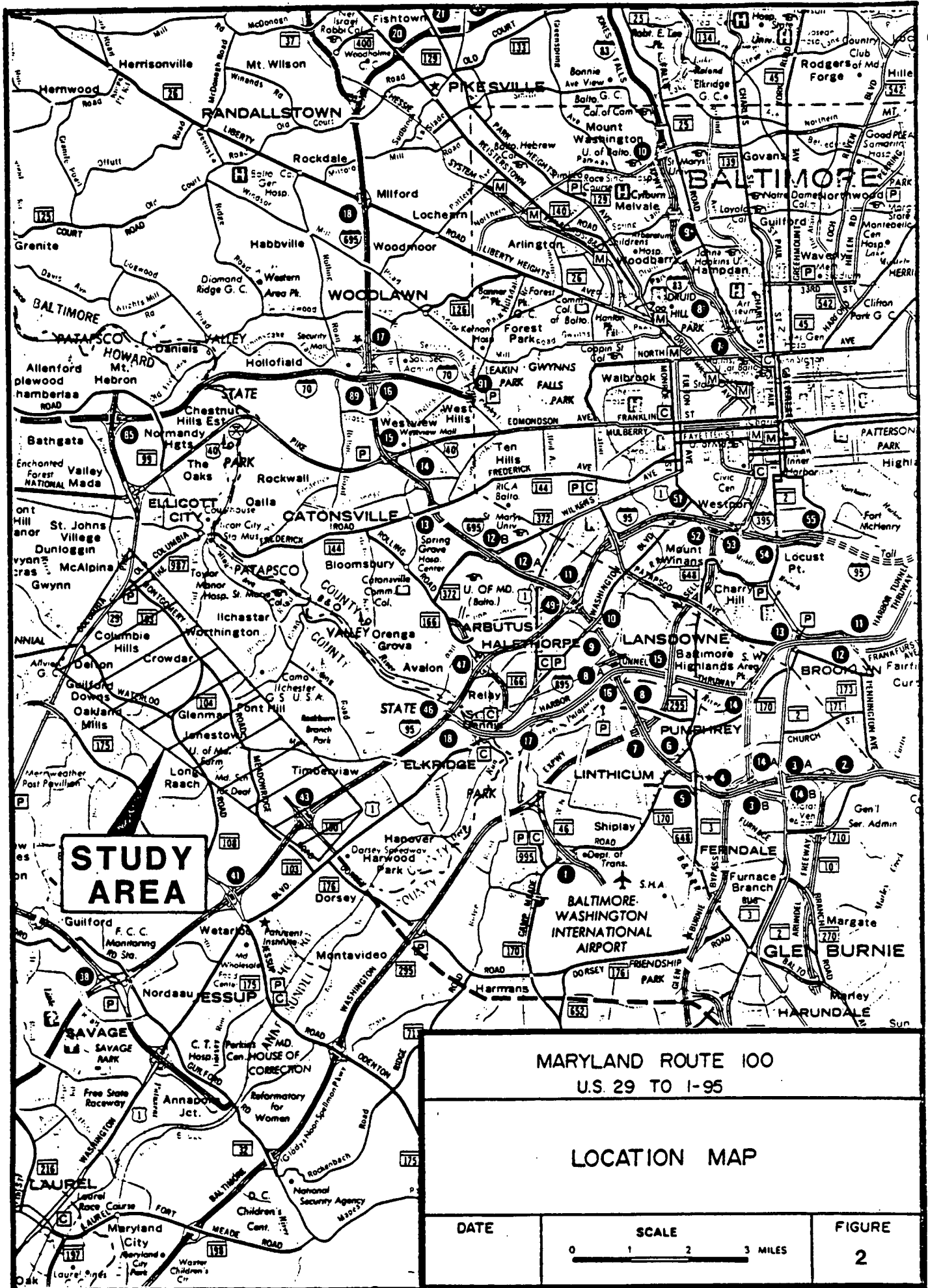
The construction of Maryland 100 from east of Maryland 2 to U.S. 29 has been a part of a planned regional network to facilitate east-west traffic since the late 1950s. Development and planning have proceeded unevenly over the last three decades with various portions of Maryland 100 in Anne Arundel County being constructed or planned, while the sections in Howard County have been intensely debated (see Figure 1).

Maryland 100, and in particular the segment from the Anne Arundel County line to U.S. 29, was planned as a portion of the "Outer Beltway." The general alignment was essentially that incorporated in the General Plan for Howard County adopted July 20, 1960; The General Plan of Highways for Howard County as adopted with amendments July 27, 1966; and The General Highway Plan, Howard County, Maryland adopted with amendments February 24, 1971.

The idea for an "Outer Beltway" existed until approximately 1971. At that time, the plan for a continuous Beltway was abandoned in favor of a plan whereby newly constructed highways, such as Maryland 100, could be incorporated with existing highways such as U.S. 29 and I-70 to form a highway network that would connect the outer suburbs. This network would not take on the physical character of the existing Baltimore Beltway, nor would it be as extensive.

The Maryland 100 project was dropped from further study in the mid 1970s due to a lack of Federal and State transportation funds, and it was deleted from the Consolidated Transportation Program in the late 1970s. Howard County followed by deleting the Maryland 100 project from the County's General Plan in 1982.

In 1984, informal discussions on the Maryland 100 project were renewed between Howard County and the State Highway Administration. As a result of



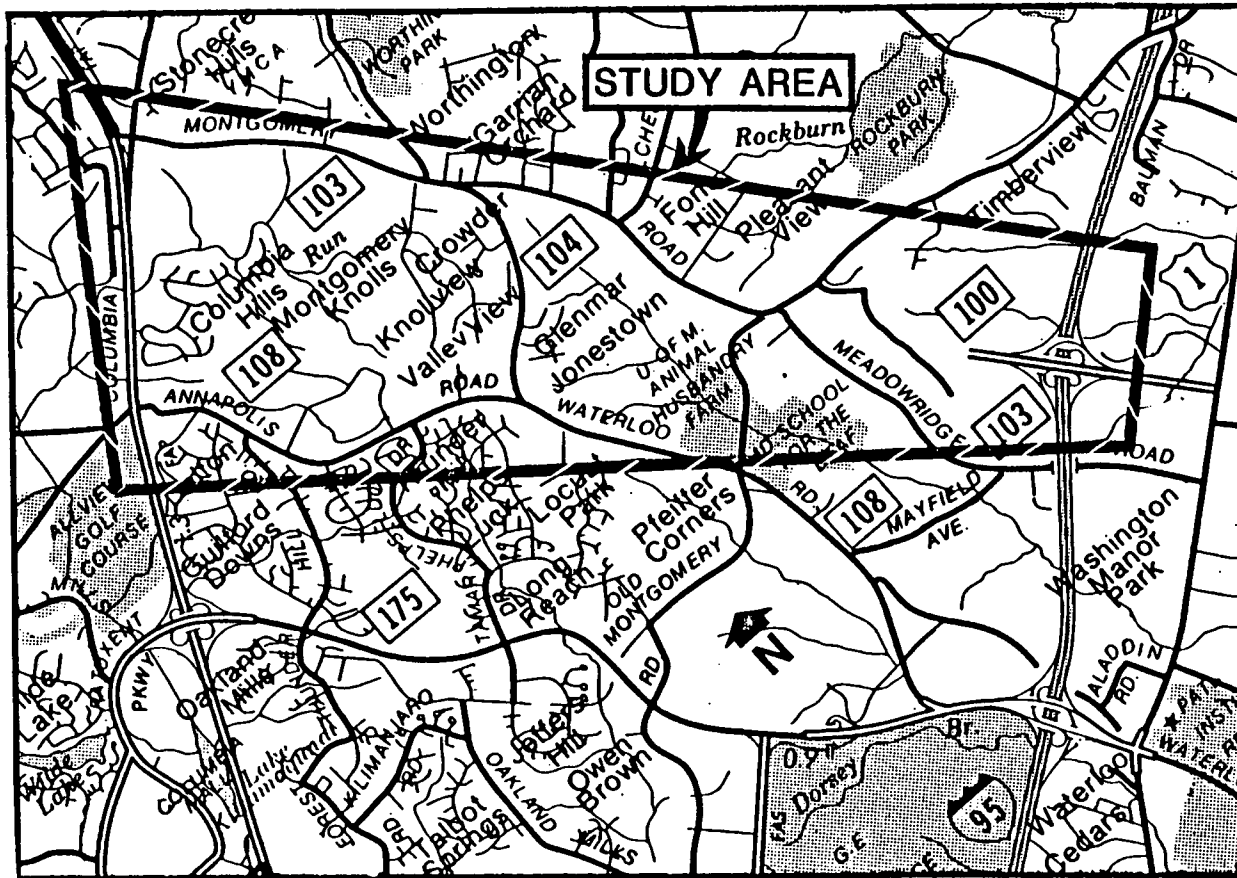
**STUDY  
AREA**

MARYLAND ROUTE 100  
U.S. 29 TO I-95

LOCATION MAP

DATE	SCALE	FIGURE
	0 1 2 3 MILES 	2





MARYLAND ROUTE 100 U.S. 29 TO I-95		
STUDY AREA MAP		
DATE		FIGURE 3

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these discussions, it became obvious that with the current and proposed development scheduled for the eastern Howard County area, severe highway and transportation problems would occur which could not be handled by the existing roadway network.

Shortly after these informal discussions, Howard County requested that the State Highway Administration work jointly with the Howard County Office of Planning and Zoning to determine whether a corridor still existed for the extension of Maryland 100 west of Interstate 95. This joint study, which lasted approximately one and a half years, led to the Howard County Council's decision to amend the County General Plan by adding the Maryland 100 project in November, 1985. The alignment shown in the amended 1985 General Plan is different from the historical alignment shown in the County's earlier general plan. The historic alignment, which dissected the Columbia Hills subdivision and tied into Maryland 108, was dropped from consideration because of the development that had occurred and the construction of the new U.S. 29/Maryland 108 interchange. During the time of this study, the county and State both participated in numerous public involvement meetings. The Maryland State Highway Administration and Howard County received comments and input during this process from elected officials, property owners, developers and private citizens.

The following eleven meetings were held as part of the Howard County General Plan process. These meetings concentrated on informing communities within the study area of the six proposed alternates being considered as amendments to the county's General Plan. These meetings were used to gather public input which was instrumental in the county's decision to amend the general plan on November 18, 1985. Howard County used several different formats in presenting information to the public including: 1) public hearings, 2) public workshops and 3) community association meetings.

- |     |                    |   |
|-----|--------------------|---|
| 1.  | December 11, 1984  | Ellicott City Middle School<br>U.S. 29/MD 103 Interchange       |
| 2.  | August 7, 1985     | Howard County Council,<br>State Delegation, Interested Citizens |
| 3.  | September 12, 1985 | Elkridge Community Association                                  |
| 4.  | September 19, 1985 | Howard County Council and State<br>Delegation, Area Residents   |
| 5.  | September 24, 1985 | County Council Workshop, Area Residents                         |
| 6.  | October 3, 1985    | Howard High School - Public                                     |
| 7.  | October 23, 1985   | Resolutions Public Hearing (County)                             |
| 8.  | October 29, 1985   | Resolutions Public Hearing (County)                             |
| 9.  | October 30, 1985   | Council Work Sessions on Resolutions                            |
| 10. | November 14, 1985  | County Council Workshop   |

- 11. November 18, 1985 County Council Adoption to General Alternates

As a result of Howard County's decision to adopt Alternate 3 as their amended general plan alignment, four additional meetings were held. These were community association meetings used to outline the possible effects of the amended alignment to the different communities and to receive their input.

- 12. April 8, 1986 Columbia Hills/Meadowbrook Farms
- 13. April 30, 1986 Timber Run Valley
- 14. June 10, 1986 Williams Family (affected property owners)
- 15. July 1, 1986 Lee Curtis (potentially affected property owner)

The MD 100 project officially became a state project in July, 1986. At this time, project planning studies began. Since the start of project planning, the Maryland State Highway Administration has participated in and conducted a number of meetings which included the public. These meetings ranged from public meetings, community meetings, and meetings with individuals. All were used as public information meetings and include the following:

- 16. November 3, 1986 St. John's Community
- 17. January 10, 1987 Hunt Country Estates
- 18. January 12, 1987 Hunt Country Estates
- 19. January 16, 1987 Jeff Wellen (potentially affected property owner)
- 20. January 22, 1987 Williams Family (affected property owner)
- 21. January 31, 1987 \*Alternates Public Workshop
- 22. February 24, 1987 Dave Abeshaw (potentially affected property owner)

\*This meeting was advertised by the State Highway Administrator in the local news media. It was held all day on a Saturday at Howard High School.



and Howard County. It has since become the selected alternate. If the State Highway Administration had not acted promptly, the Maryland 100 corridor would not have been preserved. Not only the Berenholtz property, but numerous other developments being actively developed or planned within the Maryland 100 corridor shown in the Howard County General Plan were infringing on the preferred performed alternate corridor (see figure 10). Any developer inquiries made to the county regarding the relationship of their plans to the proposed road corridor were directed to the State Highway Administration for resolution.

The State willingly discussed anyone's concern about the Maryland 100 project. The Administration's objective was to be as open and honest as possible. When the subdivision proposal for the Columbia 100 Office Research Park was initially submitted, the area now included in the Maryland 100 right-of-way was proposed for residential development. With the inclusion of the Maryland 100 project into the amended general plan, the developer lost this development area because no development can occur within the proposed right-of-way. The developer was obligated to give up 80 feet of dedicated right-of-way and construct two lanes within his subdivision for Howard County. Howard County requested, but could not force the developer to build the two-lane roadway to state specifications within the proposed right-of-way for Maryland 100's Alternate 3. The developer voluntarily agreed to build the county road to state specifications. The county then agreed to acquire the remaining right-of-way required from him for Maryland 100 in accordance with Federal acquisition requirements with the stipulation that the State Highway Administration would reimburse the county for expended money if Alternate 3 should become the selected Alternate for Md. 100. If no approval was received for Maryland 100, the road would remain as a county road and the right-of-way acquired would then be sold.

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When development activities in a particular area involve a state roadway or planned roadway, the proposed subdivision must be reviewed by the SHA, Bureau of Engineering Access Permits. This process is followed for any job, county or subdivision in the state. This review process resulted in two signed agreements and one amendment to an agreement to be signed in the near future.

Currently, there are two signed agreements; one with Howard County and one with the Britam Development Group. The Howard County agreement specifies that, through the county's subdivision process, Howard County will receive 80' of dedicated right-of-way from the Long Gate Venture and the Columbia 100 Office Research Park within the limits of their respective subdivisions. The county also agreed to purchase the remaining right-of-way required for the ultimate construction of Alternate 3 between U.S. 29 and MD 104 in the event that Alternate 3 received Location/Design Approval. Once the selection process was completed and Location/Design approval received on a particular alignment, SHA would reimburse the county for its expenditures. SHA's reimbursement to Howard County will largely be in the form of excess land, to be used as additional parkland for the Brampton Hill Park. Howard County would only be reimbursed if an alternate requiring the right-of-way, it purchased, was needed for roadway construction.

merely check  
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No county acquisition or land transfer will take place prior to the completion of the FEIS process. This agreement concurs with the provisions set forth by section 146 of the 1987 Surface Transportation and Uniform Relocation Assistance Act regulations.

The agreement between the SHA and the Britam Development Group specifies that Britam will realign the intersection of Old Montgomery Road, Montgomery Road and Meadowridge Road within the limits of their responsibilities; and dedicate a parcel of land to be utilized for the possible alignment of Alternate 3. In turn, the SHA agreed to transfer to the Britam Development Group a piece of excess property that was adjacent to the Brightfield Subdivision. This transfer of land may take place prior to the completion of the FEIS process but does not predetermine a specific location for MD 100.

The agreement between SHA/Macks signed in November, 1985 has not been executed. Due to public input from the Hunt Country Estates Community, alignment shifts were studied and a 100' southern shift was approved in the vicinity of the Macks' property. The shift moved the proposed alignment further from the Hunt Country Estates Community. Because the area encompassed by the shift was unprotected by the November, 1985 agreement, and construction was imminent within that area, the SHA and Macks began renegotiating their November, 1985 agreement in order to insure a corridor still remained between MD 104 and I-95. No other agreement has been signed. This renegotiation process has complied with section 146 of the 1987 Surface Transportation and Uniform Relocation Assistance Act, 23 U.S.C 323 (c). To this date, the new agreement between SHA/Macks has not been signed.

The agreements signed by the SHA do not specify an exact alignment or alternate for MD 100. They only provide the SHA a relatively impact free corridor for a possible roadway alignment. If at some point the alignment has to be shifted, it can be done, but with additional financial burdens.

The State Highway Administration did not initiate studies on Maryland 100 until the project was amended into the general plan of Howard County. The first public notice issued by the State Highway Administration was in mid-1986. This was a Public Notice announcing the start of project planning studies and soliciting the names and addresses of all interested persons for inclusion on the project mailing list. This was followed by an Alternates Public Workshop held on January 31, 1987. Notification of this workshop was provided to all persons on the mailing list and was advertised in local newspapers.

The Maryland State Highway Administration and Howard County are currently negotiating an agreement for the construction of the Maryland 100 project west of Maryland 104. The agreement indicates that Howard County, through its subdivision process, will construct two lanes in accordance with state specifications, from east of U.S. 29 to Maryland 104 along the now-selected Alternate 3 alignment for Maryland 100. The county will purchase the remaining land required but not dedicated for Maryland 100 right-of-way and construct the hydrologic structures required at Red Hill Branch for the initial two lanes. No property is required from Howard High School. The State Highway Administration has agreed to reimburse all budgeted moneys expended by Howard County for Maryland 100.

The Maryland State Highway Administration is also negotiating an agreement with the Macks and Macks Development Group for the subdivision known as the Village of Montgomery Run. The Macks property is the only low- to moderate-income housing in the area of Howard County and is strongly supported by the County Council. The Maryland 100 alignment initially bisected the planned

development during the corridor study conducted in 1985. The Howard County Council requested that the State Highway Administration shift the alignment to the northern tip of the Macks property so as to avoid severe impacts to the planned development. The state studied this possible shift, thinking it went through undeveloped land, and agreed with the county in return for dedicated right-of-way from the developer. At that time, the State was not aware that the Hunt Country Estates development was just completed. The State entered into an agreement with the Macks for this right-of-way and alignment shift before it was realized that development had occurred within the vicinity of the shift. The Macks could have forced the State into this location through the construction of the proposed development and required the state to purchase the required right-of-way. However, since the agreement was signed, two alignment shifts have been made and several other studies have been completed to minimize the possible impacts to Hunt Country Estates and the planned low-income housing.

During the project planning process, several developments were proposed in the Maryland 100 corridor shown in the Howard County General Plan. Land acquisition under the State's protective buying process was the only option available to prevent such development from occurring. The State Highway Administration is currently involved in four right-of-way acquisitions:

1. Meadowbrook Farms - This acquisition of the entire parcel is being handled under the U.S. 29/Maryland 103 interchange project.
2. Timber Run Valley - A portion of this subdivision was purchased as the owners were within weeks of developing that section of the subdivision and Howard County did not have any funds budgeted for its acquisition. Only the acreage required for selected Alternate 3 was purchased.
3. Glenmar Subdivision - A portion of this subdivision was purchased. Six parcels had been sold by the developer and construction was to start within weeks. If the State did not take action, the alignment would have to be shifted through the right-of-way of an underground pipeline.
4. Williams Property - This acquisition is being handled as a hardship case, Housing of Last Resort. The property owners requested that the State Highway Administration investigate all the alternatives available to them. Howard County initially performed the appraisals to acquire the Williams property but the owners wanted the State to handle everything that involved the acquisition and relocation of their home. A satisfactory site has been found.

C. Purpose of the Study

The purpose of this planning and preliminary engineering study is to examine the feasibility for the construction of additional highway capacity in eastern Howard County linking U.S. 29 and Interstate 95. The extension of Maryland 100 westerly from its present termini at Interstate 95 to U.S. 29 on new location would provide a vital highway link in the rapidly developing eastern Howard County area. Since 1985 there have been approximately 60 newly planned developments within the Maryland 100 study area submitted in the various

planning stages of the Howard County subdivision process. These newly constructed or planned developments are zoned for uses ranging from single-family/multi-family dwellings to planned office research. The residential developments planned or constructed since 1985 will account for up to several hundred new homes. Throughout the study corridor and the regional network, planned residential and commercial development will place greater demands on the existing roadway network and traffic operation on Maryland 103, 104 and 108. These are two-lane roadways that were constructed when this section of Howard County was rural in nature. These roadways were not designed to accommodate the existing and projected traffic volumes for this area.

D. Need for the Project

The existing east-west transportation network in the eastern portion of Howard County experiences congestion and delay during peak hours. Howard County is expected to grow to 101,000 households and over 247,000 in population by the year 2010. This increase in eastern Howard County coupled with the existing and projected increase in development activity along the Maryland 100 corridor, from Maryland 177 to Interstate 95, will place greater regional demands on Maryland 103, 108, 104 and other local roads. These roadways were designed and constructed to handle only local transportation needs when this area was rural in nature and were not meant to service the through traffic movements of the region. They were also not designed to accommodate the projected urban/suburban transportation needs. The existing Maryland 103 varies from two to four lanes, Maryland 104 consists of two lanes, and Maryland 108 is a three-lane facility. As a function of capacity, Maryland 103, 104 and 108 assume the service characteristics of a two-lane roadway. An improved roadway would provide efficient movement of people, goods, and services as the area grows.

The Federal Functional Classification System lists Maryland 104 and 108 as minor arterials and Maryland 103 as a principal arterial. The existing roadways do not provide an adequate level of service and projected traffic volume increases will create additional unsafe conditions on these roadways. On a regional basis, the proposed roadways will provide another link in a safe and efficient highway network that can move people, goods, and services from one part of the county to another more quickly and directly.

E. Traffic Operations

Existing Facility

Traffic volumes on the existing roadway network are quickly approaching the capacity levels. Planned development is proceeding at such a pace, that if a new roadway is not constructed, the existing roadway network will not be able to handle the local and through-traffic needs anticipated by the year 2015.

The current average daily traffic on Maryland 103 varies from 16,700 to 18,400 vehicles per day between U.S. 29 and Maryland 104 (the western end of the project), 11,000 to 15,000 vehicles per day on Maryland 108 between U.S. 29 and Maryland 104 and 9,000 to 11,200 vehicles per day on Maryland 104 between Maryland 103 and Maryland 108 (see Figure \_\_\_). These volumes of traffic result in delays during morning and evening peak periods. Traffic forecasts for the



year 2015 indicate an increase averaging 130 percent in the number of vehicles desiring to use Maryland 103, 104 and 108 if Maryland 100 is not constructed.

An accident analysis was performed for the study area for the years 1984 through 1986. Within the corridor of the proposed Maryland 100 extension project, there are three sections making up the network of highways that are now being utilized to traverse the gap between Interstate 95 and U.S. 29. These sections of highway are: Maryland 108 from Maryland 175 to U.S. 29, Maryland 103 from Interstate 95 to U.S. 29, and Maryland 104 from Maryland 108 to Maryland 103. Collectively, this network experienced a total of 324 reported accidents, resulting in a weighted three-year average rate of approximately 193 accidents per every one hundred million vehicle miles of travel (100 mvm). This rate is well below the weighted statewide average rate of 265 acc/100 mvm for all similar design highways.

The estimated monetary loss of the general public as a result of these accidents is approximately \$1.8 million per every hundred million vehicle miles traveled.

The accidents are listed below by severity indicating persons killed and injured.

<u>Severity</u>	<u>1984-1986</u>	<u>Rate 100/mvm</u>	<u>Statewide Average Rate</u>
Fatal Accidents	3	1.79	2.83
Injury Accidents	177	105.61	139.60
Property Damage	144	85.92	122.94
Total Accidents	324	193.32	265.37

There were three fatal accidents within the study limits. Two of these occurred during 1986 on Maryland 108 in the area from Maryland 104 to U.S. 29. The remaining fatal accident occurred on Maryland 103 in the section from Maryland 104 to U.S. 29 during the year 1984.

The accident rates of collision type are all below their respective weighted statewide average rates. Nighttime and wet surface accidents were also found to be within statewide expectations. The accidents by collision type are listed below by number of accidents, rate/100 mvm and statewide average rate. Also included is the number of nighttime accidents and wet surface accidents.

<u>Collision Types</u>	<u>1984-1986 Accidents</u>	<u>Accident Rate/100mvm</u>	<u>Statewide Average Accident Rate</u>
Angle	64	38.19	39.56
Rear End	80	47.73	54.85
Fixed Object	65	38.78	54.88
Opposite Direction	24	14.32	18.68
Sideswipe	19	13.34	16.95
Left Turn	28	16.71	21.49
Pedestrian	4	2.39	7.10
Other Collision	40	23.87	28.57
Nighttime Acc.	103	32%	36%
Wet Surface Acc.	80	25%	26%

The intersection of U.S. 29 at Maryland 108 did qualify as a High Accident Intersection location for all three years of the study period. This intersection has been replaced by a full interchange.

There was one High Accident Section within the study limits. This location was Maryland 103 from the entrance to the Maryland State Police to U.S. 29. This 0.25 mile section of highway experienced 14 accidents during the year 1986.

Traffic projections for this corridor are showing an approximate 130% increase by the year 2015. Under the No-Build Alternate with no major improvements to Maryland 103, Maryland 104 and Maryland 108, the ability to accommodate predicted increases in traffic volumes through the design year of 2015 is not possible. Safety conditions will also worsen as traffic volumes increase.

All of the proposed Build Alternates will have Maryland 100 extending from its existing terminus at Interstate 95 to the area in the vicinity of the intersection of Maryland 104 at Maryland 108. The newly constructed section of highway will be a six-lane divided highway with full control of access.

Selected Alternate 3 is designed as a six-lane divided highway with full control of access for just over three miles and a six-lane divided highway with partial control of access for just under two miles. This entire alternate will be on new location from the U.S. 29/Maryland 103 interchange to the existing Interstate 95/Maryland 100 interchange. The new location, six-lane divided highway under Alternate 3 is expected to experience an accident rate of approximately 127 acc/100mvm. The accident rate for the entire corridor under this alternate would also be composed of the accident experience of Maryland 103 from Interstate 95 to U.S. 29, Maryland 104 from Maryland 103 to Maryland 108, and Maryland 108 from Maryland 175 to U.S. 29. The corridor rate for this alternate is expected to be approximately 155 acc/100mvm of travel.

For comparison purposes, listed below are the projected corridor accident rates and accident costs for all Alternates considered (2 through 5).

	<u>Alternate 2 Corridor</u>	<u>Selected Alternate 3 Corridor</u>	<u>Alternate 4 Corridor</u>	<u>Alternate 5 Corridor</u>
Rate/100mvm	240	155	202	290
Cost/100mvm	\$2.3 million	\$1.4 million	\$1.9 million	\$2.8 million

In summary, the existing network of highways within the Maryland 100 extension corridor is experiencing an accident rate below statewide average. Traffic projections for this corridor, however, indicate an approximate 130% increase in vehicular volumes. As traffic volumes increase and the demand on the existing highways becomes more acute, safety conditions will worsen.

Section II

**Alternates**

## II. ALTERNATES

### A. General

The proposed Maryland 100 project, which is listed as a principal arterial within the State Functional Classification System, will become a part of the State Primary Highway System as designated in the Maryland Department of Transportation 1987-1992 Consolidated Transportation Program.

This project is proposed to be designed as an ultimate six-lane, fully controlled highway from Maryland 104 to I-95 and partial control of access from U.S. 29 to Maryland 104 with a 60 mile per hour design speed and a 200-foot minimum right-of-way width.

The project begins at the eastern terminus of the existing Interstate 95/Maryland 100 interchange and extends approximately 5 miles to the western terminus of the proposed U.S. 29/Maryland 103/Maryland 100 interchange. Two eastbound lanes of the ultimate six-lane facility will be constructed, to State specifications, through the Howard County Subdivision process from the western termini of the proposed U.S. 29/Maryland 103/Maryland 100 interchange east to the intersection of Maryland 104.

In order for the U.S. 29/Maryland 103 interchange (which received location approval 4/29/85) to operate effectively with the design of Selected Alternate 3 for Maryland 100, the design of the interchange had to be modified. This modification required a shift in the interchange from the east of U.S. 29 to the southeast for a distance of approximately 750 feet. The design change creates no significant changes in the environmental impacts identified prior to receipt of Location/Design Approval.

The modified U.S. 29/Maryland 103 interchange alignment will impact approximately 3.5 acres of non-tidal wetlands. A field review with the U.S. Army Corps of Engineers to determine wetland impacts was held on October 5, 1987. Approximately .96 acre of wetlands would be impacted by the shift of the U.S. 29/Maryland 103 interchange project.

Air and noise analyses have been completed for this project. There are no additional environmental consequences resulting from this alignment shift.

Maryland 100 from U.S. 29 to Interstate 95 will be classified as an arterial roadway by the FHWA Functional Classification System.

### B. Preliminary Alternates

#### 1. General

During the course of studies for Maryland 100 dating from the 1960's and 1970's, many alternates have been developed and studied.

In 1985, at the request of Howard County, a joint study with SHA was undertaken to determine preliminary alternate alignments for the extension of

Maryland 100. The alternates studied are shown on Figure 4 and the associated impacts are summarized in Table 2.

2. Alternates Previously Studied (see Figure 4a)

The following alternates studied in Stage I were dropped from further consideration subsequent to the Alternates public meeting on January 31, 1987.

a. Alternate 2

Alternate 2 consisted of the reconstruction of Maryland 103 from the U.S. 29/Maryland 103 interchange terminus to its intersection with Maryland 104. This section of Maryland 103 would mainly be reconstructed along the existing alignment to permit a five-lane curbed road with no control of access within a 100-foot right-of-way. The fifth or center lane would function as a continuous left turn lane.

Maryland 104 from its intersection with Maryland 103 to the vicinity of Maryland 108 would be reconstructed along the existing alignment to a four-lane roadway with outside shoulders and no control of access. The reconstruction would occur within the existing 100-foot right-of-way.

Maryland 100 from Maryland 104 to the existing Interstate 95/Maryland 100 interchange would be designed as a six-lane divided highway on new location with full control of access. The construction would occur within a 200 to 300-foot right-of-way.

Alternate 2 was dropped from further study because it did not provide the needed capacity (level of service (F)) for anticipated traffic and would not provide any control of access. Other associated effects include impacts to three National Register Eligible Historic Sites - Spring Hill, Wheatfield, and Avoca. The approximate impact to each historic site is as follows: Spring Hill 0.1 acre, Wheatfield .05 acre, and Avoca 0.2 acre. Alternate 2 also impacts approximately 18.53 acres of wetland.

b. Alternate 4

This alternate consisted of the reconstruction of Maryland 108 from the U.S. 29/Maryland 108 interchange termini to Maryland 104 as a four-lane curbed roadway with no control of access. Right and left turn lanes would be provided where required. This reconstruction would mainly occur along the existing alignment and within a minimum 100-foot right-of-way, except where additional right-of-way would be required to provide turning lanes.

Maryland 100 would be designed as a six-lane divided highway on new location with full control of access from Maryland 104 to the Interstate 95/Maryland 100 interchange. The construction would occur within a 200 to 300-foot right-of-way.

Alternate 4 was dropped from further study because of the inability of the design to accomodate projected traffic volumes. The projected level-of-service "E" for this alternate was inadequate for the efficient movement of

TABLE 2

## SUMMARY OF ALTERNATES

Alternate	Length in Miles	Traffic Volumes 2010	Possible Displacements	Required R/W	Improvements Within 150' of R/W	Possible Affected Historic Sites	Number of Streams Crossed	Estimated Costs	Other Issues
- Alternate 1 No-Build		<u>1985</u> MD 103 - 19,500 MD 108 - 15,400 MD 175 - 29,600  <u>2010 No-Build</u> MD 100 - N.A. MD 103 - 35,000 MD 108 - 35,900 MD 175 - 42,000						Normal Maintenance Costs	
- Alternate #2 4-lane Freeway on New Location (min. 300' R/W)	4.6	MD 100 - 42,100 MD 103 - 17,000 MD 108 - 28,000 MD 175 - 38,000	residential-1 business - 0	178 acres	30	5	11	P.P. & P.E. - \$2 million R/W - 10 million Const. - 34 million Total - \$48 million	-fully controlled access -access to Ellicott City from U.S. 29 will be supplied by an overpass to MD 103 from the U.S. 29 interchange
- Alternate #3 6-lane Arterial on New Location (min. 300' R/W)	4.6	MD 100 - 38,000 MD 103 - 17,000 MD 108 - 28,000 MD 175 - 38,000	residential-1 business - 0	147 acres	30	5	11	P.P. & P.E. - \$2 million R/W - 10 million Const. - 20 million Total - \$32 million	-partially controlled access at intersections with major roads -access to Ellicott City supplied at grade intersection at east end of U.S. 29/MD 103 interchange
- Alternate #4 MD 103 (106' R/W) 6-lane Divided from U.S. 29 to MD 104 4-lane Divided from MD 104 to I-95	3.9	MD 100 - N.A. MD 103 - 55,000 MD 108 - 29,000 MD 175 - 38,000	residential-19 business - 0	40 acres	120	6	2	P.P. & P.E. - \$2 million R/W - 4 million Const. - 14 million Total - \$20 million	-no access control -access to Ellicott City supplied at grade intersection on east end of U.S. 29 interchange
- Alternate #5 MD 108/MD 103 (160' R/W) MD 103 - 6-lane Divided from U.S. 29 to MD 104 - 4-lane Divided from MD 104 to 108 extended MD 108 - 4-lane Divided from I-95 to MD 104/108 - 4-lane Undivided from MD 108/104 to U.S. 29	8.1	MD 100 - N.A. MD 103 - 51,000 MD 108 - 41,000 MD 175 - 44,000	residential-20 business - 2	90 acres	171	9	10	P.P. & P.E. - \$4 million R/W - 8 million Const. - 28 million Total - \$40 million	-no access control -access to Ellicott City supplied by at grade intersection on east end of U.S. 29 interchange
- Alternate #6 MD 108/103/104 (160' R/W for MD 108-103 100' R/W for MD 104) (300' R/W from I-95 to MD 108)	6.4	MD 100 - N.A. MD 103 - 51,000 MD 108 - 41,000 MD 104 - 35,000 MD 175 - 44,000	residential-4 business - 2	117 acres	143	6	10	P.P. & P.E. - \$4 million R/W - 10 million Const. - 32 million Total - \$46 million	-no access control for arterial sections -Snowden River Parkway access is an at grade intersection -access to Ellicott City supplied at grade intersection east end of U.S. 29 intersection

## MARYLAND ROUTE 100 CORRIDOR STUDY I-95 TO U.S.29

From 1985 MASTER PLAN STUDY

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goods and services between regions. It failed to provide the necessary link in the system of freeways/expressways now proposed for Maryland 100 to the east and U.S. 29. Alternate 4 also impacted approximately 18.03 acres of wetlands.

c. Alternate 5 (see Figure 4)

Alternate 5 was comprised of the combination of Alternate 2 and 4 for the reconstruction of Maryland 103, 104 and 108. Maryland 100 would have been designed as in Alternate 2, 3 and 4 for the area between Maryland 104 and the existing Interstate 95/Maryland 100 interchange.

Although Alternate 5 could handle the anticipated traffic volumes east of Maryland 104 with a level of service "C", this alternate could not satisfactorily accommodate the anticipated traffic volumes west of Maryland 104 (i.e. level of service "E"). Preliminary accident studies indicate that Alternate 5, which is a combination of Alternates 2 and 4, would be the most hazardous and costly of the four Build Alternates. Along this alignment, traffic oriented to the north would pass through 12 intersections and 76 driveways, whereas traffic oriented to the south would pass through 6 intersections including entrances to Howard County High School and several commercial establishments and offices. The numerous turning movements and the absence of access control combine to make this alternate the most hazardous and incompatible with the type of facility (expressway-freeway) considered necessary to serve the projected regional traffic. Level of Service "E" is inadequate for the efficient movement of goods and services between regions and therefore does not meet the project need.

National Register Eligible Historic Sites known as Spring Hill, Wheatfield and Avoca, located along Maryland 103, are impacted with Alternate 5. Approximate impacts are: Spring Hills 0.1 acre, Wheatfield 0.5 acre and Avoca 0.02 acre. Any realignment to Maryland 103 to the north to minimize impact to Wheatfield and Avoca historic sites would result in severe impacts to approximately four residential properties and Spring Hill historic site.

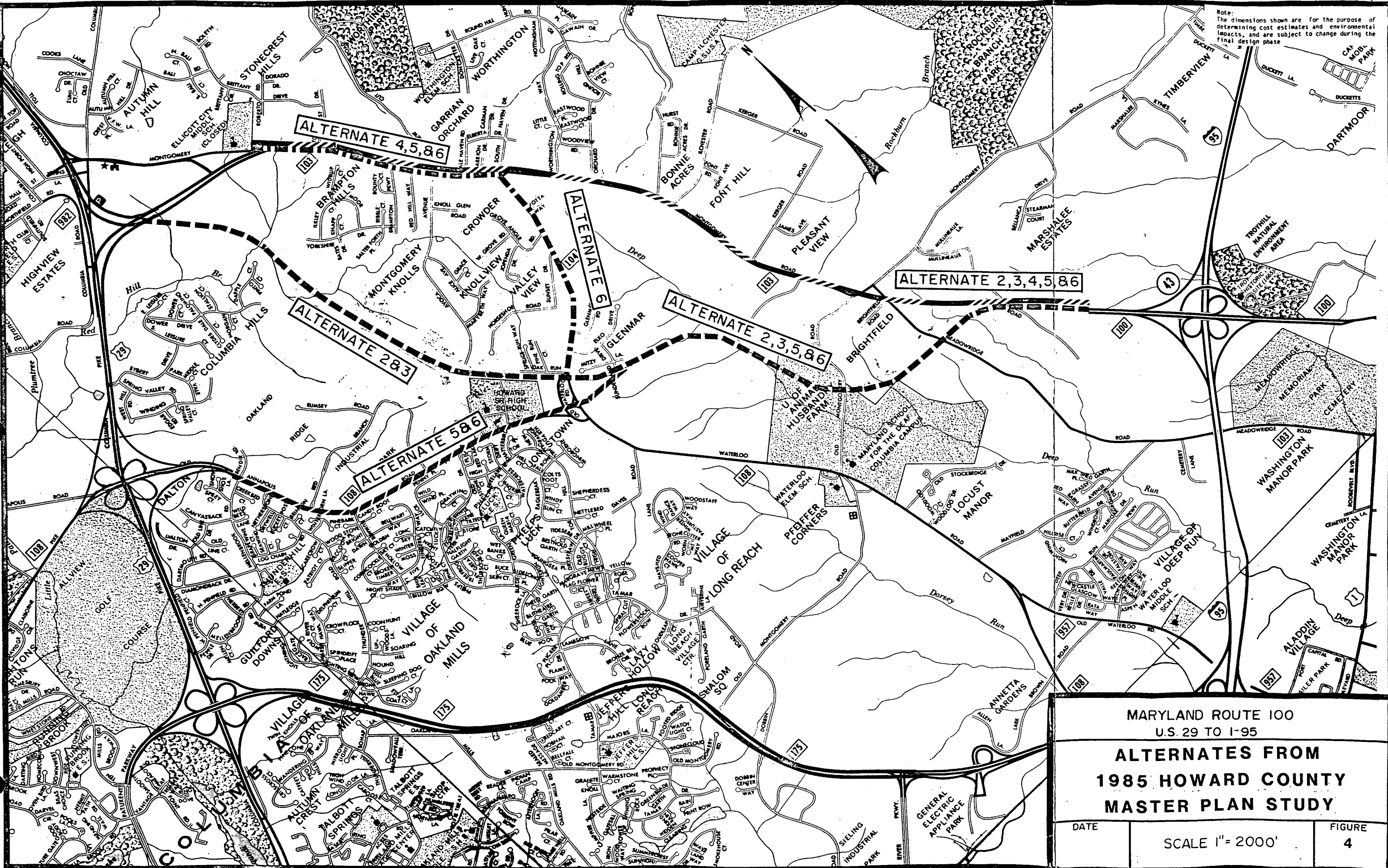
C. Alternates for Detailed Study

1. Alternate 1 (No-Build)

The No-Build Alternate would provide no major improvement to Maryland 103, 104 or Maryland 108, other than the interchanges at U.S. 29 and both Maryland 103 and 108. Minor improvements to Maryland 103, 104 and 108 such as shoulder modification, resurfacing and the installation of traffic control devices would occur over a period of time as part of normal highway maintenance and safety operations. These routine county and maintenance operations would not measurably improve the ability of the existing roads to accommodate the predicted increases in traffic volumes for both local and countywide movements through the design year of 2015. Even with these minor improvements the entire Maryland Route 100 corridor, which consists of Maryland 103, 104 and 108, would function at a level of service "E" east of Maryland 104 and "F" west of Maryland 104 by the design year 2015. Safety conditions would severely diminish with these projected increases in traffic volumes.



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



MARYLAND ROUTE 100  
U.S. 29 TO I-95

**ALTERNATES FROM  
1985 HOWARD COUNTY  
MASTER PLAN STUDY**

DATE	SCALE 1" = 2000'	FIGURE 4
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Note: The dimensions shown are for the purpose of determining cost estimates and environmental impacts, and are subject to change during the final design phase



MARYLAND ROUTE 100 U.S. 29 TO I-95		
STUDY ALTERNATES		
DATE	SCALE 1" = 2000'	-FIGURE 4a

## 2. Selected Alternate 3 (Proposed Mainline) (See Figure 5 and 5a-d)

A new six-lane principal arterial highway with a 34-foot median on new location from approximately 2,600 feet east of U.S. 29 to approximately 2,600 feet west of Interstate 95 is proposed. Two lanes (the two outside eastbound lanes) of the ultimate six lanes will be constructed through the Howard County subdivision process, according to State specifications, from approximately 2,600 feet east of U.S. 29 to Maryland 104 and tie directly into the proposed U.S. 29/Maryland 103 interchange currently under design for the alternate alignment.

This project is proposed to be designed as an ultimate six-lane highway with a 60 mile per hour design speed and a 200-foot minimum right-of-way width. Maryland 100 will have full control of access from Maryland 104 to Interstate 95 and partial control of access from U.S. 29 to Maryland 104.

Howard County is considering three separate options to supply northern access to Columbia Hills from Maryland 103, either through direct connections or through the use of existing subdivision roads. These three options are shown and labeled as dashed roadways proposed by others on Figure 5a and also on Figure 12 in Section V. The design and construction of a northern access route into Columbia Hills are the responsibility of Howard County and are not part of the Maryland 100 project.

After crossing Red Hill Branch, the alignment continues easterly with two at-grade intersections at Executive Park Drive and Centre Park Drive, continues behind the Howard High School and connects with Maryland 104 approximately 600 feet north of the Maryland 108/Maryland 104 intersection. Signalization at these intersections will only be provided if warranted. The alignment then continues in a northeasterly direction crossing Deep Run with a hydrologic structure. Snowden River Parkway, proposed by others, is planned to connect to Maryland 100 approximately 3,500 feet west of Old Montgomery Road. The alignment continues northeasterly under Old Montgomery Road approximately 3,000 feet south of Maryland 103 (Montgomery Road).

After crossing under Old Montgomery Road, the alignment connects with the proposed Maryland 103 (Meadowridge Road) interchange approximately 1,800 feet east of Montgomery Road and terminates at the existing Interstate 95/Maryland 100 interchange.

## 3. Interchanges and Overpasses (Figure 6)

### a. Long Gate Parkway (Proposed by Others)

Although Long Gate Parkway is proposed by others, the interchange connecting Maryland 100 with Long Gate Parkway will be constructed by SHA.

The selected interchange connecting Maryland 100 and Long Gate Parkway is a 3/4 diamond (see Figure 5a). Ramps would be provided for the following movements:

1. From northbound U.S. 29 to northbound Long Gate Parkway.

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2. Southbound Long Gate Parkway to eastbound Maryland 100.
  3. Westbound Maryland 100 to northbound Long Gate Parkway.

Initially, an intersection would be constructed as an interim improvement.

The close proximity of the Long Gate Parkway interchange to the U.S. 29/Maryland 100 interchange ramps prohibits the use of the southbound to westbound movement based on inadequate weaving distance. This movement can be accomplished by the U.S. 29/St. Johns Lane interchange. Long Gate Parkway will need to be elevated from its proposed initial at-grade intersection with Maryland 100 by changing its grade.

b. Maryland 104 (Figure 5b)

The selected interchange at this location is option 104-A, a partial diamond, with the eastbound entrance ramp and the eastbound exit ramp/loop of Maryland 100 tying in directly opposite from the Maryland 108/Maryland 104 intersection. This interchange would require the relocation of a subdivision road, Oak Run Way, and the displacement of two residences in the vicinity of the interchange. Intersection improvements at Maryland 108/Maryland 104 may also be required.

Intersection improvements would be required at the Maryland 108/Maryland 104 intersection. Four lanes would be provided at the intersection on Maryland 108 which would then taper into the existing three lane section on Maryland 108. Two separate right turn lanes would be provided (southbound Maryland 104 to westbound Maryland 108 and eastbound Maryland 108 to southbound Maryland 108). Two left turn lanes would be provided for the Maryland 108 northbound to Maryland 108 westbound turning movement. One left turn lane would be provided from Maryland 108 eastbound to Maryland 104 northbound.

Maryland 104 would remain at its existing location and elevation with Maryland 100 passing under Maryland 104. At this interchange, an intersection would suffice as an interim improvement until such time as traffic volumes warrant an interchange.

c. Old Montgomery Road

At this location there would be an overpass provided for Old Montgomery Road over Maryland 100.

d. Meadowridge Road (Maryland 103)

The selected interchange at this location is a full diamond. Due to the close proximity of the single resident to the east of the mainline, the eastbound entrance and exit ramp of Maryland 100 would be designed close to the interchange structure.



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



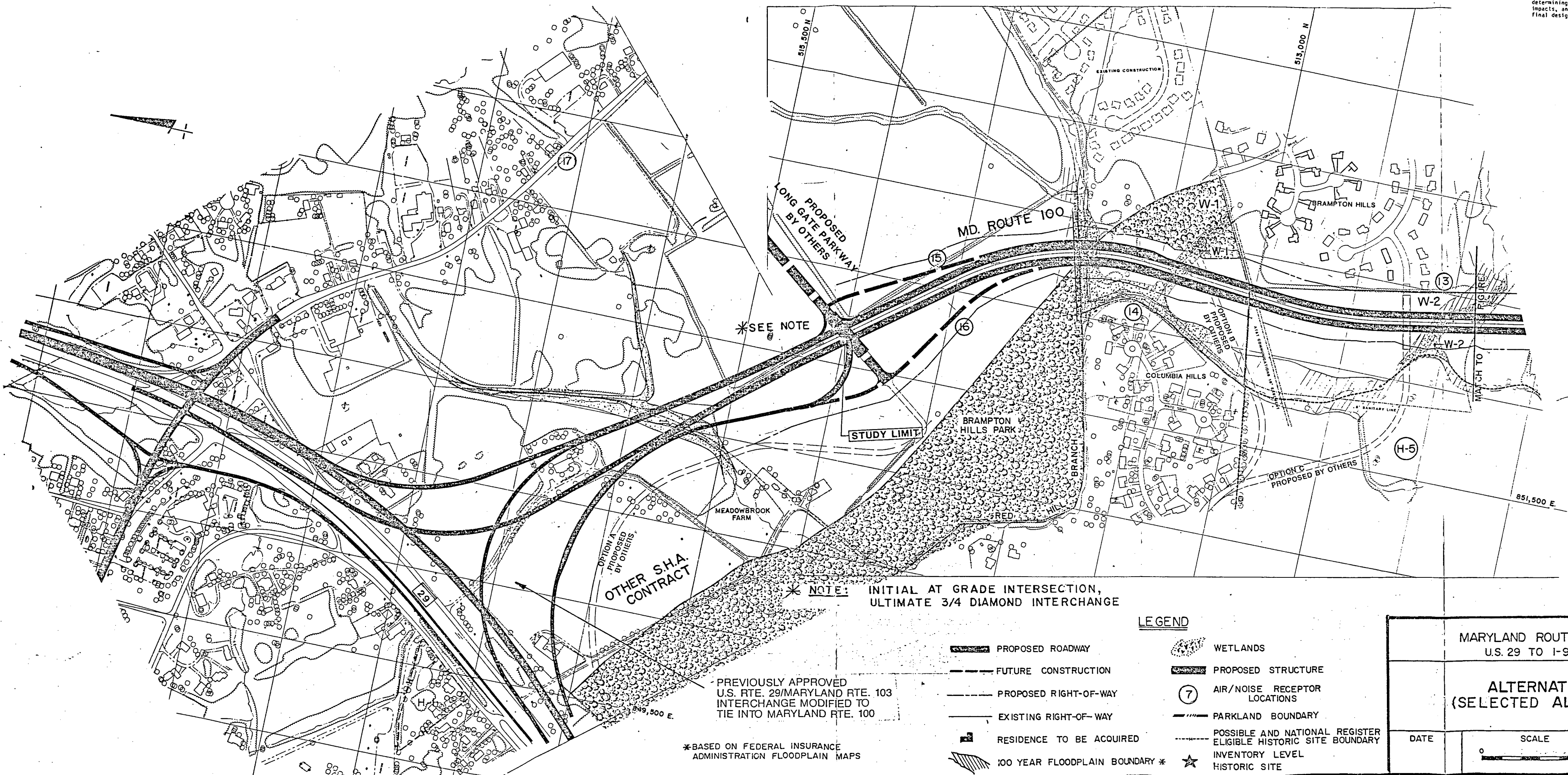
MARYLAND ROUTE 100  
U.S. 29 TO I-95

**ALTERNATE 3 SELECTED**

DATE	SCALE 1" = 2000'	FIGURE 5
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Note: The dimensions shown are for the purpose of determining cost estimates and environmental impacts, and are subject to change during the final design phase

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\*SEE NOTE

STUDY LIMIT

\* NOTE: INITIAL AT GRADE INTERSECTION, ULTIMATE 3/4 DIAMOND INTERCHANGE

PREVIOUSLY APPROVED U.S. RTE. 29/MARYLAND RTE. 103 INTERCHANGE MODIFIED TO TIE INTO MARYLAND RTE. 100

\*BASED ON FEDERAL INSURANCE ADMINISTRATION FLOODPLAIN MAPS

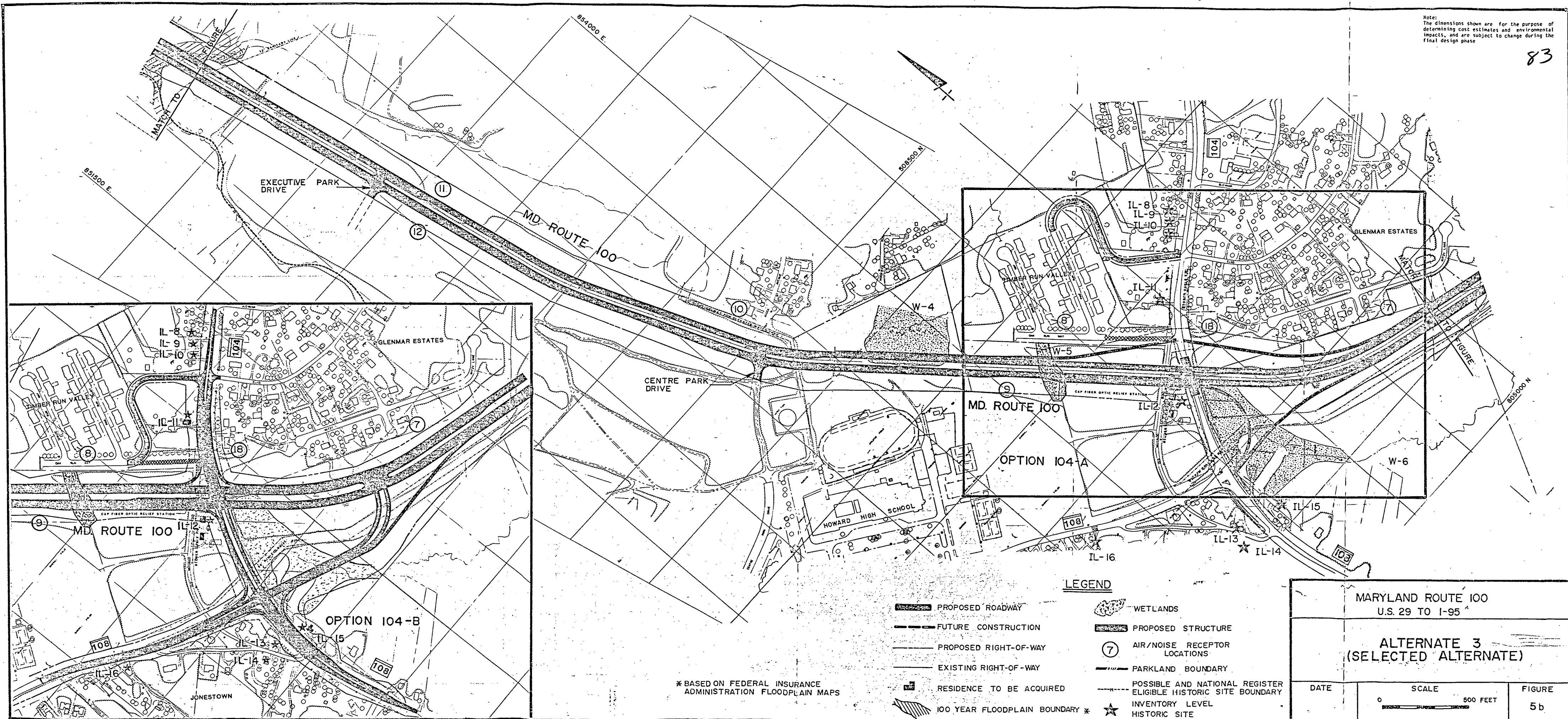
LEGEND

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>ALTERNATE 3 (SELECTED ALTERNATE)</b>		
DATE	SCALE 0 500 FEET	FIGURE 5a



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



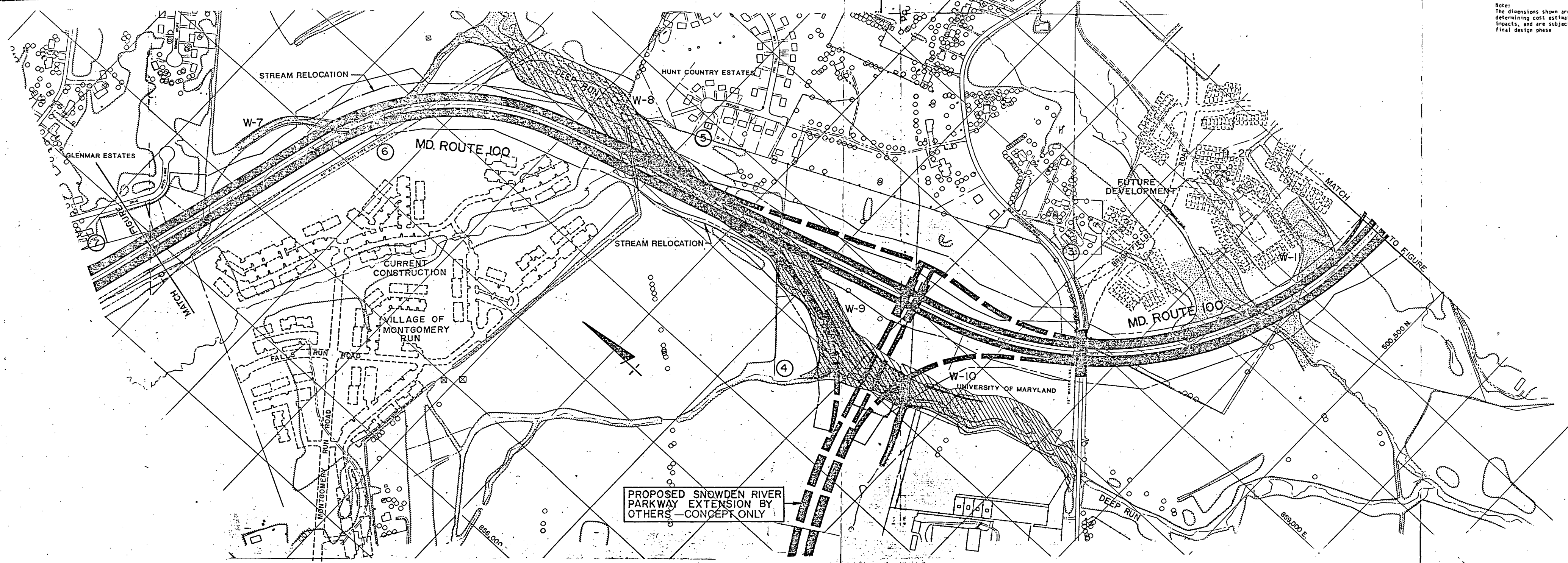
\* BASED ON FEDERAL INSURANCE  
ADMINISTRATION FLOODPLAIN MAPS

**LEGEND**

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>ALTERNATE 3 (SELECTED ALTERNATE)</b>		
DATE	SCALE 0 500 FEET	FIGURE 5b

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



PROPOSED SNOWDEN RIVER  
PARKWAY EXTENSION BY  
OTHERS - CONCEPT ONLY

**LEGEND**

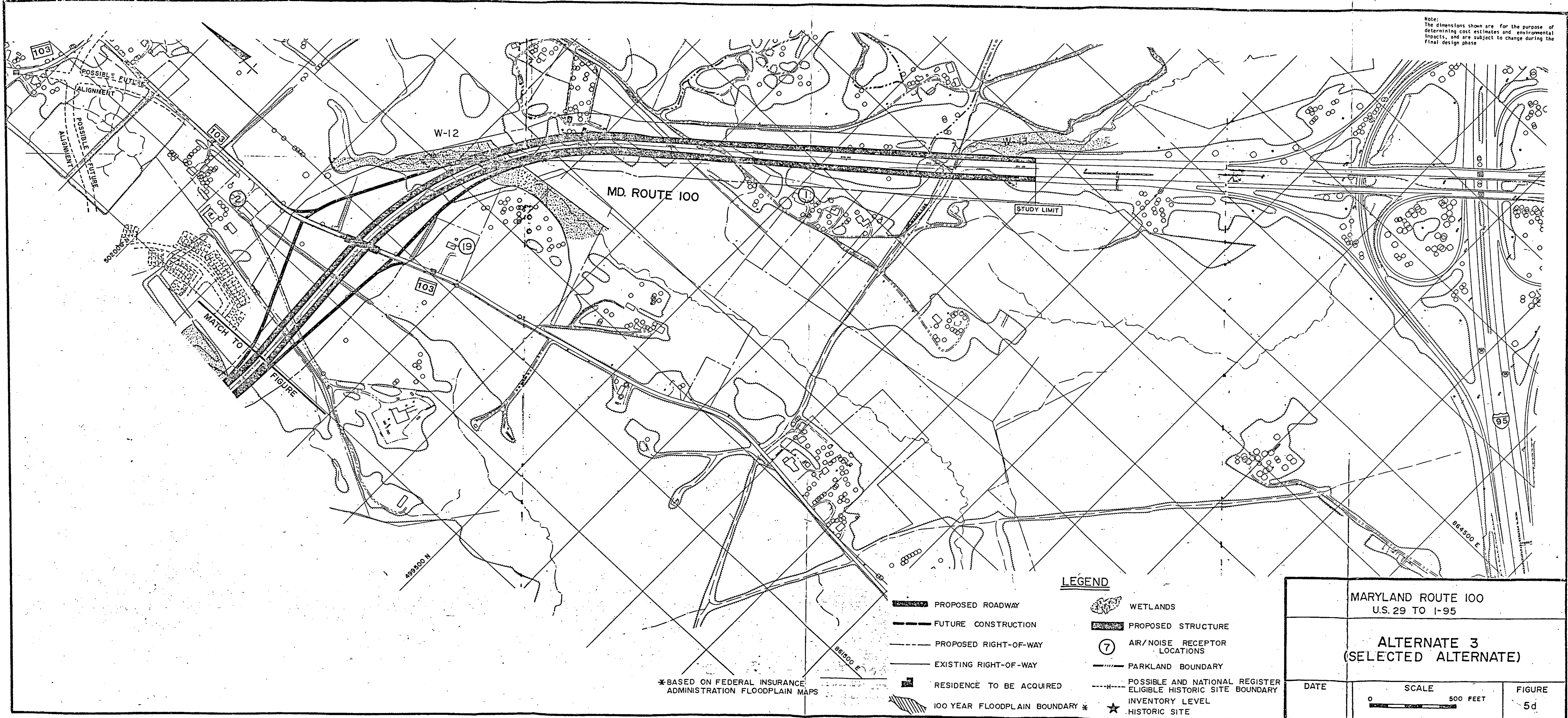
- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY\*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

\*BASED ON FEDERAL INSURANCE  
ADMINISTRATION FLOODPLAIN MAPS

MARYLAND ROUTE 100 U.S. 29 TO I-95		
ALTERNATE 3 (SELECTED ALTERNATE)		
DATE	SCALE 0 300 FEET	FIGURE 5c



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



\*BASED ON FEDERAL INSURANCE  
ADMINISTRATION FLOODPLAIN MAPS

**LEGEND**

- PROPOSED ROADWAY
- - - FUTURE CONSTRUCTION
- - - PROPOSED RIGHT-OF-WAY
- - - EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- ▨ 100 YEAR FLOODPLAIN BOUNDARY \*
- WETLANDS
- ▨ PROPOSED STRUCTURE
- ⑦ AIR/NOISE RECEPTOR LOCATIONS
- ▨ PARKLAND BOUNDARY
- - - POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- ★ INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>ALTERNATE 3 (SELECTED ALTERNATE)</b>		
DATE	SCALE 0 500 FEET	FIGURE 5d

4. Intersecting Roads

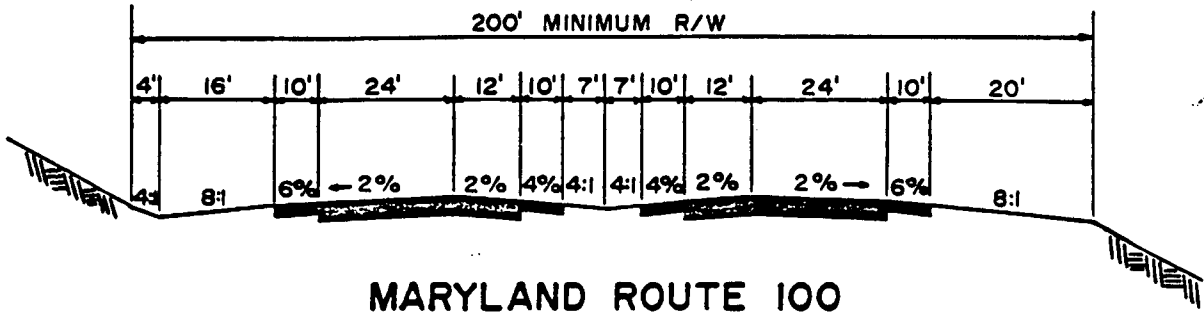
Existing intersecting roadways along the Maryland 100 alignment between U.S. 29 and Maryland 104 will be constructed by SHA during the construction of the initial two lanes. Traffic will be maintained on these intersecting roads at all times. The following lists the at-grade roadway intersections with Maryland 100 within the project limits:

- a. Executive Park Drive - A three-legged intersection with Maryland 100 approximately 4,800 feet west of Maryland 104.
- b. Centre Park Drive - A three-legged intersection with Maryland 100 approximately 2,400 feet west of Maryland 104.

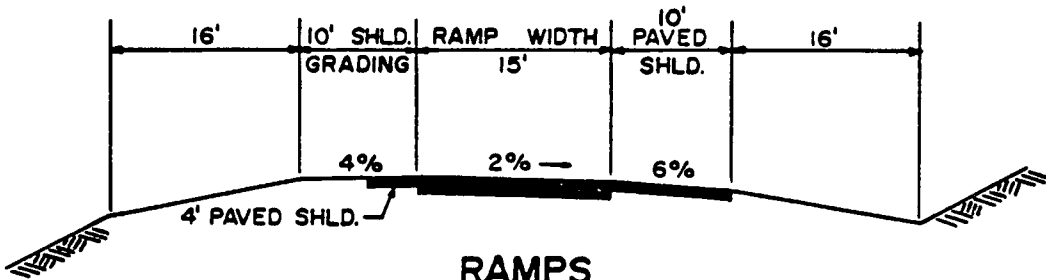
An accident analysis and economic evaluation were prepared on Build Alternate 3 as well as for Alternates 2, 4 and 5 which were dropped from further study. The analysis of Alternate 3 did include the two at-grade intersections west of Maryland 104. The effect of splitting traffic on Maryland 103, Maryland 100 and Maryland 108 as traffic approached Maryland 104 was also evaluated. The accident rate expected for Alternate 3 is approximately 127 acc/100mvm. The accident rate expected for the entire corridor, which includes Maryland 103, Maryland 104 and Maryland 108 is approximately 155 acc/100mvm which would result in an accident cost of approximately \$1.4 million/100mvm of travel. The accident rate projections for Alternate 3 are well below the state average of 265 acc/100mvm. As with any at-grade intersections in the state, if traffic volumes increase to where capacity and safety become a big problem, then the SHA may be forced to reevaluate that particular connection.

D. Design Criteria

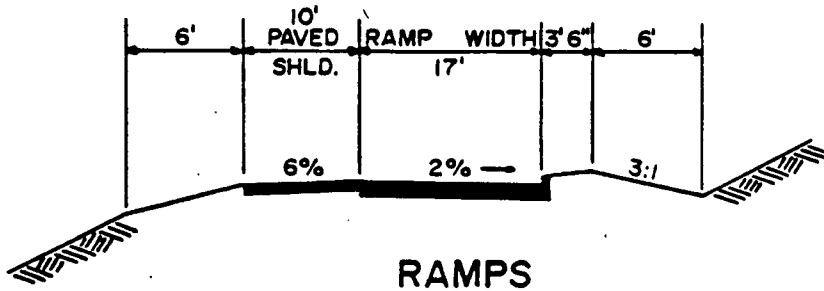
The Maryland 100 selected alignment, Alternate 3 will be designed to meet or exceed 60 mph AASHTO and/or Maryland State Highway Administration design manual criteria. The typical section (Figure 6 ) illustrates the design to be used for Maryland 100.



MARYLAND ROUTE 100  
(60 M.P.H.)



RAMPS  
OPEN SECTIONS  
(50 M.P.H.)



RAMPS  
COMBINATION OPEN / CLOSED SECTIONS  
(30 M.P.H.)

NOTE:

DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE. EASEMENTS WILL BE PURCHASED WHERE REQUIRED FOR UTILITY RELOCATIONS.

MARYLAND ROUTE 100 U.S. RTE. 29 TO I-95		
TYPICAL SECTIONS MAINLINE AND RAMPS		
DATE AUG, 1987	NO SCALE	FIGURE 6

Section III  
**Affected  
Environment**

### III. AFFECTED ENVIRONMENT

#### A. Social, Economic and Land Use

##### 1. Social Environment

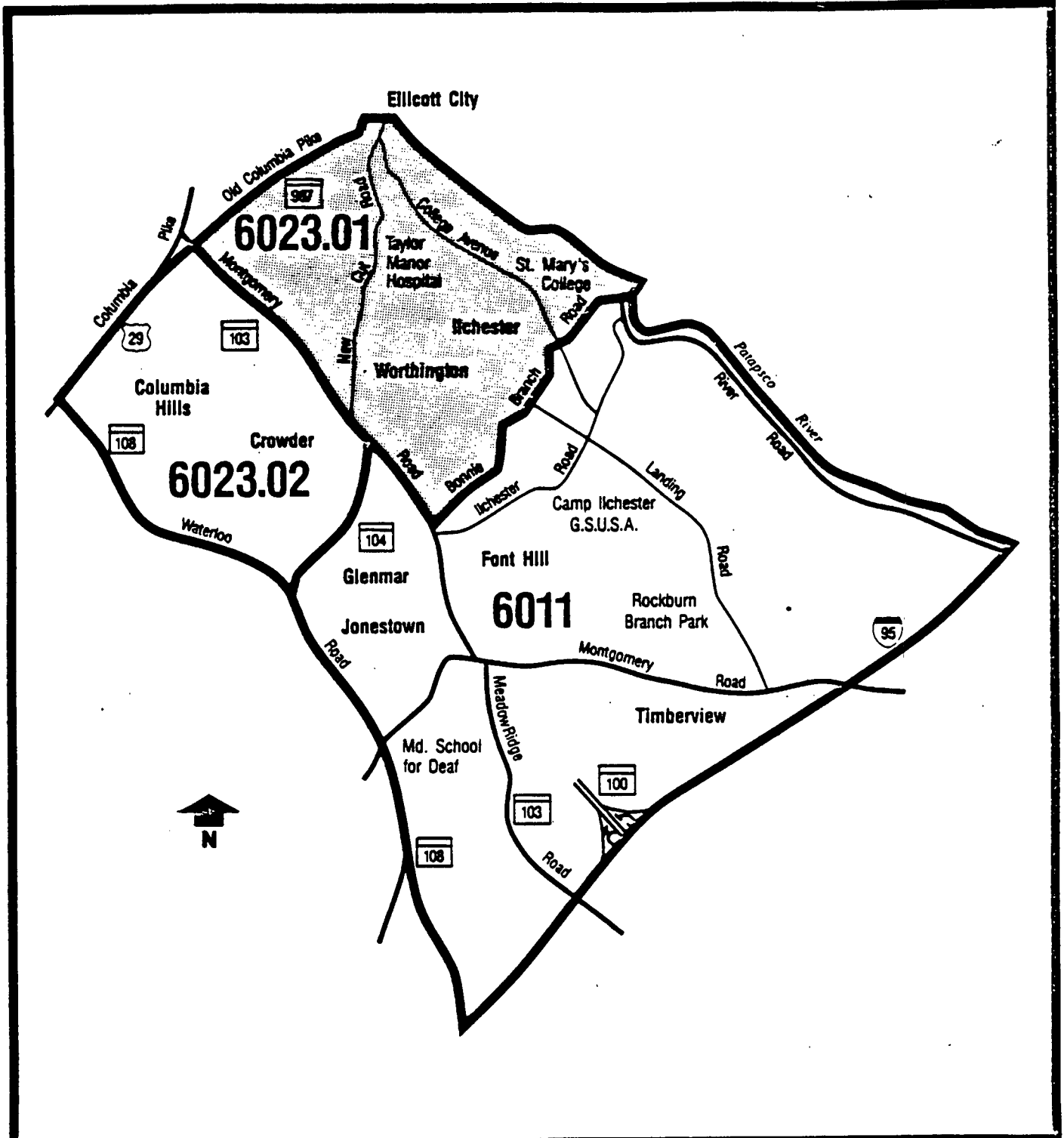
###### a. Population

Howard County continues to experience growth pressures, a situation resulting primarily from its strategic location near the center of the expanding Baltimore-Washington metropolitan region.

Being centrally located between the expanding Baltimore and Washington Metropolitan areas, Howard County has become the center of a high percentage of the metropolitan growth. From 1960 to 1970, Howard County experienced a population increase of 72.6 percent (36,152 to 62,394). From 1970 to 1980, the county had a rate of population increase of 91.5 percent (61,911 to 118,572). The Department of State Planning estimated the 1985 County population to be 140,000. A population of 230,100 is projected for Howard County by the year 2005, an increase of approximately 65 percent over 1985 levels. As the eastern half of the county develops and vacant areas are filled in, annual population growth rates and percentage changes are expected to decline later this century.

Only 31,282 or about 26 percent of the growth is expected to be absorbed by Columbia. Much of the remaining population increase will continue to occur in the eastern half of the county, chiefly in areas in and around Columbia, Ellicott City, along U.S. 1 and 29 and Interstate 95. Commercial, residential, office, and light industrial uses are concentrated in these areas.

The study area for this project is comprised of Census Tracts 6023.02 and a portion of 6011 (Figure 7). During the decade from 1970 and 1980, the total population in the area defined by these census tracts increased nearly 40 percent, with the largest amount of growth occurring in Census Tract 6023.01, 6023.02, and the adjacent Census Tract (58.6 percent). No portion of the Selected Alternate is located in Census Tract 6023.01. Census Tract 6011 actually experienced a net decline of 5.7 percent during this period (see Table 3). According to the 1980 U.S. Census of Population and Housing, these two tracts contained 3,826 persons or 3 percent of the county population. Of these two, the largest proportion resided in Census Tract 6011 (61 percent). As growth occurs in the Maryland 103/108 corridors, this area will have to accommodate a much larger percentage of the total county population. The Howard County Office of Planning and Zoning expects between 4,100 and 7,000 additional people in the Maryland 103/108 corridor by the early 1990s. By the year 2000, this number could reach or exceed 10,000. Factors cited for this growth include a lifting of a sewer moratorium, lower interest rates, better economic and housing market conditions, etc.



**Maryland Route 100**  
 From U.S. Route 29 to Interstate 95

**CENSUS TRACTS**

Figure 7

TABLE 3  
Population and Growth in the Study Area

	1970	1980	Percentage of Change
Howard County	62,394	118,572	90.0
Census Tract 6023.01 <sup>a</sup> 6023.02 <sup>a</sup>	5,965 <sup>b</sup>	9,459	58.6
6011	<u>2,479</u>	<u>2,338</u>	<u>-5.7</u>
Total	8,444	11,797	40.1
6023.02 (1980)	-----	1,488	----

Source - 1980 U.S. Census of Population and Housing

<sup>a</sup>In 1970 these census tracts were the equivalent of Census Tract No. 6023 which was divided for the 1980 Census.

<sup>b</sup>Population in census tract 6023 in 1970.

b. Ethnic Characteristics

An analysis of 1980 census data indicates that of the total population in the two subject census tracts, 93 percent were white, 5 percent were black, 1 percent were Oriental, and 1 percent were American Indian (see Table 4). Census Tract 6011 had a higher percentage of minority population (8 percent), many of who reside in and around the community of Jonestown along Maryland 108.

Note: For accurate population comparisons between 1970 and 1980, Census Tract 6023.02 must be combined with Census Tract 6023.01 to comprise an area equivalent to 1970 Census Tract 6023, which was divided after 1970.\*

TABLE 4  
Ethnic Characteristics

Census Tract	6023.02	6011
White	1,421	2,178
Black	-----	179
Oriental	54	13
American Indian	13	----
Total	1,488	2,370

Source: 1980 U.S. Census of Population and Housing.

In addition, approximately 9 percent of the total population in these two census tracts was age 65 and older. No concentrations of elderly and handicapped individuals have been identified in the study area.

c. Neighborhoods

The Howard County General Plan defines a distinctive planning framework which has the goal of creating a series of physically and socially unified neighborhoods for Howard County.

The study area is comprised of older and newer residential subdivisions just outside the Ellicott City and Columbia areas. These neighborhoods include Timberview and Wheatfield. Owner-occupied, single-family homes form the majority of these neighborhoods. More rural and less developed portions of the study area contain more widely spaced single-family homes.

Many other subdivisions are planned for development in the study area in the near future, where more than 3,500 housing units are already proposed for construction. The number of neighborhoods in the area will increase significantly as nearly 20 housing developments (nearly half of which will contain 100 or more units) will be constructed in the study area. Depending on the housing market, almost half of these proposed units could be constructed by the early 1990s.

2. Community Facilities and Services

The study area is effectively serviced by many community facilities and services located in Columbia and Ellicott City and throughout the region (see Figure 8).



a. Schools

The study area and surrounding area contain eight elementary schools, three public middle schools, one public high school, one public special school and one private school. Property just north of the Howard High School was purchased by SHA in 1968 to preserve a possible corridor for Maryland 100. These schools are listed in the legend for Figure 8 and are shown in the accompanying figure. As growth occurs in the Maryland 103/108 corridor, additional elementary and middle schools will be built in the area to accommodate anticipated population increases.

Institutions for higher learning are situated outside the study area's vicinity.

b. Churches

Thirteen places of worship are included in the study area and are listed and shown on Figure 8.

c. Parks and Open Space

Four parks exist in and about the study area. All of these parks are under the jurisdiction of the Howard County Department of Recreation and Parks.

The Rockburn Branch Park consists of approximately 380 acres which provide a wide range of recreational activities. Tennis courts, tot lots, lighted ball fields and concession stands are a few of the activities offered to the county residents.

Long Reach Park, south of Maryland 108, is comprised of approximately 39 acres which accommodate a preponderance of athletic activities, such as softball, soccer and basketball.

Troy Historic Site, listed on the National Register of Historic Places, consists of the main house and 50 acres of ground, but is not used for recreational purposes.

Worthington Park is approximately 57 acres of converted landfill with a thin wooded buffer. This area is currently classified as a neighborhood park with plans for a park service center consisting of a maintenance facility.

The proposed Brampton Hills Park is planned to be a community park facility, providing field games, tot lots and passive areas with pathways that tie into adjacent communities.

Centennial Park, shown on Figure 8, is located on Maryland 108 west of U.S. 29 outside of the study area.

d. Emergency Services

Fire and ambulance services are provided for the study area and respond in the following order:

- o Long Reach Company No. 9 --Tamar Drive
- o Ellicott City Company No. 2 -- Main Street
- o Elkridge Company No. 1 -- Old Washington & Montgomery Roads

As growth occurs in the area, a new fire station is proposed to be constructed near the intersection of U.S 29 and Maryland 108. Only the Long Reach Station is shown on Figure 8. The others are outside the range of this map.

e. Law Enforcement

Police protection is provided by the Howard County Police Department located in Ellicott City and the Maryland State Police barracks in Jessup.

f. Health Care Facilities

Health services are provided by the Howard County General Hospital in Columbia.

g. Transportation Systems

The primary mode of transportation in the County is the automobile. Two types of public transportation serve portions of the study area. These include local fixed route transit service (Columbus) and commuter bus service between Columbia and the Washington-Baltimore metropolitan areas (Carters, Eyre's, Trailways). These services are mainly limited to stops along U.S. 29.

Numerous ride-sharing programs (carpooling, vanpooling, and park-and-ride lots) have originated in Howard County. Park-and-ride lots are located at the intersection of Maryland 103 and U.S. 29 and near the Maryland 108 and U.S. 29 interchange.

h. Miscellaneous

Figure 8 shows the location of miscellaneous facilities located throughout the study area. These include the YMCA, Ellicott City Armory and an Animal Control Center.

In addition, the Howard County Public Library, Columbia and Ellicott City branches; U.S. Post Office, American Cities branch and Ellicott branch; Children's Zoo; Symphony Woods; Columbia Association; Columbia Exhibition and Information Building; and numerous government services and facilities in Ellicott City (the county seat) serve the study area.

# LEGEND Community Facilities and Services

## Schools

- 1. Northfield Elementary
- 2. Dunloggin Middle
- 3. Ellicott City Middle
- 4. Worthington Elementary
- 5. Trinity Preparatory
- 6. Howard Senior High
- 7. Maryland School for the Deaf, Columbia Campus
- 8. Waterloo Middle School
- 9. Thunderhill Elementary
- 10. Phelps Luck Elementary
- 11. Waterloo Elementary
- 12. Running Brook Elementary
- 13. Talbot Springs Elementary
- 14. Jeffers Hill Elementary
- 39. University of Maryland Husbandry Farm

## Churches

- 15. Church of Jesus Christ of Latter Day Saints
- 16. Bethel Baptist
- 17. Epiphany Lutheran
- 18. First Presbyterian of Howard County
- 19. Harvester Baptist
- 20. Maple Grove Mennonite
- 21. Mt. Pisgah Methodist
- 22. St. Johns Evangelical
- 23. Elkridge Independent Methodist
- 24. St. Stephens Methodist
- 25. Grace Episcopal
- 26. Faith Bible
- 27. Rose of Sharon Baptist

## Parks and Open Space

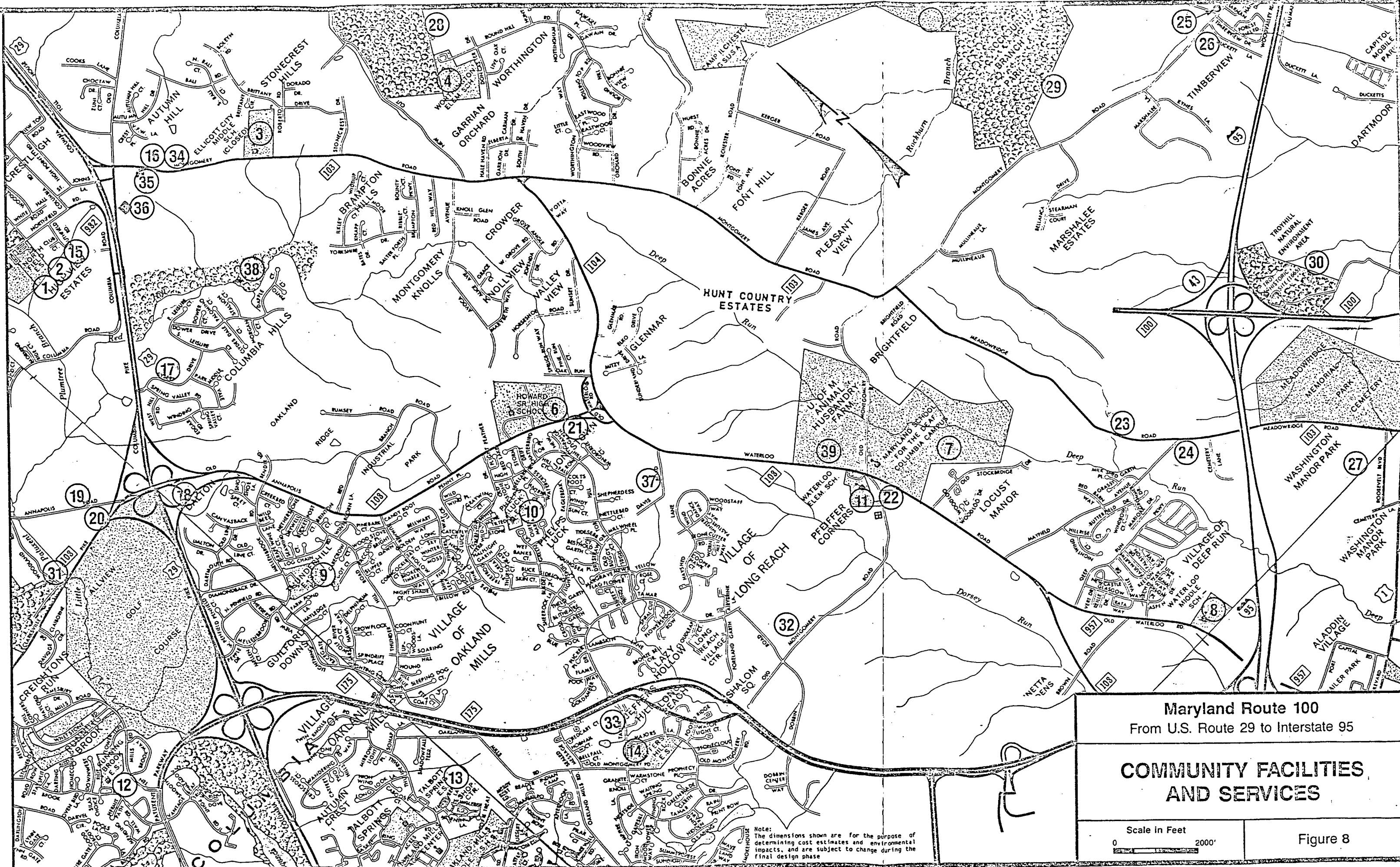
- 28. Worthington Park
- 29. Rockburn Branch Park
- 30. Troyhill Natural Environment Area
- 31. Centennial Park
- 32. Long Reach Park
- 38. Brampton Hills Community Park (Proposed)

## Emergency Services

- 33. Long Reach Company #9

## Miscellaneous Facilities

- 34. YMCA
- 35. Ellicott City Armory
- 36. Park and Ride
- 37. Howard County Animal Control Facility



Maryland Route 100  
From U.S. Route 29 to Interstate 95

**COMMUNITY FACILITIES AND SERVICES**

Scale in Feet  
0 2000'

Figure 8

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

### 3. Economic Setting

Important to the vitality of any economy is the economic community's commitment to expand its basic industries and businesses that are focal points for the exchange of goods and services. The county's location between the Baltimore and Washington metropolitan areas and the establishment of Columbia were the two primary reasons for its economic growth in the past two decades. Both new industry and the expansion of established economic base are encouraged. Planned economic growth and development is dependent upon adequate transportation systems. Both U.S. 29 and Interstate 95 serve as primary arteries for the transportation of goods and services in Howard County.

The General Plan gives high priority to attracting high technology industries, research and development facilities and new office and light manufacturing uses. Employment forecasts indicate that overall employment in Howard County will increase nearly 126 percent from 45,100 jobs in 1979 to 101,900 jobs in 2005. Primary areas of employment within the study area are the Oakland Ridge Industrial Park on Maryland 108, and numerous schools throughout the area. Columbia, Ellicott City, Chatham, and the U.S. 1 corridor are other nearby sources of employment. Census information indicates that retail, trade, public, administration, manufacturing and education provide the highest percentage of employment in the study area (Table 5).

TABLE 5  
Employment Data\*

Major Occupations	Howard County	Census Tract	
		6011	6023.02
Retail	14%	21%	18%
Transportation	3%	9%	9%
Educational Services	11%	12%	12%
Public Administration	16%	18%	11%
Construction	6%	8%	7%
Manufacturing	12%	13%	14%

\*Source: Census of Population and Housing: 1980  
(Occupations with lower percents are not included)

Some additional commercial development will be located along Maryland 103 and near its present intersection with U.S. 29. In addition, the General Plan identifies a planned employment center (a northerly extension of the Oakland Ridge Industrial Center) south of the Brampton Hills residential section off Maryland 103. This center would consist of research and development and high technology employment, offices, light manufacturing and assembly, warehousing, and minimal commercial development. This economic development would further expand the tax, employment and service base in the county.

The 1979 median household income within the study area census tracts was \$29,217, which was comparable with the county median of \$27,612.

4. Land Use

a. Existing (See Figure 9)

The study area includes land uses varying from suburban to rural. The western portion of the study area near U.S. 29 is significantly more developed than the eastern portion nearer Interstate 95.

Low to medium-density residential development is located along both sides of Maryland 103, between U.S. 29 and Meadowridge Road, interspersed with older and existing agricultural uses and rural residential development, schools and parks. Between U.S. 29 and Maryland 104, Maryland 108 to the north is largely light industrial and to the south is mixed medium-density residential and local commercial centers. Land along Maryland 108, east of Maryland 104, includes low to medium-density residential, institutional and agricultural uses.

b. Future (See Figure 10)

Howard County has developed a long-range General Plan (1981) for guiding future land development and growth. Its prime objective is to channel land development to those locations where the public utilities are available and able to serve anticipated needs. The plan also indicates that development would be minimized in areas outside of the planned service areas in order to preserve prime agricultural and conservation areas. The county has designated the central and western portions of the county as areas where the natural environment and the rural agricultural character are to be preserved and protected from development. The eastern portion of the county has been designated as a development district.

Future land use plans for the study area indicate that significant additional residential and industrial development will occur. To date, there are nearly 19 housing developments, almost half of which involve 100 units or more, that will be constructed in the corridor along Maryland 103 and 108, between U.S. 29 and Interstate 95. Contingent on the housing market, 1,500 to 2,500 units are to be completed within five years. Industrial and commercial land uses are planned for areas near the Maryland 100/Interstate 95 and Maryland 103/U.S. 29 interchanges. Additional commercial development is also anticipated on Maryland 103 near and at the U.S. 29 interchange.

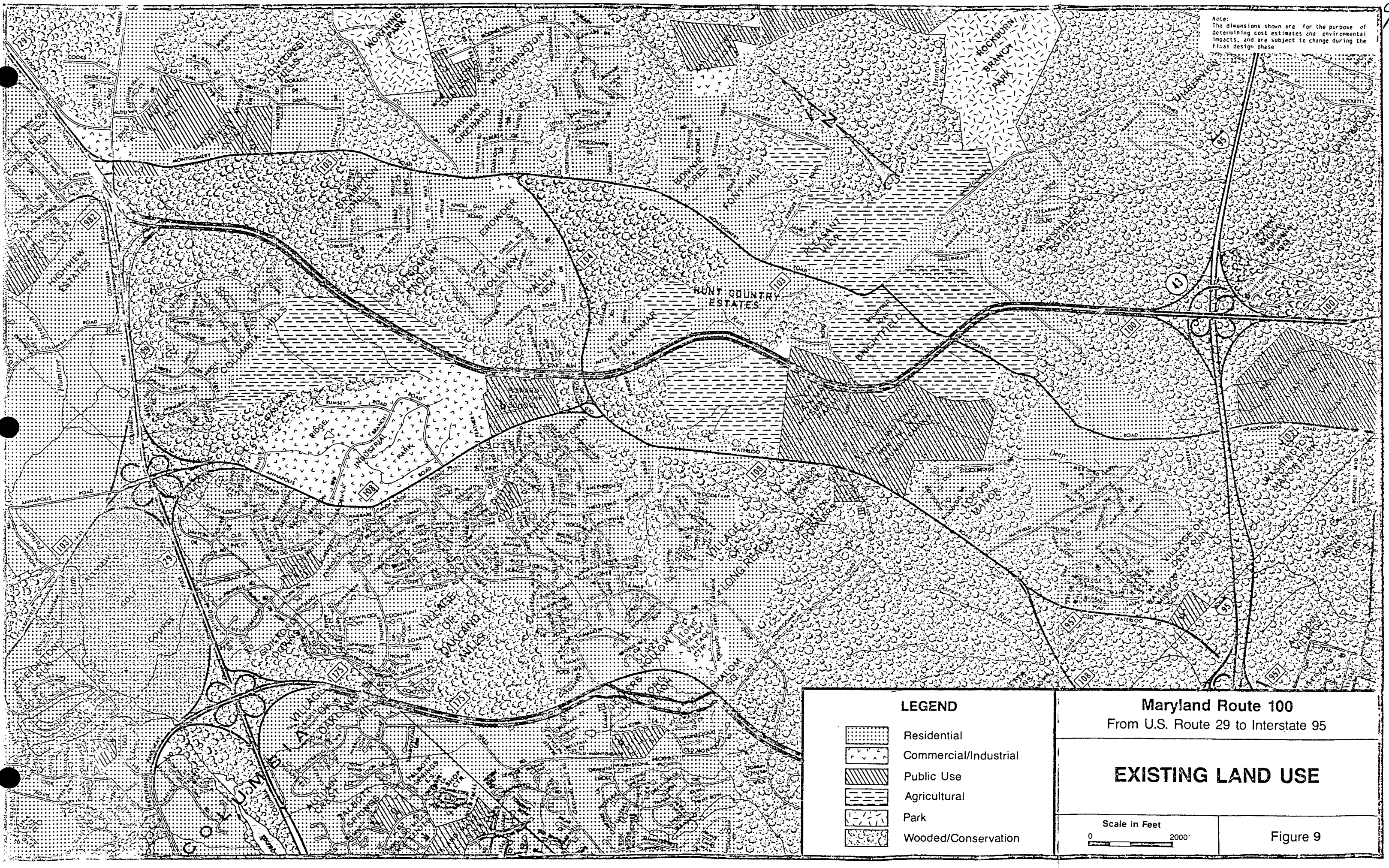
B. CULTURAL RESOURCES

1. Historic Sites

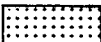
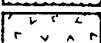
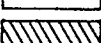
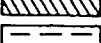
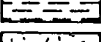
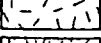
An historic sites reconnaissance of the project area resulted in the identification of eight sites which are on, or eligible for, the National Register. The following is a listing of these sites with a brief description. These sites are shown on Figure 11.



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



**LEGEND**

-  Residential
-  Commercial/Industrial
-  Public Use
-  Agricultural
-  Park
-  Wooded/Conservation

**Maryland Route 100**  
From U.S. Route 29 to Interstate 95

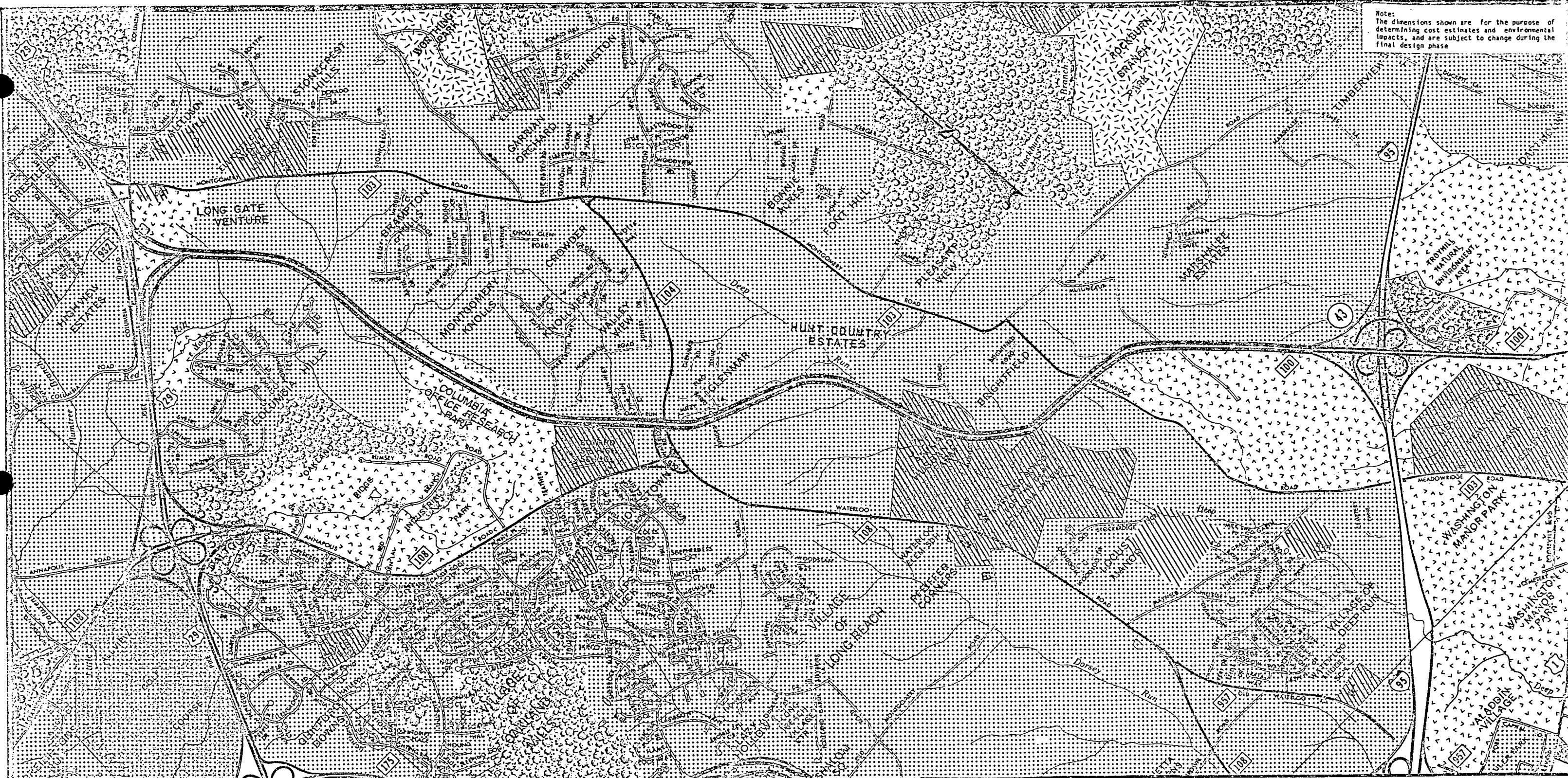
**EXISTING LAND USE**

Scale in Feet  
0 2000'

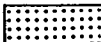
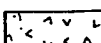

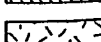
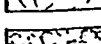
Figure 9



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



**LEGEND**

-  Residential
-  Commercial/Industrial
-  Public Use
-  Park
-  Wooded/Conservation

Maryland Route 100  
From U.S. Route 29 to Interstate 95

**FUTURE LAND USE**

Scale in Feet  
0 2000'

Figure 10



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



- LEGEND**
- WETLANDS
  - 100 YEAR FLOODPLAIN BOUNDARY
  - POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
  - PARKLAND BOUNDARY
  - INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>ENVIRONMENTAL BASE MAP</b>		
DATE	SCALE 0 1000 FEET	FIGURE 11



Trinity Church Chapel (HO 428) - Outside mapping limits

This simple, rectangular frame structure is significant as the sole standing structure associated with Trinity Church, and for its association with Pfeiffer's Corner, a 19th century crossroads community. It is also significant architecturally for its simplicity of design, fine scale and proportion.

H-6, Avoca (HO 422)

Once called Chews Resolution Manor, this is one of Howard County's outstanding ensembles of mostly 19th century stone structures.

H-2, Spring Hill (HO 31)

This nineteenth century estate, which was owned by two prominent Howard county families, is historically and architecturally significant for the Federal style house and outbuildings, including slave quarters.

H-3, Wheatfield (HO 95)

This is notable architecturally for the large house, built in sections, and the numerous well preserved outbuildings. It is also significant historically for its association with the Clark family, which is prominent in Howard County.

H-4, Woodlawn (HO 30)

This site is comprised of a large, well designed manor house and numerous outbuildings, including horse barns and slave quarters. It is historically significant for its association with Major Henry Howard Owings, who was one of the first Commissioners of Howard County.

H-1, Wayside Inn (HO 144)

This 2 1/2 story stone structure is significant architecturally and historically as a well preserved 19th century inn.

H-5, Mount Joy (HO 145)

This large 19th century estate may have been part of Chews Resolution Manor. It is architecturally significant for its well preserved buildings as well as historically for the association of its owner with the development of the American West, primarily through his affiliation with Kit Carson.

H-25, Sunderland-Kraft Farmhouse (HO 531)

This substantial frame house of the late 19th century dominates a vast open area which is now used as a horse farm. The second house on the property was constructed by Benjamin Sunderland, who was commissioner of Howard County and Master of the Hunt at the time.

The September 22, 1986, letter from the State Historic Preservation officer, included in Section VII, Comments and Coordination, states that these sites meet



Piedmont Province includes nearly all of Cecil, Harford, Baltimore, Frederick, Howard, and Montgomery Counties.

The Piedmont is marked by a broad undulating surface with low knolls and ridges rising above the general level and with numerous rather deep and narrow stream valleys incised into it. Low undulating hills gradually increase in elevation from the Fall Line and culminate in Parris Ridge which rises several hundred feet above the surface and has an average elevation of 800 to 900 feet. At Howard and Montgomery Counties it gradually declines in elevation until it reaches lowland heights near the Potomac River. This ridge, which forms the divide between streams flowing directly into the Chesapeake Bay and those flowing into the Potomac River, also divides the Piedmont into an eastern and a western geologic division.

The Piedmont Province, in which the entire Maryland 100 study corridor lies, is composed of crystalline and recrystallized rocks which include highly altered sedimentary deposits and masses of granite and gabbroic type rocks.

The geologic Map of Maryland (Maryland Geological Survey, 1968) shows that the bulk of the area is underlain by Baltimore Gabbro Complex of the Early Paleozoic-Late Precambrian Gabbroic Series, the Ellicott City Granodiorite of the Paleozoic Granitic Series, and the Lower Pelitic Schist of the Late Precambrian Wissahiekon Formation.

The Piedmont Plateau is an anticline or area of uplifted rocks. The pressure that uplifts these rocks shattered, split or folded the formations to various degrees. These fractured areas of bedrock are called faults, which are important to the groundwater situation of Howard County. The fissures and cracks act as channels and storage wells for sub-surface water in the otherwise impervious bedrock.

The bedrock in the study area is approximately 15-20 feet below the surface. Further to the west there is some outcropping of the bedrock where the deposits of sediment have been eroded away. The bedrock drops further beneath the surface near the fall line, and is covered with a wedge-like deposit of sediment.

The Piedmont Province contains a variety of mineral resources. Formerly, building stone, slate and small deposits of non-metallic minerals, base-material sulfites, chromite, and iron ore were mined. Currently, crushed stone is important for aggregate, concrete and lime. These mineral resources are concentrated in eastern Howard County. It is not anticipated that these resources will be affected.

## 2. Soils

### Soil Association

Generally, the soils in the study area are deep, well-drained, and very acidic. The relatively humid, temperate climate of Howard County resulted in substantial weathering of the metamorphic and igneous rocks which are the parent material for local soils.

The following soil associations are located in the study area.

Sassafras Chillum Aura Association - Consists of moderately eroded, deep, well-drained soils that have a moderately permeable, compact subsoil.

Glenelg Chester Manor Association - Consists of deep, well-drained, gently sloping and moderately eroded soil.

Beltsville-Chillum Sassafras Association - Consists of deep, moderately eroded, moderately well-drained, gently sloping to strongly sloping soils of the Coastal Plain.

A soil association is a group of soils which occur together and have similar origins, but exhibit distinctive characteristics. The soil association is named for the major soil series although minor soils are also present.

The various characteristics of each soil series are presented in Table 6. These soils are generally acceptable for highway construction, but some difficulties must be noted. Seasonal high water tables may be encountered in Chillum, Sassafras, and especially Beltsville soils. The Aura, Beltsville, Chillum, and Sassafras soils are Coastal Plain deposits and the depth to bedrock is usually great, but difficult to determine. Corrosion potential referred to in the table is concerned with concrete structures as opposed to metal. The Beltsville soil has a high susceptibility to frost action which can result in road bed damage if the structural design does not take this factor into account.

Erosion potential is a very important feature of soils because it determines the stability and safety for development. Glenelg and Manor soils are highly susceptible to erosion, while Sassafras soils have moderate erosion potential.

Aura soils have a very compact and dense substructure which is about 24 inches below the surface. This soil is relatively shallow and drainage may be a problem. Beltsville soils have a fragipan approximately 28-30 inches below the surface. The relatively impermeable fragipan also causes drainage problems. The water in the soil is unable to penetrate below the fragipan causing the soil to remain very moist and wet. The fragipan layer also accounts for seasonable droughty Beltsville soils.

The soils in the study area are well suited for use in agriculture, residential, and suburban development. Many farming areas are being subdivided for residential development and soils are suitable to handle these demands, as well as attendant suburban facilities.

Hydric soils in the study area are listed in Table 7.

TABLE 6

Analyses of Soil Series

Soil	Depth to Water Table (ft.)	Depth to Bedrock (ft.)	Shrink - Swell Potential	Suitability for Highway	Suitability as Roadfill	Susceptibility to Frost Action	Corrosion Potential	U.S.D.A. Classification	Available Rock
Aura	+20	--	Low	Very Good	Good	Low	High	Gravelly Sandy Loam	None
Beltsville	1-1/2 - 3	--	Low	Fair	Poor	High	High	Silty Clay Loam	None
Chester	+20	4 - 10	Low	Good	Fair	Moderate	Moderate	Silty Clay Loam	Mica Schist
Chillum	+5	--	Low	Good	Good	High	High	Gravelly Silty Loam	None
Gleneig	+20	4 - 10	Low	Fair	Fair	Moderate	Moderate	Silt Loam	Mica Schist
Manor	+20	6 - 10	Low	Fair	Poor	Moderate	Moderate	Loam	Mica Schist
Sassafras	+5	--	Low	Good	Good	Moderate	High	Gravelly Sandy Loam	None

Source: Soil Survey - Howard County, Maryland, U.S. Dept. of Agriculture

TABLE 7  
Hydric Soils

Map Symbol	Mapping Unit	Hydric Component	Location
Fa	Fallsington loam		
L1	Leonardtwn silt loam		
BeB2	Beltville silt loam 1 to 5% slope moderately eroded	Leonardtwn inclusion	In drainageways and depressions
BeC2	Beltville silt loam 5 to 10% slopes severely eroded	Leonardtwn inclusion	In drainageways and depressions
BeC3	Beltville silt loam 5 to 10% slopes	Leonardtwn inclusion	In drainageways and depressions
IuB	Iuka loam, local alluvium 1 to 5% slopes moderately eroded	Bidd inclusion	In old stream channels, depressions and seepage areas
WoB2	Woodstown sandy loam 1 to 5% slopes	Fallsington inclusion	In depressions and drainageways.

Prime and Unique Farmland Soils

The Soil Conservation Service has designated much of the undeveloped land within the study area "Prime Farmland" or "Additional Farmland of Statewide Importance." No unique farmlands exist in the study area. Coordination with the Department of Agricultural in accordance with the Farmland Policy Protection Act has been completed. On this project, farmlands will warrant a minimum level of consideration for protection because land use plans designate nearly all such areas as developable.

3. Water Resources

a. Surface Water

Surface water of the study area belongs to one of two drainage basins. Deep Run located in the eastern half of Howard County is associated with the Patapsco River drainage basin while Red Hill Branch located further west in Howard County is associated with the Little Patuxent River drainage basin. The drainage area for Red Hill branch at the point of crossing by the proposed highway is predominantly residential and agricultural, with a small commercial tract along Montgomery Road. The development of the residential

areas and runoff from the farmland, plus the high erodibility of the soils has resulted in sediment build-up in the stream. The Deep Run drainage basin at the point of crossing is largely open or agricultural land with some residential areas adjacent to Meadowridge Road. Deep Run flows through the University of Maryland Husbandry Farm, which is primarily concerned with the reproduction and study of horses. There are less sediments in Deep Run because much of the farmland is used for grazing rather than for food production and the soil of the area is stable.

The Maryland Department of Health and Mental Hygiene has classified all surface waters of the state into the following four categories according to desired use:

- Class I - Water contact recreation, for fish, other aquatic life, and wildlife
- Class II - Shellfish harvesting
- Class III - Natural trout waters
- Class IV - Recreational trout waters

All waters of the state are Class I, with additional protection provided by higher classifications.

Streams within the study area (See Figure 11) are suited for informal recreation and aquatic life. Water quality standards are being met with the exception of frequently high bacteria levels and occasional pH and turbidity values.

Major waterways of Howard County which are near the proposed highway include the Patuxent, Little Patuxent, and Patapsco Rivers. The effect of the proposed highway on each of these rivers will be negligible since the area affected by the highway is only a small portion of their total drainage basins. The Little Patuxent River at Guilford, Maryland, has a drainage area of 38 square mile and an average discharge of 43.0 ft/s according to the Water Resources Data for Maryland, 1985. The flows of the Patuxent and Patapsco Rivers are regulated by reservoirs, which reduce the possibility of flooding.

b. Groundwater

Soils, topography and underlying geology are important to the subsurface movement of water. Groundwater is water that percolates into soils and has not run off or been evapotranspired. This water is that portion of the hydrologic cycle that is the source of water for plants and for stream recharge.

The occurrence of subsurface water in Howard County is largely dependent on the character, areal extent, and structure of the rock formations. Most of the County is underlain by hard, unweathered crystalline rocks of low porosity. The groundwater occurs predominantly under unconfined or watertable conditions in the shallow, more permeable part of this crystalline rock. Artesian conditions are localized. The yield of most wells in the county is relatively low (5-15 gal./min.) because of

the small areal extent of the different pockets of the subsurface water. The rolling topography of Howard County has created small, individual drainage areas for the subsurface water. And since the only source of groundwater in Howard County is precipitation, these pockets of water are not capable of yielding large quantities of water. Also, the low porosity of the crystalline rock limits the water-bearing capacity.

The Patuxent formation found in the area between U.S. 1 and the Anne Arundel County border contains important water-bearing sand and gravel lenses that allow it to hold groundwater. West of this area, dependable supplies of water are generally not found. Therefore, most wells are drilled through the Patuxent formation into the aquifers beneath the crystalline rock.

c. Floodplains

The 100-year floodplains have been delineated using the Federal Emergency Management Agency Flood Insurance Rate Map (F.I.R.M). This resource indicates that there are floodplains associated with Deep Run Creek and Red Hill Branch. See the Alternates mapping in Section II.

4. Ecology

a. Terrestrial Habitat

The forested land consists of central hardwoods, predominantly oak, hickory, maple, walnut, sycamore, and beech. There is some intrusion by various softwoods especially Virginia pine, Scotch pine, and loblolly pine. The forest resources are either in original stands or regrowths of cutover woodlands. The areas of original or older growth represent climax woodlands, while cutover areas are usually primary or second growth woodlands.

A field survey conducted adjacent to Columbia Hills subdivision in a wet lowland area showed that pin oak, sycamore, red maple, and black maple were the overstory species. Behind Howard High School, sycamore, red maple, and red oak compose the overstory in this location. This land was moist to wet with the predominant ground cover consisting of skunk cabbage.

Approximately 500 yards east of the intersection of Interstate 95 and Maryland 100 is a moist upland area of moderate slopes. The overstory included chestnut oak, white oak, red oak, black oak, scrub oak, sugar maple, red maple, shagbark hickory, Virginia pine, and Scotch pine. Understory species were dominated by sassafras and blackhaw viburnum.

The forested lands in the study area are generally in small tracts with infringement by man's activities on all sides. There are no areas of deep or isolated woodlands. The woodlands provide a good habitat for a wide variety of small mammals and birds, with a more limited representation of reptiles and amphibians.



b. Aquatic Habitat

Coordination with the Fisheries Division of Maryland Department of Natural Resources indicates that anadromous fish species exist in the project study area. Fin fish known to habit the area include American Eel, Stone Rollery Cutlip Minnows, Swallow Tail Shinner, Satin Fin Shinner, Spot Fin Shinner, Common Shinner, Black Nose Dace and the Creek Chub.

Farmland

Farmland occurs intermittently along the proposed alignments. Most of the open land of the study area is utilized as pastures and crop lands. These pasture lands are composed of bluegrass, fescue, timothy, bromegrass, lespedeza, and various other clovers, grasses and legumes.

Pastures and open lands are productive as wildlife sources. Human-cultivated crops, as well as naturally-occurring field plants, provide sustenance for insects, birds, and mammals.

The residential areas have preserved some of the native vegetation previously described, but have also introduced various ornamental and exotic species.

In the study area there are many woodland "edges" which are the transition zones between forest and open lands. The woodlands are in tracts or thin strips which maximize the amount of woodland "edges." These "edge" environments are highly productive of vegetation and hence attractive to wildlife. The "edges" provide the advantages of both forest and grasslands as wildlife frequently live in the woods and forage for food in the open lands.

Wildlife

Woodlands of the study area are divided into small areas which, in most cases, are surrounded by large fields. "Edge" areas are generally found between the woodland and fields. These "edge" areas furnish birds with either a protective place for roosting and nesting or a retreat near the open fields, which serve as their major source of food. The seeds from the farmland and the berries and insects found in the "edge" and woodlands offer an adequate food supply for the birds of this area.

Mammals: The woodlands of this area, which are mostly composed of hardwoods, and the large, surrounding plots of farmland make this area a suitable habitat for such mammals as the opossum, squirrel and the long-tailed weasel. The "edge" areas provide food and shelter for many mammals just as they do for the birds.

Reptiles and Amphibians: The shortage of surface water in the proposed project corridor limits the number of different types of reptiles and amphibians found there, just as it does with the mammals. For instance, most of the turtles that are common to Howard County, such as the snapping turtle, stinkpot and painted turtle, are either very scarce or nonexistent

in the study area. For those reptiles that do not need to live near a body of water the study area provides a suitable habitat. Many even make use of man's environment. The eastern fence lizard, brown snake, red-bellied snake, common garter snake and racer are often found in abandoned dwellings, gardens and trash piles.

c. Endangered and Rare Species

Field surveys and coordination with the U.S. Fish and Wildlife Service, the Department of Natural Resources, Maryland Forest, Park & Wildlife Service have revealed no known populations of threatened, rare, or endangered species within the area of project influence. Letters from the above mentioned agencies are included in Section VII, Comments and Coordination.

d. Wetlands

Wetlands include areas of open or standing water at or near the surface which support plants which require this environment. The following wetland classification scheme follows the U.S. Fish and Wildlife Service system of Cowardin et al. (1979). It is based on soils, flooding regime and vegetation.

Non-tidal wetlands exist in the study area along the major stream channels and tributaries.

Wetland locations are shown on Figure 11. The classification of wetlands is shown in Table 12, Section IV.

D. EXISTING AIR QUALITY

The Maryland 100 project is within the Metropolitan Baltimore Intrastate Air Quality Control Region. While only a portion of the region does not meet the primary standards for carbon monoxide (CO), the entire region is subject to transportation control measures such as the Vehicle Emissions Inspections Program.

A detailed microscale air quality analysis has been performed to determine the carbon monoxide (CO) impacts of the proposed project which is described in further detail in Section IV-E.

E. EXISTING NOISE CONDITIONS

Nineteen noise sensitive receptors (NSRs) have been identified in the Maryland 100 study area. Descriptions of the noise sensitive areas are provided in Table 8.

The locations of the noise sensitive receptors are shown on the Alternates Mapping in Section II. A copy of the Technical Analysis Report is available at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

Highway traffic noise is usually measured on the "A" weighted decibel scale "dBA," which is the scale that has a frequency range closest to that of the human ear. In order to give a sense of perspective, a quiet rural night would register about 25 dBA, a quiet suburban night would register about 60 dBA, and a very noisy urban daytime about 80 dBA. Under typical field conditions, noise level changes of 2-3 dBA can barely be detected, but a 5 dBA change is readily noticeable. A 10 dBA increase is judged by most people as a doubling of sound loudness. (This information is presented in the "Fundamentals and Abatement of Highway Traffic Noise" by Bolt, Beranek and Newman, Inc., for FHWA, 1980).

The Federal Highway Administration has established, through FHPM 773, noise abatement criteria for various land uses (see Table 9).

The noise levels in this analysis are expressed in terms of an  $L_{eq}$  noise level, which is the energy-averaged noise level for a given time period. All ambient and predicted noise levels in this report are  $L_{eq}$  exterior noise levels unless otherwise noted.

In an acoustical analysis, measurement of ambient noise levels is intended to establish the basis for impact analysis. The ambient noise levels as recorded represent a generalized view of present noise levels. Variations with time of total traffic volume, truck traffic volumes, speed, etc., may cause fluctuations in ambient noises levels of several decibels.

However, for the purposes of impact assessment, these fluctuations are usually not sufficient to significantly affect the assessment.

An on-site noise monitoring program was conducted on August 6 and 10, 1987 utilizing a Metrosonics db-308 Sound Level Dosimeter/Analyzer. The Model db-308 automatically records, calculates and prints noise exposure in a wide range of formats including  $L_{eq}$  (h).

Measurements were made for 20-minute periods at twelve individual sites, representative of the nineteen noise sensitive areas, during the period from 9:10 a.m. to 3:10 p.m. Existing noise levels measured during this time ranged from 49 to 70 dBA.

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

Calibration of the STAMINA 2.0/OPTIMA noise prediction model was performed utilizing simultaneous traffic data collected at three noise monitoring sites along Maryland Route 100. Traffic counts taken during the 20-minute monitoring periods were adjusted to represent hourly traffic flows and were input into the computer model accordingly. The predicted  $L_{eq}$  noise levels generated at the three sites as a result of this calibration exercise differed from their actual ambient noise levels by 0.0, 1.0, and 2.0 dBA. These fluctuations in noise levels can be attributed to extraneous noise sources pertinent to the modeled site (i.e., low aircraft flyovers) as well as the site's specific location, topographical features, and natural and man-made components (i.e., building,

ground cover, etc.) and are within the range of normal modeling calibration (+ 3 dBA). The results of the ambient noise level measurements and noise sensitive receptor descriptions are included in Table 10.

TABLE 8  
Noise Sensitive Receptors

Receptor No.	Description/Location
1 (Figure 5d)	Residence, 1 story frame Mullineaux Road
2 (Figure 5d)	Residence, 2 story frame 5836 Meadowridge Road
3 (Figure 5c)	Residence, 2 story frame Old Montgomery Road
4 (Figure 5c)	Curtis Shipley House IL Historic Property Waterloo Road. Receptor site is the extreme edge of the property
5 (Figure 5c)	Residence, 2 story frame 8067 Fetlock Court
6 (Figure 5c)	Edge of Right-of-Way Proposed Maryland 100 Represents the Village of Montgomery Run, a planned residential development. The developer is to provide mitigation.
7 (Figure 5b)	Residence, 1 story frame 8401 Mitzy Lane
8 (Figure 5b)	Residence, 2 story frame 8602 Spruce Run Way
9 (Figure 5b)	Howard High School Maryland 108
10 (Figure 5b)	Residence, 1 story brick 5130 Avoca Avenue
11 (Figure 5b)	Edge of Right-of-Way Maryland 100 Brampton Hills (Section 4) No development plans at time of study.
12 (Figure 5b)	Edge of Right-of-Way Maryland 100 Represents the McCuan Office Research Park. This is a commercial development No mitigation planned.
13 (Figure 5a)	Residence, 2 story brick 4713 Kirkstall Road

TABLE 8  
(Continued)

Noise Sensitive Receptors

Receptor No.	Description/Location
14 (Figure 5a)	Residence, 2 story frame 4632 Dapple Court
15 (Figure 5A)	Edge of Right-of-Way Maryland 100 Long Gate Venture - Residential Development No approved subdivision plan at time of study.
16 (Figure 5a)	Edge of Right-of-Way Maryland 100
17 (Figure 5a)	Residence, 1 story frame 4319 Montgomery Road
18 (Figure 5b)	Residence, 1 story frame 5311 Waterloo Road
19 (Figure 5d)	Residence Meadowridge Road

TABLE 9  
Noise Abatement Criteria

Activity Category	$L_{eq}$ (h)	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

TABLE 10  
Existing Noise Levels  
August 6 and 10, 1987  
20-Minute Periods

Noise Sensitive Area	Description/Location	Ambient <sup>1</sup> Leq
1	Residence on Mullineaux Road	49
2	5836 Meadowridge Road (MD 103)	55
3	Residence on Old Montgomery Road	53
4	Historic Property <sup>2</sup> -- Curtis Shipley House	49
5	8067 Fetlock Court	49
6	Right-of-Way south of Station 149+00 <sup>2</sup>	49
7	8401 Mitzy Lane	51
8	8602 Spruce Run Way	51
9	Baseball Field - Howard High School	53
10	5130 Avoca Road	59
11	Right-of-Way north of Station 78+00 <sup>2</sup>	59
12	Right-of-Way south of Station 78+00 <sup>2</sup>	59
13	4713 Kirkstall Road	50
14	4632 Dapple Court	51
15	Right-of-Way north of Station 32+00 <sup>2</sup>	51
16	Right-of-Way south of Station 31+00 <sup>2</sup>	51
17	4319 Montgomery Road	70*
18	5311 Waterloo Road (MD 104)	65
19	Residence on Meadowridge Road (MD 103)	55

\* Exceeds FHWA Criteria for Noise Abatement

1 In dBA

2 For points on Right-of-Way, nearest receptor was modeled as same.



Section IV

**Environmental  
Consequences**

IV. ENVIRONMENTAL CONSEQUENCES

A. SOCIAL, ECONOMIC AND LAND USE

1. Social Impacts

a. Residential Relocations

The preliminary relocation and right-of-way reports are summarized below and are available for review at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland.

No displacements will occur under the No-Build Alternate.

Selected Alternate 3 Option 104"A" (see II-4) requires three residential displacements; one dwelling and various outbuildings on Mullineaux Road (See Figure 5d), and two dwellings on Old Waterloo Road (See Figure 5b). These latter two residences are minority owned or occupied. Income levels for the area range from the low to middle. In addition to the same displacements associated with selected Alternate 3 Option 104"A," Alternate 3 Option 104"B" would have required two additional displacements; one along Maryland 104 and one along Maryland 108 (See Figure 5b).

All the relocations will be completed in accordance with the provisions of the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970. A summary of the relocation assistance program in the State of Maryland is provided in the Appendix to this document. All families will be provided decent, safe, and sanitary housing within their financial means and no adverse impact on these families or the neighborhoods into which they will move is expected. Relocation of families is expected to occur in a timely satisfactory, and humane manner without undue hardship to those affected.

Based upon trends concerning housing availability in the project area, as well as referring to listings now available on the Greater Baltimore Multiple Listing Services, sufficient comparable replacement housing is available in the Howard County marketplace to replace the housing to be acquired. Although there are several other proposed projects in Howard County, the construction of these projects will not affect the availability of comparable replacement housing in the area needed for the Maryland 100 project. Housing may not be available within the statutory limits of the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970. The provisions of "housing as a last resort" will be used to provide decent, safe, and sanitary replacement housing for those affected by this project.

It should be mentioned that strip right-of-way will be required from a few properties located along Mullineaux Road and Maryland 104 for this project, but their acquisition is not necessary. Additional right-of-way also will be required from two farms to accommodate the proposed roadway. It is not expected that these farms will have to cease operation.

b. Effects on Minorities, Handicapped, Elderly Persons

Two of the families to be displaced by the proposed action are minorities. One of the minority families is an elderly couple. No handicapped persons were observed during the right-of-way relocation inspection and none are believed to be affected.

c. Summary of Equal Opportunity Program of Maryland State Highway Administration

It is the policy of the Maryland State Highway Administration to ensure compliance with the provisions of Title VI of the Civil Rights Act of 1964, and related civil rights laws and regulations which prohibit discrimination on the grounds of race, color, sex, national origin, age religion, physical or mental handicap in all State Highway Administration program projects funded in whole or in part by the Federal Highway Administration. The State Highway Administration will not discriminate in highway planning, highway design, highway construction, the acquisition of right-of-way, or the provision of relocation advisory assistance.

This policy has been incorporated into all levels of the highway planning process in order that proper consideration may be given to the social, economic, and environmental effects of all highway projects. Alleged discriminatory actions should be addressed to the Equal Opportunity Section of the Maryland State Highway Administration for investigation.

d. Access to Community Facilities and Services

Under Alternate 1 (the No-Build Alternate), unsafe traffic conditions and congestion along Maryland 103 and Maryland 108 will continue to impact on access to community facilities, and increase hazards to bicyclists, pedestrians, and nearby residents. Under the No-Build Alternate, commercial and through traffic will utilize the road network, along with local traffic, and could impede the response time of emergency vehicles.

With Selected Alternate 3, commercial and industrial traffic volumes from U.S. 29 and Interstate 95 will increasingly utilize the proposed Maryland 100 instead of the local roads, thereby providing safer access to community facilities and services for residents. Emergency vehicles will be provided additional access into the study area and could possibly decrease response time. However, near the interchange area of U.S. 29 and Maryland 103, the proposed action will eliminate the existing Park and Ride lot. Replacement of this Park and Ride lot is currently under study.

e. Disruption of Neighborhoods and Communities

This project will not significantly impact the cohesion or integrity of neighborhoods throughout the study area. The current access along the existing roadway will be maintained during and after construction activities. No formal pedestrian trails will be eliminated as a result of the construction of Selected Alternate 3. No existing or planned residential subdivisions will be divided by the project. A pedestrian

bridge is being proposed in the vicinity of Howard High School. Further study and co-ordination with local officials will be required during the design phase.

Neighborhoods will benefit by the separation of truck traffic from local traffic. Maryland 100 will also remove many trucks from Maryland 103 and 108 which have a disturbing influence on existing neighborhoods. This will, in turn, improve emergency vehicle response time to the many residential areas.

f. Effects on Parks and Public Recreation

None of the existing local parks will be directly impacted by the Selected Alternate, as all are located a significant distance from the proposed improvements.

However, the proposed 77-acre Brampton Hills Park, which is to be developed in the vicinity of the proposed Maryland 100 alignment between U.S. 29 and Columbia Hills will be directly affected by Alternate 3. Additional discussion of this impact is contained in the Section 4(f) evaluation in this document.

No land from Howard County High School is required for the Selected Alternate. However, a portion of an existing baseball diamond which encroached onto SHA right-of-way has been disturbed by the ongoing construction of the 2-lane developer road. The property disturbed has been in SHA ownership since 19\_\_\_. The use of the right-of-way for recreational activities was never authorized or sanctioned by SHA. Therefore, this ballfield is not subject to Section 4(f) protection.

2. Economic Impacts

a. Business Displacement and Relocations

No business displacements or relocations will be required by Selected Alternate 3. However, as previously mentioned, right-of-way will be required from two (2) farms within the study area.

b. Effects on Regional Business Activities

The Maryland 100 Corridor is surrounded by economic activity centers. These include the City and Port of Baltimore, the Baltimore-Washington International Airport, and Fort George G. Meade Military installation, government office complexes located in Annapolis and Ellicott City and the town center of Columbia. The long-range goal of Howard County is to encourage growth of employment centers to complement residential growth. Currently, four industrial parks (existing or proposed) are located with the Maryland 100 corridor study. The proposed project will accommodate the expansion of these industrial and business sections within the study area by improving access and efficiency of travel. The improvement will also attract new business and industry to the county.

Under the Build Alternate, commercial traffic will have a more direct access to and from major highways and to industrial/employment areas in the study corridor.

Maryland 100 will also separate through commercial truck traffic from local residential commuter trips.

The Howard County General Plan addresses the short-, medium-, and long-range trends for future development. Highway improvements are an integral part of these plans. The County's plan shows the approximate corridor of Maryland 100 as a needed transportation facility to accommodate existing and planned development.

c. Effects on Local Business Activity

The economic development of Columbia and surrounding areas within the eastern portion of the County is contingent on many factors, one of which is improved transportation facilities. The Howard County General Plan proposes increased economic development within three areas of the Maryland 100 corridor, including the vicinity of the interchanges at U.S 29/Maryland 103, and Interstate 95/Maryland 100 and the expansion of the existing Oakland Ridge Industrial Park. Adequate and efficient access to these areas are an integral part of these plans.

The proposed improvement will better accommodate existing and proposed industrial development by providing a direct access to major highways (U.S. 29 and Interstate 95) and a more efficient system for the transportation of goods and services, thereby avoiding costly delays.

The No-Build Alternate is not consistent with planned transportation improvement or economic development within the study area. Traffic congestion and unsafe conditions will continue to increase. Since the county has designed the study area, as well as much of the eastern portion of the county for rather intensive commercial and residential zoning, the lack of adequate road improvements in the study area could result in development pressures to the western portion of the county which is designated for rural conservation.

The No-Build Alternate is not consistent with the Howard County General Plan.

d. Effects on Tax Base

This project will accommodate the efficient expansion of proposed development in the study corridor which in turn will have a positive effect on the county's tax base.

Since the Howard County General Plan supports growth in the area and incorporates the approximate alignment in its plan, extensive development of residential 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 rise, as the community experiences a rural to suburban change in character.

Additional employment resulting from the industrial and commercial development will have a secondary effect of increasing tax revenues.

3. Land Use and Land Use Planning

Growth in the study area is consistent with the Howard County General Plan (1982) and the Regional Planning Council's General Development Plan (1986). The county supports and encourages growth in the proposed Maryland 100 corridor and recognizes the extension of Maryland 100 as an integral element of these plans. Thus, Alternate 3 is consistent with future land use plans for the area.

The proposed highway improvements will help to accommodate the planned regional and local industrial and residential growth.

B. TRANSPORTATION

The purpose of this study is to evaluate alignments which adequately address the safety and traffic needs of the area and evaluate the environmental consequences associated with each alternate. The 1986 Average Daily Traffic (ADT), the 1995 ADT, and the design year 2015 ADT forecasts for the No-Build Alternate and the Selected Alternate 3, are shown in Figures 12 through 16. Design year 2015 ADT forecasts, number of lanes and levels of service for the No-Build Alternate, and the Selected Alternate 3, are shown on Figures 14, 15, and 16. Also included are 2015 ADT forecasts and level of service for Alternates 2, 4 and 5, shown in Figures 17, 18, 19.

Maryland 100 is presently an expressway with full access control extending from Maryland 177 to Maryland 3, a distance of eight miles. Final design is currently underway for the extension of Maryland 100, as a fully-controlled access expressway, from Maryland 3 to Interstate 95, a distance of eight miles.

The current project planning study is for the extension of Maryland 100 from Interstate 95 to U.S. 29, a distance of five miles. East of Maryland 104, the only alternate under consideration is a six-lane divided roadway with full control of access. Interchanges are proposed at Maryland 103 and Snowden River Parkway (by others).

Traffic operations associated with the Selected Alternate are discussed below.

Alternate 3 (Selected Alternate)

Alternate 3 proposes the construction of a six-lane divided roadway on new location from Maryland 104 to U.S. 29, where an interchange would be provided. The roadway will have controlled access with interchanges at U.S. 29, Long Gate Parkway and Maryland 104. At-grade T-intersections will be provided at Centre Park Drive and a development road 2500'± west thereof.

The design speed of Alternate 3 will be 60 mph.

1. Traffic Volumes and Levels of Service

a. Existing Conditions

The 1986 Average Daily Traffic (ADT) volumes on Maryland 103, 104 and 108 range from 9,000 to 18,400.

Although the posted speed limit is generally 45 mph on these roads, travel speeds measured between U.S. 29 and the Maryland 104/Glenmar Road intersection during the AM and PM peak hours on Monday, October 5, 1987, averaged 27 mph and ranged from 24 mph to 36 mph. This low speed is caused by the delay at the signalized intersections and entering and exiting vehicles at the numerous unsignalized intersections and private entrances.

b. Design Year (2015) Conditions

As a result of regional traffic growth as well as continued development within the study area, traffic volumes are anticipated to increase significantly by the year 2015.

Levels of service are a measure of the conditions under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy, and, of course, the volume of traffic.

Levels of service on expressways and freeways with uninterrupted flow conditions are ranked from A to F (best to worst) as follows:

Level A - free traffic flow, low volumes; high speeds

Level B - stable traffic flow, some speed restrictions

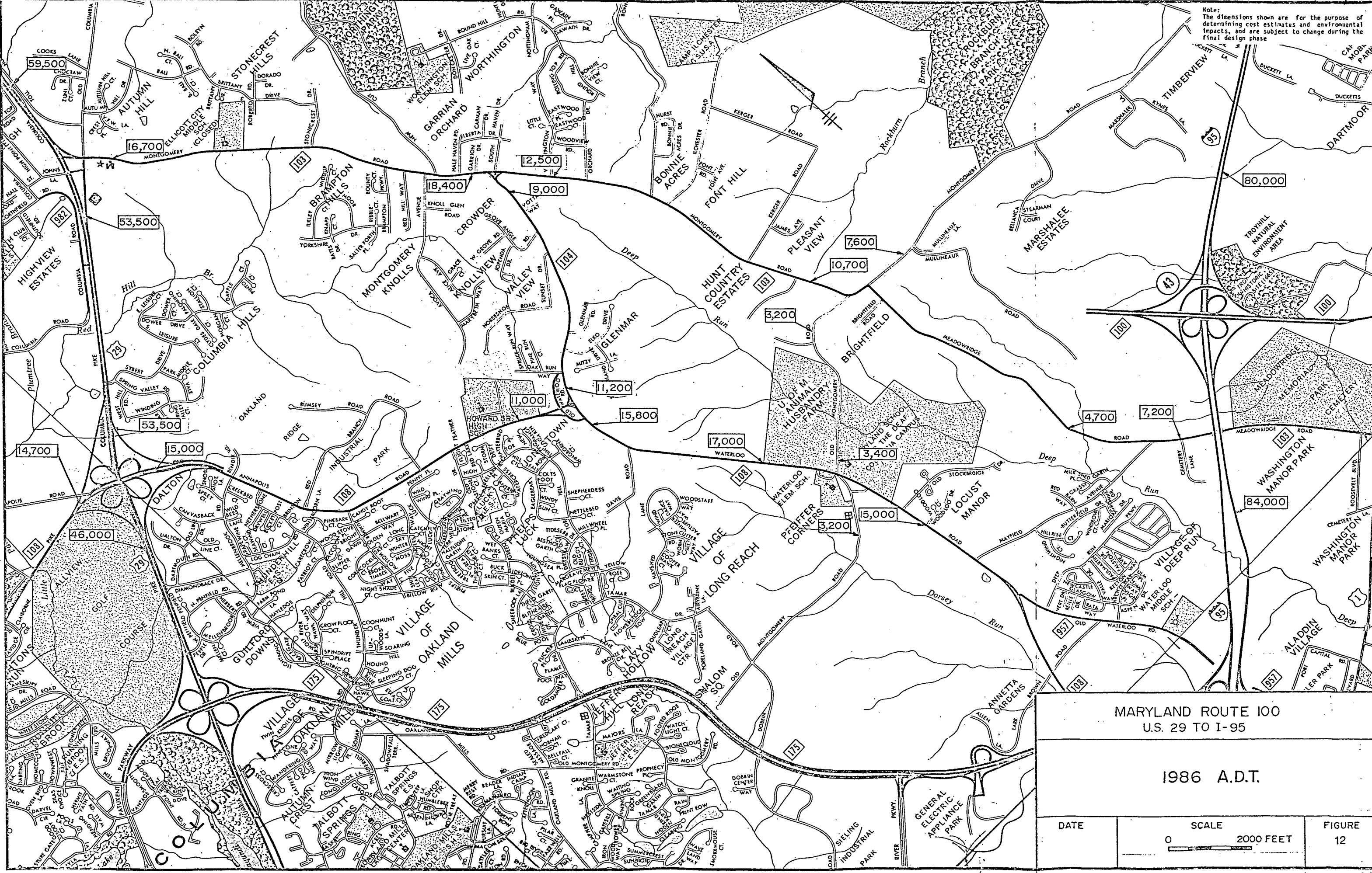
Level C - stable flow; increasing traffic volumes

Level D - approaching unstable flow, heavy traffic volumes, decreasing speeds

Level E - low speeds, high traffic volumes approaching roadway capacity; temporary delays.

The following table summarizes the ADT and LOS along the various arteries between U.S. 29 and Maryland 104 (see figures 15, 18 and 19).

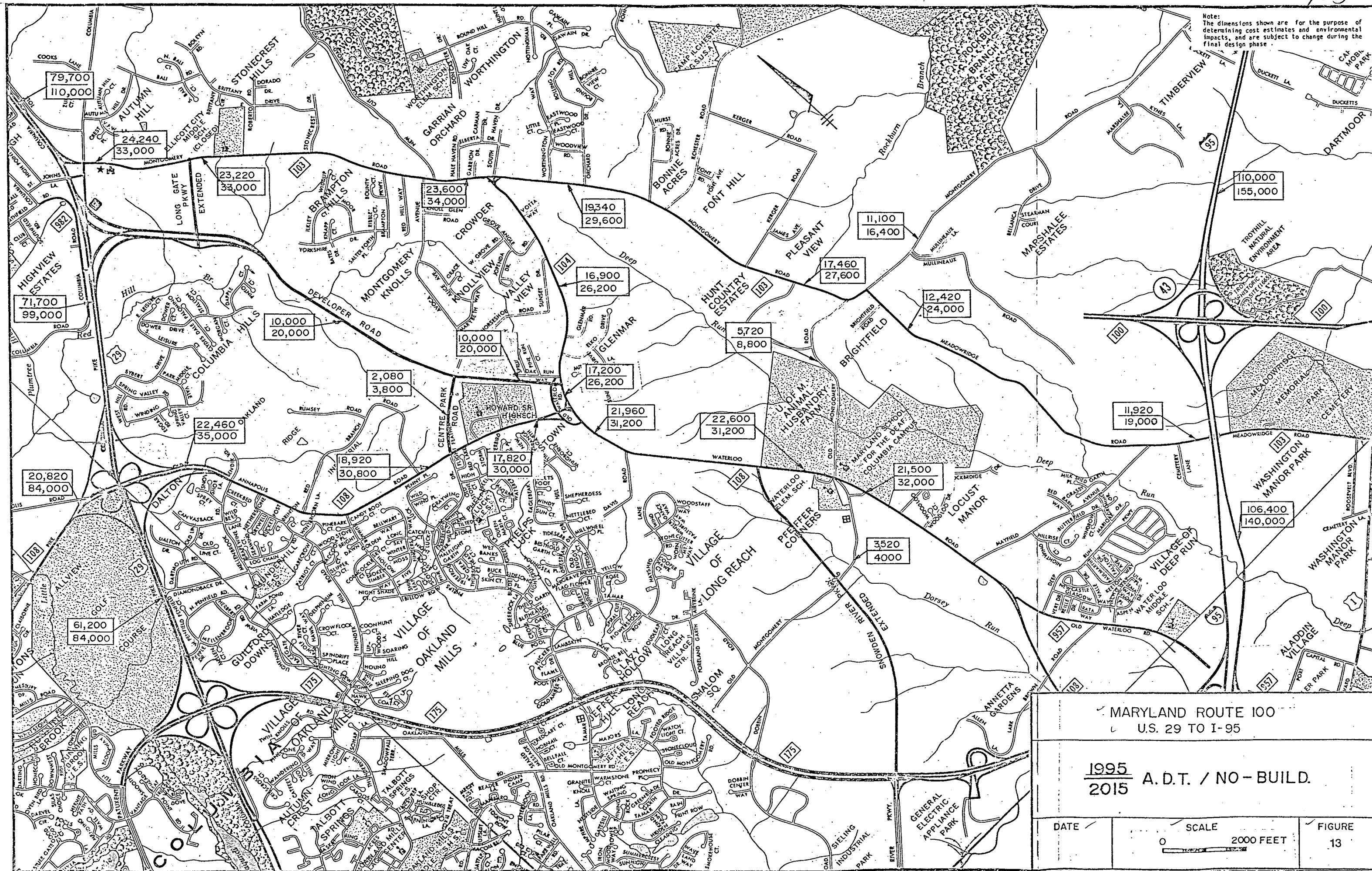
Note:  
The dimensions shown are for the purpose of determining cost estimates and environmental impacts, and are subject to change during the final design phase



MARYLAND ROUTE 100 U.S. 29 TO I-95		
1986 A.D.T.		
DATE	SCALE 0 2000 FEET	FIGURE 12



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

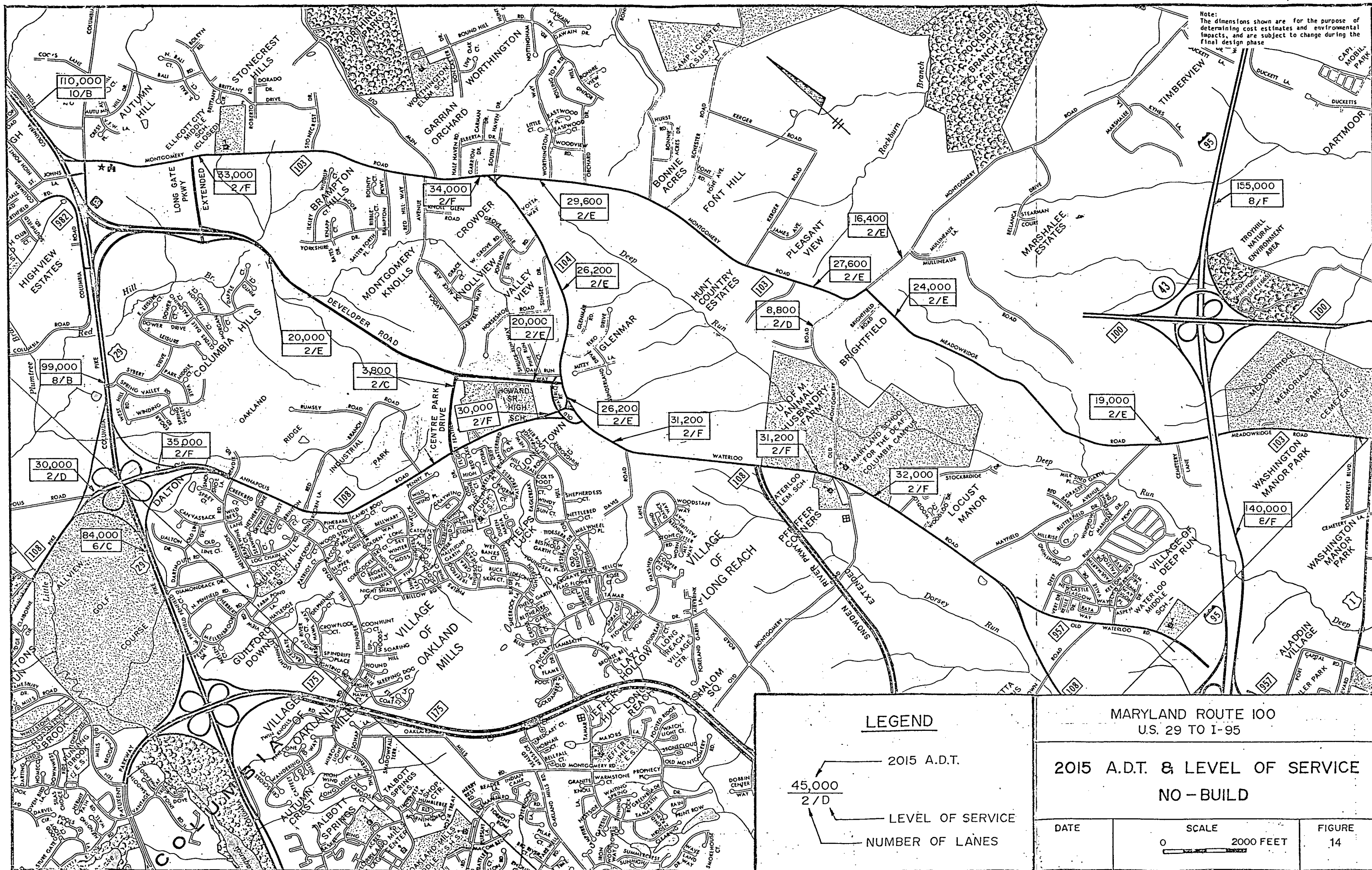


MARYLAND ROUTE 100  
U.S. 29 TO I-95

1995 A.D.T. / NO-BUILD.  
2015

DATE	SCALE	FIGURE
	0 2000 FEET	13

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



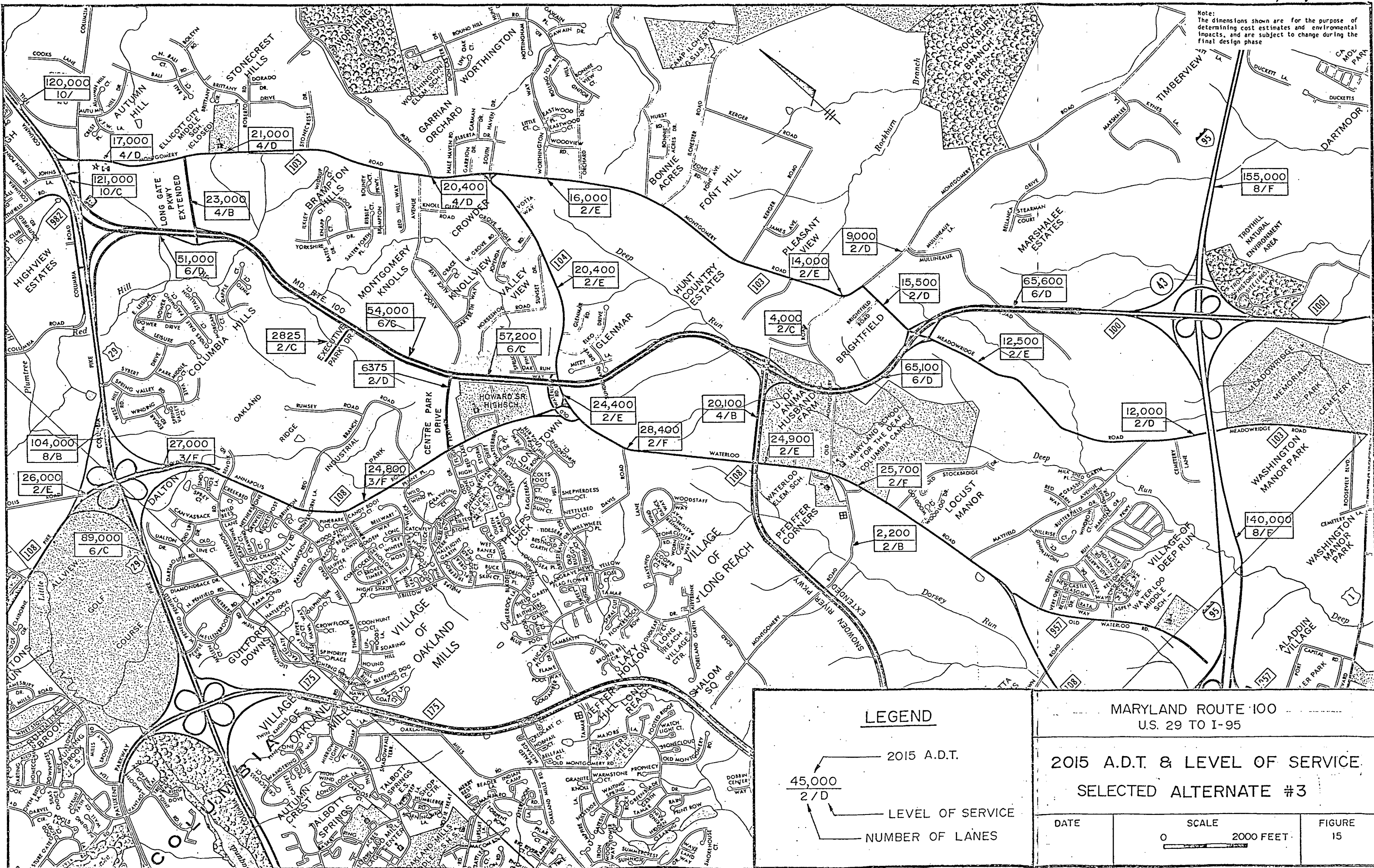
LEGEND

- ← 2015 A.D.T.
- ← 45,000 2/D
- ← LEVEL OF SERVICE
- ← NUMBER OF LANES

MARYLAND ROUTE 100 U.S. 29 TO I-95		
2015 A.D.T. & LEVEL OF SERVICE NO-BUILD		
DATE	SCALE 0 2000 FEET	FIGURE 14



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



LEGEND

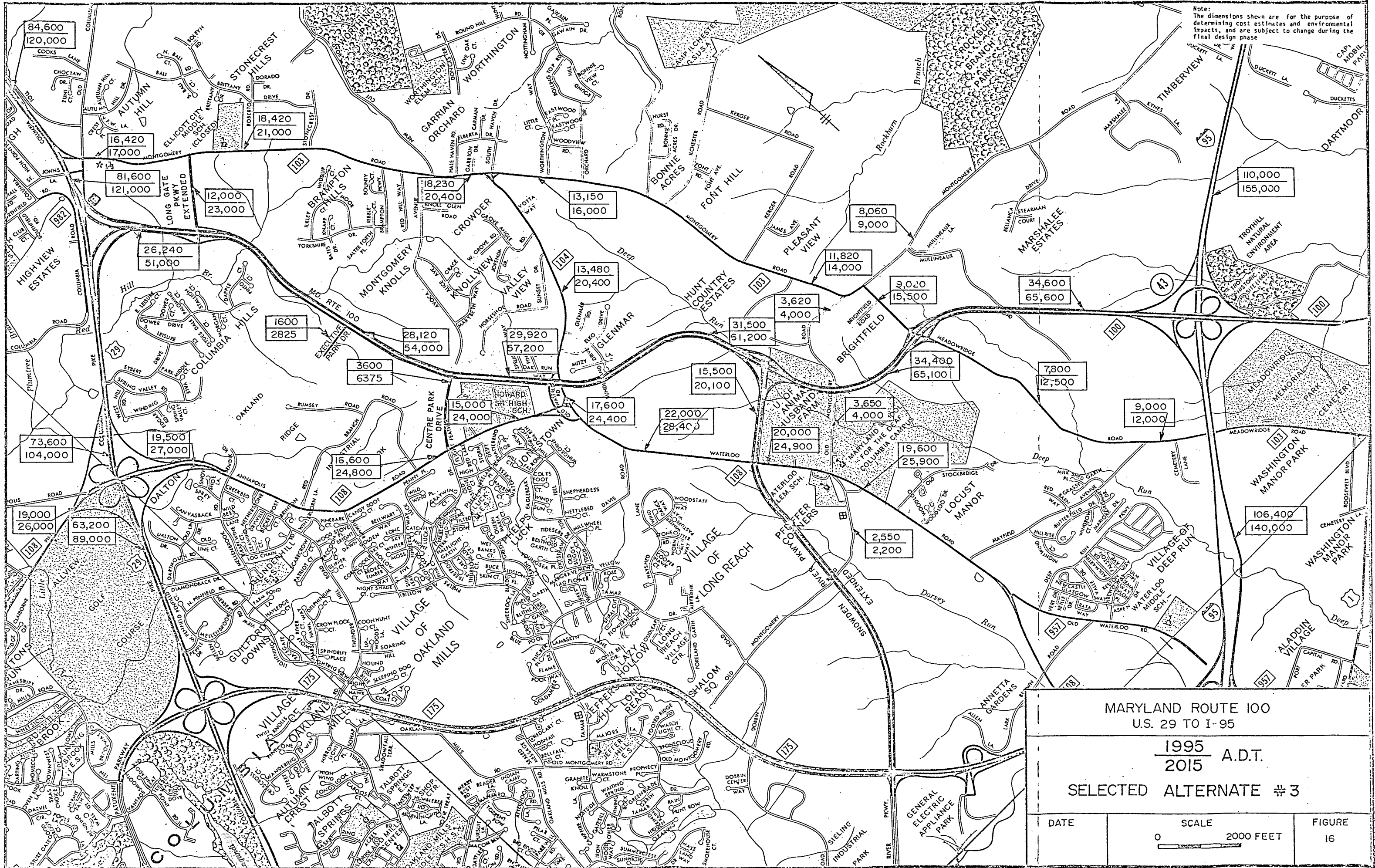
- ← 2015 A.D.T.
- ← 45,000 / 2/D
- ← LEVEL OF SERVICE
- ← NUMBER OF LANES

MARYLAND ROUTE 100  
U.S. 29 TO I-95

2015 A.D.T. & LEVEL OF SERVICE  
SELECTED ALTERNATE #3

DATE	SCALE 0 2000 FEET	FIGURE 15
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Note:  
The dimensions shown are for the purpose of determining cost estimates and environmental impacts, and are subject to change during the final design phase



MARYLAND ROUTE 100  
U.S. 29 TO I-95

1995 A.D.T.  
2015 A.D.T.

SELECTED ALTERNATE # 3

DATE	SCALE	FIGURE
	0 2000 FEET	16



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



LEGEND

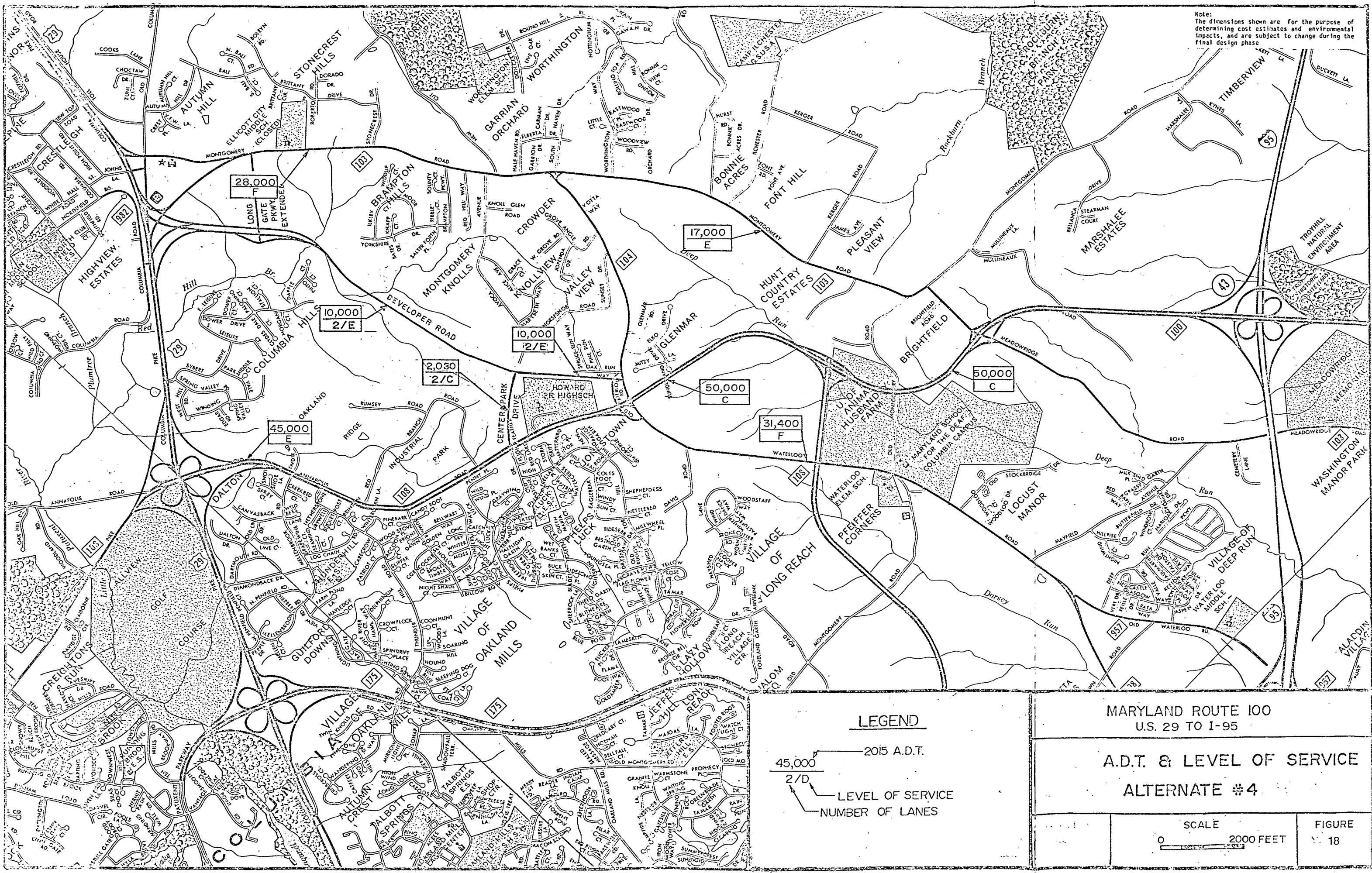
- 45,000 — 2015 A.D.T.
- 2/D — LEVEL OF SERVICE
- NUMBER OF LANES

MARYLAND ROUTE 100  
U.S. 29 TO I-95

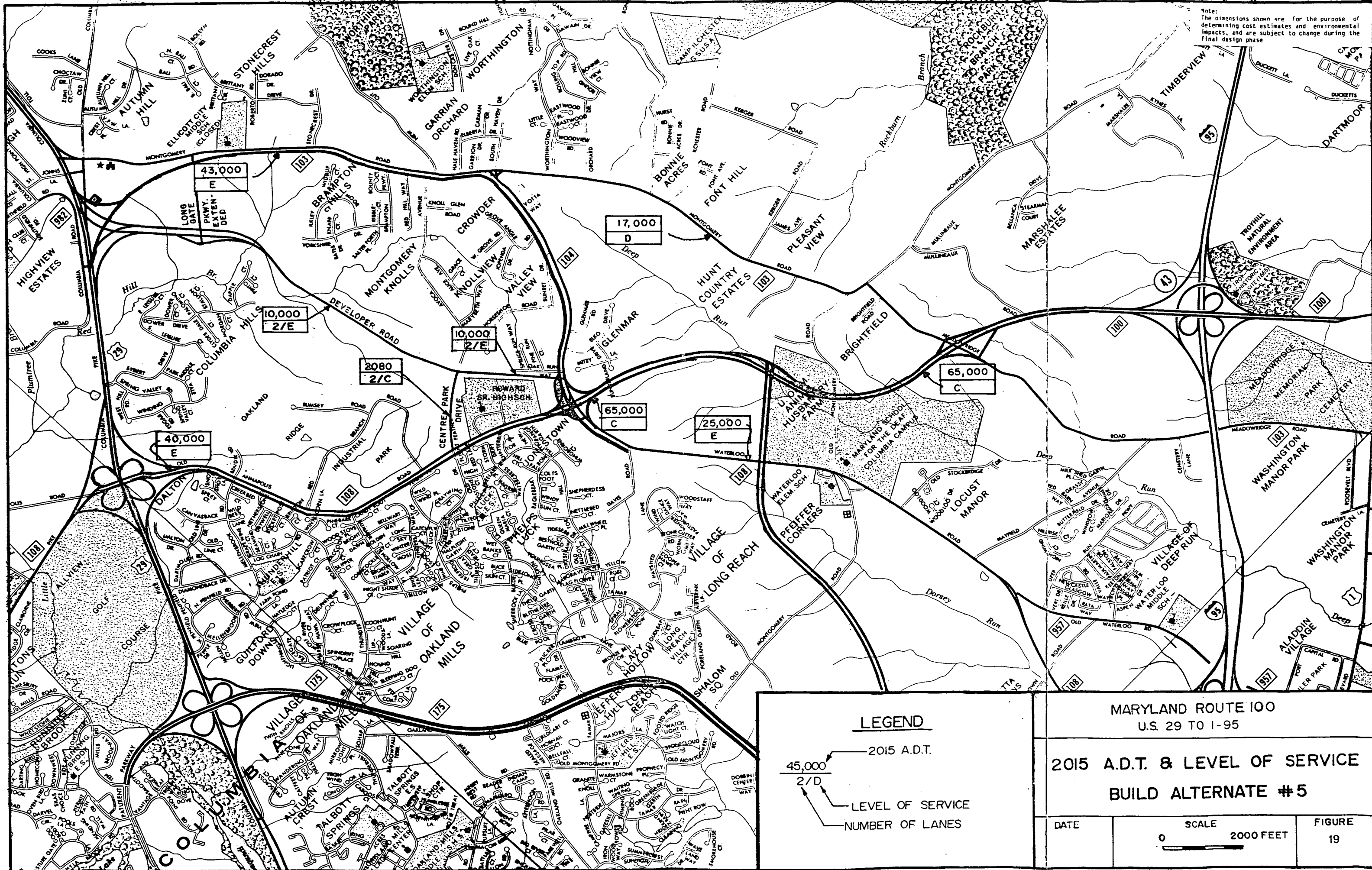
2015 A.D.T. & LEVEL OF SERVICE  
BUILD ALTERNATE #2

DATE	SCALE 0 2000 FEET	FIGURE 17
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Note:  
The dimensions shown are for the purpose of  
determining cost estimates and environmental  
impacts, and are subject to change during the  
final design phase



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



MARYLAND ROUTE 100  
U.S. 29 TO I-95

2015 A.D.T. & LEVEL OF SERVICE  
BUILD ALTERNATE #5

**LEGEND**

45,000 — 2015 A.D.T.

2/D — LEVEL OF SERVICE

NUMBER OF LANES

DATE	SCALE 0 2000 FEET	FIGURE 19
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Roadway ADT (LOS)	Alternate			
	2	SEL.ALTERN.3	4	5
Maryland 103	52,900 (F)	20,900 (D)	27,900 (F)	43,000 (E)
Maryland 104	44,700 (F)	20,200 (E)	19,300 (F)	None Avail.
Maryland 108	30,000 (F)	27,000 (F)	45,000 (E)	40,000 (E)
Maryland 100	N/A	54,000 (C/D)	N/A	N/A
2-Ln. Developer Rd.	10,000 (E)	N/A	10,000 (E)	10,000 (E)

## 2. Accident Rates

With the various configurations proposed, an accident rate of approximately 276 acc/100mvm is anticipated for the Alternate 2 alignment alone. Considering that Maryland 103 from Interstate 95 to Maryland 104, and Maryland 108 from Maryland 175 to U.S. 29 will still be utilized, the projected accident rates for these highways must be factored in to determine the overall accident rate for the entire corridor under Alternate 2. Combining these rates, the overall accident rate for the entire corridor is anticipated to be approximately 240 acc/100mvm, resulting in an accident cost of approximately \$2.3 million/100mvm of travel.

Alternate 4, again, will have the six-lane, divided portion from Interstate 95 to a point in the vicinity of the Maryland 104/Maryland 108 intersection. From this area, Alternate 4 will follow the existing alignment of Maryland 108 to the interchange at U.S. 29. This section will be constructed to a four-lane curbed highway with right and left turn lanes where required. The accident rate for this alternate would be approximately 228 acc/100mvm of travel. The corridor rate for the Alternate 4 proposal will consist of the projected accident experience of Maryland 103 from Interstate 95 to U.S. 29, Maryland 104 from Maryland 108 north to Maryland 103 and Maryland 108 from Maryland 175 to Maryland 104. Combining the projected accident experience for these highways along with Alternate 4, a corridor rate of approximately 202 acc/100mvm of travel and an accident cost of approximately \$1.9 million/100mvm travelled are anticipated.

Alternate 5, as in the other Build Alternates, will have the six-lane divided portion from Interstate 95 to Maryland 104. Alternate 5 will then utilize the combination of Alternates 2 and 4. Maryland 103, Maryland 104 and Maryland 108 would be reconstructed as outlined in Alternates 2 and 4. The accident rate for Alternate 5 would be approximately 333 acc/100mvm of travel. The corridor rate for this alternate will consist of the projected accident experience of Maryland 103 from Interstate 95 to Maryland 104, and Maryland 108 from Maryland 175 to Maryland 104. Combining the projected accident experience for these sections along with Alternate 5, a corridor rate of approximately 290 acc/100mvm of travel and an accident cost of approximately \$2.8 million/100mvm are anticipated.

Regarding the Build Alternates, under Alternate 2 the corridor area will experience an accident rate of approximately 240 acc/100mvm resulting in an accident cost of approximately \$2.3 million/100mvm. Alternate 3 (selected), the



proposed six-lane, divided, full and partial control of access highway, along with the existing highways in the network, should experience a corridor rate of approximately 155 acc/100mvm and result in a cost/100mvm of \$1.4 million. The corridor rate under the Alternate 4 configuration will be approximately 202 acc/100mvm and result in a cost of \$1.9 million per 100mvm. Alternate 5, the combination alternate, will experience an accident rate of 290 acc/100mvm for the entire corridor and result in an accident cost of approximately \$2.8 million/100mvm of travel.

The SHA main goal in servicing the regional transportation demand is from I-95 to Maryland 104. Once traffic approaches Maryland 104, it has three different routes to travel, all include access to interchanges, to arrive at U.S. 29. With this "Tree limb" effect and the dispersement of traffic for north and south travel on U.S. 29, the traffic volumes decrease on Maryland 100 west of Maryland 104. This changes the functions of Maryland 100 to Intermediate.

The Maryland State Highway Administration Bureau of Accident Studies has prepared an analysis of existing and anticipated accident rates in the study area. Considering only the upgraded roadway of each alternate between U.S. 29 and Maryland 104, the corresponding projected accident rates are as follows:

Alternate	Accident Rate (Accid./100 mvm)
2	276
3 Selected	127
4	228
5	335

These rates are based upon statewide averages. Considering that motorists entering the study area from either side will be on a controlled access expressway with a design speed of 60 mph, and that Alternates 2, 4 and 5 would have no access control and a 50 mph design speed, the rates for Alternates 2, 4 and 5 may be above the statewide averages shown above.

The highway network west of MD 104 is projected to operate at or below level of service D in the design year, 2015, even with the implementation of MD 100. Table 11 outlines the number of travel lanes required for traffic to operate at level of service D.

Alternates 2, 4 and 5 require major improvements to MD 103 and MD 108 to meet the LOS D criteria.

Alternate 2 requires the construction of 10 lanes on MD 103 to achieve LOS D traffic operations in the design year 2015. This proposal would require that an additional 5 lanes be added to MD 103 in addition to the 5 lanes which were studied originally. Impacts to properties along MD 103 would be magnified including impacts to three National Register Eligible Historic Sites - Spring Hill, Wheatfield, and Avoca. The numbr of wetland acres impacted by Alternate 2 would also increase.

Alternate 2 would also require the construction of a 4 lane divided highway along the proposed alignment for Alternate 3. Construction of a 4 lane section along this alignment would have approximately the same impacts as with the 6 lane highway recommended with Alternate 3.

Alternate 4 would require additional widening to MD 108 and MD 103 to allow for LOS D traffic operations. MD 108 would need to be improved to a 6 lane divided highway with a 34' median. MD 103 requires 4 - 6 lanes to provide for LOS D traffic operations. The three National Register Eligible Historic Sites impacted by Alternate 2 would have similar impacts with Alternate 4. The additional widening to MD 103 would increase the impacts to the three National Resiter Eligible Historic Sites impacted by Alternate 2.

Alternate 4 would also require that the 2 lane county facility be constructed for LOS D operation.

Alternate 5 would require additional widening to MD 108 and MD 103 to allow for LOS D traffic operations. MD 108 would need to be improved to a 6 lane divided or an 8 lane undivided highway. MD 103 would require similar widening. The additional widening would require a significant increase in right-of-way, along MD 103 and MD 108 and would increase the impacts to the three National Register Eligible Historic Sites impacted by Alternate 2.

Alternate 5 would also require that the 2 lane county facility be constructed for LOS D operation.

Alternate 3, the selected alternate would also require the future widening of MD 103 and MD 108 to provide for LOS D traffic operations on all facilities. However, Alternate 3 is projected to operate a LOS C west of MD 104. This will allow for future traffic growth on MD 100 above that which has been projected for 2015.

TABLE 11  
Number of Required Lanes for LOS D (2015)  
West of MD 104

	Alternate 2	Selected Alternate 3	Alternate 4	Alternate 5
MD 108	4 lanes divided 6 lanes undiv.	4 lanes divided 6 lanes undiv.	6 lanes divided 8 lanes undiv.	6 lanes divided 8 lanes undiv.
MD 100 from 104 to US 229	4 lanes divided 6 lanes undiv.	6 lanes divided*	2 lanes undiv.	2 lanes undiv.
MD 103	10 lns. divided 10 lns. undiv.	4 lanes divided 4 lanes undiv.	4 lanes divided 6 lanes undiv.	6 lanes divided 8 lanes undiv.

\* Alternate 3 - MD 100 operates at LOS C West of MD 104

3. Deficiencies of Alternates 2, 4, and 5 in Satisfying Transportation Needs

Whereas the previous portions of this section have presented the background data and anticipated conditions for each alternate without an analysis of the consequences of these conditions, the purpose of this section is to identify major criteria related to measurement of traffic operations and demonstrate the failure of Alternates 2, 4, and 5 to meet the project need.

The following factors, which in some instances are interrelated, are used for evaluation:

1. Traffic Routing
2. Travel Time
3. Safety
4. Motorists' Cost
5. Road Network Impact

The first four factors pertain to the facility under consideration, whereas the last factor is a measure of the alternate's impact on other roads.

a. Traffic Routing

Approximately 60% of the projected traffic on Maryland 100 at U.S. 29 and just east of Maryland 104 has regional rather than local origins and destinations (e.g. 60 percent + of the westbound traffic on Maryland 100 east of Maryland 104 is destined to U.S. 29). Of the traffic on Maryland 100 at U.S. 29, 67 percent is oriented to the north and 33 percent is oriented to the south.

Selected Alternate 3 provides the best overall travel efficiency of any alternate considered. Selected Alternate 3 while intersecting U.S. 29 at the same location as Alternate 2 is 0.4 miles shorter than Alternate 2. The Selected Alternate also provides an overall shorter trip than Alternate 4 and provides better separation of through and local traffic than Alternate 5.

b. Travel Time

The projected 2015 peak hour travel times between U.S. 29 (at the proposed Alternate 3 interchange) and Maryland 104 (in the general vicinity of Maryland 108) are as follows:

Alternate	Travel Time (minutes)
2	7.2
3 Selected	4.4
4	8.2
5	6.5 - 7.5

Although the differences in the above travel times do not appear to be that great, the driver travel time in excess of that required by Alternate 3 for the project volume of traffic during the two-hour PM peak period on an average day will be as shown below. These values are per vehicle and do not reflect additional travel time incurred by passengers.

Alternate	Additional* Veh. Travel Time (Hours) During 2-Hour PM Peak on Avg. Day
2	375
4	442
5	259

\* As compared to Alternate 3.

c. Safety

The projected accident rates on the alternates are as follows:

Alternate	Accident Rate Accidents/100 MVM	Accident Cost Dollar/100MVM
2	240	\$2.3 Million
3 Selected	155	1.4 Million
4	202	1.9 Million
5	290	2.8 Million

Alternate 3 will be controlled access highway with a 60 mph design speed, which is in keeping with the highways to which it is connecting: U.S. 29 on the west and Maryland 100 on the east.

Alternates 2, 4 and 5, however, would have had a design speed of 50 mph and no access control. The degree of access control is highlighted by the following table:

Alternate	Private Entrance	At-Grade Intersections	
		Total	Signalized
2	76	12	3
3 Selected	0	2	2
4	7	6	4
5	83	18	7

Considering that the majority of the traffic on Maryland 100 will pass through the study area rather than be oriented to it, driver expectancy and thus safety will be enhanced by Alternate 3 as opposed to Alternates 2, 4 and 5, which would introduce a short (two to three mile) roadway with numerous at-grade intersections and entrances in a 21 mile long controlled access expressway.

d. Motorists' Cost

Motorists' cost is most dependent upon travel distance, travel time and accident rate.

As previously discussed, Alternate 3 will provide the shortest travel distance and time as well as the lowest accident rate.

e. Road Network Impact

Of equal importance to operating conditions on the alternate under consideration is the impact of the alternate on other roadways in the study area; in this case Maryland 103, 104 and 108.

As previously mentioned, these roads presently handle between 9,000 and 18,400 vehicles per day and these volumes will increase as development continues in the study area.

The following table shows the ADT for each alternate in the year 2015 at key locations:

Location	Alternate			
	2	3 Selected	4	5
Maryland 103	52,900	20,900	27,900	43,000
Maryland 104	44,700	20,200	19,300	N. Avail.
Maryland 108	30,000	27,000	45,000	40,000

As can be seen above, only Alternate 3 will keep the ADTs below 30,000 on the three arterials in the area.

C. CULTURAL RESOURCES

1. Impacts on Historic Sites

Only three historic sites identified and thought to be National Register eligible are located within the vicinity of Alternate 3. These are Wayside Inn (H0144), Mount Joy (H0145) and the Sunderland - Kraft Farmhouse (H0531). No property will be acquired from within the historic site boundary of any site. The remaining sites which are eligible for the National Register (as listed in the September 22, 1986, letter from the SHPO) are outside of the area of

environmental impact and thus will not be affected. These sites are Spring Hill (H031), Wheatfield (H095), Woodlawn (H030), Avoca (H0422) and the Trinity Church Chapel (H0428).

The Wayside Inn is located on the west side of U.S. 29 approximately 1,400 feet south of where Selected Alternate 3 would tie into the U.S. 29/Maryland 103 interchange (see Figure 5a). The State Historic Preservation Officer has determined that Alternate 3 will have no adverse effect on the historic site. There is an extensive buffer of mature trees between the proposed interchange improvements and the Inn. Heavy vegetation not only surrounds the Inn, but there is a naturally occurring berm between the service road (which the Inn faces) and U.S. 29 which supports thick vegetation, such as tall trees and plants.

The no adverse effect determination is conditioned on numerous measures, such as canting the westbound Maryland 100 to southbound U.S. 29 ramp, Ramp D, to the east to deflect headlights shining directly on the site, and the addition of planting on the berm and landscaping for a new berm section have been included in the interchange construction. Mitigation measures are in response to historical trust letter dated November 10, 1987, located in Section VIII of this document. The Advisory Council on Historic Preservation has concurred in the no adverse effect determination conditioned upon assurances that the above mitigation will be implemented.

The Sunderland-Kraft Farmhouse (H0531) is located about 1,700 feet north of Alternate 3. The State Historic Preservation Officer has determined that Alternate 3 will have no effect on the site. The farmhouse will be separated from the selected alternate by existing vegetation. Alternate 3 will not be visible from the historic structure. The criteria of adverse effect was found not to be applicable because there will be no effect on the location design, material or workmanship of the site. The site will not be damaged, destroyed or altered. Access to the site will not be changed. The historic site is currently fronted by Maryland 103 with Maryland 104 to the west. It also has residential development on three sides. The existing environment away from the immediate vicinity of the farmhouse is rapidly becoming suburbanized. Between the farmhouse and Alternate 3 are dense trees and vegetation. Alternate 3 will not cause any significant changes in the existing visual, audible or atmospheric characteristics of the environment.

The Mount Joy historic site (H0145) is located over 1,200 feet west of Alternate 3 where monitoring for noise receptor site 12 took place. The site is separated from Alternate 3 not only by intervening thick vegetation planted around the nucleus of buildings on a knoll, but also by a stream and an attendant heavy woods. The southern portion of the historic site is currently being graded in preparation for a housing development. Evidently, development is also planned for the eastern flank of the site adjacent to Alternate 3 and includes extensive subdivision development. The State Historic Preservation Officer has determined that Alternate 3 will have no effect on the site. The criteria of adverse effect was found not to be applicable. Alternate 3 will not alter the existing environmental setting of the site or cause it to be isolated from that setting. Access to the site will not be changed. There will be no impacts to the design, material or workmanship of the site nor will the site be

damaged destroyed or altered. Alternate 3 in the vicinity of the historic site is located below the level of the site and is also screened from the site by thick vegetation planted around the nucleus of buildings; in addition, a natural woods is located between the site and Alternate 3. There is little or no difference in air quality at the site between the Build and No-Build condition. Levels are well below both State and National Standards.

2. Impacts on Archeological Sites

Phase II investigation of site 18H019 Deep Run 6 indicated that the site was ineligible for listing on the National Register of Historic Places. However, fencing of the historic component of site 18H019 is recommended to prevent any impact. The historic component is located out of the area of impact of Md. 100.

D. NATURAL ENVIRONMENT

1. Effects on Topography, Geology and Soils

Soils of the project corridor, in general, have low to moderate erosion potential except on steeper slopes adjacent to streams where erosion may be moderate to severe.

Erosion and sediment control factors are considered during the location phase of the project. The design phase of the project will incorporate measures to reduce or mitigate adverse effects of erosion/sedimentation. Specific techniques for erosion/sedimentation control may include:

- a. Limited tree cutting and shrub grubbing
- b. Retaining streams in natural state
- c. Temporary sediment traps and/or basins
- d. Stone embedded baffles in concrete channels to act as energy dissipators
- e. Berming of fills and installation of temporary slope drains
- f. Permanent slope pipes at no-cut, no-fill intersections
- g. Construction of serrated cuts where soils permit
- h. Rip-rap ditches for velocity control
- i. Permanent seeding and mulching as soon as possible after grading, temporary seeding where grading will be exposed for an extended period.

This listing reflects the priority listing of erosion and sediment measures as recommended by the Fisheries Division of the Department of Natural Resources.

2. Effects on Water Resources

a. Surface Water

As discussed in Section III, there are two streams which drain the study area - Deep Run and Red Hill Branch. Each of these will be crossed by selected Alternate 3.

Highway improvements and other changes due to increased urbanization of areas may have adverse effects on water resources including less infiltration and stream base flow, increased surface runoff and stream peak flow. 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.

Highway use results in the accumulation of potential water pollutants from roadway runoff which will collect on the road surface and nearby vegetation. Another source of contamination is the use of chemicals such as de-icing compounds, abrasive 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.

The proximity of the Selected Alternate to the stream makes stormwater management critical to maintaining water quality in the study area. Stormwater management features will be incorporated into the design of the selected alternative in the following order of preferences:

- 1) On-site infiltration
- 2) Flow attenuation by open swales 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 will not exceed present rates for existing lane uses.

Revegetation will be applied promptly after grading and the minimum area required for construction will be disturbed in order to minimize erosion and sedimentation.

Stream relocations and rechannelizations are required for this project. Potential impacts which may result from stream relocation include denuded soils, stream beds silted, meanders destroyed and habitat displacement. Selected Alternate 3 requires that approximately 1,800 feet of Deep Run Creek be relocated east of Maryland 104. Additionally Red Hill Branch will be piped under the proposed Maryland 100 roadway. Effects to streams will be mitigated by replacing meanders, pool to riffle ratio, stream bank stabilization with gabion baskets, where necessary, and placing rip-rap in stream channel. Co-ordination with environmental agencies will continue in the design phase. The relocated portion of the stream will approximate 1800 feet to the extent possible.

The hydrologic structures for new stream crossings and replacement of existing facilities will be designed to comply with the criteria of the Maryland Department of Natural Resources, Water Resources Administration, which are in effect at the time the design is performed. Current Water Resources Administration criteria require depressing the bottoms of pipes hydrologic structures to allow a natural substrate to form.



A sediment and erosion control program was adopted by the State Highway Administration in 1970. It incorporates the standards and specifications of the Soil Conservation Service and specifies procedures and controls to be used on highway construction projects. These procedures and controls will be stringently applied to limit the generation and transport of silt.

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 closely monitored to minimize debris and control waste areas. With the application of available erosion control technology, impacts to surface water quality will be minimal.

#### b. Groundwater

Potential groundwater effects could result from cut and fill operations causing changes in groundwater level and flow. Since the groundwater recharge area will be changed by construction of the roadway, improved drainage, and reduced vegetation, groundwater levels could be altered in certain areas.

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

If it is determined to be required, the State Highway Administration will conduct a hydrogeologic study of the area to determine any impacts of the project to groundwater. According to recorded prime wells, the depth of the water table in the area of the proposed project ranges from approximately 70 to 145 feet. Highway cut sections will not be this deep and, therefore, will not interface with the water table in the crystalline rock.

### 3. Effects on Floodplains and Streams

The Selected Alternate 3 will cross at least two streams and their floodplains. During final design, a detailed hydrologic and hydraulic study will be prepared to identify the existing and proposed discharge and floodplains for various storm frequencies. Using these studies, the most appropriate structure for each floodplain and stream crossing will be determined. Preliminary studies indicate that both Red Hill Branch and Deep Run Stream crossings could be handled with a 120-inch metal pipe at each location. Structures for stream crossing will be placed below the existing stream bed to allow a natural stream bottom to form.

Floodplain and associated wetland encroachment have been reviewed and coordinated with the U.S. Army Corps of Engineers for a Section 404 Permit from the Corps.

Selected Alternate 3 will encroach on approximately 4.87 acres of floodplains associated with Deep Run Creek and Red Hill Branch. In accordance with the requirements of Executive Order 11988 and FHPM 6-7-3-2, the impacts of each encroachment were preliminary evaluated to determine its significance. A significant encroachment would involve one of the following:

- 1) High probability of loss of human life
- 2) Likely future damage that could be substantial in cost or extent
- 3) Disruption of an emergency or evacuation route
- 4) Notable adverse impact on "natural and beneficial floodplain values"

The use of standard hydraulic design techniques for all waterway openings will incorporate structures to limit upstream flood level increases and approximate existing downstream flow rates. Hydrologic structures will be set one foot below the existing invert to allow a natural substrate to form.

Use of the most advanced sediment and erosion control techniques and stormwater management controls available will ensure that none of the encroachments will result in risks or impacts to the beneficial floodplain values or provide direct or indirect support to further development within the floodplain. Preliminary analysis indicates that no significant floodplain impacts are expected to occur as a result of the Selected Alternate under consideration. Therefore, a floodplain finding will not be required. Additional studies, in accordance with Executive Order 11988, are therefore not required.

Both streams are designated Class I - Water Contact for Recreation and Aquatic Life, by the Maryland Department of Health and Mental Hygiene. As such, all in-stream construction may be prohibited from March 1, through June 15, inclusive, and stream areas must be stabilized.

4. Effects 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.). All of the alternates originally considered affect palustrine forested, non-tidal wetlands. Approximate amounts of wetlands that may be affected are listed below. The impacted acreage differs from those that appeared in the DEIS because of changes in delineations made at a subsequent field review with the Army Corps of Engineers.

Alternates*	Wetland Acreage (Approximate)
1 - No-Build	0
2 -	18.53
3 - Selected Alternate	16.00
4 -	18.03
5 -	18.53

\*All alternates assume worst-case impact for Options A&B at Maryland 104, except the Selected Alternate 3 which includes only the selected Option A.

Ron Jetman, Department of Natural Resources, stated that trees between the road and stream should remain intact and if any are removed, they should be replaced. Also it was recommended that pipes be depressed 1 inch beneath the

existing stream bed and that gravel be placed in streams relocated as initial roughing. The Army Corps of Engineers suggested that Brampton Hills Park be considered a possible wetland mitigation site and that sediment traps be converted to wetlands.

A detailed mitigation plan for wetland replacement will be developed during the design phase of project planning and coordinated with resource agencies.

Wetlands potentially impacted by Alternate 3, the Selected Alternate have been examined in more detail by field investigation with the U.S. Army Corps of Engineers on November 19 and 20, 1987. Thirteen separate wetland areas have been identified along the alternate corridor. These are shown in Figures 5a through Figure 5e in Section II. Complete avoidance of these wetlands is not possible without numerous residential and commercial relocations and additional impact to park property. A complete description of each wetland, its location and the associated impacts are found in Table 12.

Wetlands W-1 and W-2 (Figure 5a) are located west of Yorkshire Drive and west of Brampton Hills subdivision, respectively. Shifting this segment of the Selected Alternate 3 alignment to the east will impact several residences of the Brampton Hills subdivision and shifting this alignment to the west will impact 18 residences of the Columbia Hills subdivision along with impacting additional floodplain and wetland areas associated with Red Hill Branch. An eastern shift in the selected alignment to completely avoid wetland 1 and 2 will cause additional residential impacts which are beyond the limits covered by current mapping.

Wetland W-4 (Figure 5b) is located 500 feet north of Timber Run Valley subdivision and behind the athletic field of the Howard High School. This is a low lying area which continues in an east-west direction and meanders through residential development. Shifting this segment of the Selected Alternate 3 roadway to the east would impact additional acreage of wetland 4, residences of Timber Run Valley subdivision, two residences 250 feet north of Horseshoe Road and several residences along Avoca Avenue. A western shift in this selected alignment would impact the athletic field and track of Howard High School as well as the existing water tower which services the area. Complete avoidance cannot be achieved with an eastern shift as a tributary of Red Hill Branch parallels selected Alternate 3 on the north side. Complete avoidance of wetlands cannot be achieved with a western shift because of commercial development, the Howard High School and a water tower.

Wetland W-5 (Figure 5b) is located slightly west of Oak Run Way of the Timber Run Valley subdivision. Shifting to avoid wetland 5 would cause the same impact as shifting to avoid wetland W-4.

Wetland W-6 (Figure 5b) is located in the vicinity of proposed Maryland 100, Maryland 108 and Maryland 104. Option 104-A was selected and will be implemented as a staged improvement. The immediate improvement will be an at-grade intersection, not of the magnitude of Option 104-B. The selection of Option 104-A minimizes wetland impacts. Shifting the alignment of proposed Maryland 100 to the east would impact 17 residences of the Glenmar Estates subdivision. A shift of Maryland 100 to the west would cause impacts to residences along Maryland 108 which are beyond the limits of current mapping,

TABLE 12

## Description and Classification of Wetlands

Wetland No.	Location	Classification	Dominant Vegetation	Approximate Acreage Impacted	Wetland Functional Values
W-1 & W-2	West of Yorkshire Drive and West of Brampton Hill subdivision	W-1 Palustrine Forested broad leaved deciduous temporary palustrine scrub shrub broad leaved deciduous temporary W-2 Riverine lower perennial open water permanent	W-1 Sycamore, red maple, multi-flora rose, jewelweed young black willow	.76/.30, respectively	Habitat for aquatic wildlife or fisheries Flood desynchronization Nutrient retention Long-term sediment trapping
W-3	Wetland W-3 did not meet the U.S. Army Corps of Engineering Criteria for classification as a wetland.				
W-4	500 ft. north of Timber Run Valley behind Howard High School Athletic Field	Palustrine forested broad leaved deciduous seasonal	Red maple, skunk cabbage, high bush blueberry	1.57	Passive recreation area Flood Flood desynchronization Sediment trapping Groundwater recharge

Wetlands 1, 2, 3, 4, and 5 are associated with Red Hill Branch. These wetlands extend along the stream for a great distance (up stream where it enters Little Patuxent River and down stream where it terminates just west of Maryland 104).

Wetlands 6, 7, 8, 9, 10, 11, 12, and 13 are associated with Deep Run Creek and extend along the stream for a great distance in each direction.

TABLE 12  
(Continued)

Description and Classification of Wetlands

Wetland No.	Location	Classification	Dominant Vegetation	Approximate Acreage Impacted	Wetland Functional Values
W-5	Slightly west of Oak Run Way of the Timber Run Valley subdivision	Riverine upper perennial open water permanent no fish	Red maple, spice bush, tulip bush American beech	.52	Flood desynchronization Long-term sediment trapping
W-6 Option 104A	Vicinity of proposed MD Route 108 and Maryland Route 104	Palustrine forested broad leaved deciduous seasonal	Red maple, sweet gum, black gum sedges	3.09	Sediment trapping Nutrient retention Food chain support

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TABLE 12  
(Continued)

Description and Classification of Wetlands

Wetland No.	Location	Classification	Dominant Vegetation	Approximate Acreage Impacted	Wetland Functional Values
W-7	Approximately 1,000 feet north of Hunt Country Estates along proposed MD Route 100	Palustrine forested broad leaved deciduous temporary	Red maple, sycamore		Flood desynchronization Groundwater discharge Nutrient retention Sediment trapping
W-8	Approximately 250 feet west of Fetlock Court in Hunt Country Estates	Palustrine forested broad leaved deciduous temporary	Sycamore, green ash, black willow, red willow	4.56	Sediment trapping Passive recreation area Habitat Habitat for aquatic wildlife Flood desynchronization Food chain support Groundwater discharge Nutrient retention

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TABLE 12  
(Continued)

Description and Classification of Wetlands

Wetland No.	Location	Classification	Dominant Vegetation	Approximate Acreage Impacted	Wetland Functional Values
W-9	Approximately 500 feet north of proposed Snowden River Parkway	Palustrine forested broad leaved deciduous temporary	Red oak, sycamore pin oak		Passive recreation area Habitat for aquatic wildlife Flood desynchroni- zation Groundwater discharge Sediment trapping
W-10	Approximately 250 feet east of the tie-in of proposed MD Route 100 with the proposed Snowden River Parkway Extension	Palustrine scrub-shrub broad leaved deciduous seasonally saturated palustrine emergent narrow leaved persisent seasonally saturated Palustrine open water man made	Black willow, cattails sedges rushes, red willow, monkey flower	Not tabulated, Option built by others	Habitat for aquatic wildlife Sediment trapping Nutrient retention Food chain support Groundwater discharge

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TABLE 12

(Continued)

## Description and Classification of Wetlands

Wetland No.	Location	Classification	Dominant Vegetation	Approximate Acreage Impacted	Wetland Functional Values
W-11	Approximately 1,200 feet southeast of Old Montgomery Rd.	Palustrine forested broad leaved deciduous temporary	Sweet gum, Red maple	2.09	Habitat for aquatic wildlife Sediment trapping Nutrient retention Food chain support
W-12	Approximately 265 feet east of MD Route 103 (Old Montgomery Road)	Palustrine forested broad leaved deciduous temporary	Sweet gum, tulip popular, spice bush, sedges, sphagnum moss	2.42	Sediment trapping Flood desynchroni- zation Nutrient retention Groundwater discharge Sediment trapping
W-13	At study limits of proposed MD Route 100 and existing ramp and roadway of Interstate Route 95	Palustrine forested broad leaved deciduous temporary	Smooth alder sedges, rushes jewelweed	.68	Sediment trapping Flood desynchroni- zation Nutrient retention

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and increase the amount of wetland acreage impacted. Neither eastern nor western shift would completely avoid wetland impacts as it is necessary that a ramp be located at Maryland 108.

Wetland W-7 (Figure 5c-5d) is located approximately 1,000 feet northwest of Hunt Country Estates along proposed Maryland 100. These wetlands are associated with Deep Run Creek. Shifting this segment of the Selected Alternate 3 alignment to the east would impact the existing Colonial pipeline and impact additional wetlands and floodplain associated with Deep Run Creek areas. Shifting this segment of the Selected Alternate 3 alignment to the west would impact 66 proposed residences of the Village of Montgomery Run. Because of the extent to which these properties have been developed (i.e. site plan approval etc.), a shift onto this property would involve substantial acquisition cost (more than for vacant land alone). Complete avoidance is not possible without the residential impacts noted above.

Wetland W-8 (Figure 5c-5d) is located approximately 250 feet west of Fetlock Court in Hunt Country Estates. Shifting the Selected Alternate 3 alignment to the east would impact 9 residences of Hunt Country Estates and impact additional wetlands and floodplain areas associated with Deep Run Creek. The selected alignment in the vicinity of Wetland #8 is the result of evaluating 4 alignment shifts. The selected alignment best minimizes potential impacts to Hunt Country Estates, Curtis Lee Farm and the University of Maryland Animal Husbandry Farm in addition to the proposed development of the Village of Montgomery Run. Total avoidance of Deep Run crossing is not possible as Deep Run flows from the north to the south. Shifting the Selected Alternate 3 alignment to the west would impact 12 acres of the Curtis Farm and 99 units of Village of Montgomery Run currently under construction in addition to impacting additional wetlands and floodplains associated with Deep Run Creek.

Wetland W-9 (Figure 5c) is located approximately 500 feet north of the proposed Snowden River Parkway. Shifting this segment of the Selected Alternate 3 alignment would not decrease impacts to wetlands and floodplains. The wetlands and floodplains are associated with Deep Run Creek which flows in a north to south direction. It is not possible to avoid crossing Deep Run and its associated wetland. Shifting this segment of Selected Alternate 3 to the west would not measurably decrease wetland or floodplain impacts.

Wetland W-10 (Figure 5c-5d) is located approximately 250 feet east of the tie-in of Selected Alternate 3 with the proposed Snowden River Parkway Extension. Wetland impacts associated with the Snowden River Parkway extension will approximate 6.8 acres. There are no final plans for the interchange and it is not programmed for construction by Howard County. The configuration of the interchange given on 5c is only an approximation and is subject to change.

Wetland W-11 (Figure 5c) is located approximately 1,200 feet south east of Old Montgomery Road and is associated with a tributary of Deep Run Creek which flows in a north/south direction until it empties into the main stream of Deep Run Creek. Shifting the Selected Alternate 3 Maryland 100 alignment east would cause additional wetland impacts and residential impacts of the proposed Brighfield subdivision. A western shift would result in the alignment impacting a greater portion of Deep Run Creek. Total wetland avoidance is not possible because of tributaries to Deep Run located all along this section of the alignment.

Wetland W-12 (Figure 5d) is located approximately 265 feet east of Maryland 103 (Old Montgomery Road). This wetland is associated with tributaries to Deep Run Creek which meander throughout the area of the selected alignment. Shifting this selected alignment east would impact residences along Maryland 103 (Montgomery Road) and planned future housing development (Brightfield). Shifting this segment of the selected proposed alignment west would cause impacts to three residences along Mullineaux Road and would not measurably reduce wetland impacts.

Wetland W-13 (Figure 5d) is located at the study limit of Selected Alternate 3 Maryland 100 alignment and the existing ramp and roadway of Interstate 95. Shifting this segment of the Selected Alternate 3 alignment east or west would require redesigning the existing Interstate 95/Maryland 100 interchange. This would result in significant costs to rebuild the interchange. SHA will develop wetland mitigation in accordance with Federal and State regulations.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed new construction in wetlands and that the proposed action has considered all practicable measures to minimize harm to wetlands which may result from such use.

Section 404 permits from the U.S. Army Corps of Engineers will be obtained for all filling operations within the wetlands.

5. Effects on Terrestrial and Aquatic Habitats

The Selected Alternate 3 Maryland 100 Extension will have an impact on terrestrial habitats. Alternate 3, the selected alternate, will require additional right-of-way, much of which would be through woodlands, old fields and various wildlife habitat. Terrestrial habitat impacted by the selected alternate approximates 56.49 acres. Terrestrial habitat associated with alternates dropped from further consideration is as follows:

Alternate	Impact (Acreage Approx.)
2	29.12
4	28.70
5	31.51

The loss of habitat will be accompanied by a proportional loss in animal population inhabiting those areas. Disturbance of large unsegmented tracts which provide food cover and relatively unrestricted movement can result in adverse effects to wildlife.

Although most resident forms of vertebrates will move to adjacent habitats during construction, these species will likely perish due to competition and the fact that these adjacent areas are rapidly developing residential centers.

While the segmentation will adversely affect animal species that need less unbroken tracts, the proposed construction will create additional ecotonal or "edge" habitats which will enhance other wildlife populations.

Animal population within the area are suppressed because of the growing human population and urbanization which have reduced available animal habitat.

Limiting factors such as existing roads and urbanization will continue to restrict the numbers of wildlife in the corridor.

Coordination with the Maryland State Forester has been initiated. Appropriate forestation mitigation will be provided as recommended by the Maryland State Forester.

Sediment and erosion control plans will help minimize the adverse effects of construction activities, and proper stormwater management will reduce the amount of roadway pollutants which reach streams. Streams in the project area are expected to take on the characteristics of other typically stressed suburban watersheds.

Due to DNR's plans to stock Deep Run Creek with anadromous fish, strict sediment and erosion control plans will be adhered to to minimize the adverse effects of construction activities. State of the art stormwater management practices will also reduce the amount of roadway pollutants which reach area streams. Other mitigation measures such as plantings along streambank for shading and rip-rapping streams to provide riffles for fish will also enhance DNR's efforts.

6. Effects on Threatened or Endangered Species

Correspondence with the U.S. Fish and Wildlife Service and Maryland Department of Natural Resources - Wildlife Administration, indicates there are no known population of federally listed threatened or endangered species along the study corridor to be impacted by any of the build alternates.

E. AIR QUALITY IMPACTS

1. Analysis Objectives, Methodology, and Results

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

A microscale CO pollution diffusion analysis was conducted using the third generation California Line Source Dispersion Model, CALINE 3. This microscale analysis consisted of projections of 1-hour and 8-hour CO concentrations at sensitive receptor sites under worst case meteorological conditions for the No-Build Alternate and the Build Alternates for the design year (2015) and the estimated year of completion (1995).

a. Analysis Inputs

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

Background CO Concentration

In order to calculate the total concentration of CO which occurs at a particular receptor site during worst-case meteorological conditions, the background CO concentrations are considered in addition to the levels directly attributable to the facility under consideration. The background levels were derived from the application of rollback methodology to on-site monitoring conducted at Fort George G. Meade. The background concentration resulting from area-wide emissions from both mobile and stationary sources was assumed to be the following:

	CO, ppm	
	1-hour	8-hour
1995	3.6	2.0
2015	3.5	1.9

Traffic Data, Emission Factors, and Speeds

The appropriate traffic data was utilized as supplied by the Bureau of Highway Statistics (July, 1987) of the Maryland State Highway Administration.

The composite emission factors used in the analysis were derived from the Environmental Protection Agency (EPA) Mobile Source Emission Factors, and were calculated using the EPA MOBILE 3 computer program. An ambient air temperature of 20° F was assumed in calculating the emission factors for the 1-hour analysis and 35° F was used for the 8-hour analysis in order to approximate worst-case results for each analysis case. Credit for a vehicle inspection maintenance (I/M) emission control program beginning in 1984 was included in the emission factor calculations.

Average vehicle operating speeds used in calculating emission factors were based on the capacity of each roadway link considered, the applicable speed limit, and external influences on speed through the link from immediately adjacent links. Average operating speeds range from 30 mph to 55 mph depending upon the roadways and alternate under consideration.

Meteorological Data

Worst-case meteorological conditions of 1 meter/second for wind speed and atmospheric stability class F were assumed for the 1-hour calculations and a combination of 1 and 2 meters/second and class D and F stability classes as appropriate for the 8-hour calculations.

The wind directions utilized as part of the analysis were rotated to maximize CO concentrations at each receptor location. Wind directions varied for each receptor and were selected through a systematic scan of CO concentrations association with different wind angles.

b. Sensitive Receptors

Site selection of sensitive receptors was made on the basis of proximity of the roadway, type of adjacent land use, and changes in traffic patterns on the roadway network. Nineteen receptor sites were chosen for this analysis consisting of thirteen residences, five edge-of-right-of-way sites, and a school. The receptor site locations were verified during study area visits by the analysis team. The receptor sites are shown on Figures 5a-5e.

c. Results of Microscale Analysis

The results of the calculations of CO concentrations at each of the sensitive receptor sites for the No-Build and Selected Alternate are shown on Table 13. The values shown consist of predicted CO concentration attributable to traffic on various roadway links plus projected background levels. A comparison of the values in Table 11 with the S/NAAQS shows that no violations will occur for the No-Build or Selected Alternate in 1995 or 2015 for the 1-hour or 8-hour concentrations of CO. The projected CO concentrations vary among alternates depending on receptor locations as a function of the roadway locations and traffic patterns associated with each alternate.

The Selected Alternate results in higher CO concentrations in 1995 and 2015 than the No-Build Alternate

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

2. Construction Impacts

The construction phase of the proposed project has the potential of impacting the ambient air quality through such means as fugitive dust from grading operations and materials handling. The State Highway Administration has addressed this possibility by establishing Standard Specifications for Construction and Materials, 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 of these regulations. Therefore, during the construction period, all 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 nonattainment 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.

TABLE 13

Maryland 100  
CO Concentrations \* at each site, in ppm

Receptor No.	2015				1995			
	No-Build		Build		No-Build		Build	
	1-hour	8-hour	1-hour	8-hour	1-hour	8-hour	1-hour	8-hour
1	3.5	1.9	5.7	2.3	3.6	2.0	4.3	2.2
2	5.1	2.2	6.2	2.5	4.2	2.2	4.5	2.1
3	3.5	1.9	4.8	2.2	3.6	2.0	4.0	2.0
4	3.5	1.9	4.4	2.1	3.6	2.0	3.8	2.0
5	3.5	1.9	4.9	2.1	3.6	2.0	4.2	2.0
6	3.5	1.9	6.9	3.0	3.6	2.0	4.7	2.3
7	3.5	1.9	5.4	2.4	3.6	2.0	4.2	2.2
8	3.5	1.9	5.7	2.3	3.6	2.0	4.4	2.3
9	3.5	1.9	6.5	2.5	3.6	2.0	4.6	2.2
10	3.5	1.9	5.5	2.3	3.6	2.0	4.2	2.2
11	3.5	1.9	5.5	2.3	3.6	2.0	4.2	2.2
12	3.5	1.9	6.7	2.5	3.6	2.0	4.5	2.2
13	3.5	1.9	5.9	2.3	3.6	2.0	4.2	2.2
14	3.5	1.9	5.6	2.3	3.6	2.0	4.1	2.0
15	3.5	1.9	6.3	2.4	3.6	2.0	4.4	2.2
16	3.5	1.9	4.8	2.1	3.6	2.0	4.0	2.1
17	11.3	3.4	3.5	1.9	8.0	3.1	3.6	2.0
18	5.6	2.3	6.5	2.4	4.6	2.2	4.7	2.3
19	4.5	2.1	5.1	2.1	4.0	2.0	4.2	2.0

\*Including Background Concentrations:  
1-hour 8-hour

The S/NAAQS for CO:  
Hour = 35 ppm  
8-hour = 9 pp,

1995 3.6 2.0  
2015 3.5 1.9

4. Agency Coordination

Copies of the Technical Air Quality Analysis have been circulated to the U.S. Environmental Protection Agency and the Maryland Air Management Administration for review and comment.

F. NOISE IMPACT ANALYSIS

1. Introduction

The factors which will be considered when determining whether mitigation will be required and whether the mitigation will be considered reasonable and feasible will be:

- Whether Federal Highway Administration Noise Abatement Criteria are approached or exceeded;

Noise abatement measures (in general, noise barriers) are considered to minimize impacts. Consideration is based on the size of the impacted area (number of structures, spatial distribution of structures, etc.), the predominant activities carried on within the area, the visual impact of the control measure, practicality of construction, feasibility, and reasonableness;

The Noise Abatement Criteria for residential areas is 67 decibels. The land use adjacent to the study section of Maryland 100 is primarily residential;

- Whether a substantial (10 dBA or more) noise increase of Build over ambient levels would occur;
- Whether a substantial noise increase would result from the highway project--minimum of 4 dBA increase--of Build over No-Build levels would occur in the design year of the project;
- Whether a feasible method is available to reduce the noise;
- Whether the noise mitigation is cost-effective for those receptors that are impacted -- approximately \$40,000 per impacted residence;
- Whether the mitigation is acceptable to impacted property owners;
- Whether the majority of the impacted residences were constructed before or after the opening of the highway.

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

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

Consideration is based on the size of the impacted area (number of structures, spatial distribution of structures, etc.), the predominant activities carried on within the area, the visual impact of the control measure, practicality of construction, feasibility, and reasonableness. A reasonableness determination includes consideration of the effects on noise levels of the project when comparing the Build Alternate to the No-Build Alternate, the cost-per-residence, and community desires.

2. No-Build Alternate

Evaluation of the No-Build Alternate was performed to determine the future-year (2015) noise levels of residences along existing major roadways. The No-Build Alternate assumes that no roadway improvements other than normal maintenance will occur within the project area. Under the No-Build Alternate, two of the three noise receptors will experience design-year (2015)  $L_{eq}$ 's above the FHWA's criteria; however, one of the three receptors has an ambient level currently above the 67 dBA level. None of the three sites' future-year levels exceeds an ambient increase of 10 dBA. Noise sensitive receptor 17 was selected as a No-Build receptor because noise levels at this site reflect the noise levels expected if Maryland 100 were not constructed. A Build noise level 1-3 dBA lower than the No-Build level could be expected.

3. Selected Alternate 3

Construction of the proposed highway will substantially increase the noise levels within the project corridor. Of the eighteen noise sensitive receptors modeled under this alternate, the future-year (2015) noise levels of fourteen of these NSR's will exceed the FHWA's noise abatement criteria for Category B Activities. Noise levels at 15 of the 18 receptors will increase over ambient levels by 10 dBA or more. Predicted future-year (2015)  $L_{eq}$ s ranged from a minimum of 62 dBA at NSR 3 to a maximum of 77 dBA at NSR 6.

The results of the modeling analysis for each noise receptor are contained in Table 14. The following subsections describe the individual barrier heights relative to existing ground elevations, modeling results both with and without the barrier, and the noise receptors to be protected by each barrier.

Noise mitigation measures for the Brightfield and Montgomery Run Subdivisions are not considered part of the Maryland 100 project. Brightfield and Montgomery Run communities were planned and constructed after Maryland 100 was placed on the Howard County General Plan and noise mitigation for these communities is considered to be the responsibility of the developer and should be addressed during the county subdivision review process.



TABLE 14  
Maryland 100  
Project Noise Levels

Noise Receptor	Description	Ambient Leq	Design Year (2015) Leq	
			No-Build	Build
1	Residence	49	--	72
2	Residence	55	61	64
3	Residence	53	--	62
4	IL Historic	49	--	63
5	Residence	49	--	68
6	R.O.W.	49	--	77
7	Residence	51	--	72
8	Residence	51	--	69
9	School	53	--	74
10	Residence	59	--	72
11	R.O.W.	59	--	74
12	R.O.W.	59	--	76
13	Residence	50	--	72
14	Residence	51	--	69
15	R.O.W.	51	--	73
16	R.O.W.	51	--	69
17	Residence	70	70	--
18	Residence	65	68	70
19	Residence	55	--	66

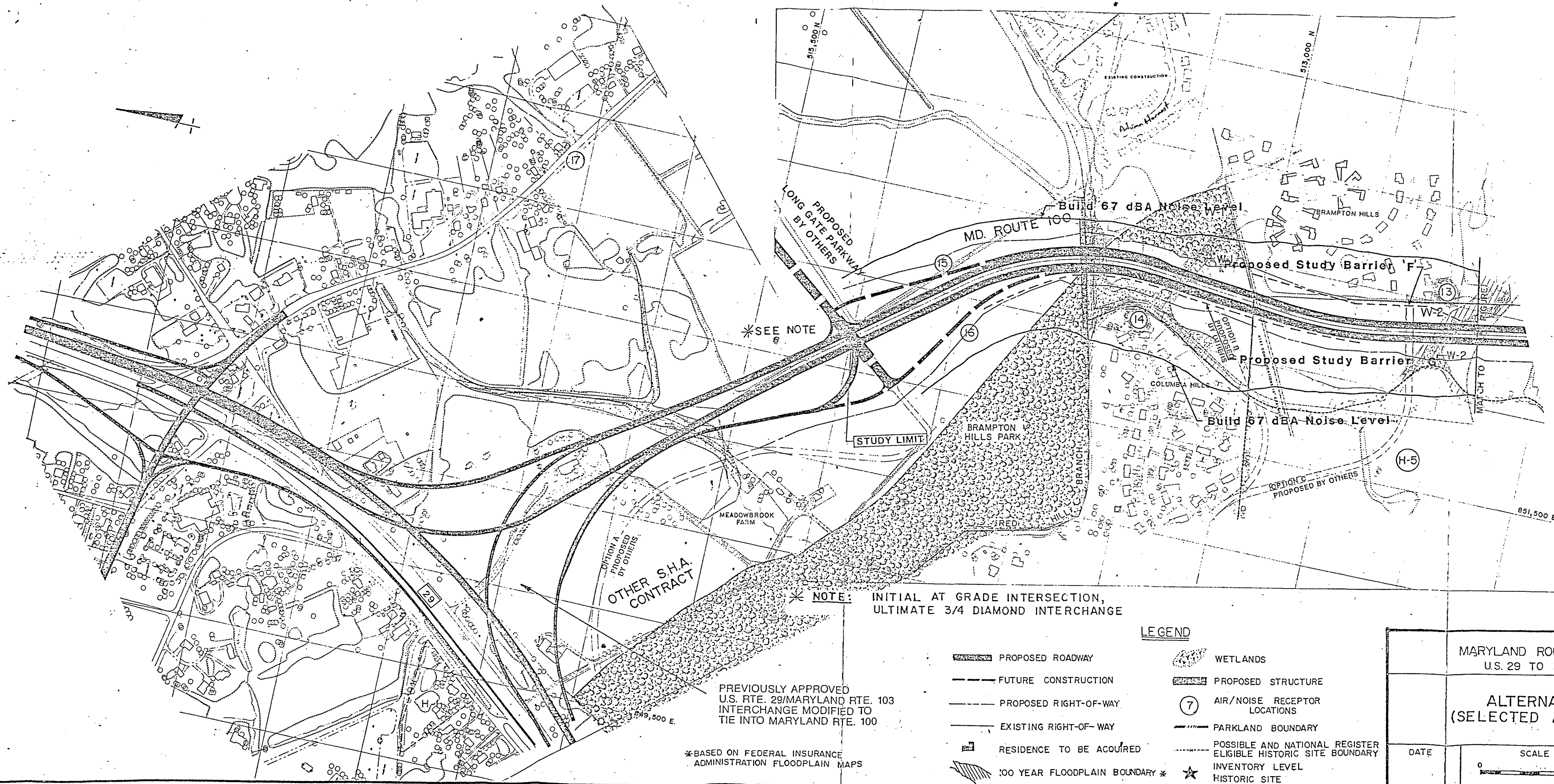
Noise Sensitive Area A (Noise Receptors 1, 19) [See Figures 20 thru 23]

Projected 2015 noise levels for Noise Receptor 1 would be 5 dBA above the noise abatement criteria. In addition, the projected 2015 noise level for Noise Receptor 19 would be 11 dBA above the ambient level. A 2015 No-Build level was not analyzed for these receptors as they are not located in close proximity to an existing roadway.

A barrier for noise sensitive area "A" would be located south of proposed Maryland 100 and west of Interstate 95 in the area of Mullineaux Road and would only provide protection for four residences of Mullineaux Road (NSA 1).

This barrier would begin approximately 110 feet from the edge of the proposed roadway at the right-of-way and continue along the right-of-way for 1,300 feet before terminating.

The average height of this wall would be approximately 16.75 feet and would have a total length of 1,300 feet. Using a \$27 per-square-foot multiplier, this barrier would cost approximately \$587,500 to construct. Only four (4) residences with projected levels at or above criteria will receive a 5 dBA attenuation from this barrier, thus yielding a cost-per-residence value of \$146,900. Within noise sensitive Area A, four residences will have build noise



\*SEE NOTE

STUDY LIMIT

\*NOTE: INITIAL AT GRADE INTERSECTION, ULTIMATE 3/4 DIAMOND INTERCHANGE

PREVIOUSLY APPROVED U.S. RTE. 29/MARYLAND RTE. 103 INTERCHANGE MODIFIED TO TIE INTO MARYLAND RTE. 100

\*BASED ON FEDERAL INSURANCE ADMINISTRATION FLOODPLAIN MAPS

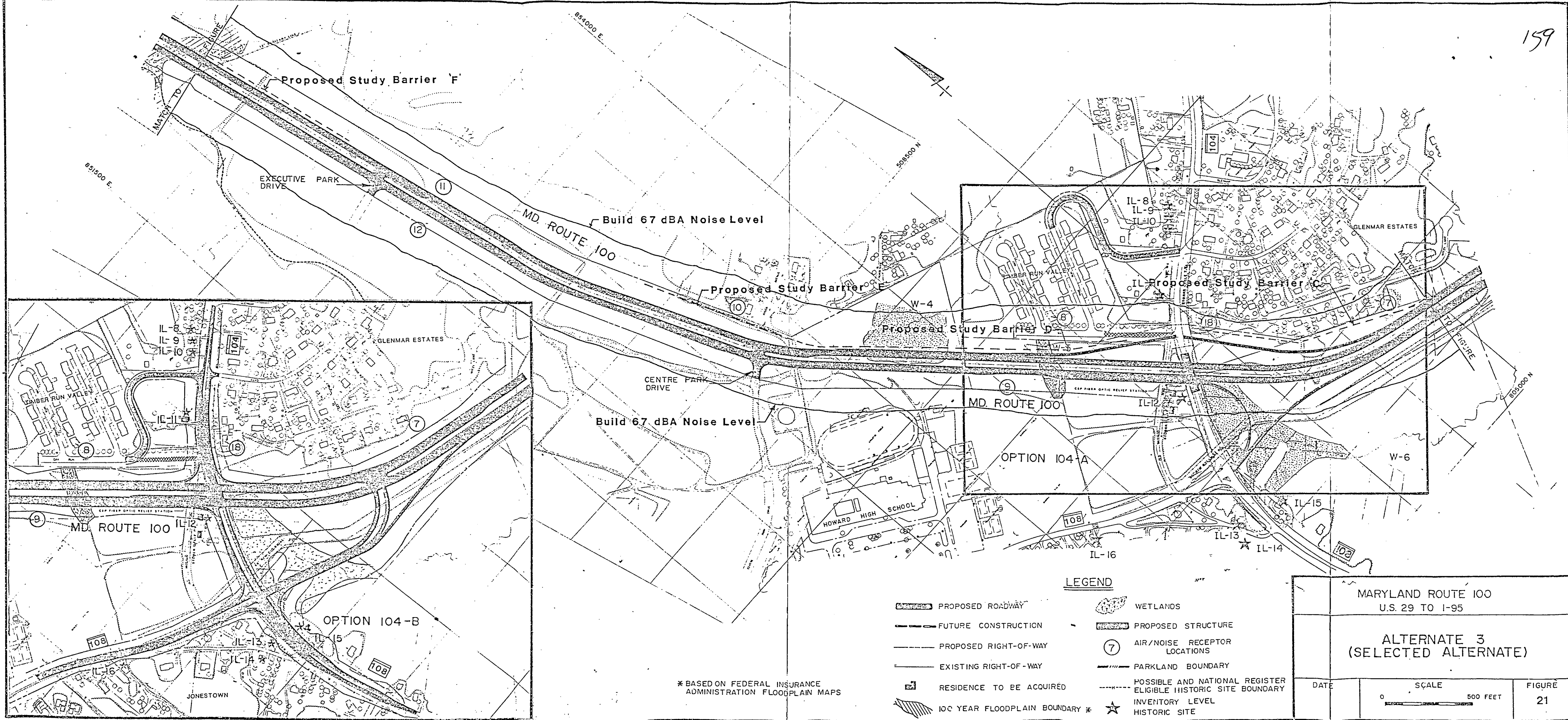
LEGEND

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95

ALTERNATE 3 (SELECTED ALTERNATE)

DATE	SCALE 0 500 FEET	FIGURE 20
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\* BASED ON FEDERAL INSURANCE ADMINISTRATION FLOODPLAIN MAPS

**LEGEND**

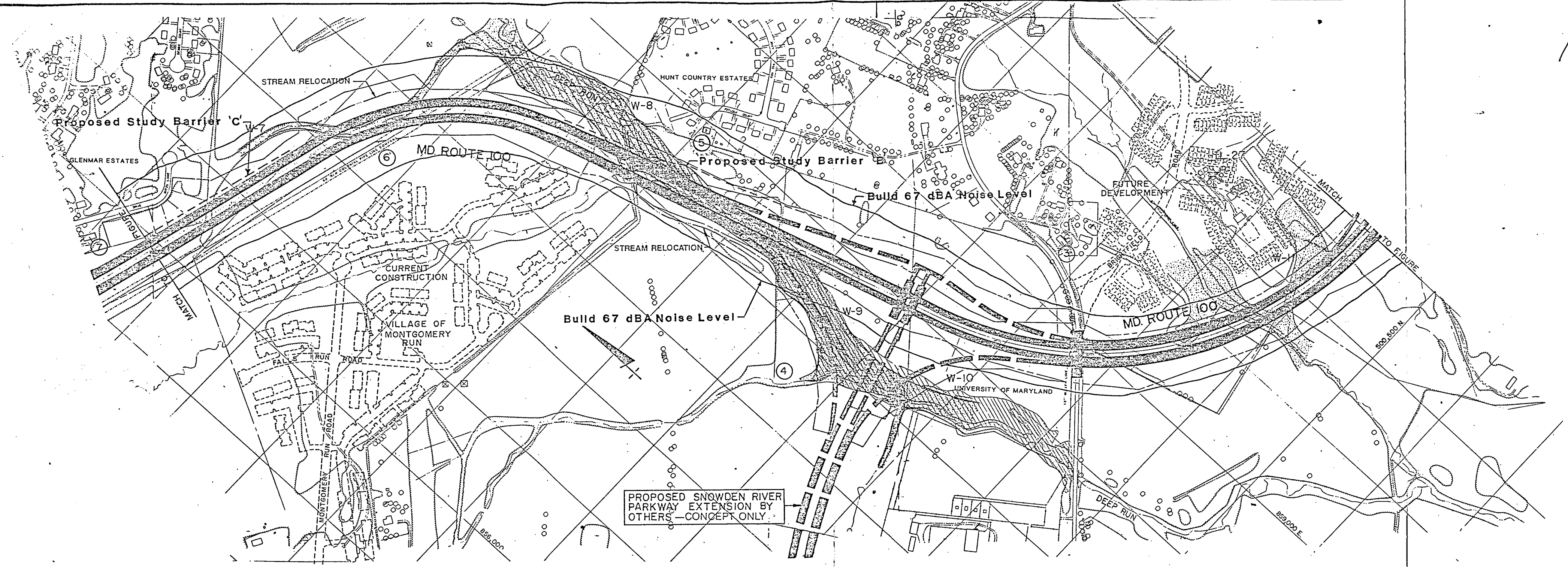
- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100  
U.S. 29 TO I-95

ALTERNATE 3  
(SELECTED ALTERNATE)

DATE	SCALE 0 500 FEET	FIGURE 21
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\*BASED ON FEDERAL INSURANCE ADMINISTRATION FLOODPLAIN MAPS

**LEGEND**

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY\*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
ALTERNATE 3 (SELECTED ALTERNATE)		
DATE	SCALE 0 300 FEET	FIGURE 22

A. Glossary of Terms

GLOSSARY OF TERMS

- Arterial Highway - A highway primarily for through-traffic, usually on a continuous route.
- Association - A natural unit of vegetation characterized by the presence or dominance of certain species and identified by those species.
- Auxiliary Lane - The portion of roadway adjoining the traveled way for parking, speed change, or for other purposes supplementary to the through-traffic movement.
- Average Daily Traffic - The total volume of auto and truck traffic passing a given point in both directions during a given time period (greater than one day and less than one year) in whole days, divided by the number of days in that time period.
- Benthic - The bottom of an aquatic habitat, including the rocks, sand, and other materials.
- Biota - The total set of all organisms, both plant and animal, microscopic to macroscopic.
- Climax - A community which has reached relative constancy or stability of species composition.
- Community - The collection of plants and/or animals which exist in a particular location or habitat.
- Control of Access - Full-Complete restriction of access on a through facility except at interchanges. Grade separations for all crossings.  
 - Uncontrolled: Access control limited only to safe geometrics. All crossroads, driveways, etc. may have points of ingress or egress.
- Density - Refers to the number of organisms per unit area, assuming an even distribution.
- Design Hour Volume - The percent of average daily traffic (ADT) generally accepted as the criterion used in the geometric design of rural and urban highways. Ideally the 30th highest hourly volume during a year, the DHV is commonly found to vary from 8% to 12% of the ADT.

- Design Speed - A speed selection for purposes of design and correlation of those geometric features of a highway such as curvature and sight distance, upon which safe operations is dependent.
- Endangered - An organism of very limited numbers which may be subject to extinction, and is protected by law under the Endangered Species Act.
- Fauna - The animal life of an area.
- Flora - The plant life of an area.
- Grade Separation - Bridge structure such as an underpass or overpass that vertically separates two or more intersecting roadways, thus permitting traffic to cross without interference.
- Habitat - The physical, chemical and biological factors which comprise the area where a plant or animal lives.
- Herbaceous - A non-woody plant.
- Housing of Last Resort - A Maryland SHA program to rehouse people who are displaced by right-of-way acquisition for highway projects when the cost to do so exceeds the limits of the Uniform Relocation Act.
- Hydric - A very wet habitat, often with high ground water and saturated soils.
- Invertebrate - Refers to animals without internal, hard skeletal systems.
- Level of Service - Measure of the conditions under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy, and, of course, the volume of traffic.
  - Levels of Service on expressways and freeways with uninterrupted flow conditions are ranked from A to F (best to worst) as follows:
  - Level A - free traffic flow, low volumes, high speeds.
  - Level B - stable traffic flow, some speed restrictions.

- Level C - stable flow, increasing traffic volumes.
- Level D - approaching unstable flow, heavy traffic volumes, decreasing speeds.
- Level E - low speeds, high traffic volumes approaching roadway capacity; temporary delays.
- Level F - forced traffic flow at low speeds; low volumes and high densities; frequent delays.

Major Highway

- An arterial highway with intersections at-grade and direct access to abutting property, and on which geometric design and traffic control measures are used to expedite the safe movement of through-traffic.

Median

- That portion of a divided highway separating the travelled ways for traffic in opposite directions.

Old Field

- A shrubby thicket community of grasses and saplings which is succeeded from pasture and toward woodland.

Outcropping

- A visible aggregation of rocks or boulders above the soil surface.

Right-of-Way (R/W)

- 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 publicly owned land from a park, recreation area, wildlife and/or waterfowl refuge, or historic site of national, state or local significance can be used 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."

Sensitive

- An organism or community very susceptible to environmental changes.

Strata

- Layer of material.

Stream Bed

- The physical limit of a stream, its channel, and associated substrate.



- Stream Relocation - The process involving the movement of a flowing stream from its present channel to a different channel.
- Succession - Chronologic change of community types over time, proceeding toward a stable ultimate community termed the climax.
- Understory - Shrubs and small trees growing under the larger tree canopy.
- Unique - An organism or community of an unusual nature and whose existence is dependent on a narrow range of specific needs, and is intolerable of environments which don't meet those needs.
- Wetlands - Areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats and natural ponds.

B. Summary of Relocation

"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 amendments of 1987, 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, administers the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are \$15,000 for owner-occupants and \$4,000 for tenant-occupants. Certain payments may also be made for increased mortgage interest costs and/or incidental expenses, provided that the total of all housing benefits does not exceed the above mentioned limits. In order to receive these payments, the displaced person must occupy decent, safe and sanitary replacement housing. In addition to the replacement housing payments described above, there are also moving cost payments to persons, businesses, farms and non-profit organizations. Actual moving costs for residences include actual moving costs up to 50 miles or a schedule moving cost payment, including a dislocation allowance, up to \$500.

The moving cost payments to businesses are broken down into several categories, which include actual moving expenses and payments "in lieu of" actual moving expenses. the owner of a displaced business is entitled to receive a payment for actual reasonable moving and related expenses in moving his business, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable expenses are limited to a 50 mile 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 bid obtained. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business own vehicles or equipment, wages paid to persons who physically participate in the move, the cost of actual supervision of the move, replacement insurance for the personal property moved, costs of licenses or permits required, and other related expenses.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses. If the business is to be reestablished, 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 reestablished business, the payment will be the lesser of the difference between the value of the item for continued use in place and the net proceeds of the sale or the estimated cost of moving the item. 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 reimbursed for the actual reasonable expenses in searching for a replacement business up to \$1,000. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, within the maximum limit.

In lieu of the payments described above, the business may elect to receive a payment equal to the average annual net earnings of the business. Such payment shall not be less than \$2,500 nor more than \$10,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage, the business is not part of a commercial enterprise having at least one other establishment in the same or similar business that is not being acquired, and the business contributes materially to the income of a displaced owner during the two taxable years prior to displacement.

Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locations to the displaced business, and the availability of suitable replacement sites are also factors.

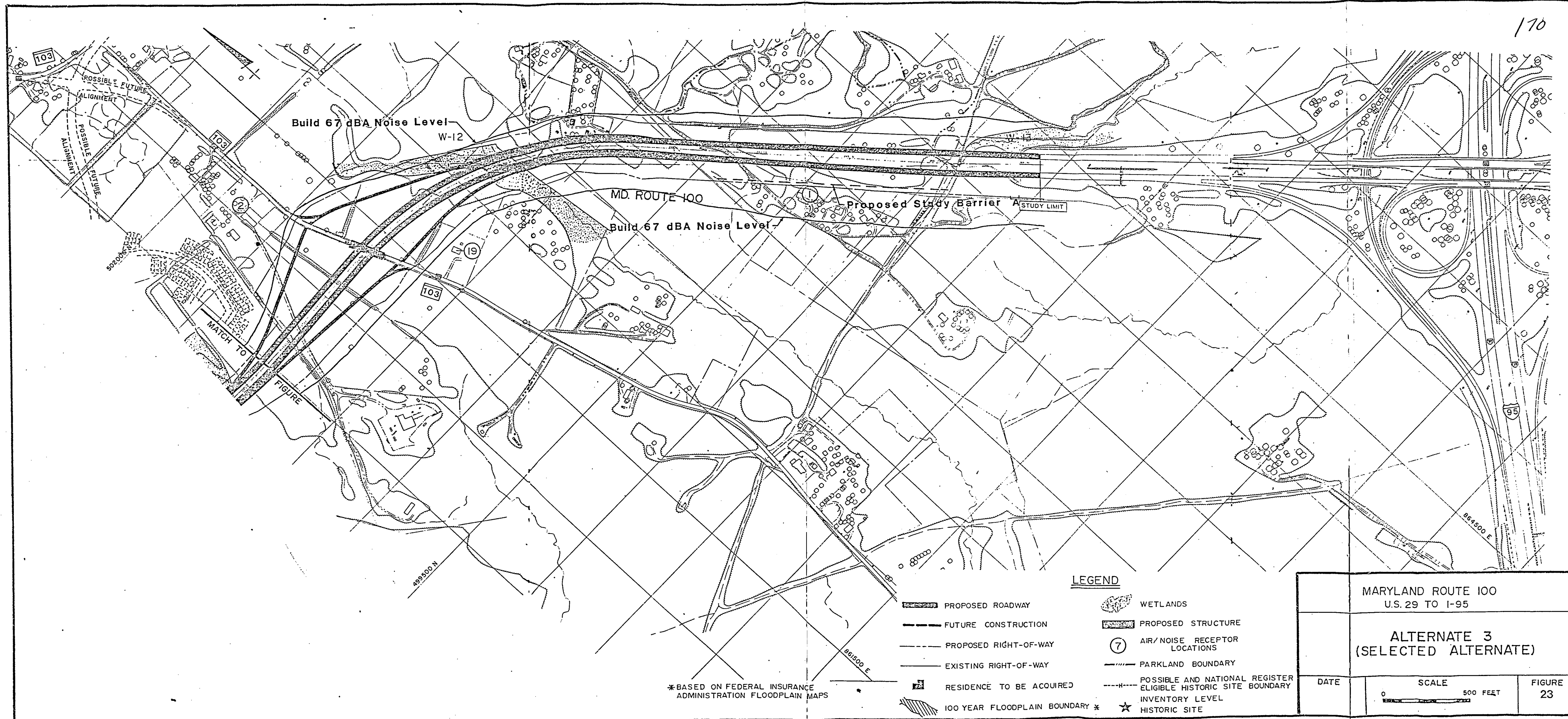
In order to determine the amount of the "in lieu of" moving expenses payment, the average annual net earnings of the business is considered to be one-half of the net earnings, before taxes, during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State may use another two-year period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, his spouse, or his dependents during the period. Should a business be in operation less than two years, the owner of the business may still be eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, for the tax years in question.

For displaced farms and non-profit organizations, the actual reasonable moving costs generally up to 50 miles, actual direct losses of tangible personal property, and searching costs are paid. The "in lieu of" actual moving costs payments provide that the State may determine that a displaced farm may be paid from a minimum of \$2,500 to a maximum of 410,000, based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive "in lieu of" actual moving cost payments, in the amount of \$2,500.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-profit organizations is available in Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons individually in the future 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 rehouse. Detailed studies must be completed by the State Highway Administration before "housing as a last resort" can be utilized.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any persons, or proceed with any construction project, until it has furnished satisfactory assurances that the above payments will be provided and that all displaced persons will be satisfactorily relocated to comparable decent, safe, and sanitary housing within their financial means or that such housing is in place and has been made available to the displaced person.



\* BASED ON FEDERAL INSURANCE ADMINISTRATION FLOODPLAIN MAPS

- LEGEND**
- PROPOSED ROADWAY
  - FUTURE CONSTRUCTION
  - - - PROPOSED RIGHT-OF-WAY
  - EXISTING RIGHT-OF-WAY
  - RESIDENCE TO BE ACQUIRED
  - ▨ 100 YEAR FLOODPLAIN BOUNDARY \*
  - WETLANDS
  - ▨ PROPOSED STRUCTURE
  - ⑦ AIR/NOISE RECEPTOR LOCATIONS
  - PARKLAND BOUNDARY
  - - - POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
  - ★ HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
ALTERNATE 3 (SELECTED ALTERNATE)		
DATE	SCALE 0 500 FEET	FIGURE 23

levels greater than or equal to 67 dBA. One residence will have a build noise level increase of 10 or more decibels above its ambient noise level. Of the five impacted residences, one will not receive the minimum of 5 decibels of insertion loss from the described barrier.

Noise Sensitive Area B (Noise Receptor 5) [See Figures 20 thru 23]

The projected 2015 noise level for Noise Receptor 5 would be 1 dBA above the noise abatement criteria. A 2015 No-Build level was not analyzed for this receptor as it is not located in close proximity to an existing roadway.

A barrier for Noise Sensitive Area "B" would be located north of proposed Maryland 100, between Old Montgomery Road and Maryland 104. This barrier would provide protection for residences along Fetlock Court (NSA 5).

This barrier would begin 500 feet from the cul-de-sac of Fetlock Court along the shoulder of westbound Maryland 100. The barrier would extend to the east along the roadway shoulder for 500 feet and then cut back to the right-of-way. It would then continue along the right-of-way for the remaining 1,175 feet.

The total length of this barrier is 1,675 feet with an average wall height of 18 feet. This barrier will cost approximately \$814,500 to construct, and provide attenuation for three (3) residences at or above criteria. The cost-per-residence was calculated to be \$271,500. Within noise sensitive area B, three residences will have build noise levels greater than or equal to 67 dBA. Eleven (11) residences will have a build noise level increase of 10 or more decibels above their ambient noise level. Of the 14 impacted residences, 11 will not receive the minimum of 5 decibels of insertion loss from the described barrier. The modeling results for this barrier, which include future-year  $L_{eq}$ 's both with and without the barrier as well as the associated attenuation are contained in Table 15. This barrier is not considered reasonable.

Noise Sensitive Area C (Noise Receptors 7, 18) [See Figures 20 thru 23]

The projected 2015 noise levels for Noise Receptors 7 and 18 would be 3 dBA and 5 dBA above the noise abatement criteria, respectively. A design year No-Build level was not analyzed for Noise Receptor 7 as it is not located in close proximity to an existing roadway.

A barrier at this location would be north of the westbound lanes of Maryland 100, east of Maryland 104. This barrier is designed to provide protection for the residences of Mitzy Drive and Mitzy Lane (Noise Receptor 7). This wall would also attenuate noise received by Noise Receptor 18; however, due to the extensive noise contributions from Maryland 104, it was determined that abatement for Noise Receptor 18 was not feasible.

This barrier would begin 50 feet from the shoulder of Maryland 104, along the right-of-way line. It would continue along the right-of-way line for 1,200 feet, transiting to the edge of the shoulder of the westbound lanes of Maryland 100. From here, the barrier would parallel the shoulder of the westbound lanes for the remaining 1,000 feet.

The total length of this barrier is approximately 2,400 feet with an average wall height of 16.5 feet. Using the \$27 per-square-foot multiplier the total cost of this wall would be \$1,068,500. Fourteen (14) residences with projected future-year (2015)  $L_{eq}$  levels at or above criteria will receive a 5 dBA reduction from this barrier. Within noise sensitive Area C, nine residences will have build noise levels greater than or equal to 67 dBA. Six residences will have a build noise level increase of 10 or more decibels above their ambient noise level. Of the 15 impacted residences, one will not receive the minimum of 5 decibels of insertion loss from the described barrier. The cost-per-residence of approximately \$76,300 would be provided by this barrier. Table 15 contains the modeling results for the Noise Receptors protected by this barrier. This barrier is not considered reasonable.

Noise Sensitive Area D (Noise Receptor 8) [See Figures 20 thru 23]

The projected 2015 noise level for Noise Receptor 8 is 2 dBA above the Noise Abatement Criteria. A design year No-Build level was not analyzed as it is not located in close proximity to an existing roadway.

A barrier at this location would be located north of proposed Maryland 100, west of Maryland 104. This barrier would provide protection for the residences of Spruce Run Way and Pine Run Court (Noise Receptor 8).

This barrier would begin 800 feet east of the dead end of the Oak Run Way, approximately ten feet from the shoulder of the westbound lanes of the proposed roadway. It would continue eastward along the shoulder of the roadway for 850 feet, where it would be parallel the shoulder of the proposed ramp from Maryland 104 to westbound Maryland 100. It would then continue along the ramp for 650 feet before terminating.

With an average wall height of 13.6 feet and a total length of 1,500 feet, the construction cost would be approximately \$550,500. Providing at least a 5 dBA attenuation for 11 residences that have noise levels that are at or exceed criteria before mitigation, the cost-per-residence is approximately \$50,000. Within noise sensitive Area D, 11 residences will have build noise levels greater than or equal to 67 dBA. Six residences will have a build noise level increase of 10 or more decibels above their ambient noise level. Of the 17 impacted residences, six will not receive the minimum of 5 decibels of insertion loss from the described barrier. The results of the modeling analysis for this barrier are contained in Table 15. This barrier is not considered reasonable.

Noise Sensitive Area E (Noise Receptor 10) [See Figures 20 thru 23]

The projected 2015 noise level for Noise Receptor 10 is 5 dBA above the Noise Abatement Criteria. A design year No-Build level was not analyzed for this receptor as it is not located in close proximity to an existing roadway.

A barrier at this location would be located north of proposed Maryland 100, and would provide protection for the residences of Avoca Road (Noise Receptor 10).

This barrier would begin 700 feet east on Avoca Road adjacent to the right-of-way line. It would parallel the right-of-way line in an easterly direction for 800 feet. From here, the barrier would begin to transition to the edge of the shoulder of the westbound lanes for the remaining 700 feet of the length.



With a total length of 1,500 feet and an average wall height of 12 feet, the total construction cost would be approximately \$480,200. A total of three residences with projected noise levels at or above criteria would receive a 5 dBA or more attenuation. The cost-per-residence is estimated to be approximately \$160,100. Within noise sensitive area E, three residences will have build noise levels greater than or equal to 67 dBA. No residence will have a build noise level increase of 10 or more decibels above its ambient noise level. Of the three impacted residences, all will receive the minimum of 5 decibels of insertion loss from the described barrier. Table 15 contains the modeling results for this barrier. This barrier is not considered reasonable.

Noise Sensitive Area F (Noise Receptor 13) [See Figures 20 thru 23]

The projected 2015 noise level for Noise Receptor 13 is 5dBA above the Noise Abatement Criteria. A design year No-Build level was not analyzed as it is not located in close proximity to an existing roadway.

A barrier for this area would be located north of the westbound lanes of proposed Maryland 100, between Maryland 104 and U.S. 29. This barrier would provide protection for the residences in the area of Kirkstall Road (NSA 13).

This barrier would be 2,200 feet in total length, and would begin 900 feet west of the end of Kirkstall Road. Beginning at the right-of-way, the wall would follow the right-of-way eastward for 950 feet, would bend toward the shoulder of the westbound lanes of Maryland 100. The barrier would then follow the roadway approximately ten feet from the shoulder for 1.050 feet before terminating.

The average wall height of this barrier would be 16.3 feet, and total construction costs of this wall, using the \$27 per-square-foot multiplier, will be approximately \$968,000. A total of 13 residences would benefit from this barrier. Nine of these residences would have projected levels of 67 dBA or greater and receive a 5-dBA reduction. An additional four residences would have projected 10-dBA or more increases over ambient levels and would receive a 5-dBA attenuation. Of the 13 impacted residences, all will receive the minimum of 5 decibels of insertion loss from the described barrier. The cost-per-residence will be approximately \$74,500. Modeling analysis results for this barrier are contained in Table 15. This barrier is not considered reasonable.

Noise Sensitive Area G (Noise Receptor 14) [See Figures 20 thru 23]

The projected 2015 noise level for this noise receptor is 2 dBA above the Noise Abatement Criteria. A design year No-Build level was not analyzed for this receptor as it is not located in close proximity to an existing roadway.

A barrier for this area would be located approximately 4,000 feet east of U.S. 29, south of the eastbound lanes of proposed Maryland 100. This wall would provide protection for the residences of Dapple Court (NSA 14).

This barrier would begin approximately 800 feet west of the cul-de-sac of Dapple Court. and follow the right-of-way line eastward for 500 feet, then northward to the shoulder of the eastbound lanes of proposed Maryland 100. This barrier would parallel the roadway for the remaining length approximately 10 to 25 feet from the edge of shoulder.

With a total length of 2,050 feet and an average wall height of 14.3 feet, this barrier would cost approximately \$790,500 to construct. A total of six residences would benefit from this barrier. Three residences would have projected levels of 67 dBA or greater and would receive a 5-dBA reduction. An additional three residences would have projected 10-dBA or more increases over ambient levels and receive a 5-dBA reduction. Within noise sensitive Area G, three residences will have build noise levels greater than or equal to 67 dBA. Seven residences will have a build noise level increase of 10 or more decibels above their ambient noise level. Of the ten impacted residences, four will not receive the minimum of 5 decibels of insertion loss from the described barrier. Therefore, the cost-per-residence for this barrier is estimated to be approximately \$131,800. Table 15 contains the modeling analysis results for this barrier. This barrier is not considered reasonable.

Noise Sensitive Area H (Noise Receptor 12) [See Figures 20 thru 23]

The projected 2015 noise level for noise receptor 12 is 9 dBA above the Noise Abatement Criteria.

This receptor is located approximately 8,000 feet east of U.S. 29, south of the eastbound lanes of proposed Maryland 100. This site represents a planned office research park. Considering this is a commercial area, noise abatement is not being considered.

Noise Sensitive Area I (Noise Receptor 11) [See Figures 20 thru 23]

The projected 2015 noise level for Noise Receptor 11 is 7 dBA above the Noise Abatement Criteria.

This receptor is located approximately 8,000 feet east of U.S. 29 north of the westbound lanes of proposed Maryland 100. This is an edge of right-of-way site which represents Section 4 of the Brampton Hills Residential development. At the time of this study, there were no development plans, therefore, no mitigation is considered.

Noise Sensitive Area J (Noise Receptor 9) [See Figures 20 thru 23]

The projected 2015 noise level for Noise Receptor 9 is 7 dBA above the Noise Abatement Criteria.

Noise Receptor 9 is located south of proposed Maryland 100, west of Maryland 104. A barrier would provide protection for the recreation area (ballfield) associated with the Howard High School, the most severely noise impacted area. A barrier could be located along the right-of-way line to obtain optimal benefit.

A barrier 925 feet in length and 16 feet in height will be needed to reduce projected noise levels of 74dBA 10 decibels at the most severely impacted area. Resulting noise levels will range from 63 to 66 dBA. The cost of the barrier system will be approximately \$399,600 or \$39,960 per residence, based on the equivalent value of 10 residences protected.

Noise Sensitive Area K (Noise Receptors 4, 6) [See Figures 20 thru 23]

Noise Receptors 4 and 6 are located south of proposed Maryland 100, between Old Montgomery Road and Maryland 104. Noise sensitive receptor 4 is the Woodlawn, a national register eligible historic site. This site will not be affected by noise. Noise sensitive receptor 6 is an edge of right-of-way site which will be developed; however, mitigation will be provided by the developer.

Noise Sensitive Area L (Noise Receptors 2 and 3) [See Figures 20 thru 23]

Noise Receptors 2 and 3 are located north of proposed Maryland 100, west of Meadowridge Road. Noise levels for the area do not approach or exceed 67 dBA, therefore mitigation is not considered.

Noise Sensitive Area M (Noise Receptor 16) [See Figures 20 thru 23]

Noise Receptor 16 is located south of the eastbound lanes of proposed Maryland 100. This is an edge of right-of-way site representative of Meadowbrook Farms, land to be transferred to the county to replace parkland impacted. No mitigation is planned.

No recreational activities are currently in existence or proposed in this area, and future development of a park plan should take into consideration the presence of a highway and facilities could be planned that would be compatible with the existence of a highway.

4. Earth Berm Feasibility

The State Highway Administration recommends that earth berms be further studied during design if the soil is available to provide full noise mitigation for Hunt Country Estates, Glen Mar, Timber Run, Avoca and Brampton Hill. In addition, partial berms and landscape plantings are to be studied for Mullineaux Road and Columbia Hills. The Maryland 100 project has been designed to provide excess excavation in an effort to provide sufficient soil for the construction of earth berms.

As an alternate to full noise wall abatement, the option of constructing an earthen berm to lower costs was analyzed. This process considered the placement of a berm within State right-of-way and locating a noise wall on top of this berm to lessen the area of noise wall required, and therefore, the cost-per-residence. Additionally, a berm-only scenerio was analyzed to determine if it could provide full abatement without the use of a noise wall. This study considered the impact on easements and changes that would result to adjacent wetlands and the highway design.

The cost estimates were based on the area of noise wall required at \$27 per-square-foot, the landscaping costs that varied with berm length, the cost of easements at \$35,000 per-acre and additional costs that would be specific by area (i.e. culvert extensions, etc.). The cost of fill material was estimated at \$2 per-cubic-yard. This cost was included for one cost estimate and not included for another where the assumption of no cost would result due to the quantity of waste material that is present in this project.

The following summarizes each berm study.

Noise Sensitive Area A (Receptors 1, 19)

The placement of a berm within the right-of-way for the protection of the residences along Mullineaux Road will require approximately 8,100 cubic yards of fill. This berm will require a noise wall at a cost of \$378,700 in additional cost. The total cost to maintain abatement with the right-of-way would be \$415,200 or \$103,800 per residence. Without fill costs, the cost-per-residence will be approximately \$99,800. Landscaping costs are estimated at \$20,200.

For full abatement with a berm an easement of 1.21 acres will be required. The quantity of fill material will be approximately 29,700 cubic yards. The landscaping costs are estimated at \$20,200. This results in a total cost of approximately \$122,000 or \$30,500 per-residence. Without fill costs, the cost-per-residence will be approximately \$15,700. However, the easement required to obtain this berm will require the taking of a residence and is therefore not considered a feasible option.

Noise Sensitive Area B (Receptor 5)

The proximity of this area to wetlands will not allow for full abatement with earthen berms. A berm within the right-of-way will also be constrained by the wetlands area and with the combined cost of the required noise wall could not be cost effective. The cost of the noise wall by itself results in cost-per-residence of over \$68,000. Therefore, it is not considered feasible to build a berm with the right-of-way that will not impact the wetlands to lessen the visual impact of the project. The cost of this, for fill material and landscaping will be approximately \$83,400 or \$27,800 per residence.

Noise Sensitive Area C (Receptors 7, 18)

The cost to abate noise impact within the State right-of-way will be approximately \$52,300 per-residence including fill costs. Without the cost of fill, the cost-per-residence will be only approximately \$35,300. These costs result from 69,900 cubic yards of fill, landscaping costs at \$37,900, 5,300 square feet of noise wall and 1,800 linear feet of jersey barrier.

To provide protection with a berm by itself, an easement of 0.575 acres will be needed. This would come from the backyards of those residences that abut the right-of-way in the Glen Mar subdivision. Additionally 79,900 cubic yards of fill will be needed, 1,800 linear feet of jersey barrier and landscaping at a cost of approximately \$37,900. The resultant cost-per-residence is \$38,500 with fill cost or \$18,500 without.

TABLE 15  
 Earth Berm Feasibility  
 Maryland 100  
 Summary of Results

Noise Sensitive Area Berm	Receptor	Number of Protected Residences	Cost-Per-Residence <sup>a</sup>			
			Berm Within R.O.W. W/ Wall		Berm with Easement	
			With Fill Cost	Without Fill Cost	With Fill Cost	Without Fill Cost
A	1	4	103,800	99,800	30,500 <sup>b</sup>	**15,700 <sup>b</sup>
B	5	3	96,100	75,100	46,200	** 9,300
C	7	14	52,300	**35,300	38,500	18,500
D	8	11	33,300	**25,700	23,300	11,700
E	10	3	56,900 39,700 <sup>c</sup>	45,800 **25,200 <sup>c</sup>	26,700 <sup>b</sup>	10,200 <sup>b</sup>
F	13	13	36,500 32,300 <sup>c</sup>	24,500 **18,100 <sup>c</sup>	21,600 <sup>b</sup>	5,800 <sup>b</sup>
G	14	6	*b	*b	79,100 <sup>b</sup>	* 29,000 <sup>b</sup>

a - Cost based on area of noise wall required at \$27 per square foot, cubic yards of fill at \$2 per cubic yard, easements at \$35,000 per acre and landscaping.

b - Option not considered reasonable due to engineering or environmental factors (i.e. major alternation in design or taking of wetlands or structures).

c - Combination of berm with easement and right-of-way berm with noise wall to avoid impact on residences - feasible option.

\* - Stopped short of optimal berm, requires additional landscape planting.

\*\* - Selected berm placement for study during Final Design.

#### Noise Sensitive Area D (Receptor 8)

Abatement for the town homes of Timber Run Valley will be cost-effective with either berm scenario. The cost-per-residence for a berm with a noise wall within the right-of-way will be approximately \$33,300 with fill costs. This cost will be only \$25,700 if fill costs were removed. An easement of 0.61 acres will be needed to provide full abatement with a berm. Landscaping costs of \$26,300 and 1,600 linear feet of jersey barrier combine together with fill and easement costs to bring the cost-per-residence total to approximately \$23,300. This cost goes as low as \$11,700 when fill costs are removed.

#### Noise Sensitive Area E (Receptor 9)

Barrier E considered an intermediate option for a full berm system. The abatement by a berm only will severely impact a residence on Avoca Road and therefore is not considered reasonable. Additionally, the cost of a berm/wall system within the right-of-way will not be cost effective. The lowest this cost could be is \$45,800 when fill costs are ignored. Because of this, a partial taking of easement was considered on Avoca Road. This option resulted in a cost of approximately \$39,700 per-residence or \$25,200 without fill costs. This is the result of 21,800 cubic yards of fill, \$19,200 for landscaping costs, .22 acres of easement of 1,800 square feet of noise wall.

#### Noise Sensitive Area F (Receptor 13)

As with Barrier E, an intermediate option was considered to lessen both cost-per-residence and impact on local properties. The combined system of a noise wall and easement, 4,400 square feet of noise wall and approximately \$36,400 in landscaping in addition to the 64,200 cubic yards of fill. The cost-per-residence for this option is approximately \$32,300 with fill costs \$18,100 without.

#### Noise Sensitive Area G (Receptor 14)

Abatement by any measure is not feasible for this area of Columbia Hills. The construction of a berm within the right-of-way will still require over 18,500 square feet of noise wall. The cost-per-residence of the wall alone is approximately \$83,400. Additionally, any berm in this area will impact wetlands and therefore consideration of abatement of this type is not considered reasonable. Partial berms will be considered along with additional landscape planting to provide partial mitigation.

#### 5. Other Barrier Considerations

Barrier feasibility was analyzed for Noise Receptor 19, a residence along Meadowridge Road south of the alignment of proposed Maryland 100. A noise wall was located on the right-of-way line south of the eastbound lanes of Maryland 100 with heights up to 20 feet employed. It was determined that abatement is not feasible in this area due to the barrier's inability to achieve a 5 dBA insertion loss. This was primarily attributable to the noise contribution received by this NSA from traffic operations using Meadowridge Road.

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

#### Traffic Management Measures

Traffic management measures which could be used include traffic control devices and signing for prohibition of certain vehicles (heavy trucks), time use restrictions for certain types of vehicles, modified speed limits and exclusive lane designations.

It would not be appropriate to limit trucks from a facility serving regional travel.

#### Alterations of Horizontal and Vertical Alignment

This may be feasible and will be investigated during the design phase of the project.

#### Acquisition of Real Property or Property Rights to Establish Buffer Zones

For properties where development plans are not yet approved, the developer will be responsible for noise mitigation. For the two developments under construction, Brightfield and Village of Montgomery Run, the developer is required to provide noise mitigation. In existing developments, there is insufficient room to provide a large enough buffer to reduce the noise levels below impact levels.

#### 6. Construction Impacts

An increase in project area noise levels would occur during the construction of the proposed improvements. Construction noise differs significantly from that generated by normal traffic due to its unusual spectral and temporal nature. The actual level of noise impact during this period will be a function of the number and types of equipment being used, as well as the overall construction procedure.

#### G. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The proposed project represents the irreversible and irretrievable commitment of woodlands and agricultural land for the highway right-of-way along with floodplain acreage and wildlife habitat. The land required for the project can be considered as permanently committed to a transportation corridor.

#### H. 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 wetland acreage. Noise levels will also increase in some areas.

Construction impacts which will have a short-term effect on the project area include erosion, siltation and stream turbidity. Dust and noise associated with highway construction will also result in temporary impacts. Every effort will be made by the State Highway Administration to minimize effects to the environment.

#### I. ENERGY IMPACTS

Of all the alternates considered, the Selected Alternate would result in the lowest consumption of energy during operation because it provides the most direct routing for the travel desire lines and it provides the highest type improvement (expressway-freeway).

The energy consumed during construction would be approximately the same under any alternate previously considered.



TABLE 16  
NOISE ABATEMENT SUMMARY

Noise Sensitive Area Noise Receptor Number	Number of Homes Protected or Benefited <sup>2</sup>	Noise Levels (Leq) Design Year				Barrier Analysis			Cost per Residence
		Ambient	No-Build	Build	Build With Barrier	Length (Ft.)	Height (Ft.)	Total Cost <sup>1</sup>	
A 1, 19	4	49, 55	N/A	72, 66	59, N/A	1,300	16.75	\$587,500	\$146,900
B 5	3	49	N/A	68	64	1,675	18	\$814,500	\$271,500
C 7, 18	14	51, 65	N/A, 68	72,70	61, N/A	2,400	16.5	\$1,068,500	\$76,300
D 8	11	51	N/A	69	61	1,500	13.5	\$550,500	\$50,000
E 10	3	59	N/A	72	64	1,500	12	\$480,200	\$160,100
F 13	13	50	N/A	72	62	2,200	16	\$968,000	\$74,500
G 14	6	51	N/A	69	61	2,050	14	\$790,500	\$131,800
H 12	N/A	59	N/A	76	N/A	N/A	N/A	N/A	N/A
I 11	N/A	59	N/A	74	N/A	N/A	N/A	N/A	N/A
J 9	10	53	N/A	74	66	925	16	\$399,600	\$39,960
K 4, 6	N/A	49,49	N/A	63, 77	N/A	N/A	N/A	N/A	N/A
L 2, 3	N/A	55, 53	61, N/A	64, 62	N/A	N/A	N/A	N/A	N/A
M 16	N/A	51	N/A	69	N/A	N/A	N/A	N/A	N/A

<sup>1</sup>Based on a square foot cost of \$27.00.

<sup>2</sup>Based on those residences with projected levels of 67 dBA or more or a 10-dBA increase over ambient levels receiving a 5-dBA reduction from barrier.

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Section V  
**Section  
4(f)  
Statement**

V. SECTION 4(f) EVALUATION

Introduction

Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303(c), requires that the proposed use of land from a significant publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site be given particular attention. Final action requiring the taking of such land must document that there are no feasible and prudent alternatives to the use of land from the property, and that the proposed action includes all possible planning to minimize harm to the property.

1. Proposed Action ✓

This project consists of the completion of the final five-mile section of Maryland 100, located between U.S. 29 and Interstate 95 in Howard County, Maryland.

The purpose of Maryland 100 is to provide a controlled access, east-west highway that would relieve congestion on the existing roadway network, and to provide a safe and efficient highway link that would move people, goods and services more quickly and directly.

2. Description of 4(f) Resource (Figure 17)

The proposed improvements require land from an undeveloped area known as Brampton Hills Community Park. There is currently no informal use of the park. There are equestrian or hiker-biker trails.

This park, under the jurisdiction of Howard County, consists of approximately eighty acres. The area is located in the quadrangle bounded by U.S. 29 on the west, Maryland 103 on the north, Maryland 104 on the east, and Maryland 108 on the south (see Figure 24).

According to Howard County Parks and Recreation, the proposed facility will consist of open areas with day-use recreational facilities, picnic areas and sanitary facilities. To date no master plan has been developed showing the location of these facilities. Options A, B, and C, which are being considered to provide northern access to Columbia Hill from Md. 103, could also provide community access to Brampton Hills Park. No access will be provided to Brampton Hills Park from Maryland 100. The park facility would be utilized by Columbia Hill, Valley View, Knollview, Crowder Montgomery Knolls and Brampton Hills.

3. Impacts on 4(f) Properties

Property is required from Brampton Hills Community Park due to proposed construction of Maryland 100 along the selected alignment (see Figure 24).

Alternate 3 requires the acquisition of approximately 5.67 acres from this Park. Presently, the proposed facility is unimproved, consisting of vacant farmland and forest. The area required is on the southeastern tip of the proposed park. The majority of the park will remain intact.

Noise and air analyses for this area have been completed. The  $L_{eq}$  ambient noise level for the noise sensitive site representative of this area (NSA 16) is 51 dBA. The modeled design year  $L_{eq}$  noise level is 69 dBA, a difference of 18 dBA. Noise mitigation is not planned since there are no plans for the development of the park and the location of recreational facilities is not known. An air analysis was performed in this area using a representative site (NSA 16). It revealed only a minor increase over existing carbon monoxide concentrations. There would be no violations of State or National Ambient Air Quality Standards.

4. Avoidance Alternative

The No-Build Alternate avoids impacts to the park since there will be no roadway on new location. Under the No-Build Alternate, only minor roadway improvements to Maryland 103, 104, and 108 are planned, with interchanges at U.S. 29 and at Maryland 103 and 108. Even with these minor improvements, the entire Maryland 100 corridor, which consists of Maryland 103, 104 and 108, will function at level of service "E" east of Maryland 104, and "F" west of Maryland 104 by the design year 2015. Safety conditions will diminish severely with the projected increase in traffic volumes.

Shifting the alignment of Selected Alternate 3 to the east to avoid Brampton Hills Park will impact approximately 23 homes of the Brampton Hills subdivision (see Figure 26). Any further shifts would cause additional community impacts. A western avoidance alignment tying into Maryland 108, developed during the 1973 studies by the State Highway Administration for the Maryland Route 100 extension is no longer considered feasible because it would require approximately 23 residential relocations and approximately 7 commercial relocations at the Oakland Ridge Industrial Park and encroach on the Mount Joy Historic site. This large 19th century estate may have been part of Chews Resolution Manor. It is architecturally significant for its well preserved buildings as well as historically for the association of its owner with the development of the American West, primarily through his affiliation with Kit Carson.

In order to completely avoid the Mount Joy, the western avoidance alternative would require major design exceptions making the road unsafe and incompatible with existing and future traffic needs.

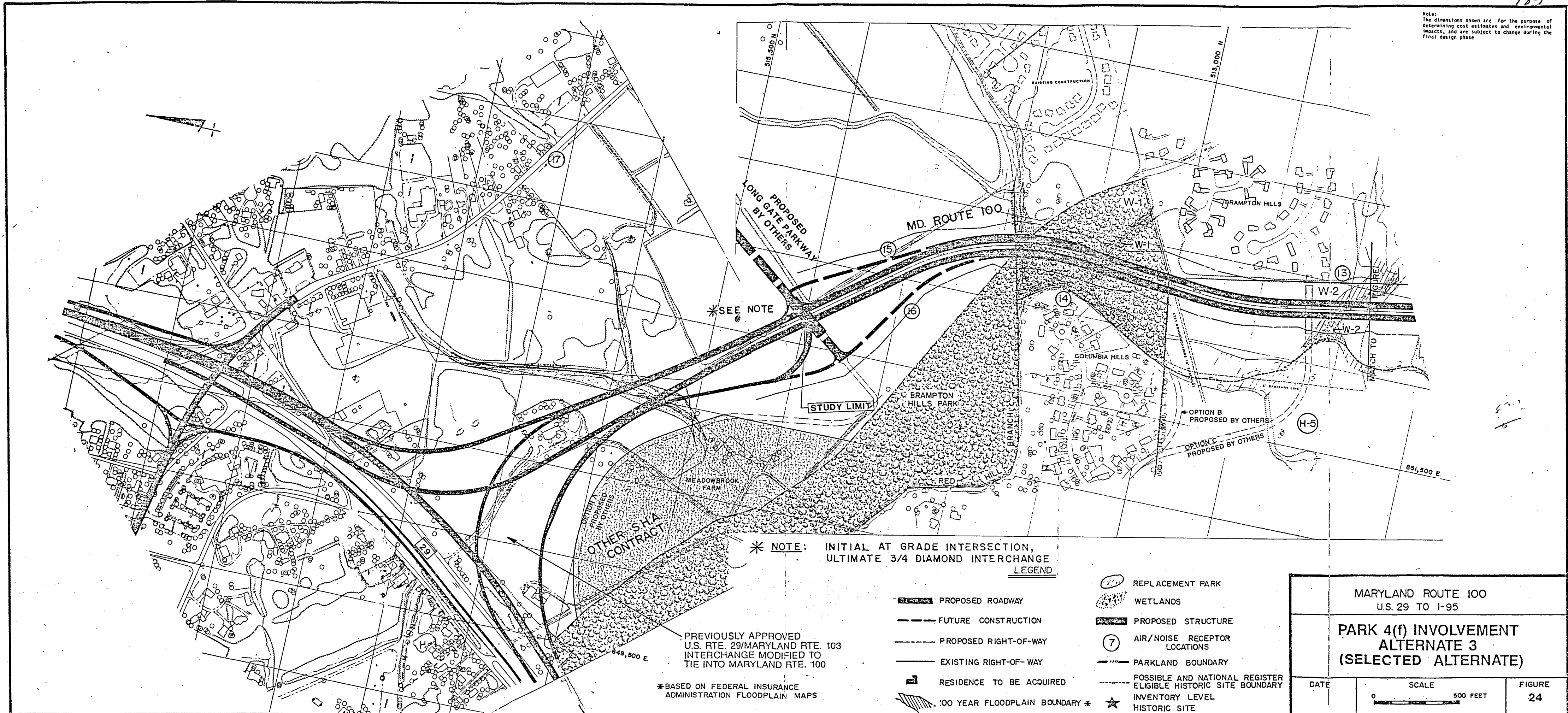
If Alternates 2, 4, and 5 previously studied were designed to operate at LOS D in the design year 2015, all three would cause impacts to National Register Eligible Historic Sites - Spring Hill, Wheatfield and Avoca and result in residential and community impacts (see Figure 25).

Alternates 2, 4, and 5 do not meet the corridor's need for additional capacity (see Section II.B.). In addition to not meeting corridor need, Alternates 2, 4, 5 have wetland impacts and historic site impacts.

5. Mitigation Measures

The property adjacent to the Brampton Hills Park, known as Meadowbrook Farms, will be acquired as part of the U.S. 29/Maryland 103/Maryland 100 interchange project currently in highway design. As part of the mitigation process, it is the intent of the State Highway Administration to use the excess property from the U.S. 29/Maryland 103 interchange project as replacement pro-

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



\*SEE NOTE

STUDY LIMIT

\* NOTE: INITIAL AT GRADE INTERSECTION,  
ULTIMATE 3/4 DIAMOND INTERCHANGE  
LEGEND

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- REPLACEMENT PARK
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

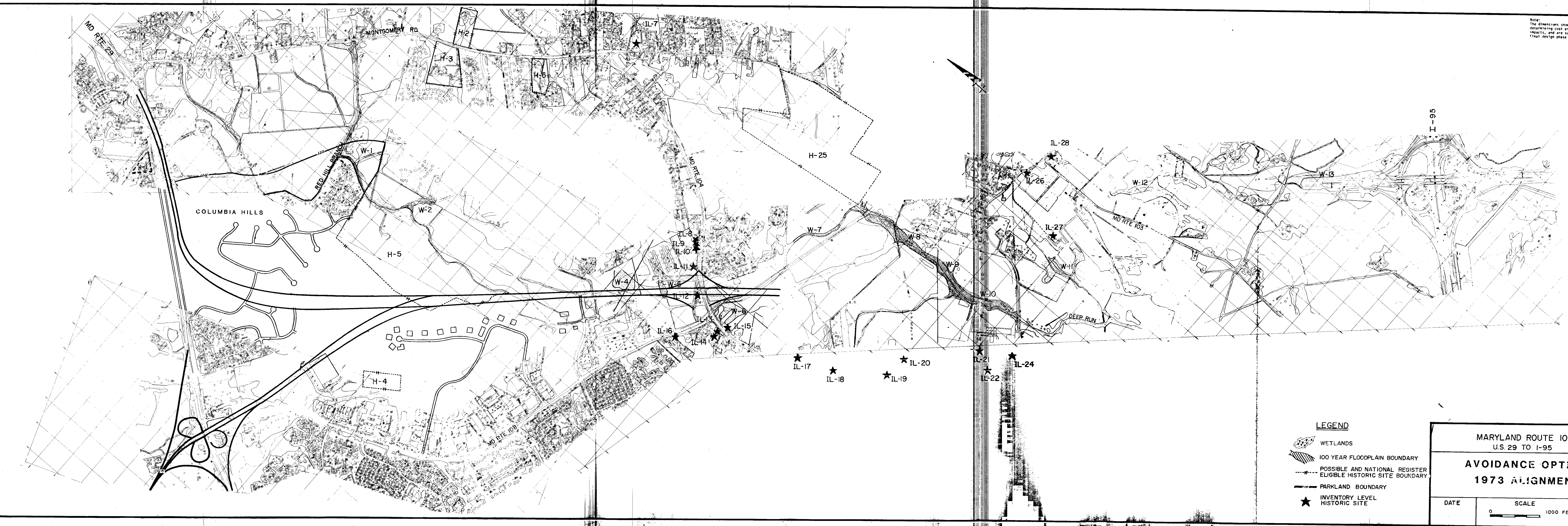
PREVIOUSLY APPROVED  
U.S. RTE. 29/MARYLAND RTE. 103  
INTERCHANGE MODIFIED TO  
TIE INTO MARYLAND RTE. 100

\*BASED ON FEDERAL INSURANCE  
ADMINISTRATION FLOODPLAIN MAPS

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>PARK 4(f) INVOLVEMENT ALTERNATE 3 (SELECTED ALTERNATE)</b>		
DATE	SCALE 0 500 FEET	FIGURE 24



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



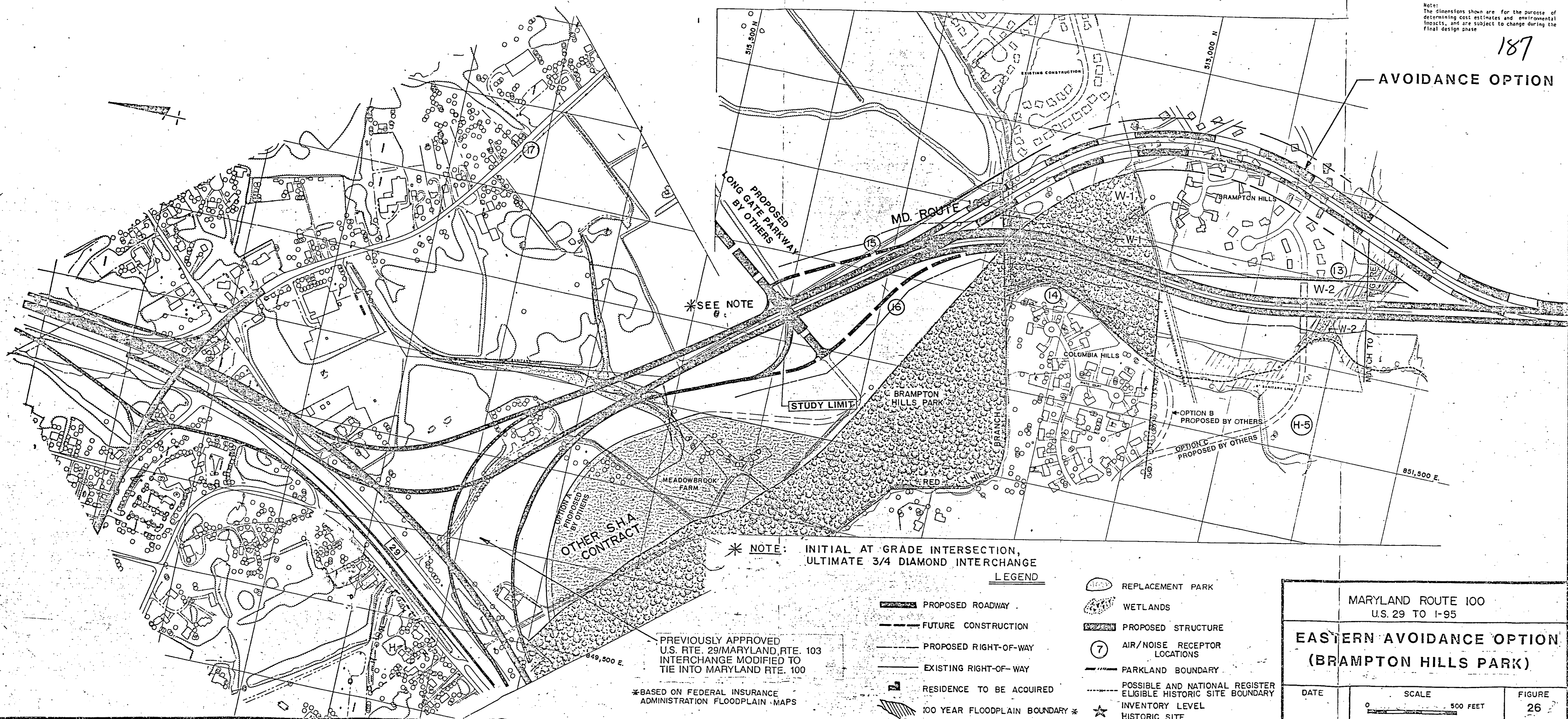
- LEGEND**
- WETLANDS
  - 100 YEAR FLOODPLAIN BOUNDARY
  - POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
  - PARKLAND BOUNDARY
  - INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>AVOIDANCE OPTION 1973 ALIGNMENT</b>		
DATE	SCALE 0 1000 FEET	FIGURE 25

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

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AVOIDANCE OPTION



\*SEE NOTE

\* NOTE: INITIAL AT GRADE INTERSECTION,  
ULTIMATE 3/4 DIAMOND INTERCHANGE

LEGEND

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- REPLACEMENT PARK
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

PREVIOUSLY APPROVED  
U.S. RTE. 29/MARYLAND, RTE. 103  
INTERCHANGE MODIFIED TO  
TIE INTO MARYLAND RTE. 100

\*BASED ON FEDERAL INSURANCE  
ADMINISTRATION FLOODPLAIN MAPS

MARYLAND ROUTE 100 U.S. 29 TO I-95		
<b>EASTERN AVOIDANCE OPTION (BRAMPTON HILLS PARK)</b>		
DATE	SCALE 0 500 FEET	FIGURE 26

erty. This property is located adjacent to and east of the existing park and consists of approximately 28+ acres. All property located south of the Selected Maryland 100 alignment and north of Brampton Hills Park not used for Highway purposes may be used as mitigation. (See Figure 24). SHA is willing to transfer all remaining property, which is more than the amount of parkland impacted because the remaining property is excess land for which SHA has no use. Access to the Brampton Hills Park from those communities situated on the northeast side of the proposed Maryland 100 alignment will be serviced via a sidewalk at the proposed Long Gate Parkway/Maryland 100 interchange bridge. Vehicular access will be provided by Howard County, through Columbia Hills when the county develops the Parkland. The typical section for the proposed Long Gate Parkway bridge calls for two sidewalks, one on either side of the bridge.

Visual impacts to the Brampton Hills Park cannot be mitigated. Currently, the proposed park consists mainly of unimproved wooded area for which design plans have not yet started. Future design plans could incorporate mitigation provisions which would allow the wooded area along the section of the park property impacted by Maryland 100 to remain intact, thereby permitting the natural visual barrier to remain intact.

#### 6. Consultation and Coordination

Coordination has been initiated with Howard County Park and Planning to identify replacement property for parkland for the 5.67 acres impacted by Selected Alternate 3 (see Section VIII-Comments and Coordination). Both an eastern and western shift of the Selected Alternate 3 were studied, however, existing residential and commercial development along the corridor made it unfeasible to pursue. SHA has recommended that any mitigation should be addressed by Howard County during the design of the park. The design study should also include access points to the park for pedestrians and vehicles.

Copies of the document have been circulated to the appropriate agencies.

#### 7. Concluding Statement

Based upon the preceding considerations, it is determined that there is no prudent or feasible alternate to avoid the proposed Brampton Hills Park. In addition, the proposed action includes all possible planning to minimize harm to the park.



Section VI

**List  
of  
Preparers**

VI. LIST OF PREPARES

This Final Environmental Impact Statement/4(f) Evaluation 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.

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Mr. Dave Gamble	Environmental Specialist
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Section VII

**Distribution  
List**

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VII. DISTRIBUTION LIST

Maryland 100  
From U.S. 29 to Interstate 95  
Draft Environmental Impact Statement  
Section 4(f) Evaluation

Federal Agencies

Department of Agriculture  
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Gloucester, Massachusetts 19130

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Director  
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Philadelphia, Pennsylvania 19106  
Attn: Mr. Walter Pierson

State Clearinghouse

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

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 Enoch Pratt Free Library  
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 Baltimore, Maryland 21201

Mr. William Krebs  
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 Department of Natural Resources  
 Tawes State Office Building  
 Annapolis, Maryland 21401

\*Mr. Randy Hamill  
 Water Resources Administration  
 Department of Natural Resources  
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Maryland Department of Transportation

Director  
 Public Affairs  
 Maryland Department of Transportation

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

Office of Legal Council  
 Office of the Secretary  
 Maryland Department of Transportation

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

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Mr. Thomas G. Harris, Jr., Director  
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4725 Salterforth Place  
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Mr. Kenneth E. Boyd  
Hunt Country Community Association  
8067 Fetlock Court  
Ellicott City, Maryland 21044

Section VIII  
**Comments  
and  
Coordination**



A. Public Hearing Comments

1. Carl Balser - Howard County Office of Planning and Zoning.

- a. Stated that the county favored Alternate 3.
- b. Recommended that the westbound MD 100 fly-over ramp to southbound US 29 merge into the outside right lane rather than the left.

Response

Because of the additional \$3 million costs associated with this ramp realignment, SHA is keeping the current design. The westbound MD 100 ramp to southbound US 29 will continue to merge on the median side of southbound US 29 and will operate safely.

- c. Urged that improvements for the interchange be kept within SHA right-of-way by shifting the main line of US 29 to the east through the interchange area.

Response

The construction of westbound MD 100 to southbound US 29 ramp merging on the median side of US 29 will enable the construction of southbound US 29 to occur within the current R/W limits.

- d. Would like the State to construct the ultimate interchange at MD 100/Long Gate Parkway initially rather than an interim at-grade connection.

Response

Based on the projected traffic volumes an at-grade intersection will function sufficiently when MD 100 is initially opened to traffic. Traffic volumes will be monitored and an interchange will be provided when warranted.

- e. Believes that SHA has the responsibility to provide northern access to and from Columbia Hills subdivision as part of this project on the US 29/MD 103 interchange project.

Response

The SHA has always taken the position that northern access into Columbia Hills is a Howard County responsibility. Thus it will not be included in this project on the US 29/MD 103 project.

- f. Additional park-and-ride lots in addition to the proposed Brampton Hills lot should be sought.

Response

The SHA is continuing to investigate additional sites for potential park-and-ride locations. Decisions on park-and-ride lots will be made during the final design of the project's location and will be coordinated with the county.

- g. At the western at-grade connection (Centre Park Drive) with the MD 100 Office Research Park, the county recommended right-in and right-out movements only. At the eastern at-grade connection (Executive Park Drive), the county recommended permitting all traffic movements with a traffic signal as soon as traffic conditions warrant.

Response

The two at-grade "T" intersection will remain in the MD 100 project. These intersections will function adequately when MD 100 is initially opened and will not be signalized. As traffic volumes increase, the need for signalization or the modification of the intersection will be investigated.

- h. Supported pedestrian overpass at MD 100 in the vicinity of Avoca Avenue to provide pedestrian access for Howard High School; however, not in favor of pedestrian crossing which tunnels beneath MD 100. Would also like to see adequate lighting provided to enhance pedestrian safety.

Response

The SHA will study a pedestrian overpass in the vicinity of Howard High during final design. A decision will be made at the completion of the study.

- i. Supported the construction of an interchange at MD 100/MD 104 /MD 108 to provide grade-separated movements among the three (3) State roadways at this junction. Felt that pedestrian access from the Timber Run community to Howard High School should be provided as part of the interchange.

Response

Interchange option 104A was selected for final design and construction.

The bridge typical in the interchange concept for the MD 100/MD 104 connection includes sidewalks for pedestrian access.

- j. Howard County is in agreement with the location and preliminary design of a possible future interchange at MD 100 and Snowden River Parkway.

Response

Although Snowden River Parkway interchange was shown on the MD 100 display mapping, it is a Howard County proposal. Location approval will not be sought for this interchange.

- k. At MD 100/Meadowridge Road the county would like a higher capacity interchange as an alternative to the diamond interchange.

Response

The interchange selected at Meadowridge Road will adequately serve the existing and planned land use through the design year of the project.

- l. Suggest that alternative access strategies be investigated along Meadowridge Road for potentially land-locked properties in the southeast quadrant of the proposed interchange.

Response

The SHA will investigate access alternatives to the properties along Mullmeaux Road. These access alternatives will be incorporated into the subdivision activities in that area.

- m. Would like to see noise and visual barrier along MD 100 to mitigate potential adverse impacts due to the presence of the highway.

Response: During the project's development stage, the SHA considered the possibility of earth berms as mitigation for possible noise and visual impacts. The SHA will continue to pursue the feasibility of earth berms during final design of the MD 100 project. The availability of right-of-way will be a determining factor in the possible placement of earth berms.

2. Glen Amato - 8525 Pine Run

- a. Stated that in private meetings between the State Highway Administration, County government and developers, a decision was made as to where this road would go before there was any public input.

Response

Discussions between the State, County and local developers did not result in any agreements regarding the alignment of MD 100. These discussions were applicable, if and only if the Alternate 3 alignment was approved by FHWA, to ensure a corridor was available between US 29 and I-95.

- b. Asked that the State Highway Administration not grant the right-of-way to the developers to connect the developer road to MD 104 as there is a signalized intersection at MD 108 and Centre Park Drive. He stated that the County's need for another route across the MD 108/MD 104/MD

103 quadrant will be satisfied by the developer's road and the connection of Long Gate Parkway. If the State Highway Administration grants the right-of-way for the developer road, then the State Highway Administration and County government need to agree that a sound barrier would be constructed in conjunction with the developer road.

Response

Because of the County's general plan and sub division process and the fact that the two-lane developer road will tie directly into the proposed US 29/MD 103/MD 100 interchange, the County requested the tie-in with MD 104 to maintain continuity within the transportation system. The right-of-way remains in state possession. The SHA will further study earth berms for noise mitigation during the final design of the project.

3. Ms. Marie McLaughlin - 8616 Spruce Run, Timber Run

- a. The proposed improvements will result in the loss of land and property values.

Response

There will be right-of-way required for the construction of MD 100. It can not be stated with certainty what effect the project will have on property values. The project will result in positive impacts such as relieving existing and anticipated congestion and improving access to the area.

- b. Concerned that the main access into Timber Run will be lost. Stated that MD 100 was removed from the General Plan at the time she purchased her home.

Response

The access to Timber Run Valley will be realigned to tie directly across from Elk Drive at MD 104. This realignment will enhance safety operation for traffic from the community of Timber Run Valley. See pages I-1 through I-3 of this document for discussion of the reasons this project was included on the county master plan.

- c. Felt that the initial two lanes of the developer road are not warranted. If the subdivision process is for access to the Oakland Industrial Park, questioned the reason for the access through Centre Park Drive, felt that the existing access is adequate to handle present traffic needs.

Response

The connection to MD 104 is to maintain continuity within the transportation system between US 29 and MD 104.

- d. Proposed that the two-lane developer road needed for the completion of MD 100 be built in conjunction with the construction by State Highway Administration.

Response

See response for question "c."

- e. Stated that the construction of the developer's road prior to the State Highway Administration's construction would be a convenience for the Oakland Industrial Park. The construction of the developer road would mean the closing of Oak Run Way and the temporary tie-in to the developer's road.

Response

The SHA is looking at alternatives to the tie-in with MD 104. The closing of Oak Run Way may not be required under the initial construction of the developer road.

- f. If design approval is given, the project could be put off for years or cancelled and the residents of Timber Run will have to live with the tie-in.

Response

Funding for the initial construction of MD 100 is scheduled to begin in fiscal year 1993.

See response to comment "e."

- g. Questioned which option would be chosen for the interchange at MD 104. Supported option 104-A because extensive excavation could be used for earth berms, and the developer would construct an access ramp, and it would mean one less residential displacement.

Response

Option 104-A has been selected for the ultimate connection of MD 100 and MD 104.

- h. Wanted SHA and the County to consider a modified 104-A option.

Response

We reviewed different alternatives and decided to modify option 104-A to reduce impacts to Timber Run Community.

4. Mr. Horton - 8510 Pine Run Court: Community Association of Timber Run Valley

- a. Stated that the two-lane developer road will create a lot of confusion for emergency vehicles and it will generate a lot of additional traffic. Supported option 104A.

Response

The SHA is currently investigating alternative means for the connection of MD 104 to the two-lane developer road.

Adequate access will be provided for emergency vehicles. Option 104A has been selected.

5. Ms. Elaine Saddic - 8609 Spruce Run Court: Secretary/Treasurer Community Association

- a. Can not accept the fact that the other 4 alignments were never considered despite the overwhelmingly negative environmental impacts and human displacement of this alternative.

Response

During Stage 1 of project planning, several alternatives were investigated. The studies indicated that the transportation needs were not met or environmental impacts and displacements would occur if alternates 2, 4 or 5 were selected. Alternate 3 has the fewest residential displacements of any alternate studied. It also best serves the transportation needs of the area and is consistent with area Master Plans.

- b. Can not accept necessity of early construction of the two-lane developer road which will force the Timber Run Community to live through two phases of construction.

Response

The initial construction (tie-in to MD 104) provides continuity for the transportation system between US 29 and MD 104 requested by the County.

- c. The proposed additional access for the developer appears to be a shortcut for motorists trying avoid a signal at MD 104 and MD 108 intersection and using a stop sign at MD 104.

Response

At the time the interchange at US 29 and MD 103/MD 100 is opened to traffic, a traffic signal will be warranted at the connection with MD 104.

- d. It was her belief that early construction of the developer's road will defray the State's cost and assure selection of the Alternative 3, MD

104A route, since two lanes will already have been built. Another, reason for the two lane developer road is that it would be an integral part of traffic flow between the MD 103 interchange and Oakland Industrial Park.

Response

The developer road is being constructed as part of the County subdivision process. It will be built regardless of whether MD 100 is constructed.

- e. We were assured that Oak Run Way would not be affected by a tie-in to the developer's road.

Response

The SHA is investigating possible alternatives to the initial tie-in to MD 104 that may not require the relocation of Oak Run Way during this initial construction. The ultimate construction will result in the relocation of Oak Run Way to tie-in directly across from Elko Drive at MD 104.

- f. Requested that Timber Run be provided with easy and safe exit from the community and the tie-in to the developer road be denied. Wanted landscaped berm and barriers to reduce noise and redirect traffic by either connecting the end of Spruce Run Court to Pine Run Court and constructing a road which would feed into Horseshoe Road or connect the far end of Spruce Run to Pine Run Court and have them both exit behind Pine Run Court onto MD 104.

Response

The relocation of Oak Run Way to tie directly across from Elko Drive will provide safe travel for the residence's of Timber Run Valley. The SHA has developed and will consider an earth berm as mitigation for noise during the ultimate construction of MD 100.

- g. When constructing the exit road from Timber Run do not destroy all the trees, do not fill in the stream at the far end of the property. Prefer not to exit on to MD 104 to near the proposed MD 100. We proposed retention of the paved portion of Oak Run Way for overflow community parking.

Response

The SHA always tries to minimize the amount of trees that have to be removed. The SHA also incorporates all reasonable mitigation techniques into the design and construction of a project to minimize all environmental impacts. The existing parking area on Oak Run Way will not be removed.

- h. Would like some legal assurance that homeowners will be compensated for any decrease in property values.



Response

There will be right-of-way required for the construction of MD 100. It can not be stated with certainty what effect the project will have on property values. The project will result in positive impacts such as relieving existing and anticipated congestion and improving access to the area.

- i. Would like a guarantee that any water problem, drainage or erosion, which may result, will be corrected by the State or County at no cost to residences or the community.

Response

Maryland State Highway Administration will be responsible for developing sediment and erosion control plans in addition to obtaining the appropriate water quality permit. All plans must be reviewed and approved by the Maryland Department of the Environment. The SHA will also correct erosion or water problems caused by the construction of MD 100.

6. Mr. Raymond Varieur - 8608 Spruce Run Court

- a. Wanted to know why Timber Run did not show on any of the maps.

Response

Timber Run was added to all Public Hearing display maps and was shown in the Public Hearing brochure.

- b. Originally thought that MD 100 would follow present MD 108 and that was the reason for the MD 108/US 29 interchange being the extensive interchange that it is today.

Response

The MD 108/US 29 interchange was constructed to improve traffic operations and safety. An alternative along MD 108 was studied as part of the MD 100 project but was eliminated. See page I-2 of this document for additional information.

- c. Would like to see MD 100 and the developer's road constructed at one time and not phased construction.

Response

The two-lane developer road is being constructed through the County's subdivision process. It would be constructed with or without MD Route 100. It is believed the two-lane roadway is needed now to provide adequate transportation services to the immediate area.

- d. Concerned that Oak Run Way will tie into the developer road.

Response

See response 4f.

- e. Wanted to know if the subdivision could keep parking on Oak Run Way.

Response

The selected Alternate 3 option 104-A will leave in tact the parking area along Oak Run Way.

7. Mr. J. P. Brien - 8604 Spruce Run Court: President, Timber Run Association

- a. Would like to see option 104A with a slight alteration in the access back to MD 104 by extending Pine Run with a connection of Spruce Run and Pine Run at the northern end of the subdivision. No developer road past the industrial park in the direction of MD 104 until after the state enters its construction phase.

Response

Option 104A is selected for ultimate construction. The realignment of Oak Run Way will connect existing Oak Run Way to MD 104 directly opposite Elko Drive.

- b. Wants no change in Oak Run Way from the end of Oak Run Way until past the entrance way to Pine Run toward MD 104 to allow sufficient neighborhood parking for visitors.

Response

The existing parking area on Oak Run Way will not be removed.

- c. Feels they have not been given enough information to be able to ask the correct questions.

Response

Both the State Highway Administration and Howard County have held numerous public meetings and hearings concerning MD 100. Please see Section I of this document for a description of these meetings. The SHA has also attended a number of community meetings to discuss the project.

8. Mr. Ken Boyd- 8067 Fetlock Court

- a. Would like to see berms along the western end of Hunt Country Estates extended into areas designated as wetlands.

Response

The SHA will continue to investigate the noise issue at Hunt Country Estates. However, regulations set by the Federal government may prohibit the extension of the earth berms into the wetlands. This issue will be further discussed with the appropriate agencies and the community during the final design of the project.

- b. Would like planting of evergreen trees on both County and State land to diminish the effect of the highway noise and screen the road from the homes.

Response

The SHA and the County continues to investigate this possibility. Landscaping where reasonable and feasible will be included in the design of the project.

- c. Design Snowden River Parkway to minimize the impacts on the adjacent residential area.

Response

Snowden River Parkway is the responsibility of Howard County. The County will design the facility to minimize impacts to the extent reasonable.

9. Mr. George Layman - 8070 Fetlock Court

- a. Wanted to be involved with the meetings between State Highway and the developers. Those meetings were not made public.

Response

The meetings with developers did not influence the selection of Alternate 3. The purpose of the meetings was to assure that if Alternate 3 were selected there would be a corridor free of development. If Alternate 3 were not selected, development would now be occurring in the corridor.

- b. Concerned about lack of communication regarding avoidance option for seven homes in Hunt Country Estates.

Response

Three different studies were completed, which included different options, for the alignment in the vicinity of Hunt Country Estates.

10. Mr. Ted Kircher - 4609 East Leisure Court

- a. Concerned that information is unavailable or difficult to find.

11. Beverly Wilhide - 3952 Cooks Lane - Howard County Chamber of Commerce

- a. Supports the construction of MD 100.

Response

Alternate 3 has been selected for the construction of MD 100.

12. Mr. Wyczalek - representing Bendix Field Engineering Corporation

- a. Offered strong support for MD 100.

Response

Alternate 3 has been selected for the construction of MD 100.

13. Ms. Rollinger - 4434 Columbia Road

- a. Would like to see the design altered to bring southbound ramp of MD 100 into the slow lanes of US 29, this would move US 29 away from our homes.

Response

The alignment of the southbound ramps to US 29 will remain to tie-in on the median side. This alignment saves tax payers several millions of dollars.

- b. Requested that safety and noise be put into the original design.

Response

The US 29/103 interchange will operate safely and efficiently through the design year 2015. Noise mitigation was not a part of the 29/103 interchange project, however noise abatement measures will be considered during the design stage of MD 100.

- c. Support County's suggestion of interchange at Long Gate Parkway.

Response

Based on the projected traffic volumes, an at-grade intersection will function sufficiently when MD 100 is initially opened to traffic. Traffic volumes will be monitored and an interchange will be provided when warranted.

14. Mr. Springer - 5270 Waterloo Road

- a. Stated that option 104A takes approximately one hundred and twenty-five feet of pasture that is needed for horses. Supports Timber Run being put through to Horseshoe Road.

Response

Several alignments were considered for the relocation of Oak Run Way. The option 104-A has been selected for construction because it has the least impact on the surrounding communities. Option 104A was modified following the public hearing to minimize the impact to the Timber Road Valley.

The selected option 104A ties Oak Run Way opposite Elko Drive.

15. Brian Skelly - 8540 Pine Run Way

- a. Mr. Skelly opposes the relocation of Oak Run Way as proposed in option 104A and 104B.

Response

Several alignments were considered for the relocation of Oak Run Way. The option 104-A has been selected for construction because it has the least impact on the surrounding communities. Option 104A was modified following the public hearing to minimize the impact to the Timber Road Valley.

The selected option 104A ties Oak Run Way opposite Elko Drive.

16. Mr. Richard Talkin - attorney representing owners of the Greer property

- a. We request you look at a right-of-way of approximately 300'. This would allow for expansion of MD 100 in the future.

Response

Final right-of-way requirements will be determined during final design. However, MD 100 is being planned that additional lanes could be added in the future without requiring additional right-of-way.

- b. Concerned with access and development potential of the Greer property.

Response

No access, via at-grade or otherwise is being planned to tie directly into the Greer property.

- c. Would like an extension of a connection from the property to Meadowridge Road with a bridge over MD 100.

Response

This would be the responsibility of the developer and a County issue.

17. Mr. Alan Juera - 8518 Pine Run Court

- a. Opposes Alternate 3 option 104-B and concerned about drainage.

## Response

Alternate 3 option 104A is the Selected Alternate.

The design of MD 100 will address runoff associated with construction of MD 108.

18. Mr. Fred Hunt - 4213 Crest Place

- a. Would like the interchange at US 29 and MD 100 completed before the developer road.

## Response

The two-lane developer road is being constructed under the Howard County Subdivision process. Consequently this construction schedule is not determined by the SHA.

- b. Disagree with the at-grade intersections at Long Gate Parkway, Executive Drive and Centre Park Drive.

## Response

These intersections will function safely and efficiently when MD 100 is initially opened to traffic. As volumes increase, these intersections will be monitored and modified as required.

19. Mr. Jerry Kissel - 4659 Pinto Court

- a. Concerned about at-grade intersection on a roadway designed with a 60 mph speed with full control of access.

## Response

The section of MD 100 west of MD 104 will have partial control of access. This section of highway has lower function than MD 100 east of MD 104. These intersections will function safely and efficiently when MD 100 is initially opened to traffic. As volumes increase, these intersections will be monitored and modified as required.

20. Mr. Titus - President Howard High School PTSA

- a. Concerned about noise mitigation at Howard High School.

Response

The SHA is investigating noise mitigation for Howard High. A final decision on noise mitigation will be made during the design of the project.

- b. Would like to be assured of a pedestrian crossing in the vicinity of the Howard Highway School at MD 108.

Response

The SHA is studying a pedestrian crossing in the vicinity of Howard High School and will continue to do so in design.

- c. Would like to see full examination of the social impacts of the neighborhoods and the function of the school.

Response

MD Route 100 will not cut off access to the High School. Access will still be available by car; and pedestrian access is being considered. It is not believed that the roadway will affect the activities of the school or attendencies at the activities.

21. Mr. Jerry Fleischman - 5901 Rustic Light: Elkridge Community Association

- a. Would like the State to approve the construction with an adjustment in the alignment which is agreeable to the residents of the Hunt Country Estates.

Response

Following a request made by Hunt Country Estate residents, the SHA investigated shifting the alignment in the vicinity of their community. A decision was made to shift the alignment 100 feet further away from Hunt Country Estates.

- b. Would like to know how much Macks and Macks is spending to construct the two-lane developer road which will become part of MD 100.

Response

Macks and Macks is not constructing the two land developer road. They are donating right-of-way for its construction.

22. Mr. Whittemore

- a. Believe this to be the beginning of an outer beltway.

## Response

At one point this was part of the outer beltway study, however, in recent years Baltimore County's rapid development precludes the completion of an outer beltway.

- b. Concerned that not enough public involvement took place at the Public Workshop.

## Response

There have been a number of meetings with citizens affected by the MD 100 project; a list of the meeting dates can be found on pages I-2, I-3 and I-4 of this document.

23. Ms. Dana Wheeler - 5021 Avoca Avenue

- a. Would like to see all construction put on hold until access for the students at Howard High School and the surrounding communities has been assured.

## Response

The issue of pedestrian access will be answered prior to the ultimate construction of MD 100.

24. Mr. Jeff Wellen - 8701 Fetlock Court

- a. Does not feel that State Highway Administration has been open and honest in its negotiations with the developers.

## Response

(See Section I-4) The subdivision process call for State review. The minutes of any formal meeting have been, and will continue to be, in the public file. Both Howard County and the State Highway Administration have held numerous public meetings to keep the public informed of process and decisions made on MD Route 100.

- b. Concerned that wetland impacts were not identified and the impact documented.

## Response

On November 19 and 20, 1987 a wetland field review was held with the Army Corps of Engineers and other concerned agencies which documents the wetland impact as approximately 16 acres. The State Highway Administration has located the alternate to avoid or minimize impacts to wetlands as much as reasonable. Mitigation of wetland impacts will be coordinated with the Corps of Engineers and will be incorporated into the final design plans.



2/3

ELECTED OFFICIALS



214

# County Council of Howard County

GEORGE HOWARD BUILDING  
3430 COURT HOUSE DRIVE  
ELLCOTT CITY, MARYLAND 21043-4392  
992-2001

## COUNCILMEMBERS

- Ruth Keeton, Chairperson  
District 4
- C. Vernon Gray, Vice Chairperson  
District 3
- Angela Beltram  
District 2
- Charles C. Feaga  
District 5
- Shane Pendergrass  
District 1

Robert E. Vogel  
Executive Secretary  
Ronald S. Weinstein  
County Auditor

March 15, 1988

MAR 21 1988

Mr. Hal Kassoff, Administrator  
State Highway Administration  
707 N. Calvert Street  
Baltimore, MD 21203

RECEIVED

MAR 21 1988

DIRECTOR, OFFICE OF  
PLANNING & PRELIMINARY ENGINEERING

Dear Mr. Kassoff:

I understand that representatives from the State Highway Administration and the County met recently with a representative from the Timber Run Community.

There continues to be a number of unanswered questions from the community. Would you please identify who is able to answer these questions and provide the answers to me so that I might share them with the Timber Run representative.

1. Open Space, Lot 41: Will it be possible to swap land with the community to replace any open space which MD 100 will be taking? Who guarantees that the Timber Run community will have the required open space?
2. Since the final alignment has not been set, how can the developer be grading now for a portion of the roadway? Why is he allowed to grade on state owned property as well as Timber Run open space land? I understand that this grading information has been sent by the community representative to the Federal Highway Administration.
3. Has the process to close a segment of Oak Run Way been determined? Will this be a road closing and require a council resolution?
4. Has the option been explored of building the new access north from Timber Run to MD 104 rather than making the temporary connection to the developer's road? Would it be possible to connect to Horseshoe Rd?

215

Mr. Hal Kassoff  
March 15, 1988

5. If the developer's connection is the only temporary solution, who will construct that section of road?

I believe that the community has been asking these questions for a number of months. I would appreciate your assistance in answering them. Thank you for your attention to this matter.

Sincerely,

*Angie Beltram*

Angela Beltram  
Council Member

AB: jc/gc-1050m  
cc: Marie McLaughlin



*Maryland Department of Transportation  
State Highway Administration*

216

Richard H. Trainer  
Secretary

Hal Kassoff  
Administrator

APR 5 1988

The Honorable Angela Beltram  
Howard County Council  
3430 Court House Drive  
Ellicott City, Maryland 21043

Dear Councilwoman Beltram:

Thank you for your March 15th letter voicing the concerns of the Timber Run community.

The Maryland Route 100 project will not require the purchase of any land from lot 41. However, we are currently considering the possibility of a land transfer to provide open space which would be contiguous to Timber Run. Timber Run would have the same open space acreage as today with or without this proposed land transfer.

Although a final alignment for the Maryland Route 100 project has not been approved, we have granted permission for a developer to construct an access road through state property to connect with Maryland Route 104. This connection would be designed to state specifications along the proposed alignment of Alternate 3. No right-of-way is required from the Timber Run open space area for this connection.

We are currently studying several options which would allow Oak Run Way to remain in its present location after the initial two-lane developer road is constructed. If Oak Run Way should require relocation, this would be completed by the State Highway Administration and would not require a council resolution.

We will continue to work with the county and the Timber Run community to provide an agreeable access alternative. We are still reviewing several options recommended by the residents and local officials. We hope to meet with the Timber Run residents to review these alternatives in the near future.

My telephone is VIII-20 \_\_\_\_\_

Teletypew \_\_\_\_\_  
\_\_\_\_\_

363-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free  
707 North Calvert St., Baltimore, Maryland 21203-0717

The Honorable Angela Beltram  
Page Two

Thank you for your involvement in the Maryland Route 100 project. We appreciate the input we have received from you and look forward to working with you in resolving these issues. Please feel free to contact me if you wish to discuss these issues further.

Sincerely,

BY:  
**HAL KASSOFF**

Hal Kassoff  
Administrator

HK:tn

cc: Mr. Neil J. Pedersen  
Mr. Wayne R. Clingan  
~~Mr. Louis H. Ege, Jr.~~  
Mr. Uri Avin



218

HOUSE OF DELEGATES  
ANNAPOLIS, MARYLAND 21401-1991

ROBERT L. FLANAGAN  
HOWARD-MONTGOMERY COUNTIES

JUDICIARY COMMITTEE

DISTRICT OFFICE  
12400 ROUTE 108  
CLARKSVILLE, MARYLAND 21029  
985-9818 854-6020

ANNAPOLIS OFFICE  
226 HOUSE OFFICE BUILDING  
858-3200 (WASHINGTON AREA)  
841-3200 (BALTIMORE AREA)

February 12, 1988

Neil Pedersen  
Director of Planning and Financing  
Maryland Dept. of Transportation  
707 N. Calvert St.  
Baltimore, MD 21202

Dear Neil:

We appreciated the opportunity to discuss the situation at Timber Run Valley following the meeting on February 9, 1988. The proximity of the Route 100 right of way to this community indicates that the construction of this roadway will cause a seriously deleterious impact upon these residents. Your willingness to consider proposals to lessen this impact is gratifying. In particular, we urge you to continue studying the possibility of constructing new access from Timber Run to Route 104 and installing a barrier to buffer the community from the onslaught of construction activities.

We are hopeful that your office and community members can agree upon a satisfactory alignment for this access road. Also, although we did not discuss this issue, it would seem reasonable that Oak Run Way would remain available for local parking. If this is a county rather than state issue, we would appreciate you so advising us.

Thank you in advance for your consideration.

Very truly yours,

Robert L. Flanagan  
Delegate, District 14B

RLF:cb

FEB 19 8 24 AM '88  
PROJECT DEVELOPMENT DIVISION



**Maryland Department of Transportation  
State Highway Administration**

219

PROJECT  
DEVELOPMENT  
DIVISION

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

MAR 8 3 55 PM '88

March 8, 1988

The Honorable Robert L. Flanagan  
Member - House of Delegates  
226 House Office Building  
Annapolis, Maryland 21401-1991

Dear Delegate ~~Flanagan~~: *Bob*

Thank you for your recent letter concerning your discussion with Neil Pedersen regarding the MD 100 project and its impact on the Timber Run Valley community.

We are currently studying alternative options to provide access to MD 104. We anticipate that much of Oak Run Way could remain in place for utilization as overflow parking for the community under any of the options. In addition, as presented to community members on February 2nd, we are considering the provision of earth berms for mitigating noise and visual impacts. It is our goal to provide an alternative which minimizes impacts to the Timber Run Valley residents. We will continue to work with the residents and Howard County officials in an effort to reach this goal.

If you wish to discuss this project further, please call me or Neil Pedersen. Mr. Pedersen can be reached at 333-1110.

Sincerely,

Hal Kassoff  
Administrator

HK:ds

cc: Mr. Neil J. Pedersen  
Mr. Louis H. Ege, Jr.

My telephone number is (301) 333-1111

B. Agency Correspondence





221

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DEPARTMENT OF RECREATION AND PARKS

---

*Elizabeth Bobo, County Executive*  
*William M. Mitchell, Director*

August 16, 1988

Mr. Louis H. Ege, Jr.  
State Highway Administration  
Project Development Division  
707 North Calvert Street  
Baltimore, MD 21203-0717

RE: Contract No. HO-661-101-770  
Maryland Route 100  
POMS No. 132062

PROJECT DEVELOPMENT DIVISION  
AUG 19 11 27 AM '88

Dear Mr. Ege:

This letter is in response to your correspondence of July 1, 1988 regarding the parkland impacted by the above referenced project.

This office concurs with the transfer of the "replacement area" to Howard County as indicated on the attached Figure 20 (attachment #1). However, with the proposed construction of "Option A," the Columbia Hills access road, we feel it is essential to identify only the acreage to the west and south of Option A as the substitute property for the impacted Program Open Space parcel. Therefore only that area would become part of Brampton Hills Park and would serve as the 4F replacement (see attachment #2). The remainder of the conveyance, lying northwest of the Columbia Hills access and continuing to the Route 100 right of way would be retained by the County for other purposes. We feel that this proposal will be the one most likely to gain the approval of the Department of Natural Resources, given the future construction of the Columbia Hills access road and a possible park and ride facility.

It should also be noted that the park area impacted by Route 100 on the Figure 20 is not as large as the area of take that has been discussed in previous meetings and correspondence. Prior discussions have indicated that the area shaded in yellow on attachment #1 will be transferred to State Highway and later conveyed to Long Gate Joint Venture. We would recommend that you check into this matter and advise our office as to your findings.

222

Mr. Louis H. Ege, Jr.  
Page 2  
August 16, 1988

In regard to the master plan for this park, all planning efforts have been placed on hold until the ultimate boundary of the park is established.

This office is not in a position to comment on the Howard High School facilities since they are under the control of the Board of Education. It is recommended that your concerns be presented to that Department for comment.

If our office can be of additional assistance, please do not hesitate to call.

Sincerely,

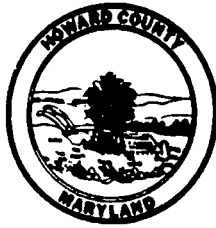
*W. M. Mitchell*

William M. Mitchell  
Director

WMM/KMA, JR./db

Attachments

cc: James M. Irvin  
Howard Johnson



223

## OFFICE OF PLANNING AND ZONING

ELIZABETH BOBO  
COUNTY EXECUTIVE

URI P. AVIN  
DIRECTOR

GEORGE HOWARD BUILDING  
3430 COURT HOUSE DRIVE  
ELLCOTT CITY, MARYLAND 21043  
(301) 992-2350  
TTY (301) 992-2323

March 17, 1988

Mr. Howard Johnson  
State Highway Administration  
707 N. Calvert Street  
Baltimore, MD 21203

Dear Mr. Johnson:

Transmitted herewith are the comments of the Howard County Office of Planning and Zoning Office regarding the Draft EIS (Section 4(f) Evaluation, Contract No. HO 661-101-771) for the proposed extension of MD 100 from U.S. Route 29 to Interstate 95, Howard County Maryland.

At the February 9, 1988 MD 100 Location and Design public hearing held at Hammond High School, the County Administration went on record as recommending Alternative No. 3 as the preferred MD 100 alternative alignment. Therefore, our review of the MD 100 EIS has focused upon Alternative No. 3.

o MD 100/Long Gate Parkway

If the State Highway Administration constructs an at-grade intersection at this location, pedestrian signal phasing and pedestrian access across the proposed MD 100 should be maintained. We believe that these pedestrian design concerns are consistent with Section 4 (f) mitigation requirements and would maintain the Brampton Hills Community access to Brampton Hills Park. Without these pedestrian design elements we feel that Section 4 (f) impacts upon Brampton Hills Park are not being adequately addressed. 1

o Columbia Hills - Northern Access

We believe it is necessary to provide a northern access route to and from the Columbia Hills subdivision and recommend Option A. Option A is preferable to the other alignments presented in part because it avoids extensive floodplain impacts. Option A also provides acceptable access to Brampton Hills Park from both the communities of Brampton Hills and Columbia Hills. These recommendations are consistent with prior correspondence from Howard County, including a preliminary alignment study prepared by this Office and transmitted to the State Highway Administration in 1986. 2

Option A should be addressed in the EIS as a potential mitigation of MD 100's impact on accessibility to community facilities and in particular as a mitigation of reduced accessibility to the Brampton Hills Park and the Columbia Hills subdivision. Option A is also the most advantageous alignment for provision of a park and ride facility at this location as a means of improving air quality, reducing traffic volumes and maintaining the long term capacity of MD 100.

2

o Pedestrian Crossing

At present, substantial pedestrian traffic crosses the MD 100 right-of-way west of MD 104. The proposed MD 100 will introduce a significant barrier to this pedestrian traffic. We feel that reducing pedestrian accessibility to the High School and surrounding commercial activities is a negative community impact that the draft EIS has not adequately addressed. To mitigate this situation, we recommend construction of a pedestrian overpass plus adequate lighting for the overpass and approaches.

3

o Noise/Visual Barriers

We recommend that the EIS be modified to include a priority ranking for locating potential noise barriers and specific mitigation strategies that will be implemented.

4

o Historic Sites

The historic property designated as H-5 will be affected by the Alternate 3 alignment. Care should be exercised to properly buffer the historic structure on this site.

5

On all maps and reference lists property H-1 is designated as the Wayside Inn (HO-144). This is incorrect both as to the location and the site name. In addition, another historic site in this vicinity known as Temora (HO-47) has been omitted entirely. We believe that the property shown as the Wayside Inn may actually be Temora. The State Highway Administration should contact this Office or the Maryland Historic Trust to clarify these discrepancies.

6

Should you have any questions, please contact me at your convenience at 992-2357.

Sincerely,

*Carl Balser*  
Carl Balser

CB/eg

- cc: Guy Hagar
- Uri P. Avin
- Amar Bandel
- Benjamin Pickar
- Dave Holden

Response to Office of Planning and Zoning letter of March 17, 1988

- 1. The administration maintains that no pedestrian access will be permitted at-grade connections along the MD 100 corridor due to safety reasons. When traffic volumes dictate the need for an interchange, pedestrian access to the proposed park will be proposed via sidewalks on the ultimate bridge. Prior to the construction of the interchange access to the Brampton Hills Park will be directed through Columbia Hills.
- 2. As discussed in past correspondence to Howard County, northern access to Columbia Hills is a county responsibility. The roadway improvements associated with the MD 100 project do not affect the current access of Columbia Hills, nor does it affect the current access to Brampton Hills Park. Since the park is currently undeveloped and no plans exist for its development, access to the park is not an issue.
- 3. Providing a pedestrian overpass in the vicinity of Howard High School is being considered. A final decision will be made after further coordination with Howard County.
- 4. Please see Section IV-F for a discussion of noise mitigation.
- 5. Historic site H-5 is located over 1,200 feet west of Selected Alternate 3. The site is separated from Alternate 3 not only by thick vegetation but also by a stream and an attendant heavy woods (see IV-C). The Maryland Historic Trust has determined that Alternate 3 will have no effect on the site.



Maryland Department of Natural Resources

PROJECT DEVELOPMENT DIVISION

226

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

JAN 17 12 10 PM '89

William Donald Schaefer  
Governor

Torrey C. Brown, M.D.  
Secretary

Division of Archeology  
(301) 554-5530

Kenneth N. Weaver  
Director

Emery T. Cleaves  
Deputy Director

13 January 1989

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: Phase II archeological evaluation of  
Deep Run Number 6 (18HO19)  
Contract No. HO 661-101-770

Dear Mr. Ege:

The Division of Archeology performed a Phase II archeological site evaluation of the Deep Run Number 6 site (18HO19) during December 1988 and January 1989. These investigations were carried out to provide information on site significance in anticipation of possible effects from the proposed construction of Maryland Route 100 north of I-95. During a Phase I survey (Division of Archeology File Report 199), Ballweber confirmed the location of the Deep Run 6 site, first identified by Wall and Muirhead (1971). Both she and Wall and Muirhead interpreted it as a prehistoric site.

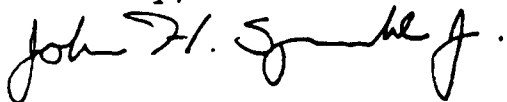
In the Phase II testing, the Deep Run 6 site investigated, using shovel test pits to determine its horizontal dimensions and 1 m by 1 m test units to examine its vertical stratigraphy. Although prehistoric artifacts were recovered from the site, none were found in good archeological context. The prehistoric component of the Deep Run 6 site represents a periodically used resource procurement station. We do not believe it is a significant archeological resource, because it does not have the potential to yield important information in prehistory. Therefore, we consider it to be ineligible for inclusion in the National Register of Historic Places.

During Phase II testing, a second historic component of the Deep Run 6 site was identified and interpreted as a probable mid-to late-18th century domestic farmstead. Subsurface cultural features were associated with the historic component of the site; however, based on systematic testing, these features are located outside of the proposed right-of-way for Route 100, and that the historic component does not extend into the project right-of-way. The historic component of the Deep Run 6 site is considered significant and eligible for inclusion in the National Register of Historic Places, because of its potential to yield important information on the history of Maryland. The proposed construction of Maryland 100 will likely have no effect on the significant historic component of the Deep Run 6 site. Fencing may be adequate to ensure that construction activities do not impact the historic component of the site.

An executive summary will not be sent to your office for the above-mentioned project. A draft file report containing the technical details of the project will be sent to your office upon completion.

Please contact me at 554-5577 if you have any questions about this project or if I can be of further assistance.

Sincerely,



John H. Sprinkle, Jr.  
Archeologist

Enclosure

cc: Cynthia Simpson  
Rita Suffness

228

MARYLAND  
HISTORICAL



TRUST

PROJECT  
DEVELOPMENT  
DIVISION

Oct 5 9 52 AM '88

William Donald Schaefer  
Governor

Jacqueline H. Rogers  
Secretary, DHCD

September 25, 1988

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

Re: Contract No. HO 661-101-770  
MD 100 from US 29 to I-95  
PDMS No. 132062  
Howard County, Maryland

Dear Mr. Ege:

On 15 August 1988, we received your correspondence with a copy of a letter from the Maryland Geological Survey regarding the above-referenced project. The Maryland Geological Survey's letter addresses issues raised in the Trust's review (dated 20 April 1988) of the report on the archeological reconnaissance survey conducted for this project.

The Maryland Geological Survey's letter adequately clarifies the questions our office posed in its prior review. Regarding the Perk Site (18HO 144), the survey presented additional information and a map as requested. Based on this documentation, we concur that 18 HO 144 has a low potential to yield significant information due to its sparse artifact assemblage and limited sub-surface integrity. Therefore, we agree that additional archeological investigations of this site are not warranted.

The letter also contained an executive summary with accompanying maps of the sub-surface reconnaissance survey conducted within Test Loci 5 and 8. In our opinion, the level of sub-surface testing was sufficient to adequately survey the test loci and document that the areas do not contain archeological resources. This additional sub-surface investigations allows our office to make an informed decision regarding the project's effects to archeological resources. Finally, the letter provides a reasonable explanation for the survey's research design and selected survey strategy.

*Maryland*

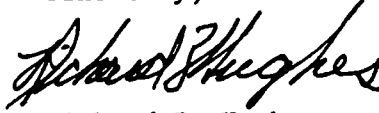
Department of VIII-32 Community Development  
Shaw House, 21 State Circle, Annapolis, Maryland 21401 (301) 974-5000



Mr. Louis H. Ege, Jr.  
September 25, 1988  
Page 2

Please accept our appreciation for the efforts your office and the Maryland Geological Survey have taken to answer our prior review questions.

Sincerely,



Richard B. Hughes  
Chief Administrator  
Archeological Programs  
Office of Management and Planning

RBH/EJC/meh

cc: Ms. Rita Suffness  
Mr. Tyler Bastian  
Mrs. Mary Louise Gramkow  
Mr. Ed Shull

230,

MARYLAND  
HISTORICAL



TRUST

William Donald Schaefer  
Governor

Jacqueline H. Rogers  
Secretary, DHCD

September 26, 1988

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

Re: Contract No. Ho 661-101-770  
MD 100 from US 29 to I-29  
PDMS No. 132062

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Meadowbrook Farms Stone Residence

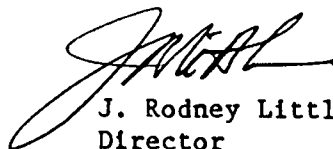
Dear Ms. Simpson:

Thank you for your letter of August 5, 1988, concerning 437 Columbia Pike in Ellicott City.

This office concurs with your opinion that the property is not eligible for listing in the National Register of Historic Places.

Should you have any questions, please contact Michael K. Day at 974-5000.

Sincerely,



J. Rodney Little  
Director

JRL/MKD/meh

cc: Ms. Rita Suffness  
Mrs. Mary Louise Gramkow  
Mr. Ed Shull  
Ms. Laura Wooten

*Maryland*

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MARYLAND HISTORICAL



TRUST

PROJECT DEVELOPMENT DIVISION

DEC 16 9 50 AM '87

William Donald Schaefer Governor
Jacqueline H. Rogers Secretary, DHCD

December 14, 1987

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. HO 661-101-770 Maryland Route 100 from U.S. Route 29 to Interstate Route 95 PDMS No. 132062

Dear Ms. Simpson:

Thank you for your letter of November 3, 1987 concerning the above-referenced project. Our office concurs with the following determinations of effect:

Table with 5 columns: Alternate, Property, 2, 3, 4, 5. Rows include Spring Hill, Avoca, Wheatfield, Sunderland, Wayside Inn, Woodlawn, Mt. Joy, Trinity Ch.

We consider Alternates 2 and 5 to have a potential to adversely effect both Spring Hill and Avoca(\*). In order to make our determination of effect we need to know the amount of the "takings" involved in these situations. Please note that the boundary you depict for Wheatfield is larger than that agreed to (see enclosed map). Depending upon your plans, this might not constitute a take.

232

Ms. Cynthia Simpson  
December 14, 1987  
Page 2

We look forward to your response. If you have any questions, please contact Al Luckenbach at 974-4450.

Sincerely,

*George J. Andreve*

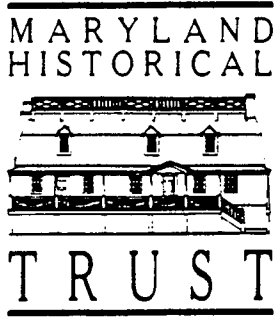
George J. Andreve  
Project Review and Compliance Administrator  
Office of Preservation Services

GJA/AHL/jja

Enclosure

cc: Mrs. Mary Louise Gramkow  
Mr. Ed Shull  
Mr. Paul Wettlaufer  
Ms. Rita Suffness

233



William Donald Schaefer  
Governor

Jacqueline H. Rogers  
Secretary, DHCD

October 16, 1987

PROJECT  
DEVELOPMENT  
DIVISION  
OCT 30 3 28 PM '87

Ms. Cynthia D. Simpson  
Manager, Environmental Management  
Maryland Department of Transportation  
State Highway Administration  
P.O. Box 717  
707 North Calvert Street  
Baltimore, Maryland 21203-0717

RE: Contract No. HO 661-101-770  
Maryland Route 100 from  
U.S. Route 29 to Interstate  
Route 95  
PDMS No. 132062

Dear Ms. Simpson:

Our office received your letter of September 16, 1987 regarding this project, and we concur with its contents.

Sincerely,

J. Rodney Little  
Director  
State Historic Preservation Officer

*No effect to any site  
as result of alt. 3*

JRL/jja

cc: Ms. Eleni Silverman  
Mrs. Mary Louise Gramkow  
Mr. Ed Shull



*Maryland Department of Transportation*  
*State Highway Administration*

CWS 234

Richard M. Trainer  
Secretary  
Hal Kassoff  
Administrator

September 16, 1987

RE: Contract No. HO 661-101-770  
Maryland Route 100 from  
U.S. Route 29 to Interstate  
Route 95  
PDMS No. 132062

Mr. J. Rodney Little  
State Historic Preservation Officer  
Maryland Historical Trust  
1517 Ritchie Highway  
Arnold, Maryland 21012

Dear Mr. Little:

Thank you for your September 22, 1986 letter which addressed proposed boundaries for those properties believed to be National Register eligible. The purpose of this letter is to advise you of our preferred alternate, Alternate 3, and our determinations concerning possible effects on historic sites.

Maryland Route 100 will provide a vital highway link in the rapidly developing northern Howard County area.

There are several projects underway in the vicinity of the proposed Maryland Route 100 improvement. For one, an interchange at U.S. Route 29 and Maryland Route 103 is currently being designed. Secondly, an interchange at U.S. Route 29 and Maryland Route 108 is under construction. In addition, Howard County plans to construct the Snowden River Parkway in the vicinity of Howard County High School. It is indicated on the enclosed plans.

This Administration has identified Alternate 3 as the preferred alternate. This alternate extends Maryland Route 100 on new location from the proposed U.S. Route 29/Maryland Route 103 interchange terminus to the existing Interstate Route 95/Maryland Route 100 interchange on new location along the Howard County General Plan alignment. This alternate is designed as a six-lane divided highway.

VIII-38

My telephone number is (301) 333-1177

Mr. J. Rodney Little  
September 16, 1987  
Page Two

The proposed U.S. Route 29/Maryland Route 103 interchange would be designed to connect into the proposed Maryland Route 100 alignment instead of Maryland Route 103. A connector road from Maryland Route 100 to provide access to Maryland Route 103 would be provided. A variable right-of-way width with a minimum of 166 feet in addition to slope easements will be required for the alternate. The two-lane roadway currently being constructed west of Maryland Route 104 would ultimately function as two lanes of the eastbound roadway.

Only three historic sites identified as being possibly National Register eligible are located within the vicinity of Alternate 3 (see attached maps). These are Wayside Inn (HO 144), Mount Joy (HO 145) and the Sunderland-Kraft Farmhouse (HO 531). No property will be acquired from within the historic site boundary of any site. The remaining sites, as listed in the letter referenced above, are outside of the area-of environmental impact, and thus will not be affected. These sites are Spring Hill (HO 31), Wheatfield (HO 95), Woodlawn (HO 30), Avoca (HO 422) and the Trinity Church Chapel (HO 428).

The Wayside Inn is located on the west side of U.S. Route 29 approximately 2400'+ from where Alternate 3 will tie into the U.S. Route 29/Maryland Route 103 interchange, which has already been evaluated by your office. As you know, there is an extensive buffer of mature trees between the proposed interchange improvements and the Inn. Heavy vegetation not only surrounds the Inn, but there is a naturally occurring berm between the service road (which the Inn faces), and U.S. Route 29 which supports thick vegetations, such as tall trees and plants.

As discussed at our U.S. Route 29/Maryland Route 103 meeting, numerous measures such as canting Ramp D to the east to deflect headlight intrusion into the site, and the planting of additional plants on the berm have been included in the interchange construction to further lessen the possibility of changes in the immediate vicinity of the site.

Given these facts, and the great distance between the western terminus of proposed Maryland Route 100 and Wayside Inn (over 2400'+), we do not think the site will be affected.

The Sunderland-Kraft Farmhouse (HO 531) is situated 1700'+ north of Alternate 3. Separated from the proposed road by a considerable expanse of woods, the historic site will not be affected.

Mr. J. Rodney Little  
September 16, 1987  
Page Three

Mount Joy, (HO 145), is located over 1200'+ west of Alternate 3 and separated from it not only by intervening thick vegetation planted around the nucleus of buildings on a knoll, but also by a stream and an attendant heavy woods. The southern portion of the historic site is currently being graded in preparation for a housing development. Evidently, development is also planned for the eastern flank of the site adjacent to Alternate 3 and extensive subdivision development. We do not think Mount Joy will be affected by Alternate 3.

We seek your concurrence by October 15, 1987 in our determination that no site on or eligible for the National Register will be affected by Alternate 3. Ms. Suffness may be reached at 333-1183 should you have any questions.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

By: Cynthia D. Simpson  
Cynthia D. Simpson, Chief  
Environmental Management

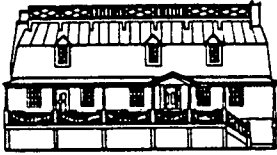
LHE:CDS:tlh

Enclosures

cc: Mr. Howard Johnson  
Mr. Karl Teitt



MARYLAND  
HISTORICAL



TRUST

237 *Highway design*

William Donald Schaefer  
Governor

Jacqueline H. Rogers  
Secretary, DHCD

November 10, 1987

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. <sup>HO</sup> 627-101-770  
US Route 29/MD Route 103  
P.D.M.S. No. 32052

PROJECT  
DEVELOPMENT  
DIVISION  
NOV 13 9 29 AM '87

Dear Ms. Simpson:

In accordance with the discussions between representatives of our two agencies on October 20, 1987, our office concurs that the subject project will have no adverse effect on the Wayside Inn based on the following conditions:

1. The existing natural berm in front of the Wayside Inn will be retained and extended approximately 50' to the north.
2. SHA will develop and implement a landscaping plan for the new berm section. The vegetation on the existing berm will also be augmented. The proposed landscaping plan will be sent to the SHPO for review. Should the SHPO object within 30 days to the plan, SHA and the SHPO will consult to resolve the objection. If the objection cannot be resolved, the agency official shall request the comments of the Advisory Council pursuant to 36 CFR 800.6(b).
3. The SHPO will review the plans for the spacing of the lights and signage for Ramp D. This ramp will be canted to reduce headlight intrusion.

*Maryland*

Depart VIII-41 and Community Development  
Shaw House, 21 State Street, Maryland 21401 (301) 974-4450, 757-9000  
Temporary Address: Arnold Village Professional Center, 1517 Ritchie Highway, Arnold, Maryland 21012

Ms. Cynthia Simpson, Chief  
November 10, 1987  
Page 2

Your cooperation in this matter has been appreciated.

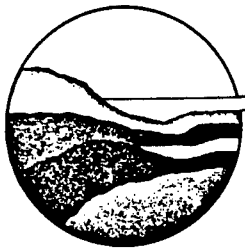
Sincerely,

*Mark R. Edwards*

Mark R. Edwards  
Deputy Director -  
Deputy State Historic  
Preservation Officer

MRE/AHL/as

- cc: Rita Suffness
- Paul Wettlaufer
- Mrs. Mary Louise Gramkow
- Mr. Ed Shull
- Mr. John Osantowski



Maryland Department of Natural Resources

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

William Donald Schaefer  
Governor

Torrey C. Brown, M.D.  
Secretary

October 19, 1987

MEMORANDUM

TO: Cynthia D. Simpson, Chief  
Environmental Management  
Maryland Dept. of Transportation

FROM: W.P. Jensen, Director  
Fisheries Division

SUBJECT: The Maryland State Highway Administration is conducting Project Planning studies for Maryland Route 100 in Howard County, Maryland. The project consists of extending Maryland Route 100 on new location west from Interstate Route 95 to U.S. Route 29. Maryland Dept. of Transportation requests information concerning anadromous fish in the project area.

RECEIVED  
OCT 20 1987  
1 33 PM '87

There are no anadromous fish within the subject area. The attached data from stations 8, 9 and 10 indicate that there is a healthy and diverse assemblage of freshwater fish in the nearby streams (Tsai and Golembiewski, 1979).

WPJ:LL:cp

LITERATURE CITED:

Chu-Fu Tsai and Sandra Lee Golembiewski. 1979. Changes in Fish Communities in the Upper Patuxent River from 1966 to 1977. CEES, University of Maryland.

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Department of Natural Resources  
MARYLAND DEPARTMENT OF NATURAL RESOURCES  
Division of Environmental Management  
1000 North Calvert Street  
Baltimore, Maryland 21203-0717

August 12, 1986

PROJECT DEVELOPMENT  
ENVIRONMENTAL  
Aug 10 2 29 PM '86

Cynthia D. Simpson  
Environmental Management  
S.H.A.  
707 North Calvert Street  
Baltimore, Maryland 21203-0717

Subject: MD. Route 100 I-95 to Rt. 29

Dear Ms. Simpson:

The Maryland Natural Heritage Program has no record of any rare species or unique habitat at or in the vicinity of this project site. However, in the absence of a recent site review, we cannot show that such species or habitats are not present.

Species and habitats of special concern to the state are listed and discussed in the following 1984 Department of Natural Resources publication: Threatened and Endangered Plants and Animals of Maryland, available through this office. A site evaluation should include a consideration of these species and their habitats.

Sincerely,

Jonathan A. McKnight  
Maryland Natural Heritage Program

JAM:nl

241

Department of Environment and Resources  
MARYLAND DEPARTMENT OF ENVIRONMENT AND RESOURCES  
Lawrence H. Bouslog, Jr., Director  
Annapolis, Maryland 21401

June 23, 1986

JUN 27 10 28 AM '86  
PROJECT DEVELOPMENT DIVISION

Ms. Cynthia D. Simpson, Chief  
Environmental Management  
P.O. Box 717  
707 North Calvert Street  
Baltimore, Maryland 21203-0717

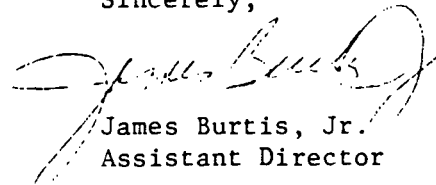
RE: Contract No. Ho 661-101-770  
Maryland Route 100  
I-95 to U.S. Route 29  
Howard County  
P.D.M.S. No. 13262

Dear Ms. Simpson:

Your request for information we may have concerning threatened or endangered species has been reviewed by Gary J. Taylor.

there are no known populations of threatened or endangered species with the area of project influence in Howard County.

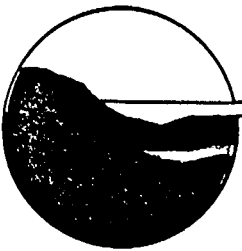
Sincerely,

  
James Burtis, Jr.  
Assistant Director

JB:emp

cc: G. Taylor  
c. Burnori

242



Maryland Department of Natural Resources

PROJECT DEVELOPMENT

Water Resources Administration  
Tawes State Office Building  
Annapolis, Maryland 21401  
Telephone: (301) 974-2265

JUL 1 2 20 11 88

William Donald Schaefer  
Governor

Torrey C. Brown, M.D.  
Secretary

James W. Dunmyer  
Director

June 28, 1988

Mr. Louis H. Ege, Jr.  
Deputy Director  
Project Development Division  
State Highway Administration  
707 North Calvert Street  
Baltimore, MD 21202

Re: WRA File No. 88-PP-0437  
SHA No. HO-661-101-771  
Draft Environmental Impact  
Statement/Section 4(f) Evaluation  
for MD 100 from U.S. 29 to I-95  
in Howard County

Dear Mr. Ege:

The Water Resources Administration, the Forest, Park and Wildlife Service, the Tidewater Administration and the Capital Programs Administration, all agencies of the Department of Natural Resources, have made necessary review of the above referenced document. Accordingly, each agency offers the following comments and/or recommendations on the subject DEIS:

1. In accordance with Title 08 Annotated Code of Maryland, Subtitle 05 Water Resources Administration, Chapter 03 Construction on Non-Tidal Waters and Floodplains, effective June 29, 1987, any changes to the course, current, or cross-section of a stream or body of water within the State including any changes to the 100-year frequency floodplain of free-flowing waters will require waterway construction permit(s) from this Administration. In this case, the two particular streams, Deep Run and Red Hill Branch which will be impacted by the proposed highway, must be studied and necessary permit(s) must be obtained. The proposed work, specifically where waterway construction permits are required, must meet the requirements in COMAR 08.05.03.01 to 08.05.03.13. 1
2. The 100-year floodplain limits are to be based on ultimate development of the watershed with the existing zoning as required by the WRA Regulations rather than the limits designated by the Federal Emergency Management Agency Flood Insurance Study which are based on existing condition of the watershed. 2

Mr. Louis H. Ege, Jr.  
June 28, 1988  
Page Two

- 3. Pertinent hydrologic and hydraulic information on Deep Run and Red Hill Branch may be obtained from SHA's studies of the Patapsco River as part of the analysis for Interstate 195 and MD 32 and other studies by SHA and Howard County. 3
- 4. The relocation of stream channel and rechannelizations must be the last alternative considered. Every effort must be taken in order to avoid stream relocations and/or rechannelizations. 4
- 5. In addition to the sediment controls outlined in the standards and specifications for soil erosion and sediment control which will be used on this project, the Maryland Guidelines to Waterway Construction that provides standard guidelines such as dewatering procedures, stream diversion during construction, bank stabilization and other methods applicable to stream crossings, etc., should also be referenced in the document and pertinent procedures be incorporated in the construction plans. 5
- 6. The Forest, Park and Wildlife Service has expressed concern on preferred alternate 3 which affects more than 26 acres of wetlands and more than 4 acres of floodplain. Their comments at this time is that the SHA should address complete mitigation for loss of wetlands subject to approval of the Department of Natural Resources. The new reforestation replacement law will require the SHA to replace any forestland lost. In addition, the Forest, Park and Wildlife Service disagrees with the statement on page III-18 WILDLIFE that mentions that areas nearly void of undergrowth and edge have a scarcity of birds. The above statement is not necessarily a true statement because this could be very good habitat for interior dwelling species of birds. These high canopy nesters are of considerable concern and have continually lost nesting habitat at an alarming rate. 6
- 7. The Non-Tidal Wetlands Division of the Water Resources Administration has the following comments: 7
  - a. Fig. 5-B The description of wetland #4 suggests that this is one of a larger, more diverse wetlands that will be impacted. An estimated 3.44 acres will be destroyed by construction of Route 100. While the document states that shifting the road to the west would impact a water tower and athletic field, Fig. 5-B shows that there is room to reduce impacts by slight realignment while keeping the existing structures out of the right-of-way. Construction should be from the south and west of the road crossing, leaving as much wetland as intact as possible.

Mr. Louis H. Ege, Jr.  
June 28, 1988  
Page Three

- b. Fig. 5-8 Substantial impacts will result from the on-off ramps between Route 108 and Route 100.  
p. II-5  
p. IV-19 Approximately 5.1 and 7.59 acres of wetlands would be lost under option 104-A and 104-B respectively. The Division recommends selecting 104-A due to the lesser impacts. However, losses due to construction must also be minimized. Permits should be conditioned to require that construction access and work occur only from the south of Route 100 crossing and north of Route 108. This would concentrate the area of impact and leave a larger area of wetlands intact.
- c. Fig. 5-C The Department should be kept informed of the Snowden River Parkway, as impacts to wetland #'s 9 and 10 may be substantial. The possibility of shifting Route 100 farther out of wetland 11 should be investigated. Construction should be from the south.
- d. The Department should request and review mitigation plans. Comments from the Fisheries Division should be solicited.

Should you have any questions regarding these matters, please contact M. Q. Taherian at (301) 974-2265.

Sincerely,



Stan Wong  
Chief, Waterway Permits Division

SW:MQT:das



Response to Maryland Department of Natural Resources, Water Resource Administration letter dated June 28, 1988

1. Application for appropriate permits will be pursued in accordance with applicable regulations.
2. The 100-year floodplain limits are initially identified based on the FEMA Flood Insurance Study in accordance with federal regulations. During the design stages, floodplain limits are developed by SHA hydraulics section in accordance with WRA regulations.
3. This information will be used during the design of the project.
4. Surface waters in the study area run from North to South and the proposed alignment runs East to West, therefore complete avoidance of stream crossings or rechannelization is impossible. All guidelines will be strictly adhered to. See page IV-16.
5. These measures will be incorporated into the design of the project and will be included in contract specifications. All mitigation measures to be used will be reviewed by the appropriate agencies.
6. SHA has adjusted the alignment to reduce the number of wetland acres impacted. SHA will replace impacted wetlands on a 1:1 basis.
- 7a. The Army Corps of Engineers during a wetland field review on November 19 and 20, 1987 modified the boundary of wetland #4 which reduces the impacted acreage to 1.57 acres. The proposed alignment cannot be changed without creating impacts to Howard High located west of the selected alignment and residences located on Avoca Avenue.
- 7b. The selected option at Route 104 is 104-A. Every effort will be made to minimize construction related impacts to wetlands.
- 7c. Should SHA be requested to study Snowden River Parkway, all concerned agencies will be notified.
- 7d. Construction related mitigation techniques will be coordinated with appropriate agencies.

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Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator



**Maryland Department of Transportation  
State Highway Administration**

June 1, 1988

MEMORANDUM

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

FROM: Cynthia D. Simpson, Chief *CD*  
Environmental Management

SUBJECT: Contract No. HO 661-501-770  
Maryland Route 100 from  
US 29 to I-95  
Howard County, Maryland  
PDMS No. 132062

On May 11, 1988, a meeting was held at the State Highway Administration to discuss wetland mitigation and stream restoration for the subject project. In attendance were:

- |                  |                                    |
|------------------|------------------------------------|
| ✓ Howard Johnson | SHA-Environmental Management       |
| Pete Stokely     | US Environmental Protection Agency |
| Farzad Yazdani   | SHA-Bridge Design                  |
| Bob Sanders      | SHA-Highway Design                 |
| Augie Taboni     | SHA-Highway Design                 |
| Karl Teitt       | SHA-Project Development            |
| Peter Knight     | US Fish & Wildlife Service         |
| John Nichols     | National Marine Fisheries Service  |
| Steve Harmon     | Corps of Engineers                 |

The meeting started with a discussion of the selected alignment and the associated environmental constraints. It was agreed that the alignment could not be modified without creating additional impacts or significantly altering the design of the proposed roadway.

Each wetland was looked at individually and, where possible, mitigation was proposed at areas adjacent to the affected site.

<u>Wetland</u>	<u>Impacted Acreage</u>	<u>Possible Replacement Area</u>
#1	.76	Brampton Hills Park would be a good site. (Possibly 4(f)).
#2	.30	West of W#2 between the floodplain and the proposed right-of-way.

My telephone no. VIII-50 ) 333-1177

- #3 deleted during wetland field visit of November, 1987.
- #4 1.57 Wetland: Mitigation could be investigated at the Timber Run subdivision. Storm water management facilities could be used to discharge water to create wetlands via sediment traps and other water quality mitigation measures.
- #5 .52
- #6 3.09 Maintain hydrologic connection between wetland divided by interchange ramps at Maryland Route 104/108 with Sediment traps. This would reduce impact.
- #7 4.56 Wetlands can be replaced along the rechanneled stream and within the proposed right-of-way. Streambanks should be stabilized with gabian baskets and the streambank revegetated. Meanders should be placed in the relocated stream and the pool to ripple ratio should be maintained.
- #8
- #9
- #10 Part of Snowden River Parkway Project, not Maryland Route 100.
- #11 2.09 Two areas formerly part of the Brightfield subdivision located on the south side of the alignment and within the proposed R-O-W for MD 100 could be used for wetland replacement.
- #12 2.42 SHA will investigate whether wetland mitigation may be possible at the Launger Farm property.
- #13 .68 Replacement may be possible adjacent to the Interchange at Maryland Route 100/I-95.

248

-3-

A field mitigation meeting will be scheduled by Bob Sanders of Highway design, next summer to identify storm water management sites.

Please contact Howard Johnsonn at 333-1179 if you have any questions.

LHE:CDS:sh  
cc: Attendees  
Mr. Charles Adams



**Maryland Department of Transportation  
State Highway Administration**

H.J.

249

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 4, 1988

MEMORANDUM

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

**FROM:** Cynthia D. Simpson, Chief *CD*  
Environmental Management

**SUBJECT:** Contract No. HO 661-501-770  
Maryland Route 100 from  
U.S. Route 29 to  
Interstate Route 95  
Howard County, Maryland  
PDMS No. 132062

On November 19 and 20, 1987 a wetland field review was held for the subject project. In attendance were:

- |                      |                             |
|----------------------|-----------------------------|
| Mr. Howard Johnson   | SHA, Environment Management |
| Mr. Karl R. Teitt    | SHA, Project Development    |
| Mr. Ron Jetman       | DNR Fisheries               |
| Mr. Bob Sanders      | SHA, Highway Design         |
| Mr. Auquie Taboni    | SHA, Highway Design         |
| Mr. Steve Harmon     | U.S. Corps of Engineers     |
| Mr. Webster Macomber | U.S. Corps of Engineers     |

Wetland No.	Corps of Engineers Wetland Impacted Acreages
1	.76 ac.
2	.30 ac.
3	0 ac.
4	1.57 ac.
5	.52 ac.
6	3.09 ac.
7	.10 ac.
8&9	4.46 ac.
10	Part of Snowden River Parkway not part of this study.
11	2.09 ac.
12	2.42 ac.
13	.68 ac.

My telephone nu VIII-53 333-1177

Mr. Louis H. Ege, Jr.  
March 4, 1988  
Page 2

The following comments were made during the field visit:

Mr. Steve Harman

- In the vicinity of wetland #2 on the south side of the alignment, could be a possible location for a Storm Water Management pond.
- Increase western limit of wetland #1, 15' beyond fence line within limit of construction.
- Where sewer line runs down from Brampton Hills, include a 25' wide wetland from center of stream.
- Eliminate wetland #3 all together.
- Find out how much of the wetland area was included in McCuan 404 permit. If the entire area is included and developer is mitigating, the state has no obligation to replace this wetland.
- Expand wetland #5 an additional 530'. The original wetland bordered by stream banks.
- Decrease wetland #6 boundary by about 30 feet.
- Decrease wetland #7 boundary by 5' width.
- Wetland #12, both DNR and the Army Corps of Engineers requested a southwest shift of the alignment which would cross perpendicular to the wetland and reduce impacts.
- In the vicinity of wetland #13, a storm water management pond could be placed on the up stream side of the roadway.
- Mr. Steve Harman also recommended we pull in the ramps to minimize or avoid wetland impacts.

Mr. Ron Jetman

- Keep as many trees between the road and stream as possible. Pipes should be depressed 1" inch or so beneath the stream bed. Also as little rechannalization of streams as possible.
- Mr. Ron Jetman recommended gravel be placed in streams relocated as initial roughing.

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Mr. Louis H. Ege, Jr.  
March 4, 1988  
Page 3

If I can provide additional information please contact Mr.  
Howard Johnson at 333-1179.

CS:cd

cc: Mr. Charles Adams  
Mr. Doug Simms



252

MARYLAND  
DEPARTMENT OF STATE PLANNING  
301 W. PRESTON STREET  
BALTIMORE, MARYLAND 21201-2365

WILLIAM DONALD SCHAEFER  
GOVERNOR

March 10, 1988

CONSTANCE LIEDER  
SECRETARY

Mr. Neil J. Pedersen  
Department of Transportation - SHA  
707 N. Calvert Street  
Baltimore, Md., 21203-0717

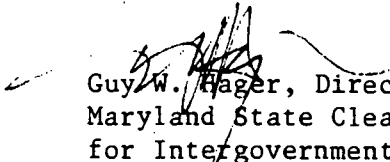
RE: State Clearinghouse Identifier: MD880126-0067  
DEIS/Section 4(f) Evaluation - Md. Rte. 100 From U.S. Rte. 29 to I-95

Dear Mr. Pedersen:

Subsequent to the Clearinghouse recommendation letter of February 24th, concerning the above reference, we have received the enclosed comments from the Department of Natural Resources. The Department advised that a permit may be required for construction within waters of the State and also endorsed comments concerning wetlands.

Your attention to these comments are appreciated.

Sincerely,

  
Guy W. Hager, Director  
Maryland State Clearinghouse  
for Intergovernmental Assistance

GWH:SB:mk

Enclosure

cc: Virginia Tauber - DNR

RECEIVED

MAR 15 1988

PLANNING & ...

VIII-56



253

Date: January 27, 1988

Director  
Maryland State Clearinghouse  
for Intergovernmental Assistance  
301 West Preston Street  
Baltimore, Maryland 21201-2365

DEPT. OF STATE PLANNING  
RECEIVED

MAR -9 1988

SUBJECT: REVIEW COMMENT AND RECOMMENDATION

REVIEWED		
ANSWERED		

State Application Identifier: MD880126-0067

Applicant: MDOT - SHA

Description: DEIS/Section 4(f) Evaluation - Md. Rte. 100 from U. S. 29  
to I-95

Responses must be returned to the State Clearinghouse on or before February 19, 1988.

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:

         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 CFR 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).

  x   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         .

         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         .

         5) It does not require our comments.

COMMENTS:         See attached        

(Additional comments may be placed on the back or on separate sheets of paper)

Signature: Virginia Tauber

Name: Virginia Tauber 3/8/88

Organization: DNR/Water Resources Admin.

Address: Annapolis, MD 21401

WATERWAY PERMITS DIVISION  
CLEARINGHOUSE REVIEW

254

DATE: 3-3-85  
TO: Virginia Tauber  
FROM: Helen Stein (x2265) HGS  
THRU: Stan Wong  
RE: Clearinghouse Project(s) # MD880126-0067 Md Rt 100

I have reviewed the information submitted with the attached proposed clearinghouse project(s) and have indicated below the appropriate comment(s) which should be brought to the Applicant's attention:

1. It appears that at least a portion of the above-referenced project is located in the non-tidal 100-year floodplain of Patuxent & Patuxent. Therefore, a State permit for construction within the waters of the State is required. The Applicant is strongly urged to contact this Administration for more specific design requirements.
2. The project is not within the non-tidal 100-year floodplain of the waters of the State and the upstream drainage area is less than the acreage limits specified in the WRA Rules and Regulations. Therefore, a State permit for construction within the waters of the State is not required.
3. A determination cannot be made whether a State permit for construction within non-tidal waters of the State will be required or not, based upon the general location and map scale provided. We urge the Applicant to submit more details as the project proceeds.
4. The packet submitted is in the planning stage. Upon further development, the Applicant is requested to contact this Administration should any projects fall within the non-tidal 100-year floodplain of the waters of the State.
5. Any construction on State or Federal property which involves more than 100 c.y. or 5000 s.f. of disturbed surface area will require review and approval of an Erosion and Sediment Control Plan by the Department of the Environment.
6. Projects that are State planned or financed require a review and approval of plans for stormwater management by the Department of the Environment.
7. Additional comments: Wetlands comments are attached -

County Street Map Page(s) # \_\_\_\_\_ (F \_\_\_\_\_ / E \_\_\_\_\_)

VIII-58

FIA Panel # \_\_\_\_\_



255

**MARYLAND**  
**DEPARTMENT OF STATE PLANNING**  
**301 W. PRESTON STREET**  
**BALTIMORE, MARYLAND 21201-2365**

**WILLIAM DONALD SCHAEFER**  
 GOVERNOR

February 24, 1988

**CONSTANCE LIEDER**  
 SECRETARY

Mr. Neil J. Pedersen  
 Department of Transportation - SHA  
 707 N. Calvert St.  
 Baltimore, Md., 21203-0717

**RECEIVED**

FEB 24 1988

**SUBJECT: REVIEW AND RECOMMENDATION**

OFFICE OF  
**PLANNING & PUBLIC AFFAIRS**

State Application Identification Number: MD880126-0067  
 Applicant: MDOT - State Highway Administration  
 Description: DEIS/Section 4(f) Evaluation - Md. Rte. 100 From US 29 to I95  
 Location: Howard Co.  
 Approving Authority: DOT  
 Recommendation: Endorsement Subject to Comments

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 consistent with Maryland's plans, programs and objectives as of this date. The State process recommendation is endorsement. Comments noted the following:

- Completion of the Section 106 review ; and
- Recommendation noted a slight realignment for Deep Run; and
- Consideration be given to any late forwarded comments.

The following directly affected State and local public agencies were provided notice of the subject.

Regional Planning Council, Department of Public Safety & Correctional Services, Department of Agriculture, Department of General Services, Department of Housing and Community Development, including the Maryland Historical Trust, Department of the Environment, Department of Health and Mental Hygiene, Department of Natural Resources, including the Coastal Zone Resources Division, Department of Education, and the Department of State Planning.

The following specific comments were provided for your consideration:

The Department of Natural Resources advised that any comments for the reference subject will be forwarded at a later date.

Department of Environment noted (copy attached) that the environmental impact statement is generally consistent with plans, programs and objectives. However, the alignment of the proposed Route 100 Extension as shown in Figure 5C requires substantial modification to the existing natural stream, Deep Run. These modifications would involve loss of portions of the areas designated W-8, W-9 and W-10 as described in Table 9 of the Statement. It appears that a slight re-alignment to the west of Deep Run would require significantly less stream modification while not impacting developed properties. Prior to the request for a permit application, consideration should be given to the advantages and disadvantages of the potential Deep Run alignment.

1

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. The Trust advised that MHT is working with the State Highway Administration to complete the Section 106 review.

2

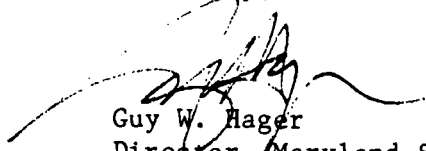
Department of Public Safety and Correctional Services noted that the proposed construction of Rte. 100 will have a definite positive impact on traffic volumes in this area of Howard County. Local traffic surveys conducted by agency personnel in Howard Co. have indicated a need to reduce Average Daily Traffic (ADT) on the roadways in that area such as Md. Rtes. 103, 104 and 108. Therefore, the construction of Md. Rte. 100 in this area would only enhance traffic safety and reduce traffic volume during peak business hours.

In response to the review request, this letter with attachment constitutes the State process recommendation. The applicant is required to include a copy of this letter with attachment and a statement of consideration given to the comments and recommendation with the application that is submitted to the 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 (SAI) Number on the application for financial assistance.

The State 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.

Sincerely,



Guy W. Hager  
Director, Maryland State Clearinghouse  
for Intergovernmental Assistance

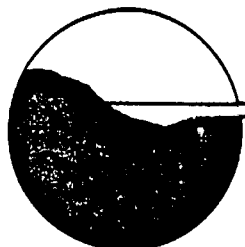
GWH:SB:mk

Attachment

cc: Bruce Gilmore - DNR  
Clyde Pyers - DOT  
Sheiala Moskow - DHCD  
Mac Voelcker - MDE  
Daryl Rawlings - RPC  
Eric Walbeck - DGS  
James Duffy- DAGR  
Betsy Barnard - DHMH  
Skipp Sanders - MSDE  
John O'Neill - DPSCS  
Roland English - DSP

Response to Maryland Department of State Planning letter dated February 24, 1988

1. A western shift in the alignment to minimize impacts to W-8 would require approximately 12 acres of the Curtis Farm in addition to not giving the Curtis Farm access to Deep Run. The Curtis Farm is a horse farm and Deep Run Creek which currently runs through this property is vital to the health of the horses and the success of the Farm. A shift would also impact approximately 99 Units associated with the Village of Montgomery Run currently under construction (see alternates mapping). The impacts associated with wetlands W-9 and W-10 are primarily caused by the proposed Snowden River Parkway which is not part of the MD 100 project. Nor is it carried in any state program. It is identified as proposed future development by others and any associated impacts and mitigation will be addressed by the county.
2. Section 106 coordination for historic sites has been completed with the determination resulting in no effect to any historic sites as a result of Alternate 3 (see Page VIII-75). No archeological resources will be affected by the construction of selected Alternate 3. One site 18H019B will be fenced during construction to prevent any construction related impacts (see letter dated January 13, 1989).



Maryland Department of Natural Resources

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

William Donald Schaefer  
Governor

Torrey C. Brown, M.D.  
Secretary

February 24, 1988

MEMORANDUM

To: Louis H. Ege, Jr.  
Dept. of Transportation, SHA

From: W.D. Jensen, Director  
Fisheries Division

Subject: Fisheries Division's comments on the Draft Environmental Impact Statement/Section 4(f) Evaluation: Maryland Route 100, from U.S. Route 29 to Interstate Route 95: Howard County SHA Contract No. HO 661-101-771: Deep Run and Red Hill Branch Drainages, Patuxent and Patapsco Rivers Watersheds.

The following comments on the subject Draft Environmental Impact Statement/Section 4(f) (DEIS) were prepared by Jeff Mosley and represent this Division's views.

In general, the DEIS does not adequately describe the impacts to aquatic and wetland resources; in many instances, impacts throughout the watersheds are minimized altogether.

From an aquatic resource viewpoint, the most immediate environmental impact from the proposed construction will be increased sediment loading in both Deep Run and Red Hill Branch drainages. These streams are already under stress as a result of recent residential and urban watershed development. However, DNR Fisheries Division has survey records (Carter, 1986) indicating both drainages support 13 species of fin-fish.

The DEIS does address the sediment problem, but considers it a minor and temporary impact occurring only during the active construction phases of work. The potential long-term adverse impacts are not sufficiently explored. A review of the extensive literature on the subject would have more adequately highlighted the real, long-term effects.

The most serious long-term environmental impact on aquatic resources from the proposed Alternate 3 (Preferred Alternate) construction will be acceleration of the conversion of woodland, prime farmland and old-field habitats to residential and commercial uses.

Comparing figure III-9 with III-10 shows a conversion of nearly all existing farm areas and mature woodland throughout these Howard County watersheds. These land-use changes in terms of reduced evapotranspiration, reduced infiltration, accelerated runoff, increased sediment loading, decreased groundwater (wells) and a general degrading of water quality need to be discussed more adequately.

1

2

3

Page specific comments are as follows:

Page S-11: The DEIS state "No. This agency will develop a complete environmental effects report on the proposed action." Does SHA plan to complete a detailed report?

4

Page II-3,C: Fisheries Division's first preference is Alternate 1 (No-Build). Originally, the State Highway Administration studied 5 alternates. Alternate 1, is the (No-Build). Alternate 2, is a reconstruction of Maryland Route 103/U.S. Route 29. Alternate 3, is construction on new alignment from U.S. Route 29 to Interstate 95. Alternate 4, is a reconstruction of U.S. Route 29/Maryland Route 108. Alternate 5, is a combination of Alternate 2 and 4.

5

The DEIS has indicated that Alternates 2,4, and 5 have been dropped from further consideration.

Page II-4,2: Alternate 3 (Proposed Mainline) is a four mile long 6-lane principal arterial highway on new alignment that will cause additional adverse environmental consequences in an already rapidly urbanizing area. Sections of this roadway have been under construction by Howard County for months. The roadway will be assumed by SHA at a later date. Details of this arrangement should have been presented more frequently at Quarterly Interagency Review Meetings describing details.

6

Page III-10: Fisheries Division's impression of the topography and geology section is favorable; however, the Environmental Base Map scale is too large to analyze. Fisheries Division would prefer document sized geology and soil maps to examine flora and fauna distribution along streams:

7

Page III-12-5: The DEIS states: "Seasonal high water tables may be encountered in Chillum, Sassafras, and especially Beltsville soils."

The Division would prefer a soil map because the soil series does not give enough information. For example, Beltsville soil may have hydric soil inclusion components (Beltsville silt loams have Leonardtown hydric inclusions). Therefore, Fisheries Division requests to have all hydric soils in the study area included on Table 5.

8

Page III-4, 3a: The DEIS states: "The drainage area for Red Hill Branch at the point of crossing by the proposed highway is predominantly residential and agricultural, with a small commercial tract along Montgomery Road."

The Combined Location/Design Public Hearing brochure (2/9/88) Figure 11 depicts 4 possible crossings of Red Hill Branch. The DEIS displays 1 crossing near the U.S. Route 29 ramps and the mainline (map 5a). Fisheries Division strongly recommends this floodplain/wetland be bridged entirely.

9

The Division is concerned if SHA considers W-1 a stream and if Red Hill Branch is crossed near Air/Noise site (14) where the roadway crosses Brampton Hills Park.

10

Page III-15, ¶3: "The effect of the proposed highway on each of these rivers will be negligible since the area affected by the highway is only a small portion

11



of their total drainage basin." Fisheries Division rejects this rationale. As long as SHA insists on avoiding the recognition of cumulative impacts of their many projects in a watershed, Fisheries must consider the impacts of single projects in a scale appropriate to the individual project. If SHA must consider a project in isolation, then its impacts must be evaluated in isolation, i.e. only within the confines of the construction area. The impacts within an individual construction zone are invariably severe: Soils are denuded, stream-beds silted, meanders destroyed by reshaping and relocation. The value of the immediate area as habitat typically becomes zero for the duration of disturbance. It is permanently altered from the original condition. In the context of an appropriate scale, the treatment of impacts by the DEIS is of no value as a decision-making tool. It should be completely redone for the FEIS.

The DEIS has no stream flow or volume data. There is no physical or chemical data documentation. Fisheries Division recommends that the FEIS contain the following documentation (can be a Table):

- 1) Stream name
- 2) Location
- 3) Order
- 4) MDE class
- 5) D.O.
- 6) Temperature
- 7) Conductivity
- 8) Discharge Volume
- 9) Width (ft.)
- 10) Depth (in.)
- 11) Fish found in stream
- 12) Macroinvertebrates if possible

12

Page III-16,C : Fisheries Division points out that most floodplains are wetlands, as well as being within the definitions of "waters of the state."

Page III-17,¶1: The DEIS states: "There are no areas of deep or isolated woodlands. The woodlands provide a good habitat for a wide variety of small mammals and birds, with a more limited representation of reptiles and amphibians."

Fisheries Division's comment to the above is after looking at the Future Land Use (Fig. 10), there will be no more habitat or "wildlife edges" in the study area.

Page III-18, ¶2: The DEIS states: "The shortage of surface water in the proposed project corridor limits the number of different types of reptiles and amphibians found there, just as it does with the mammals."

Fisheries Division states that, in view of there being 2 stream systems, 14 wetlands and vernal ponding in uplands, the study area has ample surface water for the (Rana spp.), (Hyla crucifer), (Ambystomidae) and (Plethodontidae) amphibians.

Page III-18,C: Fisheries Division has stated there are no anadromous fish species existing in the study area, however, our responsibilities for management include all fish communities and habitats that may be affected from the proposed construction. Additionally, we recommend that existing barriers (culverts/pipes) be repaired or replaced. All species of stream-dwelling fish exhibit both up- and downstream migration.

13

Page IV-14, D: The DEIS states: "Specific techniques for erosion/sedimentation control may include: ..."

Fisheries Division recommends as priority practices, first limited tree cutting and shrub grubbing, (2) retaining streams in natural state, and then c,d,e,f,g, and h. Additionally, Fisheries Division will recommend a revegetation plan for areas that affect stream dynamics as conditions of permits issued for the project. These will be patterned after restoration plantings implemented in connection with U.S Route 48.

14

With the application of available erosion control technology, significant impacts to surface water and erosion control plans, if adequately maintained, will cause little damage to aquatic resources. Unfortunately, flawless implementation is not usually the case (I-97 Sec. A and E). Although erosion and sediment control techniques have significantly reduced the magnitude of sediment runoff, it has been estimated by the MDE Stormwater Management Section that about 70% effectiveness is the maximum that can be achieved. In addition to this, if control plans are not regularly maintained, their effectiveness will be even further reduced. An attached article illustrates that frequently this is the norm.

A more realistic evaluation of the potential damage to aquatic resources from sedimentation must be developed and implemented in the final FEIS.

15

Page IV-16, ¶1: The DEIS states on the EAF in response to question No. 16-Yes. Comments on pp. IV-2.b., III-3.b.

However, these pages contain no comments pertinent to overland stormwater runoff.

The DEIS states: "Future runoff will not exceed present rates for existing land use." Fisheries Division's response is this statement is incorrect. A 4 mile long road with a 200-foot right-of-way would substantially increase stormwater runoff sheetflow. An additional 10+ acres contributing to runoff at higher runoff curve numbers must increase stormwater flows.

16

Page IV-16, ¶2: The DEIS states: "Stream relocations and rechannelizations are required for this project." It is unclear from the document where and how many streams will be crossed. This should be rectified in the FEIS.

17

Page IV-16, ¶2: The DEIS states: "Alternate 3 requires approximately 1800 feet of stream relocation east of Maryland Route 104."

Fisheries Division will recommend denial of the proposed stream relocation. The two floodplain crossings could be bridges.

18

Running a stream (1800') into a new channel puts the stream into an unstabilized, unconsolidated ditch. Mitigation procedures will be extremely expensive and time consuming.

Moreover, we have suggested (10/21/87), "it would be best to think in terms of acquiring enough right-of-way to avoid relocation; or if that cannot be done, acquire enough right-of-way so that the stream can be rehabilitated (that is, restored as something other than a ditch).

19

State Highway Administration has not responded to our suggestions.

Page IV-17, 3: The DEIS states: "Preliminary studies indicate that both Red Hill Branch and Deep Run Stream crossing could be handled with a 120-inch metal pipe at each location."

Fisheries Division recommends both streams to be bridged entirely to facilitate fisheries habitat, decrease fish barrier possibilities and decrease wetland/flood-plain impacts.

20

Page IV-18, ¶1: Fisheries Division will recommend periods for no construction activities, to run from March 1 through June 15 inclusive.

21

Page IV-18,4: The State Highway Administration has presented a good treatment of "Effects on Wetlands" in this DEIS. However, Fisheries Division has the following list of comments: (ROW- Right of Way)

- 1) At FEIS revision, W-1 could be bridged or the proposed right-of-way reduced.
- 2) At FEIS revision, W-2 ROW/slope reduction.
- 3) This W-3 was affected by County construction.
- 4) W-4 has been clearcut by County/SHA.
- 5) At FEIS revision, W-5 ROW/slope reductions.
- 6) FEIS revision, W-6 selective cutting and reduce ROW.
- 7) FEIS should propose to bridge W-7 (or reduce ROW).
- 8) FEIS should propose to bridge W-8 (Fisheries Division strongly recommends).
- 9) FEIS should abolish Snowden River Parkway concept and W-9 and W-10 impact problems.
- 10) FEIS should reduce slope/ROW on W-11 .
- 11) FEIS should propose to bridge W-12.
- 12) FEIS should limit slope or ROW on W-13.

22

Fisheries Division strongly recommends these comments and revisions be considered in accordance with:

Executive Order 11990, U.S. EPA Qb(1) Guidelines, Section 401 Water Quality Certification Stormwater Management Assessment Guidelines, U.S. Fish and Wildlife Service NEPA Review and the U.S. Army Corps of Engineers.

Page IV-23,5: In the discussion of effects on terrestrial and aquatic habitat, it is stated that sediment and erosion control measures should reduce adverse impacts to aquatic life to negligible levels. No mention is made of potential impacts to fish or wildlife in these "destroyed" habitats. Species loss proportional to habitat alterations can be significant. The loss of 56.5 acres of varied habitats will contribute significantly to fragmentation of the remaining habitat areas. Fragmentation increases the likelihood of local extirpation of populations and reduces the chances for reestablishment. The final EIS should investigate and highlight this phenomenon.

Page IX-16: Fisheries Division recommends the inclusion of a fish species list in the appendices.

Literature Cited

Carter, W.R. III, pers. comm. 2/17/88. Md. Dept. of Natural Resources, Tidewater Administration, Fisheries Division, Environmental Review and Habitat Protection. Annapolis, MD 21401.

Stinefelt, Howard. 1986. Maryland Rt. 100 stream survey data in Deep Creek and Red Hill Run. Howard County, U.S. Route 29 to I-95. Md. Dept. of Natural Resources, Tidewater Administration. Annapolis, MD 31401.

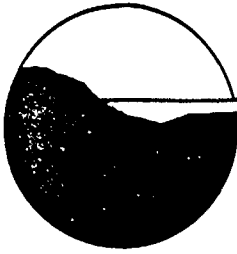
U.S. Department of Agriculture, Soil Conservation Service, 1961. Soil Survey. Howard County, Maryland.

WPJ/kb

Response to Maryland Department of Natural Resources - Tidewater Administration  
letter dated February 24, 1988

1. A sediment and erosion control plan will be developed and approved by Maryland Department of the Environment. See Page III-6 for a listing of fin fish.
2. Sedimentation and erosion are more acute during the construction phase of highway development. Early revegetation of slopes and silt fencing will aid in retarding contamination of area streams. Stormwater management plan will be developed to minimize adverse long-term effects.
3. Land use changes in the corridor will occur in accordance with local zoning and master plans. The MD 100 EIS discusses impacts associated with the proposed highway which is also with area master plans. The development in the area will occur with or without MD 100. The potential impacts of the planned development are considered in area master plans.
4. This Statement was incorrect. The Environmental Impact Statement prepared in accordance with Federal regulations also satisfies state environmental report requirements.
5. The initial project planning phase for MD 100 include four build alternates. Three of the initial build alternates were dropped because they did not address the transportation need in the project area. The No-Build alternate will also not address the transportation need of the area.
6. Since the SHA had no control over construction activities of the developers or Howard County, SHA saw no reason to discuss it. However, if this type of situation occurs on other projects it will be brought to the agencies attention at the quarterly meetings.
7. Flora and fauna along the proposed area of improvement have been identified (see Section IV).
8. Table 6 has been added which lists the hydric soils and soils with hydric inclusions.
9. Map 5a in the DEIS shows one crossing of the main stream of Red Hill Branch and one crossing of a tributary associated with Red Hill Branch. Preliminary hydrologic studies indicate that piping this stream under the proposed roadway will not result in significant flooding.
10. In the vicinity of NSA #14, MD 100 will cross perpendicular to a tributary of Red Hill Branch and also a drainage ditch originating from the Brampton Hills Development. Red Hill Branch will be crossed approximately 1,700 feet east of NSA #14 (Wetland #2). The floodplain boundary associated with Red Hill Branch in the vicinity of NSA #4, lies outside the proposed right-of-way. Figure 5a shows the crossing of Brampton Hills Park.

11. The proposed MD 100 project may result in one stream relocation and associated impacts. The development of a proposed mitigation plan to minimize these construction effects will include the placing of meanders in relocated streams, stabilizing banks by revegetation, and placing gabion baskets and rip-rap in stream channel. Erosion, sedimentation and stormwater management plans will be developed to reduce short and long-term siltation of area streams.
12. The technical data requested on streams in the project area, Red Hill Branch and Deep Run Creek, are not available.
13. No anadromous fish species exist in the study area, however, a listing of fin fish known to exist may be found on page III-16.
14. See Page IV.
15. See Page IV.
16. State of the art storm water management practices will be strictly adhered to in order to maintain the existing flow as much as possible. These plans will be reviewed and approved by the Maryland Department of Environment.
17. See Page IV.
18. While a bridge is a simple solution to avoiding wetlands and floodplain, it is also an expensive solution in the initial outlay and the future maintenance of the structure. Both natural environmental impacts and economic considerations will be evaluated before a final decision is made. With either decision, coordination with the resource agencies will be carried out to develop an appropriate mitigation package.
19. Stream relocation is unavoidable, however, enough right-of-way has been acquired to properly mitigate affected areas.
20. See response 18.
21. All instream time of year restriction will be adhered too.
22. Fisheries Division recommendations and comments regarding the "Effects on Wetland" section of the DEIS will be noted and considered during the design of this project. See Response to #18.



Maryland Department of Natural Resources

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

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

February 3, 1988

PROJECT DEVELOPMENT DIVISION
FEB 19 8 07 AM '88

MEMORANDUM

To: Cynthia D. Simpson, Chief
Environmental Management
State Highway Administration Room 314
From: W.P. Jensen, Director
Fisheries Division
Subject: Contract No. HO-661-101-770 N Maryland Route 100 from U.S. Route 29 to Interstate Route 95. Howard County, Maryland. Patapsco River drainage.

Our comments concerning the Combined Location/Design Public Hearing of the subject project are the following:

Comment 1- On October 21, 1987, our department requested an analysis be prepared of the cost difference between the gas pipeline relocation, and the cost of 1200 feet of Deep Run Creek relocation; and the required stream restoration mitigation. We have not received any response.

Comment 2- The SHA Environmental Overview states: "Short term increases in the amount of sediment entering the area streams and tributaries would be anticipated under the Build Alternate due to construction." The Division would like to state that increased sediment loads have deleterious effects on streams.

High concentrations of suspended sediment in streams cause many adverse consequences including increased turbidity, reduced light penetration, reduced prey capture for sight feeding predators, clogging of gills/filters of fish and aquatic invertebrates, reduced spawning and juvenile fish survival, and reduced angling success. Additional impacts result after sediment is deposited in slower moving receiving waters, such as smothering of the benthic community, changes in the composition of the bottom substrate, more rapid filling of small impoundments which create the need for costly dredging, and reduction in aesthetic values. Sediment is also an efficient carrier of toxicants and trace metals. Once deposited, pollutants in these enriched sediments can be re-mobilized under suitable environmental conditions posing a risk to benthic life (Gavin and Moore, 1982).

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Oil and grease contain a wide array of hydrocarbon compounds, some of which are known to be toxic to aquatic life at low concentrations (Stenstrom et al., 1984). The major source of hydrocarbons in urban runoff is through leakage of crankcase oil and other lubricating agents from the automobile (Tanacredi and Stainken, 1981). As might be expected, hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbon export, although illegal disposal of waste oil into storm sewers can be a local problem.

Comment 3- Fisheries Division will recommend denial of the 1200 feet of stream relocation/rechannelization at Deep Run. The Division strongly recommends sidging the various 100-year floodplains to minimize wetland and stream impacts.

Land use activities that change natural stream morphology such as rechannelization eliminate bends or meanders, remove natural stream bank vegetation, increase stream power, hence aggravate stream bed and bank erosion (Carter, 1985). 3

Comment 4- Significant hydrological changes in a watershed by increasing impervious land areas by urbanization (highways), contribute to increased flooding and diminished groundwater supplies, which reduce base flow of streams. Reduced base flows impair fisheries habitat (Karr, 1979).

Comment 5- The destruction of 16-17 acres of wetland will severely affect groundwater quality and quantity and decrease stream base flows. The groundwater recharge and discharge function of wetlands is well documented (Adamus, 1983). Our department is not confident the SHA has studied alternates to minimize impacts to wetlands as required by the EPA 404(b)(1) Guidelines; Subpart A - 23.1(d) which states: The degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts covered by these Guidelines. This department questions what type of "mitigation measures" will be incorporated into the project design and Fisheries would like to be involved **with the** development of the final design. 4

Comment 6- What does SHA mean by "a proportional loss in wildlife?" The loss or deforestation of 73.6 acres of woodlands and 17 acres of wetlands is a significant loss of habitat in this low to medium density existing land use. This department recommends the woodlands be replaced on a 1:1 replacement ratio in uplands and 2:1 ratio for the loss of riparian habitats. 5

These comments were prepared by Jeff Mosley and represent this Division's views.

- CC: Ms. Denise Clearwater - Non-Tidal Wetlands D-4
- Mr. Steve Harman - U.S. COE (Western Shore Section)
- Mr. Sean McKewen - DNR-Forest, Parks, and Wildlife



269

Literature Cited

- 1) Adamus, P.R. and L.T. Stockwell. 1983. A method for wetland functional assessment. Vol. 1: Report No. FHWA-IP-82-23. U.S. Dept. of Transportation, Federal Highway Administration. National Technical Information Service, Springfield, Va.
- 2) Carter III, W.R. 1985. Certain habitats which may be affected by human operations within the "critical area" of Riva Trace, Annapolis, Anne Arundel County. Maryland Department of Natural Resources, Tidewater Administration, Fisheries Division. Annapolis, Md. 21401.
- 3) Gavin, D.V. and R.K. Moore. 1982. Toxicants in urban runoff: Report to U.S. EPA Nationwide Urban Runoff Program. Seattle, Washington.
- 4) Karr, J.R. and I.J. Schlosser. 1979. "Water Resources and the Land-Water Interface." Science, Vol. 201, pp. 229-234. July 1978.
- 5) Stenstrom, M.K., G.S. Herman and T.A. Burstynsky 1984. Oil and grease in urban stormwater. Journal of Environmental Engineering. 110(1): 58-72.

Response to Maryland Department of Natural Resources letter dated February 3, 1988

- 1. Preliminary cost analysis indicates that the pipe line crossing will exceed the required Deep Run Creek relocation and mitigation by over \$400,000. The required stream restoration mitigation will be coordinated with DNR during the final design phase. At that time, the Department of Natural Resources will be contacted and appropriate mitigation will be determined.
- 2. A state-of-the-art sediment and erosion control plan approved by the Department of the Environment will be implemented to reduce the amount of sediment entering area streams.
- 3&4 Preliminary hydrologic studies indicate that a properly sized pipe at Deep Run Creek would not significantly increase the downstream flow rate or increase the upstream flood level. Every effort will be made to leave existing stream bank vegetation intact. In addition to natural environmental impacts, economic considerations are also evaluated when deciding whether a pipe or bridge is selected.
- 4. The MD 100 document has been prepared in accordance with EPA 404b1 Guidelines. The amount of wetlands impacted has been reduced from what was shown in the DEIS. See the discussion on Page IV-16 of this document. Alignment shifts and other methods have been investigated minimize wetland impacts. See the discussion on Pages IV-17 and IV-23. Mitigation measures are discussed on Page VIII-80. All appropriate agencies will be coordinated with and given the opportunity to review mitigation plans.
- 5. Coordination with Maryland State Forester has been initiated. Appropriate forestation mitigation will be provided as recommended by the Maryland State Forester.



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1.5.0.1



**DEPARTMENT OF THE ENVIRONMENT**  
201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201  
AREA CODE 301 • 225-5275

William Donald Schaefer  
Governor

Martin W. Walsh, Jr.  
Secretary

January 22, 1988

Ms. Cynthia D. Simpson, Chief  
Environmental Management  
Project Development Division  
707 North Calvert Street, Room 310  
Baltimore, Maryland 21202

JAN 29 3 19 PM '88  
PROJECT DEVELOPMENT DIVISION

RE: Maryland Route 100 from  
U.S. Route 29 to Interstate  
Route 95  
PDMS No. 132062  
Contract No. H0 641-101-770 N

Dear Ms. Simpson:

I have reviewed the air impact analysis performed for the proposed construction of Maryland Route 100 between U.S. Route 29 and Interstate Route 95 and concur with its conclusions.

Given the expected increase in traffic predicted for the region, the Department believes that the build alternate will yield the best air quality for the area.

The proposed project is consistent with the transportation control portion of the State Implementation Plan for the Metropolitan Baltimore Intrastate Air Quality Control Region. Furthermore, adherence with the provisions of COMAR 10.18.06.03D will ensure that the impact from the construction phase of this project will be minimal.

Thank you for the opportunity to review this analysis.

Sincerely,  
*Mario E. Jorquera*

Mario E. Jorquera, Chief  
Division of Air Quality Planning  
and Data Systems

VIII-76 Air Management Administration



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

REPLY TO ATTENTION OF:

October 18, 1988

Planning Division

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

Dear Ms. Simpson:

Reference your letter of September 15, 1988, seeking concurrence of the Baltimore District, Corps of Engineers (Corps), as a cooperating agency for the Environmental Impact Statement for Maryland Route 100 from U.S. Route 29 to Interstate Highway 95.

The District will be pleased to serve as a cooperating agency in the development of the Environmental Impact Statement for the project. The only limiting factors for Corps involvement are manpower and funding constraints.

If you have any questions on this matter, please contact me or my action officer, Mr. Robert Pace, at (301) 962-4998.

Sincerely,

James F. Johnson  
Chief, Planning Division



# United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW  
WASHINGTON, D.C. 20240



ER 88/49

MAR 28 1988

Mr. Emil Elinsky  
Division Administrator  
Federal Highway Administration  
711 West 40th Street  
Suite 220  
Baltimore, Maryland 21211

Dear Mr. Elinsky:

This responds to your request for the Department of the Interior's comments on the draft environmental/Section 4(f) statement for SR-100 (from US-29 to I-95), Howard County, Maryland.

### SECTION 4(f) COMMENTS

We concur that there are no feasible and prudent alternatives to avoid use of land from the Bramton Hills Community Park.

With regard to measures to minimize harm, we concur with the use of the Meadowbrook Farms tract as replacement for parkland lost to the SR-100 project. The final statement, however, should include a map showing the Meadowbrook tract in relation to the Bramton Hills Community Park, and should indicate the approximate acreage of the replacement lands.

1

In addition, we recommend that more attention be given to restoring access to parkland lost by residents to the east of the project. Sidewalks on the Long Gate Parkway bridge will not be immediately available for park access since the SR-100/Long Gate Parkway intersection will be initially at grade (figure 20). We suggest the provision of pedestrian traffic signals at this location and/or the development of other safe access points for park users.

2

### ENVIRONMENTAL STATEMENT COMMENTS

The draft statement mentions mineral resources of the Piedmont Province and states that crushed stone is presently important for aggregate, concrete, and lime. However, no mineral locations are indicated. The final statement should describe any such deposits that may be impacted by the project. If no deposits would be impacted the final should so state.

3

The proposed project will cross Deep Run and Red Hill Branch plus a portion of the recharge area of the Patuxent Formation, a locally significant aquifer. The final statement should discuss the potential for contamination of local surface and/or ground water from highway runoff (which is likely to contain pollutants such as heavy metals, petroleum products, asbestos, deicing salts, and chemical spills). Mitigation should be proposed for all potential water-resources impacts due to highway construction, use, and maintenance.

4

The existing statutory floodplains will be invalidated in the vicinity of proposed channel changes, and we recommend that the new flood hazard boundaries be redefined and mapped. The statement that reservoirs reduce the possibility of flooding should be clarified to include only floodplains along the main streams, not the tributaries within the study area.

5

The proposed project will result in the permanent alteration of 26.16 acres of wetlands (primarily palustrine forested wetlands), the taking of 56.49 acres of terrestrial habitat, and relocation of about 1800 feet of stream bed. In addition, there will be undetermined impacts from the placement of stormwater management structures in wetlands, and from sediment pond impoundments. Mitigation should be provided for these impacts.

6

The U. S. Fish and Wildlife Service (FWS) recommends that unavoidable wetland losses be compensated by creation of wetlands on a 1:1 basis for emergent wetland and on a 2:1 basis for scrub-shrub and forested wetland. In those areas where temporary sediment traps are placed, the FWS recommends that the areas be graded to pre-project elevation and sprigged, preferably in early spring, with plugs obtained from adjacent marsh.

7

Sediment and erosion control measures should be implemented to prevent soil movement into the adjacent wetlands and waterways, and the local Soil Conservation Service agent should be consulted regarding appropriate mitigation measures. No point source discharges (e.g., stormwater outfalls) should be directed into restored or created wetland areas. Where possible, wetland creation should be completed before project construction.

8

A detailed mitigation plan should be developed in cooperation with the FWS, and other appropriate resource agencies. The plan should be summarized in the final statement, and should include:

9

- 1) a detailed map of mitigation area boundaries and elevations;
- 2) a description of soil conditions to be created or restored, including required pH, organic content, and necessary soil amendments (e.g., pH adjustments, fertilizers);
- 3) a description of the hydrologic conditions to be created or restored, including a description of the frequency and duration of soil saturation and/or inundation, and the measures to be taken to develop this hydrologic regime;
- 4) a description of the plant communities desired, their proposed locations and means of establishment, the source of propagules, and the timing and density of establishment;
- 5) a detailed schedule describing when the proposed fill, excavation, planting, transplanting, or other actions will occur;
- 6) a post-construction monitoring plan establishing methodologies, reporting schedules, and performance standards to be used in evaluating the success of the mitigation efforts; and
- 7) a description of actions to be taken if the mitigation efforts are not successful.

Mr. Emil Elinsky

The FWS also recommends that additional alternatives be addressed that show a commitment to reducing floodplain and wetland impacts. Specifically, we recommend that alternatives be developed to reduce encroachment on the floodplain of Deep Run. The FWS suggests an alternative that crosses Route 103 further to the north, in the vicinity of the intersection of Montgomery and Meadowridge Roads.

10

**SUMMARY COMMENTS**

The Department of the Interior has no objection to Section 4(f) approval of the SR-100 project, providing measures to minimize harm discussed above are adequately addressed in your final document.

For technical assistance regarding fish and wildlife impacts, and the development of a mitigation plan for lost habitat values, please contact the Field Supervisor, U. S. Fish and Wildlife Service, 1825-B Virginia Street, Annapolis, Maryland 21401 (phone: 301/269-5448). For technical assistance regarding parkland impacts and mitigation measures, you should contact the Regional Director, National Park Service, 143 South Third Street, Philadelphia, Pennsylvania 19106 (phone: 215/597-3503).

Thank you for the opportunity to provide these comments.

Sincerely,

  
Bruce Blanchard, Director

cc: MD State Highway Administration



Response to United States Department of the Interior dated March 28, 1988

1. New mapping has been developed to show the Meadowbrook tract and the approximate acreage of replacement land is discussed the text.
2. Access to parkland by residences cut off by the proposed project will be provided by Howard County. Access provided will be convenient and safe for the people using it.
3. These mineral resources are located in eastern Howard County. The proposed project is not expected to impact any mineral resources.
4. According to recorded private wells, the depth of the water table in the area of the proposed project ranges from approximately 70 to 145 feet. Highway cut sections would not be this deep and therefore would not interfere with the water table in the crystalline rock.
5. Floodplain boundaries in the vicinity of the proposed stream rechannelization will be reestablished during detail hydrologic studies in the design stage.
6. Impacts to wetlands have been reduced to 16 acres. On May 11, 1988, a meeting was held with the Environmental Protection Agency, U.S. Fish and Wildlife Service, Nation Marine Fisheries, Army Corps of Engineers, bridge design, highway design and project development to initiate the mitigation process for possible wetland placement, stream water management facilities. Minutes of the meeting are include in the Appendix. Coordination will be carried forward throughout the design phase of the project.
7. The State Highway Administration policy is to compensate all unavoidable wetland losses with 1:1 replacement. Sediment traps will be proposed where needed to meet mitigation requirements. SHA will make every effort to return graded areas to pre-project elevations.
8. Sediment and erosion control plans will be developed and approved by the Maryland Department of the Environment. A Stormwater management plan will also be developed and approved by the Maryland Department of the Environment.
9. See #6. Detail mitigation plans will be developed with U.S. FWS and other agencies during the design phases of the project.
10. A realignment of Selected Alternate 3 which would cross MD 103 further to the north in the vicinity of the intersection of Montgomery Road and Meadowridge Road was evaluated in a joint study between Howard County and State Highway Administration. Associated impacts include approximately 19 residential displacements, would affect approximately 6 historical sites, would cross two-streams and have an estimated cost of \$20 million in 1985 dollars.

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United States Department of the Interior

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

July 7, 1986

Ms. Cynthia D. Simpson  
Maryland Department of Transportation  
P.O. Box 717  
707 N. Calvert Sreet  
Baltimore, Maryland 21203

Dear Ms. Simpson:

This responds to your recent requests for information on the presence of Federally listed endangered or threatened species within the following areas:

- |                             |                 |                                   |
|-----------------------------|-----------------|-----------------------------------|
| P.D.M.S. No. 073048         | Principio Creek | Cecil County                      |
| Contract No. AW-737-101-070 | Rt.301          | Charles & Prince Georges Counties |
| P.D.M.S. No. 132062         | I-95 to U.S. 29 | Howard County                     |

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

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

Thank you for your interest in endangered species. If you have any questions or need further assistance, please contact Andy Moser of our Endangered Species staff at (301) 269-6324.

Sincerely yours,

*G. A. Moser*

Glenn Kinser  
Supervisor  
Annapolis Field Office

PROJECT DEVELOPMENT DIVISION  
JUL 5 10 03 AM '86

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PROJECT DEVELOPMENT DIVISION

MAR 23 6 23 AM '88



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III

841 Chestnut Building  
Philadelphia, Pennsylvania 19107

MAR 14 1988

Mr. Louis H. Ege, Jr. Deputy Director  
Project Development Division (Rm 310)  
State Highway Administration  
707 North Calvert Street  
Baltimore, Maryland 21202

Re: MD Rt. 100 from US Rt. 29 to I-95 (88-02-355)

Dear Mr. Ege:

In accordance with 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. EPA believes that the DEIS should give further consideration to all reasonable and feasible project alternatives. In addition, we believe that the preferred alternative is not consistent with the "avoidance first concept" regarding wetlands nor does the DEIS make a commitment to mitigation for wetland areas that cannot be avoided by the proposed project. Consequently, EPA has serious reservations over the environmental consequences of the project and has rated it EO-2 on EPA's rating scale, a copy of which is enclosed for your reference. EPA is willing to work with the State Highway Administration and other concerned agencies to reduce the impacts of the proposed project. Our comments regarding specific topics are outlined below.

Consideration of Alternatives:

EPA concurs with the DEIS that the No-Build Alternate will not satisfy anticipated highway demand. Yet the selected alternative (Alternative 3) has the potential to cause a variety of adverse environmental impacts, which could be minimized by altering the preferred alignment or selecting another alignment. In general, alternatives which utilize existing alignments have less potential to impact the environment than alignments on new locations (for example Alternatives 2, 4 and 5 west of the Route 104 intersection).

The rationale for eliminating Alternative 5 (which is a combination of Alternatives 2 and 4) from consideration in the DEIS is that it: necessitates acquisition of residential properties (2 relocations) and property from the Howard High School baseball field (which serves as a community recreation

1

facility); impacts three possible National Register Eligible Historic Sites; creates a level of service (LOS) E west of Maryland Route 104; and has a high accident rate (p. S-5, II-2, 3).

In contrast, Alternative 3 requires five residential relocations and the taking of 5.67 acres of Brampton Hills Community Park, requiring a Section 4(f) evaluation. Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303 C, states that such land may be used only if there is no feasible and prudent alternative to that use, and the project includes all possible planning to minimize harm. Yet feasible and prudent alternatives to the selected alignment appear to exist. The DEIS notes that Alternative 5 impacts the Howard High School baseball field, which may also qualify as a Section 4(f) property. The total amount and percentage of land that Alternative 5 would require from the school, the effect this would have on current recreational activities and the number of people that utilize this facility is not given in the DEIS. This information should appear in the FEIS, in order to justify the elimination of Alternative 5.

1

Impacts to possible National Register Eligible Historic Sites are also used as criteria to disqualify Alternative 5 from consideration. For purposes of a Section 4(f), a historic site is significant only if it is on or eligible for the National Register of Historic Places, unless the FHWA determines that the application of Section 4(f) is otherwise appropriate (Section 4(f) Policy Paper, FHWA, September 24, 1987, p. 11). The FEIS should include the final determination concerning the National Register eligibility of these sites, as this will affect the alternative selection process. In addition, the DEIS neglects to describe the manner in which these sites would be impacted by the project (the impacts may not render the properties unusable).

2

Furthermore, the design year (2015) LOS west of Route 104 for Alternative 5 is LOS E (approaching roadway capacity), for both Maryland Routes 103 and 108. In comparison, Alternative 3 has an LOS F (demand exceeds capacity) for each of these routes (p. IV-8). In addition, Figures 14 and 16, which show 2015 average daily traffic (A.D.T.) and LOS for the No-Build and Preferred Options, include the "developer road", Centre Park Drive and Long Gate Parkway Extended. The developer road is shown on Figure 14 as having an A.D.T. of 20,000 vehicles per day. Yet Figures 15, 18 and 19, which give the 2015 A.D.T. and LOS for Alternates 2, 4 and 5, do not take these roads into account. If these roads are factored into 2015 No-Build conditions, they should also be factored into A.D.T. and LOS projections for Alternates 2, 4 and 5.

3

With regard to the "developer road", the DEIS states that Howard County and SHA are negotiating an agreement whereby Howard County, through its subdivision process, will construct two lanes (in accordance with state specifications) from U.S. Route 29 to Maryland Route 104 along the proposed Alternate 3 alignment for Maryland Route 100 (p. I-5). Yet the EIS must demonstrate that the proposed project has independent utility and logical termini. Therefore, the selection of an alternate should not be based upon the proposed developer road, as this would appear to "prejudice the ultimate decision" (CEQ Regulations, 40 C.F.R. Section 1506.1(c)(3)). In addition, Section I, Purpose and Need, states that Alternate 3 would form a link in a proposed regional facility extending to eastern Anne Arundel County (p. I-1). There is no guarantee that the remaining sections of Route 100 will be approved, thus they cannot be used as justification for Alternate 3 over Alternates on existing alignments.

4

The DEIS projects higher corridor accident rates for Alternative 5 than for the selected alternative. Before this alternate is eliminated, however, measures for improving safety should be explored. The numerous intersections and private entrances along the alignment contribute to the high accident rate. Measures that may be implemented to reduce the accident rate could include redesigning intersections and providing greater access control. Intersections may be improved by removing visual barriers, erecting signals, timing signals, eliminating left turns at some crossroads, utilizing right lane merged entrances, or reducing the number of intersections. Frontage roads connecting private entrances could control access and possibly lower the accident rate.

5

With regard to interchanges, the entrance and exit ramp at the Meadowridge Road interchange will be designed close to the interchange structure to avoid a residence (p. II-6). This practice should also be followed to preserve woodlands and wetlands. Concerning Options "A" and "B" at the Maryland Route 104 interchange, EPA favors Option A on the basis of fewer impacts to wetlands and residences.

All of the build alternates propose a new alignment east of Route 104. EPA suggests an alternative that connects the interchange of Route 100/Route 95 to Montgomery or Meadowridge Road. Routes 104, 108 and a greater portion of 103 would also be widened. Improvements to Route 108 could begin at the Route 95 interchange to accommodate regional traffic. While this alignment, or Alternative 5, may eventually prove feasible, the DEIS does not give sufficient evidence to make this determination, and neither should not be eliminated from consideration at this time.

6

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Wetlands:

The DEIS gives the approximate acreage impacted for each wetland site. Yet it is difficult to judge the relative impact to each site without knowing its total acreage. Therefore, EPA suggests that the FEIS give the percentage of each wetland area that is affected, in order to clarify the relative impact on each.

7

Wetlands 7, 8:

The rationale given for not shifting the preferred alignment west to avoid W-7 and W-8 are impacts to proposed residences, the Curtis Farm and the proposed Snowden River Parkway alignment. EPA understands the inconvenience and disruption relocations cause to residents and the community, however, neither the subject residences nor the parkway physically exist. Details are not presented concerning the magnitude of potential impacts to the Curtis Farm, although land use plans (Figure 10) show that agriculture will not continue in the study area. Giving precedence to proposed residences over wetlands is not consistent with Federal policy regarding wetlands, which states that wetlands shall be avoided wherever possible. Where avoidance is not possible, impacts to wetlands should be minimized and any affected areas replaced on at least a 1:1 basis. Based on the DEIS, we believe that avoidance is possible in this case. In addition, the proposed 1800 feet of stream relocation in this area and may be avoided by a western shift.

8

Wetlands 9, 10:

The impacts of the proposed Snowden River Parkway Extension are not presented in the DEIS because it will "be built by others." To the contrary, the extension is directly dependent upon the proposed project, regardless of the responsible party. The acreages of W-9 and W-10 that it would impact must be identified, in accordance with the Section 1508.7 and Section 1508.8 of the CEQ Regulations.

9

Wetland 11:

Page IV-23 states that a western shift may decrease impacts to W-11, but would increase impacts to wetlands 9 and 10. Disregarding the assumption that Snowden River Parkway will be constructed, it appears from Figure 5c that a slight western shift may actually preserve more of W-11 without additional impacts to W-9 and 10. It is important to consider not only impacted acreage, but also the position of the alignment relative to the entire wetland area. For example, severing a wetland may have a greater impact than taking land from the border. The relative values of W-9, 10 and 11 should also play a role in the decision of whether to shift the alignment.

10

Wetland 12:

Shifting the alignment east or west in the vicinity of W-12 would impact an unknown number of residences along Route 103, or 3 residences along Mullineaux Road, respectively (p. IV-23). Once again, an alignment shift to protect wetlands should not be dismissed on the basis of social impacts alone. EPA suggests that potential impacts to the natural environment be given equal consideration.

11

EPA would like to participate in the development of mitigation plans for wetlands impacted by the project. It is important that potential mitigation sites be identified early in the process, before all available land is either claimed by developers or becomes too expensive.

Terrestrial and Aquatic Habitats:

EPA recommends the use of bridges, rather than culverts at stream crossings. Stream relocations should be avoided wherever possible.

12

Page IV-24 states that streams in the project area are expected to take on the characteristics of other typically stressed suburban watersheds. EPA encourages the use of buffer areas along all streams in the study area in an attempt to remedy these conditions.

13

Noise:

Alternative 3 will significantly increase noise levels within the project corridor (p. IV-29). The DEIS concludes that noise barriers are not economically or technically feasible at the the noise sensitive areas (NSA) for which they were evaluated. It is not clear whether the cost per residence calculations included proposed residences. According to FHWA regulations, residences that are proposed prior to the project, should be considered in noise analyses. In this case, the preferred alignment is shifted specifically to accommodate proposed residences, therefore it would be inconsistent not to recognize these same residences with regard to potential noise impacts.

14

In addition, noise barriers were not evaluated for NSA 16, representative of Brampton Hills Community Park. The Leq ambient noise level for this site is 51 dBA, with a predicted design year Leq level of 69 dBA, a difference of 18 dBA. According to the criteria on page IV-28, abatement measures should be considered for this site.

15

Park & Ride Lot:

EPA supports the replacement of the park and ride lot that would be eliminated by Alternative 3. An alternate location should be identified and, a commitment for replacement made, in the FEIS

16

Thank you for allowing EPA the opportunity to comment on this document. We would like to arrange a field review of the project area and will contact you in this regard. We look forward to working with you throughout the NEPA process. Should you have any questions, or if we can be of further assistance, please contact Lynn Rothman at 215/597-7336.

Sincerely,

*John R. Pomponio*  
John R. Pomponio, Chief  
Environmental Assessment Branch

Enclosure



SUMMARY OF RATING DEFINITIONS  
AND FOLLOW-UP ACTION\*Environmental Impact of the Action

## LO--Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

## EC--Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

## EO--Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

## EU--Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

## Category 1--Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

## Category 2--Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

## Category 3--Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment.

Response to United States Environmental Protection Agency letter dated March 14, 1988

1. Alternates 2, 4, and 5 do not address the transportation needs of the project which is to increase capacity in northern Howard County. These alternates which utilize existing alignments would result in the relocation of large portions of communities which exist along MD Routes 104, 103, and 108. Alternate 5 will acquire approximately 1 acre from the Howard High School. Alternates 2, 4, and 5 do not provide the needed capacity for the projected traffic volume. In addition, each alternate has the following impacts: Alternate 2 would impact 3 historic sites, would require the relocation of 1800' of Deep Run, would impact approximately 18 acres of wetlands and 4 acres of floodplain, and would impact approximately 29 acres of wooded area. Alternate 4 would cause 2 residential relocations, would impact 1 historic site, would require the relocation of 1800' of Deep Run, would impact approximately 18 acres of wetland and 4.22 acres of floodplain and would impact approximately 28 acres of wooded area. Alternate 5 would cause 2 residential relocations, would impact 4 historic sites, would require the relocation of 1800' of Deep Run, would impact approximately 18 acres of wetlands and approximately 4 acres of floodplain, and would impact approximately 31 acres of wooded area.
2. Alternate 5 would require approximately .5 acre of right-of-way from the Wheatfield and .2 acre of right-of-way from Avoca Coordination with the SHA indicates that both are eligible for the National Register of Historic Places.
3. In preparing the traffic volumes for Alternate 3, the systems analysis shows Maryland Routes 103, 104, and 108 as 2-lane facilities. These roadways have been improved through county and district projects so that MD 103 operates with 4-lanes west of Maryland Route 104, and MD 108 operates as 3-lane with appropriate left and right turn lanes west of MD 104. All these county and district improvements were not factored into the capacity analysis with respect to MD 103 and 108 for Alternate 3. When these improvements are considered in the capacity analysis for Alternate 3, MD 103 shows a better level of service. Without taking these improvements into consideration, Alternate 3 would decrease projected No-Build traffic by 33% or better on existing roadways. Figures 15, 18, and 19, which give the 2015 average daily traffic (ADTs) and level of service for Alternate 2, 4, and 5, do take into account the developer road, Centre Park Drive and Long Gate Parkway extended, however they were not shown on the maps. The LOS figures are still valid.
4. Before MD 100 become a state project, Howard County had on its General Plan a roadway to be built connecting MD 103 and 104. The developer road built in conjunction with the Howard County sub-division process follows the county plan alignment. Since the Alternate 3 alignment of MD 100 includes the general plan alignment, the county requested the developer to build the county road to state specifications in the event that Alternate 3 was the selected alignment. This in no way predetermined the alternate decision for the selection of Alternate 3. The developer road will be built regardless of the alternate selected for MD 100.

MD 100 extending from I-95 to MD 3 (I-95) has obtained location design approval (FEIS MD-EIS-86-01-E2).

5. In order to provide the safety improvements mentioned to improve the accident rate, residential and historical site impacts would occur assuming we would provide equal or greater capacity.
6. During the corridor study undertaken with Howard County in 1985, an alternate that utilized MD 103 to Meadowridge Road, MD 104 and MD 108 had been studied. The extensive residential impacts as well as the function of MD 100 changing between I-95 and MD 104 made this alternate not feasible due to the associated impacts and the required right-of-way of 300+.
7. A complete watershed study which indicates the total wetland acreage associated with a watershed was not done in the facility of the proposed MD 100 project. Each wetland is associated with a stream which runs for several miles up streams and downstream.
8. A western shift in the alignment to minimize impacts to Wetland 7 and 8 would require approximately 12 acres of the Curtis Horse Farm, in addition, to denial of access to Deep Run Stream which is vitally important for the Curtis Horse Farm. A shift would also impact approximately 99 units associated with the Village of Montgomery Run, currently under construction.
9. The proposed Snowden River Parkway is not part of the proposed MD 100 project. It is identified as proposed future development by others. The associated wetland impacts total 4.06 acres and mitigation will be addressed by those who propose and develop this facility. No detail plans have been developed, and this project is not listed in the construction program.
10. Shifting the alignment slightly to the west to decrease impacts to wetland #11 would cause greater impacts to wetland #9 and #10 with longitudinal encroachments and may cause additional stream relocation to Deep Run. The function assessment of the two wetland areas is rated high.
11. Unlike EPA, the State Highway Administration is concerned about impacts to both the social-economic and natural environment. Impacts to all areas of the environment are and will continue to be given equal consideration. It is not believed to be prudent to take 3 homes and move the roadway closer to other existing homes.
12. SHA will take your recommendations under consideration during the design stage.
13. The stressed suburban watershed characteristics which exist are primarily caused by residential and commercial development, however, SHA will strive to maintain buffer areas around area streams.
14. Cost per residence calculations did include existing and proposed development. Since publication of the DEIS, further technical and economic evaluations were completed for earth berms as possible noise mitigation at those locations that exceeded the federal noise abatement criteria. That

evaluation concluded that earthen berms are feasible for a number of noise sensitive areas. Berms will be considered at those areas during final design for this project. Proposed development associated with noise sensitive area 6 is FHA and VA assisted. Under the guidelines established by FHA and VA, it is the responsibility of the developer to provide noise mitigation. The developer of the proposed development south of noise sensitive Area 3 is being required by the County to provide required noise mitigation associated with the development.

15. The Brampton Hills Community Park is currently unimproved farmland and wooded areas which to date has not been improved. Neither passive nor active recreational activities take place at this facility.
16. Further evaluation of the possible location and design of the replacement park-and-ride lot will be conducted.

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PROJECT  
DEVELOPMENT  
DIVISION



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III

841 Chestnut Building  
Philadelphia, Pennsylvania 19107

JAN 2 1988

Ms. Cynthia D. Simpson, Chief  
Environmental Management  
Project Development Division (Room 310)  
State Highway Administration  
707 North Calvert Street  
Baltimore, Maryland 21203-0717

Re: Maryland Route 100 (88-01-287)

Dear Ms. Simpson:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA has reviewed the Draft Air Quality Analysis for the above referenced project. The project will not violate the State or National Ambient Air Quality Standards, therefore, we do not object to this project on the basis of air quality impacts.

The analysis, however, does not discuss whether changes are anticipated in the ratio of mobile source to area source VOC or CO emissions (i.e. whether there is a net growth in emissions or merely a redistribution). Assuming that there is an emissions growth, it should conform with the growth projections of the Maryland Air Management Administration (MAMA) and the Baltimore Regional Planning Commission.

Thank you for including EPA in the early coordination of this report. Should you have any questions or if we can be of further assistance, please contact Lynn F. Rothman or Harold A. Frankford at 215/597-7336 or 597-1325 respectively.

Sincerely,

  
Jeffrey M. Alper, Chief  
NEPA Compliance Section

Response to U.S. EPA letter dated January 22, 1988

1. The purpose of this project related microscale carbon monoxide (CO) analysis was to determine CO concentrations associated with the project. The highway CO concentration contribution is based on traffic projections which include anticipated growth. The total predicted concentration includes the highway contribution and background concentrations. The background concentrations are based on ambient monitoring data which is then proportioned based on Regional Planning Council/MD. Air Management Administration projected yearly emission data for the completion year 1995 and design year 2015. This emission data includes both mobile and area source emissions.

VOC's are regional in nature and as such a meaningful evaluation on a project-by-project basis is not possible.



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

4321 Hartwick Road  
Room 522  
College Park, MD 20740-3291

291

March 11, 1988

Mr. Louis H. Ege, Jr. Deputy Director  
Project Development Division, Room 310  
State Highway Administration  
707 North Calvert Street  
Baltimore, Maryland 21202

Dear Mr. Ege:

The Soil Conservation Service has no comments to make concerning the DEIS for the Maryland Route 100 improvements from U.S. 29 to I-95 in Howard County (Contract HO661-101-771).

Thank you for the opportunity to review and provide comments on this proposed construction activity.

Sincerely,

  
PEARLIE S. REED  
State Conservationist

cc: J. Helm, DC, SCS, Ellicott City, MD



The Soil Conservation Service  
is an agency of the  
United States Department of Agriculture

VIII-95



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Management Division  
Habitat Conservation Branch  
Oxford, Maryland 21654

March 1, 1988

Louis H. Ege, Jr.  
Project Development Div. (Room 310)  
State Highway Administration  
707 North Calvert Street  
Baltimore, Maryland 21202

Dear Mr. Ege:

The National Marine Fisheries Service has reviewed the Draft Environmental Impact Statement (EIS) for the proposed Route 100 (from U.S. 29 to Interstate 95) in Howard County, Maryland. We are concerned that the project will adversely affect fisheries resources and habitat, especially with regard to the Deep Run watershed where restoration of anadromous fish is being considered as part of a mitigation plan for the Interstate 195 project. This mitigation effort, coupled with fish restocking by the Maryland Department of Natural Resources, would restore anadromous fish to Howard County.

1

The floodplains and riparian wetlands associated with the headwaters of Deep Run (including those lying within the proposed Route 100 corridor) influence fish spawning and nursery activities throughout the watershed by maintaining water quality, trapping sediments that degrade spawning substrates, and maintaining stream base flows. Conservation of the headwaters of Deep Run is critical to the success of fish restoration efforts.

Our concerns with the preferred route alignment (i.e., Alternate 3) pertain to the proposed relocation of 1,800 linear feet of stream outside of the natural watershed corridor, and fill of approximately 19 acres of palustrine wetlands within the Deep Run watershed. We are also concerned with the influence this alignment may have on location of the planned Snowden River Parkway extension and interchange, which may result in additional adverse impacts to the watershed. Therefore, alternative measures to minimize the above impacts should be more thoroughly discussed in the FEIS. For example, we recommend that the FEIS address:

- 1) Minor realignments of the preferred corridor where it crosses the Deep Run watershed (see Figure 1).
  - (a) A southward shift of the alignment to reduce impacts to Wetland 7.

2





- (b) A more direct crossing of Deep Run and westward shift of the alignment to reduce impacts to Wetlands 8, 9, and 10. | 3
- (c) A westward shift of the alignment to reduce impacts to Wetland 11. | 4
- 2) Bridging of the Deep Run mainstem crossing. | 5
- 3) Use of bottomless arches in lieu of pipe culverts for crossing perennial stream tributaries to preserve natural stream bottoms.

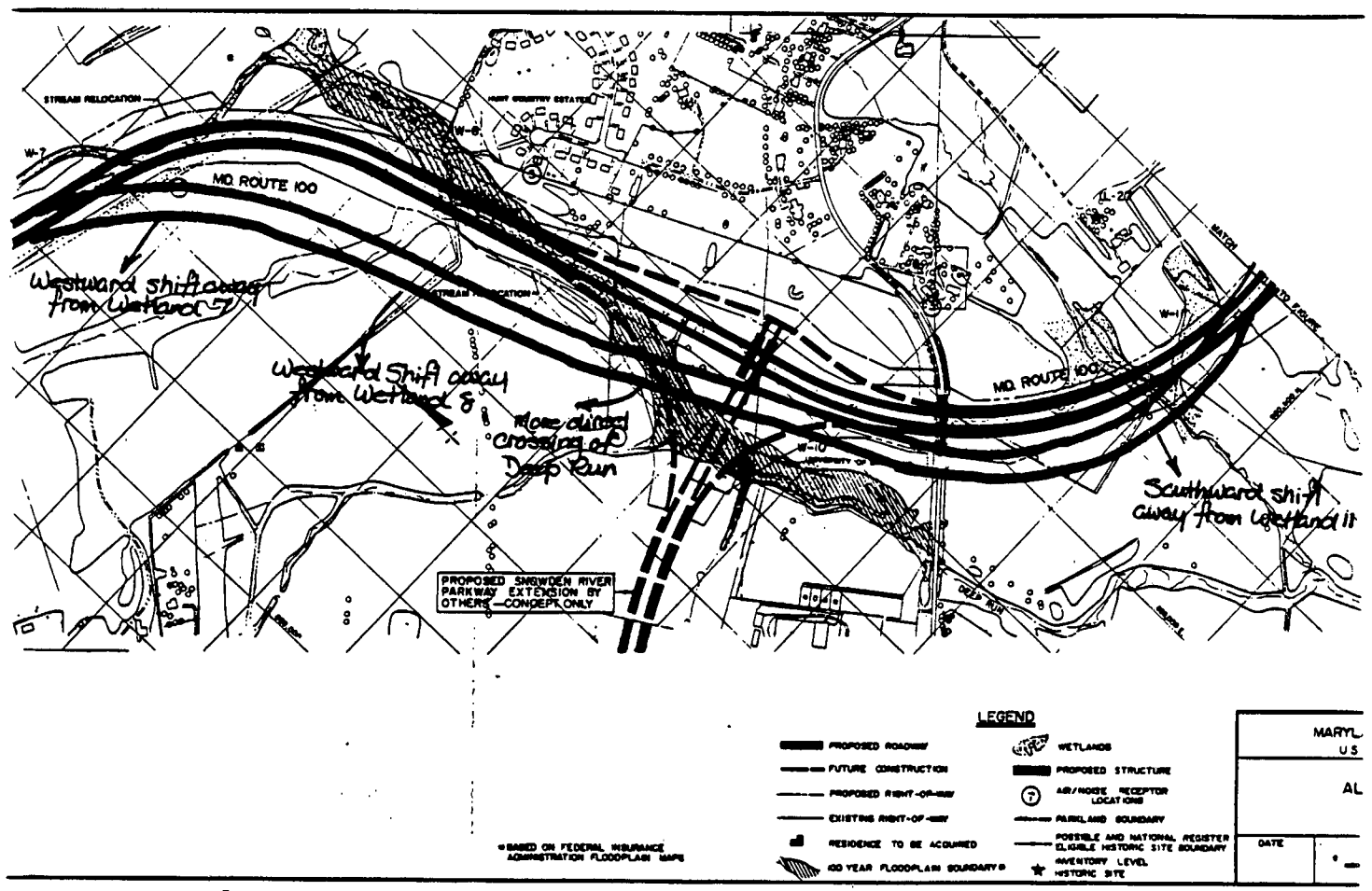
We believe that close coordination between our agencies can help minimize the impacts to fish resources. If there are questions concerning these comments, you may contact John S. Nichols (301) 226-5771.

Sincerely,

*Timothy E. Goodert*  
for Edward W. Christoffers, Ph.D.  
Asst. Branch Chief

Enclosure

Figure 1: Recommended realignment of Deep Run watershed crossing to be addressed in the final Environmental Impact Statement



Response to United States Department of Commerce, National Oceanic and Atmospheric Administration, letter dated March 1, 1988

1. SHA is studying various types of structures that will not inhibit any anadromous fish spawning migration and will allow existing natural fish movements along a natural stream bed. A wetland mitigation and stream restoration meeting was held May 11, 1988 and coordination will continue throughout the design phase (see June 1, 1988 letter VIII-80).
2. Existing land use in the vicinity of Wetland #7 is open pasture agriculture land along the section of the stream corridor (see Page IV-22). During final design SHA in conjunction with Natural Resource Agencies will develop a stream restoration plan that will enhance water quality and natural habitat of the existing stream. Mitigation meeting held on June 11, 1988 (see Comments and Coordination Section).
3. As noted on Figure 5c, impacts to Wetland #8, 9, and 10 are associated with Deep Run Creek and the proposed Snowden River Parkway which is a county concept only and not funded as being studied by SHA.
4. A westward shift of the alignment to reduce impacts to wetland W-11 would impact more wetland area, impact the proposed Brightfield residential subdivision and cause the design speed of the proposed project to be compromised.
5. Preliminary hydrologic studies indicate a pipe would be adequate at the crossing of Red Hill Branch and Deep Run Creek. The hydrologic structure will be placed one foot below the stream bed to allow a natural bottom to form.



296

# Memorandum

U.S. Department of  
Transportation  
Office of the Secretary  
of Transportation

**Subject:** Draft Environmental Impact Statement  
MARYLAND - Howard County  
Maryland Route 100 from I-95 to U.S. 29  
FHWA-MD-EIS-87-04-D

**From:** Joseph Canny  
Director, Office of Transportation  
Regulatory Affairs

**To:** Eugene W. Cleckley, Chief  
Environmental Operations Division, HEV-11

Date: FEB 24 1988

Reply to  
Attn of

We have reviewed the draft environmental impact statement for Maryland Route 100 in Howard County.

On page 1-5 of the DEIS background material, a process of land acquisition and highway planning approvals is described involving a private developer, the County, State, and the FHWA. These actions appear to be inconsistent with FHWA's requirements for environmental review prior to acquisition of right-of-way, especially with respect to the Howard County High School property.

The DEIS does not describe the high school property used and the impact on buildings, ballfields, and other public facilities. The maps are inconsistent: Figure 3, Study Alternatives, depicts the preferred alternative avoiding the high school; Figure 17, Build Alternative, depicts the preferred alignment severing one-quarter of the high school property. Also, Figures 13 and 14 label the proposed highway as a "Developer Road" on the "no build" alternative with the alignment through the high school property. The incomplete information presented does not permit an adequate environmental review. Use of the high school property--specifically the recreation facilities--also may require section 4(f) review. Without accurate information in the environmental statement about the possible use of that property, the need for a section 4(f) evaluation cannot be determined.

Also, it is suggested that mitigation measures, including replacement land to be exchanged for the taking of land from Brampton Hills Park, be discussed more explicitly and indicated on the maps in the section 4(f) statement of the DEIS. The location of Meadowbrook Farms, the replacement land area, is not indicated on the map in the section 4(f) statement. The fact that the Route 29/Route 103/Route 100 interchange is currently in highway design may foreclose an adequate review of alternatives under section 4(f) as terminus points already have been selected.

297

2

Thank you for the opportunity to review the DEIS for Maryland Route 100. We would appreciate an opportunity to review the final EIS for this project when it is prepared.

Response to U.S. Department of Transportation

1. See Page I-4 in E.I.S.
2. The mapping has been corrected, since the DEIS Figure 3 (Study Alternates), shows the correct boundary for the Howard High School in relation to the 2-lane developer road/Alternate 3 alignment. The 2-lane developer road being built under the Howard County Subdivision process did impact the baseball field associated with the Howard High School. This field is located on the west side.

The developer has made adjustments in the alignment to get out of the school property.

3. The replacement area known as Meadowbrook Tract has been identified on mapping. Mitigation measures to replace the property that would be required are discussed on Page V-2.



299 2  
U.S. Department of Housing and Urban Development

Baltimore Office, Region III  
The Equitable Building  
3rd Floor, 10 North Calvert Street  
Baltimore, Maryland 21202-1865

FEB 23 2 55 PM '88  
PROJECT DEVELOPMENT DIVISION

FEB 22 1988

Mr. Louis H. Ege, Jr.  
Deputy Director  
Project Development Division  
State Highway Administration  
707 North Calvert Street, Room 310  
Baltimore, MD 21202

Dear Mr. Ege:

SUBJECT: Draft Environmental Impact Statement  
Maryland Route 100 Extended  
From U.S. Route 29 to Interstate Route 95  
Contract No. HO 661-101-771  
FHWA-MD-EIS-87-04-D

Thank you for the opportunity to review and comment on the above subject Draft EIS. We are commenting for Ms. Margaret A. Krenzel, Regional Environmental Officer, at the HUD Philadelphia Regional Office.

Through the Department's FHA mortgage insurance programs, homeowners have been assisted in their purchase of residences throughout the Draft EIS study area. It is anticipated that this will continue in the future. Given this, we believe it important that a full consideration of Alternative 3's noise impact on Howard county's approved and pending housing developments be assessed in the Draft EIS. Should this be determined as unwarranted, a fuller explanation of FHWA's noise policy regarding approved and pending developments needs to be furnished at Section IV F. 1. Noise Impact Analysis in the Draft EIS. The expansion of Noise Sensitive Areas (Table 6) to include residences of approved and pending housing developments might result in the cost-effective noise barrier ratio of \$35,000 per residence being achieved.

Finally, in future Draft EIS's, consideration might be given to providing a figure showing the location of noise barriers discussed in the Draft EIS.

*see copy to a*

Sincerely,

Robert Herbert  
Environmental Officer

CC: Ms. Margaret A. Krenzel

300

Response to U.S. Department of Housing and Urban Development letter dated February 22, 1988

1. All subdivisions which had received final approval from the Howard County Office of Planning and Zoning, prior to the inclusion of MD 100 on the General Plan were monitored for existing and potential noise levels. Section IV includes the results of the noise analyses. Any developments which were approved after MD 200 was placed on the General Plan are required to address noise abatement issues within the subdivision plans.





United States  
Department of  
Agriculture

Soil  
Conservation  
Service

9025 Chevrolet Drive, Suite J  
Ellicott City, MD 21043

301

PROJECT  
DEVELOPMENT  
DIVISION  
NOV 24 2 04 PM '87

November 23, 1987

Ms. Cynthia Simpson, Chief, Environmental Mgmt  
Dept of Transportation, SHA  
707 North Calvert Street  
P. O. Box 717  
Baltimore, MD 21203

Re: FARMLAND PROTECTION POLICY ACT, FORM 1006  
MD. Route 100, from U.S. Rt. 29 to Route I-95

Dear Ms. Simpson:

As per the above request which was received by the SCS Frederick Area Office on October 7, 1987, and the several subsequent phone inquiries which resulted in my receiving the necessary location and right-of-way maps on October 26, 1987, I have completed the needed evaluation of the referenced project.

The total right of way for both alternatives was plotted on the Howard County Soil Survey.

If the right of way was still rural agriculture, alternate 3B would have involved considerable acreage of farmland. According to our determinations, it would have affected about 70.3 acres of prime farmland; 56.8 acres of state-wide important farmland and 51.5 acres of locally important farmland. The average relative value of the farmland affected by that alternative would have been 49.2. About 87% of the county farmland would have had a higher relative value.

However, the area is undergoing major development and most of the above referenced acreages have already been lost. The completed AD-1006 reflects to the best of our information that acreage which is not already committed to urban development at this time.

If we can be of further help, feel free to call or write.

Sincerely,

*Jack Helm*  
JACK HELM  
District Conservationist

cc: Carl Robinette w/copy of AD-1000



The Soil Conservation Service  
is an agency of the  
Department of Agriculture

VIII-105

302

U.S. Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request		9/30/87	
Name Of Project		Federal Agency Involved		FHMA	
Proposed Land Use		County And State		Howard County, Maryland	
Residential & Industrial		Date Request Received By SCS		10/7/87	
<b>PART II (To be completed by SCS)</b>		Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Major Crop(s)		Farmable Land In Govt. Jurisdiction		Acres Irrigated	Average Farm Size
CORN, SMALL GRAIN, SOYBEANS, HAY		Acres: 86,200 % 54		NONE	117
Name Of Land Evaluation System Used		Name Of Local Site Assessment System		Amount Of Farmland As Defined In FPPA	
HOWARD COUNTY LESA SYSTEM		HOWARD COUNTY LESA SYSTEM		Acres: 70,600 % 44	
				Date Land Evaluation Returned By SCS	
				11-23-87	
<b>PART III (To be completed by Federal Agency)</b>		Alternative 3		Alternative Site Rating	
		3 Site A 19	3 Site B 0	Site C	Site D
A. Total Acres To Be Converted Directly		135 acres			
B. Total Acres To Be Converted Indirectly		.16 acre			
C. Total Acres In Site		135 acres			
<b>PART IV (To be completed by SCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland		9.8	14.1		
B. Total Acres Statewide And Local Important Farmland		25.6	27.9		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		.05%	.059%		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		92.4	91.1		
<b>PART V (To be completed by SCS) Land Evaluation Criterion</b>					
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		40.4	44.1		
<b>PART VI (To be completed by Federal Agency)</b>		Maximum Points			
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))					
1. Area In Nonurban Use		12	12		
2. Perimeter In Nonurban Use		3	3		
3. Percent Of Site Being Farmed		8	8		
4. Protection Provided By State And Local Government		0	0		
5. Distance From Urban Builtup Area		0	0		
6. Distance To Urban Support Services		1	1		
7. Size Of Present Farm Unit Compared To Average		6	6		
8. Creation Of Nonfarmable Farmland		0	0		
9. Availability Of Farm Support Services		2	2		
10. On-Farm Investments		2	2		
11. Effects Of Conversion On Farm Support Services		0	0		
12. Compatibility With Existing Agricultural Use		6	6		
TOTAL SITE ASSESSMENT POINTS		160	39	39	
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)		100	40.4	44.1	
Total Site Assessment (From Part VI above or a local site assessment)		160	39	39	
TOTAL POINTS (Total of above 2 lines)		260	79.4	83.3	
Site Selected:		Date Of Selection		Was A Local Site Assessment Used?	
				Yes <input type="checkbox"/> No <input type="checkbox"/>	
Reason For Selection:					

C. Citizens' Correspondence

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

304 OK

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME JAMES A. BONOMO DATE 3/14/88

PLEASE PRINT ADDRESS 8559 AUTUMN HARVEST

CITY/TOWN ELICOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

FIRST, I WOULD LIKE TO STATE THAT I UNDERSTAND THE NEED FOR PROPOSED RT. 100. SECONDLY, I WOULD LIKE TO CONCERN SOME INFORMATION TOLD TO ME BY THE GENTLEMAN FROM RIGHT OF WAYS AT THE MEETING. NAMELY THAT THE PIECE OF LAND SHOWN IN RED ON THE ACCOMPANYING MAP IS CURRENTLY OWNED BY THE STATE AND THAT THE STATE CANNOT DISPOSE OF THIS LAND UNTIL AFTER THE CONSTRUCTION OF RT. 100 HAS STARTED (SOMEWHERE IN 1992). ALSO, THAT IF THE HIGHWAY DEPARTMENT DECIDES TO DISPOSE OF THE LAND THAT IT MUST BE OFFERED TO ANY STATE AGENCY FIRST THEN THE COUNTY, THE PERSON FROM WHOM IT WAS BOUGHT AND FINALLY BE AUCTIONED TO THE HIGHEST BIDDER.

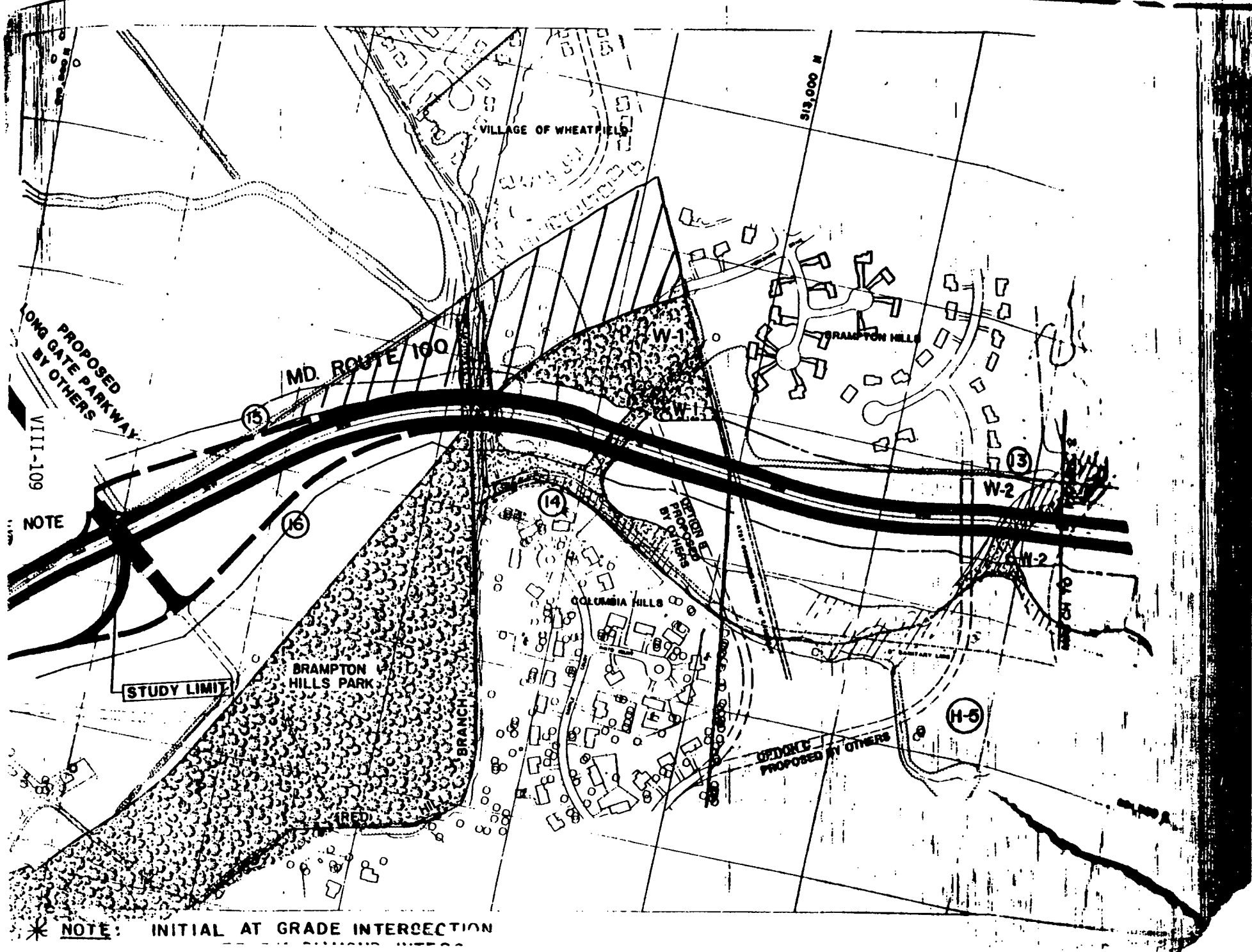
IT IS THE OPINION, AND REQUEST, OF ME AND SEVERAL OF MY NEIGHBORS THAT THIS LAND BE LEFT IN ITS NATURAL, WOODED STATE, POSSIBLY AS PART OF BRAMPTON HILLS PARK. THIS WOULD SERVE AS OPEN SPACE FOR THE COMMUNITIES OF BOTH WHEATFIELD & BRAMPTON HILLS AND ALSO SERVE AS A NATURAL VISUAL & SOUND BARRIER BETWEEN THESE COMMUNITIES & RT. 100.

I ASK THAT I PLEASE BE KEPT INFORMED OF ANY CHANGE IN THE STATUS OF THIS PROPERTY. THANK YOU. James A. Bonomo

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



\* NOTE: INITIAL AT GRADE INTERSECTION

305



Maryland Department of Transportation  
State Highway Administration

306

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

May 6, 1988

RE: Contract No. HO 661-101-770  
MD 100 - US 29 to I-95  
PDMS No. 132062

Mr. James A. Bonomo  
8559 Autumn Harvest  
Ellicott City, Maryland 21043

Dear Mr. Bonomo:

Thank you for your recent letter commenting on the Maryland Route 100 project which outlined your concern for the Meadowbrook Farms property.

The decision as to the future of this property has not been made yet and may not be made until the completion of final design. This particular piece of property may be required as part of the Maryland Route 100 project, transferred to Howard County for their participation in land acquisition, or used in negotiations for right-of-way required for Maryland Route 100. Your suggestion to use the excess property as a buffer zone will be considered in the decision making process. If this property does become excess land, the process you described in your letter for disposal of excess land is correct.

Thank you for your interest in this project. We will try to keep you informed of the status of this property as the project continues. Should you have any further questions or concerns, feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas Simmons  
Project Manager

LHE:DS:ds

cc: Mr. Raymond Weber  
Mr. Robert Sanders

My telephone num VIII-110 333-1190

OK

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 14 10 39 AM '88

NAME KAREN KIBLER DATE 3-5-88

PLEASE  
PRINT

ADDRESS 8630 SPRUCE RUN CT.

CITY/TOWN ELLCOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

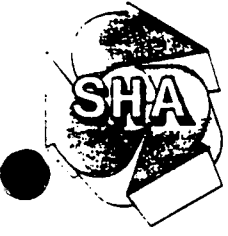
I AM OPPOSED TO THE ALIGNMENT OF  
ROUTE 100 SO CLOSE TO MY PROPERTY IN  
THE TIMBER RUN COMPLEX. I FEEL WITH  
THE NOISE & CONGESTION, THIS WILL REDUCE  
THE VALUE & QUALITY OF LIFE OF MY HOME.

I WOULD LIKE SOME INFORMATION REGARDING  
THE DECISIONS ON THE PROPOSED ACCESS TO  
MY DEVELOPMENT, AS I WAS ON VACATION  
AT THE TIME OF THE HEARING. ALSO  
PLEASE OFFER YOUR COMMENTS AS TO  
THE IMPACT OF ROUTE 100 ON THE  
VALUE OF MY PROPERTY AS THIS TYPE  
OF CHANGE HISTORICALLY AFFECTS OTHER  
NEIGHBORING PROPERTIES. ALSO PLEASE  
SEND PROJECTED DATES FOR CONSTRUCTION  
IN MY AREA.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List. VIII-111



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

May 3, 1988

RE: Contract No. HO 661-101-770  
MD 100 US 29 to I-95  
PDMS No. 132062

Ms. Karen Kibler  
8630 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Ms. Kibler:

Thank you for your recent letter opposing the proposed location of the Maryland Route 100 alignment.

No decisions have been made concerning the access options into Timber Run. A decision on this issue is anticipated this spring.

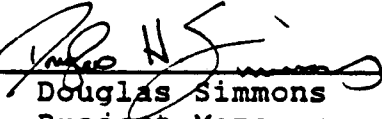
As a part of this project, we are studying the feasibility of constructing earthen berms to reduce noise and visual impacts to your community. In addition, appropriate landscaping measures are being considered to provide additional visual screening.

Past experience with highway projects has shown that property values often increase as access to a major highway is improved. The State Highway Administration cannot insure an increase or decrease in property values. Property values vary through the normal functions of the marketplace which are beyond our control.

Thank you for your interest in this project. Should you have any future questions or comments, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas Simmons  
Project Manager

LHE:DS:ds

My telephone number is (301) 333-1190



Five Nine Six One Waterloo Road, Ellicott City, Maryland 21043

March 8, 1988

Maryland Department of Transportation  
State Highway Administration  
Office of Planning and Preliminary Engineering

Mr Hal Kassoff, State Highway Administrator

Dear Sir;

You have listened patiently to the protestations of the transient newcomers complaining that they do not want Route 100 near them. I don't want it either. Over the years, the protests of the newcomers have pushed Route 100 closer and closer to me, with greater and greater adverse impact on my property.

The newcomers most grave concern is reduced property values. This is not my main concern simply because in this mobile society, I am not mobile and plan to stay that way. I am not concerned about financial impact as much as liveability and quality of life on my family and myself.

I am a second generation native of Howard County and the third generation to live on my property. My son (also a native) and his family also live on the property. I have learned to live with change and growth but I do not like the increased traffic, noise and litter that assaults me here on Waterloo and Old Montgomery Roads. Just getting on and off of my property is a real problem, as well as a safety hazard, and we have had to modify our travel routes in order not to cross lanes when coming and going.

I hope that you will give me, a lifelong resident, voter and taxpayer, consideration and not impose a very undesirable situation on me because of the very vocal complaints of the newcomers. Enough is enough. Am I to be imposed upon by yet another heavily used highway because of people who will quite possibly not even be living in Howard County in five years?

Thank you for your time and in reading this letter.

*Charlette Harris  
(Mary C. Dennis)*

CC: Elizabeth Bobo  
Shane Pendergrass



**Maryland Department of Transportation**  
**State Highway Administration**

310

Richard H. Trainor  
Secretary

Hai Kassoff  
Administrator

May 2, 1988

RE: Contract No. HO 661-101-770  
MD 100 US 29 to I-95  
PDMS No. 132062

Ms. Charlotte Hains  
5961 Waterloo Road  
Ellicott City, Maryland 21043

Dear Ms. Hains:

Thank you for your recent letter opposing the Maryland Route 100 project.

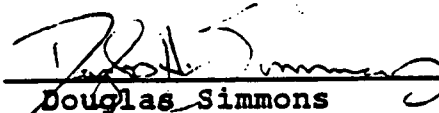
Your comments will be reviewed and evaluated by members of the project planning team before a decision is reached concerning the future of this project.

Thank you for your interest in this project. Should you have any future questions or comments, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
\_\_\_\_\_  
Douglas Simmons  
Project Manager

LHE:DS:ds

My telephone number VIII-114 333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 16 12 40 PM '88

NAME HOWARD HIGH SCHOOL PTSA  
JIMOTHY R. TITUS, PRESIDENT DATE \_\_\_\_\_

PLEASE  
PRINT

ADDRESS 6700 OLD ANNEARLIS RD

CITY/TOWN ELICOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

(1) SOUND BARRIERS TO PROTECT HIGH SCHOOL ARE  
ESSENTIAL

(2) PEDESTRIAN CROSSWALK (OVERPASS) SHOULD BE  
BUILT NOT JUST PROPOSED

(3) SOCIAL IMPACT ANALYSIS IS NEEDED TO STUDY  
COMMUNITY PATTERNS AND USES RELATED TO  
THE HIGH SCHOOL

*Jimothy R. Titus*

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

May 2, 1988

RE: Contract No. HO 661-101-770  
MD 100 - US 29 to I-95  
PDMS No. 132062

Mr. Timothy R. Titus, President  
8700 Old Annapolis Road  
Ellicott City, Maryland 21043

Dear Mr. Titus:

Thank you for your recent letter about the Maryland Route 100 project.

As a part of this project, we are studying the feasibility of providing earthen berms to mitigate noise impacts throughout the corridor. The provision of berms for protecting Howard High School will be investigated during the final design phase of this project.

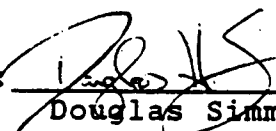
A pedestrian overpass is still proposed for this project. A decision will be reached this spring as to whether or not the overpass will be constructed.

A socio-economic analyses for the entire project corridor was developed for the Draft Environmental Impact Statement.

Thank you for your interest in this project. Should you have any further questions, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone number is (301) \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT 313  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

FEB 10 10 47 AM '88

NAME CARROLL E. BRAUN DATE 3-4-88

PLEASE PRINT

ADDRESS 5836 MEADOWRIDGE ROAD

CITY/TOWN ELKRIDGE STATE MARYLAND ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

PLEASE BE ADVISED THAT YOU ARE PUTTING #100 IN OUR FIELD  
to cut off the CARROLL BRAUN Co INC (Rendering plant)  
FROM THE OFFICE and the fuel supplies FOR THE VEHICLES.  
ALSO YOU ARE DIVIDING THE CATTLE BARN, ETC (FOOD SUPPLY)  
FROM THE WATER and GREATLY DESTROYING THE PASTURE.  
THE ROAD FROM MEADOWRIDGE ROAD TO THE RENDERING PLANT  
WILL BE CUT OFF. ACCESS WILL BE NEEDED ONTO MEADOWRIDGE.

In other words - you are disturbing our current rendering  
operation and will need to take this into consideration when/if  
the Route #100 goes through this property. (Office, Fuel tanks  
new Road)

by Nancy Gandy  
2/4/88

When you get us all disturbed - have you given any  
thought to how the State will handle the dead  
animal carcasses from the animal sellers and farms  
Not by incineration. I would suggest you check on  
our importance to the State of Maryland as a service since 1941

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a c is brochure through the mail are already  
on the project Mailing List.

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

314

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 10 10 49 AM '88

NAME CARROLL BRAUN DATE 3-5-88

PLEASE  
PRINT

ADDRESS 5836 Meadow Ridge Rd.

CITY/TOWN EKRIDGE STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

I have six acres of industrial zoned land  
on which my Rendering Plant is  
situated. I want to know how close  
Route 100 is coming to that land and  
my Rendering plant and how soon  
the road is being built.

Thank you,  
Carroll Braun

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy  
on the project Mailing List. VIII-118

brochure through the mail are already



99  
315

**Maryland Department of Transportation**  
**State Highway Administration**

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

April 29, 1988

RE: Contract No. HO 661-101-770  
MD 100 - US 29 to I-95  
PDMS No. 132062

Mr. Carroll E. Braun  
5836 Meadowridge Road  
Elkridge, Maryland 21227

Dear Mr. Braun:

Thank you for your recent letter about the Maryland Route 100 project.

A map is enclosed which shows the proposed location of Maryland Route 100 as it crosses your property.

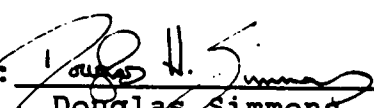
Should you wish to discuss the impacts of this project to your property and business, we are willing to meet with you at your convenience to discuss your concerns.

Your comments will be reviewed and evaluated by members of the project planning team before a decision is reached on the final alignment.

Thank you for your interest in this project. Should you have any future questions or comments, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas Simmons  
Project Manager

LHE:DS:ds  
Attachment

333-1190

My telephone number VIII-119 \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

316

Contract No. HO 661-101-770  
PDMS No. 132062

PROJECT  
DEVELOPMENT  
DIVISION

Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 15 10 30 AM '88

NAME POLO C GREEN DATE MARCH 9, 1988

PLEASE  
PRINT

ADDRESS 9117 NORTHFIELD RD

CITY/TOWN ELLWOOD CO STATE MD ZIP CODE 21048

1 We wish to comment or inquire about the following aspects of this project:

I feel that this road was stamped through the County Council, has become self-justifying and is a prelude to some kind of outer beltway. Further, I feel that the object of the SHA is simply to build more and bigger roads according to its own hidden agenda while skipping in negotiation and public notice procedures that the Federal DOT, at least has found worth investigating. Further, I feel that there is insufficient legislative oversight over the SHA and the SHA is interested in the public only to the extent of staying inside what can be defended in court.

PC Green

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy brochure through the mail are already on the project Mailing List.





98 317

**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 29, 1988

RE: Contract No. HO 661-101-770  
MD 100 - US 29 to I-95  
PDMS No. 132062

Mr. Peter C. Green  
9117 Northfield Road  
Ellicott City, Maryland 21043

Dear Mr. Green:

Thank you for your recent letter about the Maryland Route 100 project.

Your comments will be reviewed and evaluated by members of the project planning team before a decision is reached on the proposed alignment for this project.

Should you have any future questions or comments, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: 

\_\_\_\_\_  
Douglas Simmons  
Project Manager

LHE:DS:ds

My telephone number VIII-121

333-1190

318

PROJECT DEVELOPMENT DIVISION

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

APR 11 8 24 AM '88

Contract No. HO 661-101-770
PDMS No. 132062
Combined/Location Design Public Hearing
Maryland Route 100
U.S. Route 29 to Interstate Route 95
Howard High School
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Wayne P. Benson DATE 4-1-88

PLEASE PRINT ADDRESS 8318 Elko Drive
CITY/TOWN Ellicott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

4-1-88

I am a new resident of the Glenmar subdivision off of Route 104. I was not living in this area when the public hearing was held on 2-9-88 at the Howard High School, but have spoken with individuals who did attend and have also reviewed and studied the booklet outlining the proposed Route 100 design. I hereby offer my comments and suggestions on the proposals presented.

While I respect the initiative of the State Highway Administration in planning for future development and traffic flows I believe the proposed Alternate 3 Route 100 design does not offer the best alternative. I believe other options should be considered which would not so greatly effect the current environment and rural lik atmosphere of the general area. The proposed route as I perceive it would greatly damage some streams and unspoiled acreage along it's path. This in turn would take away from some of the qualities that have attracted people to live and take pride in their communities.

The alternatives of improving existing roadways(Routes 103,104,108,etc.) by adding additional lanes, improving interchanges,etc. seem much more sensible than creating a totally new major thoroughfare, which would only draw non-local traffic through the area. As I understand the booklet, most of the projected problems would only occur during the evening rush hours, which only constitute about 3 to 4 hrs. of a 24 hr. day. I seriously believe a vast majority of the area's residents would rather endure a few delays at peak hours than have their area crisscrossed and spoiled for 24 hrs., 7 days a week by the highway.

- Please add my/our name(s) to the Mailing List.\*
Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of the project Mailing List.
...ochure through the mail are already





97 320

**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Wayne P. Benson  
8318 Elko Drive  
Ellicott City, Maryland 21043

Dear Mr. Benson:

Thank you for your recent letter commenting on the Maryland Route 100 project which outlined your opposition to Alternate 3 and recommended improvements to the existing roadways.

Several other alternates have been developed during this project planning study including an alternate which proposed improvements to Maryland Route 103, 104 and 108. These alternatives were dropped for various reasons. The major reason, however, for dropping these alternates was that they did not provide the necessary capacity to service the anticipated traffic volumes.

Thank you for your interest in this project. Should you have any further questions, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: *John Harris for Douglas Simmons*  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone n VIII-124

321

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT  
DEVELOPMENT  
DIVISION

MAR 3 9 10 AM '88

NAME Pat Kitchin DATE 3-0-88

PLEASE PRINT ADDRESS 5611 Lightfoot Lane

CITY/TOWN Columbia STATE MD ZIP CODE 21045

~~I/We~~ wish to comment or inquire about the following aspects of this project:

In my opinion, there has not been a good reason given for the State not proposing noise barriers along proposed Rt 100 at Howard High School.

I would appreciate receiving a detailed response whether or not the State considered barriers at this location and, if so, why the State elected not to install noise barriers at the school.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a card on the project Mailing List.

is brochure through the mail are already

322



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 22, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Pat Kristensen  
5611 Lightspun Lane  
Columbia, Maryland 21045

Dear Ms. Kristensen:

Thank you for your recent letter about the Maryland Route 100 project.

As a part of this project we are studying the feasibility of providing earthen berms to mitigate noise impacts throughout the corridor. The provision of berms for protecting Howard High School will be investigated during the final design phase of this project.

Thank you for your interest in this project. Should you have any further questions or comments, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
cc: Mr. Robert Sanders

My telephone n VIII-126 \_\_\_\_\_

PROJECT DEVELOPMENT DIVISION

MAR 14 10 29 AM '88

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

323

Contract No. HO 661-101-770  
PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100

U.S. Route 29 to Interstate Route 95  
Howard High School

Tuesday, February 9, 1988 - 7:00 p.m.

NAME Raymond + Michele Miller DATE 3-3-88

ADDRESS 5748 Montgomery Rd.

CITY/TOWN Elkridge STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

Please consider cloverleaf type inter~~chan~~<sup>sections</sup> and build enough lanes so that this road does not end up like Rte. 175 - overcrowded with stop + go traffic. But whatever you do, please build it SOON! We need it!

Also, can you please make some changes to over crowded Rte. 103? The intersection at Meadowridge + Montgomery Roads is a commuter's nightmare!

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a c on the project Mailing List.

is brochure through the mail are already



*Maryland Department of Transportation*  
*State Highway Administration*

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 19, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Raymond Miller  
5748 Montgomery Road  
Elkridge, Maryland 21227

Dear Mr. & Mrs. Miller:

Thank you for your recent letter supporting the Maryland Route 100 project.

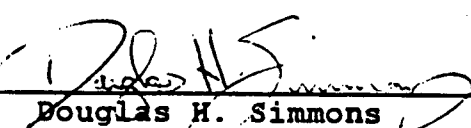
Maryland Route 100 is being designed to accommodate the traffic volumes which are projected through 2015. Cloverleaf interchanges are not required to accommodate these forecasted volumes. The construction of cloverleaf interchanges would also create severe impacts to several of the adjacent communities.

The Meadowridge Road/Montgomery Road intersection is currently scheduled to be realigned as a part of the construction of the Brightfield subdivision. The reconstruction of this intersection along with the construction of Maryland Route 100 should improve travel along Maryland Route 103.

Should you have any further questions or comments, please feel free to contact me. Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone

VIII-128  
Teletype... Irred Hearing or Speech

383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free  
707 North Calvert St., Baltimore, Maryland 21203-0717



STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

325

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Richard Conde DATE 3/15/88

PLEASE  
PRINT

ADDRESS 8638 Spruce Run Court

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I reside in the Timber Run community, which is adjacent to the proposed Route 100 corridor. I am very concerned about the proximity of Rt 100 to my community, and am especially concerned about the level of noise that will be generated by Rt 100. I hope that the design of Rt 100 will include adequate noise abatement, including earth berms. Also, the road bed of Rt 100 should be kept below the elevation of my community to minimize the adverse noise and visual effects of Rt 100.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a cc is brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

326

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 19, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Richard Conde  
8638 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Mr. Conde:

Thank you for your recent letter offering your suggestions for improving the Maryland Route 100 project.

As a part of this project, we are studying the feasibility of constructing earthen berms to reduce noise and visual impacts to your community. In addition, appropriate landscaping measures are being considered to provide additional visual screening.

Thank you for your interest in this project. Should you have any further questions, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone number VIII-130 333-1190

Teletypew 333-1190 (for Hearing or Speech)  
383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free  
707 North Calvert St., Baltimore, Maryland 21203-0717

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

327

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT  
DEVELOPMENT  
DIVISION

MAR 5 9 12 AM '88

NAME Charles E. Sternheim DATE 3/4/88

PLEASE  
PRINT

ADDRESS 5354 Flight Feather

CITY/TOWN Columbia STATE MD ZIP CODE 21045

I/We wish to comment or inquire about the following aspects of this project:

I would like to review the traffic studies that assess the impact of traffic upon neighborhood/residential streets coming from exiting or entering MD Route 100. Please let me know when and where these studies will be available.

Thank you.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

328

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Charles E. Sternheim  
5354 Flight Feather Road  
Columbia, Maryland 21045

Dear Mr. Sternheim:

Thank you for your recent letter concerning the Maryland Route 100 project. If you would like to review the traffic projections, please feel free to contact me or Mr. Robert Lambdin, the Traffic Engineer for this project. Mr. Lambdin's telephone number is (301) 333-1325.

Thank you for your interest in the Maryland Route 100 project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
cc: Mr. Robert Lambdin

333-1190

My telephone number is (301) \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 7 4 05 PM '88

NAME William Noyes<sup>P.E.</sup>, Carol Noyes DATE 3/4/88  
ADDRESS 5844 Montgomery Rd.  
CITY/TOWN Elkridge STATE Md. ZIP CODE 21227

PLEASE  
PRINT

I/We wish to comment or inquire about the following aspects of this project:

- 1) The original route 100 alignment indicated a "bridge" on Mullineaux Rd (25' R/W Access to our property). We understand that because of the economics that this is not feasible. The disturbing point is that my neighbors and my family are shown, on all concepts, as land locked. Where is our egress and ingress?
- 2) Keep in mind that my address and mail comes to Montgomery Road where we physically have mail boxes. The mail boxes on Montgomery Road are .8 of a mile from my house, on a country road that you are severing. Any new point of ingress and egress would have to be on Meadowridge Road (Rte 103) - for compensatory purposes, keep in mind that our property value decreases significantly because we now have entry from a less desirable neighborhood.
- 3) We would object with legal representative and appropriate recourse should our point of ingress and egress be any - where in the vicinity of the Meadowridge Pub.
- 4) Any route 100 designs should continue to keep earth mound sound barriers, with landscaping in the vicinity of our residence

- Please add my/our name(s) to the Mailing List.\*
- Please delete my/our name(s) from the Mailing List.

\*Persons who have received a brochure through the mail are already on the project Mailing List. VIII-133

5) All existing trees are to be protected during construction in the area of our property and tree wells should be used if required.



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. William Noyes  
5844 Montgomery Road  
Elkridge, Maryland 21227

Dear Mr. & Mrs. Noyes:

Thank you for your recent letter concerning the Maryland Route 100 project.

The State Highway Administration and the Howard County Office of Planning and Zoning will work together to provide access to Mullineaux Road. It is anticipated that Mullineaux Road will be connected into a future subdivision roadway with access provided close to the Maryland Route 100/Meadowridge Road interchange.

As a part of this project, we are studying the feasibility of providing earthen berms to reduce noise and visual impacts to your community. In addition, landscaping measures will be implemented to provide additional visual screening.

If you have any further questions or comments, please feel free to contact me. Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

331

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 14 10 39 AM '88

NAME JAN SMITH DATE 7 MAR 88

PLEASE  
PRINT

ADDRESS 5524 BARRINGTON CT

CITY/TOWN COLUMBIA STATE MD ZIP CODE 21045

I/We wish to comment or inquire about the following aspects of this project:

AT THE PUBLIC HEARING ON 9 FEB 88, A REPRESENTATIVE OF THE HOWARD  
COUNTY MADE SOME CONSTRUCTIVE SUGGESTIONS REGARDING THE DEVELOPMENT  
OF ROUTE 100. ALL SEEM TO WARRANT SERIOUS CONSIDERATION BY THE STATE  
HIGHWAY ADMINISTRATION.

A PARTICULAR CONCERN IS THAT THE PROPOSED INTERCHANGE WITH HIGHWAYS 108/104  
MIGHT INITIALLY BE A GRADE LEVEL CROSSING. I FEEL THAT FROM THE  
POINT OF SAFETY, ECONOMY, LAND USE AND FUTURE DISRUPTIONS TO TRAFFIC FLOW  
MANDATED BY THE EVENTUAL <sup>GRADE</sup> SEPERATION OF HIGHWAY 100, THAT OPTION 104-B NOT  
BE CONSIDERED. IT WOULD BE A FALSE ECONOMIZATION OF FUNDS TO NOT  
IMPLEMENT OPTION 104-A AT THE TIME THE REST OF THE HIGHWAY IS BUILT.

I AM WONDERING IF AN ACCESS TO "TIMBER RUN" THROUGH SUNSET DRIVE/  
HORSESHOE RD HAS BEEN CONSIDERED AS OPPOSED TO THE CURRENT PLAN OF  
AN ACCESS SITUATED ACROSS HIGHWAY 104 FROM ELKO DRIVE. MIGHT SUCH  
AN ACCESS SAVE ANY OF THE RESIDENTIAL DISPLACEMENTS REQUIRED BY  
CONSTRUCTION OF OPTION 104-A OR "B"?

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

332

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Jan Smith  
5524 Barrington Court  
Columbia, Maryland 21045

Dear Ms. Smith:

Thank you for your recent letter offering your suggestions for improving the Maryland Route 100 project.

The development of this project has included the participation of Howard County officials. We are currently reviewing and analyzing the comments which were made by Howard County at the Public Hearing. As the project progresses, we will continue to work with the county to ensure that Maryland Route 100 is designed in a manner which is satisfactory to both Howard County and the State Highway Administration.

A decision on the proposed alignment and the various options is anticipated during the spring. A decision will be made at that time as to whether or not an interchange or intersection will be constructed for the Maryland Route 100/Maryland Route 104 connection.

We are currently studying several access options for Timber Run. Your proposal for a connection with Horseshoe Road would not reduce the number of residential displacements for this project.

Thank you for your interest in this project. Should you have any further questions or suggestions, please feel free to contact me.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

SHA has recommended Selected Alternate 3 and the partial diamond interchange, Option 104-A.

VIII-136

383-7555 Baltimore Metro - 565-04  
707 North Calvert S

1-800-452-5002 Statewide Toll Free  
e, Maryland 21203-0717



STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT  
DEVELOPMENT  
DIVISION

MAR 1 4 05 PM '88

NAME JOHN W. O'NEILL DATE 3/2/88

PLEASE  
PRINT

ADDRESS 5004 WATERLOO ROAD

CITY/TOWN ELLCOTT CITY/STATE MARYLAND ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

WHY IS THE SURVEY CREW OF THE  
STATE HIGHWAY ADMINISTRATION WORKING  
IN FRONT OF OUR PROPERTY - MAKING  
MARKS ON OUR DRIVEWAY, ETC. ETC.?  
PLEASE ~~REPLY~~ REPLY!

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

334

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. John W. O'Neill  
5004 Waterloo Road  
Ellicott City, Maryland 21043

Dear Mr. O'Neill:


Thank you for your recent letter requesting information about the Maryland Route 100 project.

The State Highway Administration survey crew which has been working in your neighborhood has been gathering data which will be used in developing the final design of the Maryland Route 100 project.

Should you have any further questions, please feel free to contact me. Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHB:DS:ds

My telephone number is (301) 333-1190

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

MAR 14 10 40 AM '88

Contract No. HO 661-101-770 PDMS No. 132062 Combined/Location Design Public Hearing Maryland Route 100 U.S. Route 29 to Interstate Route 95 Howard High School Tuesday, February 9, 1988 - 7:00 p.m.

NAME Charles Pompei, President Donleigh Civic Association DATE 3/5/88

PLEASE PRINT

ADDRESS 10236 Donleigh Dr

CITY/TOWN Columbia STATE Md ZIP CODE 21046

I/We wish to comment or inquire about the following aspects of this project:

I do not wish to inquire about the above. However I am no longer the president of the Donleigh Civic Association. I have the name + address of the new President above. Please correct your mailing lists.

Ronald Vatelaro 10222 Westleigh Dr Col. Md 21046 Past President Donleigh Civic Ass.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation**  
**State Highway Administration**

336

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Ronald Vatalaro  
10222 Wesleigh Drive  
Columbia, Maryland 21046

Dear Mr. Vatalaro:

Thank you for your recent letter informing us that Mr. Charles Pompei is the current president of the Donleigh Civic Association. Mr. Pompei will be added to the project mailing list.

Your name will remain on the mailing list ensuring that you will receive all future information which is distributed. Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone number is (301) \_\_\_\_\_

333-1190

Teletype VIII-140  
383-7555 Baltimore Metro - 565-C  
707 North Calvert S

Ired Hearing or Speech  
ro - 1-800-492-5062 Statewide Toll Free  
re, Maryland 21203-0717

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 14 10 39 AM '88

NAME Clarence + Myrla Pinkerton DATE 3 Mar 88

PLEASE PRINT ADDRESS 8546 Pine Run CT (TIMBER RUN)

CITY/TOWN Ellett City STATE MD ZIP CODE 21543

*g* We wish to comment or inquire about the following aspects of this project:

We are concerned about several aspects of the access roads input of Timber Run to Rte 104. Quality of life issues have been addressed by others. We lend the arguments our support. Additionally, both options for Timber Run access threaten drainage, a monster problem that took over two years to settle with our developer. Please seriously consider the Association's suggestion or another that would route traffic/roads away from the Spiker farm. Also, please do not allow the developer to access Oak Run. The amount of traffic that would pour into this area would present an unacceptable level of noise & danger into a residential neighborhood. Finally, Howard High School, already a socially embattled educational institution, would take on the aura of industrial area, blackboard jungle with the inclusion of roads, factories, + buses. Please try to isolate it with proper access + landscaping.

Thank you.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

338

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Clarence Pinkerton  
8546 Pine Run Court  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Pinkerton:

Thank you for your recent letter offering your suggestions for improving the Maryland Route 100 project.

We are currently revising the access options to Timber Run in order to provide an option which is more appealing to the community. It will be required that this access option be designed so as not to exacerbate the drainage problems experienced by Timber Run.

The two lane developer road will not access Oak Run Way.

Landscaping measures will be studied throughout the project corridor during the final design stage. Appropriate landscaping measures will be implemented to help the project blend with the surrounding environment.

Should you have any further questions or suggestions, please feel free to contact me. Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone number is (301) \_\_\_\_\_

339 #238 OK 3/8

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

FEB 11 8 22 AM '88  
PROJECT DEVELOPMENT DIVISION

NAME Edward V. Ahlquist DATE 2-11-88

PLEASE PRINT

ADDRESS 8536 Pine Run Court

CITY/TOWN Ellicott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

The following-are my concerns as a Timber Run resident.

Reference is to your Combined/Location/Design Public Hearing handbook for Maryland Route 100.

1.- Regarding Allignment... As per available maps, the entire "Expressway" appears to be curved. Can it not then be CURVED away from Oak Run Way???

2.- The map for Option 104A pictures the access/egress road running behind several of our townhouses on Pine Run Court. Are you aware that these homes ALREADY have a serious water run-off problem??? Construction of the access road as pictured will only serve to exacerbate the Flood Problem.

3.- The proposed Developer Road shown in Figure 8 extends from Center Park Drive east to Route 104. If this road is constructed "Early", as planned, note that it should, at least, be restricted to Passenger Cars Only!!! The noise factor from trucks (stop and go traffic) would be intolerable to residents.

continued on pg.2

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

## State Highway Administration - Questions/Comments

4.- Question: Why doesn't the current "Expressway" plan simply follow along Route 103 - the sensible, obvious allignment that can be construed from Figure 7???

5.- Also, regarding allignment, route 100 seems to be moving in tune with some political wind. Curiously enough, there is sufficient right-of-way across the Williams' property for the "Road"; yet now their land is considered to be a historic sight. Is this a form of reverse discrimination? For fear of rousing a "Racial Issue" by using the Williams' land, are you not discriminating against some 82 plus homeowners at Timber Run by threatening the values of our properties and spoiling the quiet ambience of our community???

6.- Lastly, as alluded to above, We Timber Run Residents stand to lose not only the scenic beauty of the horse farm situated behind our homes, but also the privacy afforded us by the wooded area at Oak Run Drive.

Based upon the above points, my preference is obviously Alternate 1.

Kindly Respond,



Edward V. Ahlquist  
8536 Pine Run Court  
Ellicott City, Md. 21043

cc Governor Schaefer  
Angela Hawkins  
Hal Kassoff  
Wayne Clingan



RECEIVED

#431  
MAR 24 1988

DIRECTOR, OFFICE OF  
PLANNING & PRELIMINARY ENGINEERING

341  
PROJECT  
DEVELOPMENT  
DIVISION  
MAR 24-88  
3-24-88 11 08 AM '88

State Highway Administration  
Office of Planning and Preliminary Engineering  
707 N. Calvert Street  
Baltimore, Md. 21203-0717  
Att: Neil J. Pedersen

Dear Mr. Pedersen,

Although I have thoughtfully read your response to my first letter, my concerns regarding alignment and related issues of the new Maryland Route 100 continue:

In reference to shifting Route 100 further to the south of Timber Run, you explain that this would require acquisition of land owned by Howard High which is not allowed by law if there is a feasible alternative. We Timber Run Residents can hardly agree that placing the highway adjacent to our now quiet neighborhood is a feasible or prudent alternative. We are aware and incensed that both the planned road alignment and the proposed Developer Road issue reek of the financial influence of our moneyed local developers. The common man (average hardworking homeowner) hardly has a say in the matter - except to move??. Whatever happened to government by the people, for the people .....? Already our property values have been threatened in that an unusually high percentage of Timber Run townhouses were sold during 1987 - People are "Running". Not all of us can afford to "Run"; but, must live with the dictates of those in power. It is just not believable that the engineering geniuses can't align this road somewhere away from our front doors and back yards.

Regarding our water run-off problem - we are anxiously awaiting news of your "Engineering Solution" in light of the planned access road into Timber Run. My own occupation involves construction type work and I'm most interested in how increased flooding can be avoided.

In the interim, has anyone involved in the planning considered the other small but mighty problem of vehicle headlights flashing in our bed and living room windows? One of the main reasons I

purchased my home is the picturesque view of the horse farm behind my back yard. Who would have envisioned that a highway ramp would replace this?!!

I must again make reference to the proposed Developer Road - the 2 lane highway for convenience of commuters. It was my understanding (from attending the last meeting at Howard High) that employees from Bendix, for example, will be inconvenienced by this access. It is beyond my understanding why we must tolerate heavy delivery trucks with their noise and fumes. Conveniencing this type of vehicle will further mar our neighborhood and possibly threaten the safety of our children.

AS per your letter of March 15, you mentioned that Alternate 2 was dropped as it did not have the capacity to handle traffic volumes.... Using Route 103 was not so implausible. Why not widen that road and infringe upon those property owners? - instead the choice is to invade the privacy of Timber Run homeowners with a large east/west highway alongside our precious community. The State already has 2 good right of ways with Routes 103 and 108. The very necessity of a 6 lane Maryland 100 is still in question, especially considering the huge expense to the State and ultimately to the taxpayers. Another option might be the following:

In exiting I95 onto Route 100, 2 lanes could be implemented - one going north to an improved wider Route 103 - the other lane heading into a new Route 100 tying in to Routes 108 and 104...

I hope I'm not wrong in assuming the Transportation Department is still open to viable ideas which would make roadway changes more palatable.

As you can see, I and my neighbors at Timber Run who plan to remain here, are not taking a hands down approach to the issues I raise. State Highway planning cannot/should not take precedence over the safety of our children, ambience of our neighborhood, and financial investment of homeowners.

Sincerely,



Edward Ahlquist  
8536 Pine Run Court  
Ellicott City - 21043



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 14, 1988

Mr. Edward V. Ahlquist  
8536 Pine Run Court  
Ellicott City, Maryland 21043

Dear Mr. Ahlquist:

Thank you for your recent letter requesting additional information about the Maryland Route 100 project.

We have carefully looked at the possibility of shifting the alignment further south in the vicinity of Howard High School and under current federal law it does not appear possible to shift into Howard High School property that is used for public recreational purposes.

Detailed drainage plans will be developed during the final design phase and should be completed in approximately eighteen months. In developing the drainage plans, the existing drainage conditions will be analyzed. The drainage design will be reviewed by the Water Resources Administration to assure that the Maryland Route 100 project does not add to the current drainage problems. Should you wish to review these plans as they are being developed, please contact Mr. Robert Sanders. Mr. Sanders' telephone number is (301) 333-1258.

Landscape planting has been recommended as a visual screen along the proposed relocation of Oak Run Way. This should help to prevent headlights from shining into your windows.

Alternate 2 proposed the construction of a 5-lane highway along Maryland Route 103. This was the widest typical section that could be used without the acquisition of numerous residences. In contrast, Alternate 3 proposes the construction of a 6-lane highway. Alternate 2 does not provide enough travel lanes to adequately service the anticipated traffic volumes at an acceptable level of service.

Alternate 5, which is similar to your proposal, utilized both Maryland Routes 103 and 108 to provide service between Maryland Route 104 and US Route 29. Alternate 5 proposed that Maryland Route 103 be widened to 5 lanes and that Maryland Route 108 be widened to 4 lanes. Alternate 5 did not adequately service the anticipated traffic volumes at an acceptable level of service and was dropped from further study.

My telephone nun 333-1110

Mr. Edward V. Ahlquist

Page Two

If you have any additional questions or comments, please feel free to contact me.

Very truly yours,

*Neil J. Pedersen*

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

NJP:db

cc: Mr. Louis H. Ege, Jr.  
Mr. Robert Sanders

PROJECT  
DEVELOPMENT  
DIVISION

345

February 13, 1988

FEB 23 8 38 AM '88

The Md. Department of Transportation  
The State Highway Administration  
Office of Planning & Engineering  
P. O. Box 717  
Baltimore, Maryland 21203

Attention: Mr. Douglas H. Simmons

Dear Mr. Simmons:

As a new resident of the community of Glen War (8382 Mitzy Lane), we are writing to voice our concern over the proposed alignment of Route 100 to the proximity of our house. It has come to our attention that The State Highway Administration plans to construct the six-lane span within 200 feet of our front door. We know first-hand from previously living within 200 feet of the Baltimore Beltway, that the noise and pollutants from vehicles is unbearable to residents in these communities.'

We are requesting that some sort of barrier be erected along the entire stretch of Mitzy Lane to reduce the noise level. As a added barrier, we strongly suggest that the existing trees facing oue entire community be left undisturbed.

Another area of concern is the limited availibility the residents of our community will have to Foute 100. Your current plans prohibit members of the Glen War community from turning left off of Elko Drive to Foute 104. We are sure that Safety precautions were strongly considered in Making this decision, but it appears as though no one seems to consider this as another inconvenience to a community already being asked to sacrifice so much.

My suggestion to this problem is the installation of a traffic signal at Route 104 and Elko Drive. Surely, there can be no greater safety feature offered than this. It would also enable residents access to Routes 100, 104, 108 and 175 as well as schools, parks and businesses that are a part of our surroundings.

In conclusion, there is no question that our community is being asked to give a great deal for the betterment of the entire county. We feel that our suggestions are relatively small in comparision to what we are being asked to accept (more noise, traffic, inconvenience, lower property values). It would be most cost effective to implement our suggestions right from the beginning of construction than postpone it until later. It would serve both the county and The State Highway Administration well from a public relations aspect to implement these recomendations. In order to have a legally binding agreement, both parties must give consideration. Our community has certainly given.

We ask for your consideration and attention to implement our recommendations.

We will look forward with much anticipation to a response to this letter.

Sincerely,

*Joseph P Sansone*

Joseph P. Sansone  
8382 Mitzy Lane  
Ellicott City, MD 21043

*Janet I Sansone*

Janet I. Sansone  
8382 Mitzy Lane  
Ellicott City, MD 21043

We attended the Feb. public meeting. We reviewed the environmental impact study and we viewed the sketches and drawings for Route 100. We live in the Wheatfield development and were aware of the possibilities for a road in the area planned, but we are disturbed by a number of facets. 1) The road as planned is a major 6-lane highway, not a 2-lane or a most a 4-lane road. In a number of sections there is not much room to squeeze a 6-lane road between existing residential and commercial development. One example is the curve between the Wheatfield development (just down from and next to Brampton Hills) and Ponte Court in Columbia Hills. Another place is between Timber Run and the industrial area along Route 108 that includes Howard High. This means concentrated noise and visual levels, making the road's negative aspects a much greater impact on the affected residences. Since this is the case, we expected to find abatement issues appropriately addressed. 2) We did not. None of the planning included the Wheatfield development. It is not covered in the environmental study even though this development will have houses 200 to 300 feet from the <sup>planned</sup> road in less than one year as well as homes bordering the Long Gate Parkway entrance/exit road/ramp. You did studies and projections for traffic volume, pollution and noise levels (in some areas) for several years into the future, yet you did not assess the impact to a development that will be effected in a major way and will be completed in one year. Is this government planning? I thought part of government agencies and representatives purpose was to protect the taxpayers effected in government projects such as this. What happened to that?

PREPARED BY	
DATE	

Consequently, there are no earth hills nor concrete / wood walls planned or budgeted to run the length of the Wheatfield development including the long Gate Parkway road/ramp.

I insist that these be included now in this project while it is still in the planning stage. If we who live along this route are expected to bear the brunt of the county's mismanagement, lack of planning, and ability to consent to the developer's desires, then we, at the <sup>very</sup> minimum, ought to be as protected as possible from the noise, pollution and visual impact of

this project. 3) The planning that has been done is not adequate.

The drawing that was done for Brampton Hills showed a small earth embankment for noise abatement. To be adequate, these earth hills need to reach above the second story of the homes bordering the road, or one of the concrete / wood walls needs to be erected that will reach well above the rooves of the homes along the highway. This will provide noise abatement and a visual barrier. We are concerned that this same type of barrier be erected on both sides of

the curve that runs between Wheatfield and Pinto Court in Columbia Hills as well as along other areas of Columbia Hills, Brampton Hills, Timber Run, Wheatfield, long Gate Parkway, Hunt Country Estates and any other developments effected in similar ways. "Encouraging" the developer to do the embankments when he/they put in the two lane road stage of the project is not going to address the issue appropriately. If you will view the small mounds of dirt the developer of Wheatfield





**Maryland Department of Transportation  
State Highway Administration**

349  
*Chen*

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 12, 1988

RE: Contract No. HO 861-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Joseph P. Sansone  
8382 Mitty Lane  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Sansone:

Thank you for your recent letter offering your suggestions for improving the Maryland Route 100 project.

As a part of the project, we are studying the feasibility of constructing earthen berms to reduce noise and visual impacts to your community. In addition, landscaping measures will be implemented to provide additional visual screening.

Access to Maryland Route 100 will not be restricted for the residents of Glen Mar. Vehicles travelling on Elk Drive will be allowed to turn either left or right onto Maryland Route 100. A traffic signal, however, is not planned at this time for this intersection.

Thank you for your interest in the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 323-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

*Douglas H. Simmons*  
\_\_\_\_\_  
Douglas H. Simmons  
Manager

LHE:DC:is

My telephone number is (301) \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT DEVELOPMENT  
DIR. 613  
MAR 7 4 05 PM '88

NAME PATRICIA A. DABBS DATE 3/2/88

PLEASE PRINT ADDRESS 8301 ELKO DRIVE

CITY/TOWN ELLCOTT CITY, STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

How is the entrance onto Rt. 104 from Elko Dr. going to be affected by the proposed changes in Timber Run (Proposal 104-A and Proposal 104-B)?

Likewise, how will Glenmar Drive be affected at Rt. 104? Also, ~~how~~ will the intersection at Rt. 108 and Rt. 104 be re-designed when Rt. 100 is put through?

Rt. 100 (from Rt. 104 to Rt. 29) should be built at the same time as the Rt. 100 portion from I-95 to Rt. 104. Two or more separate building projects are going to be a very disagreeable disruption to life for the residents along the corridor from I-95 to Rt. 29. We newcomers already suffer a "last settler" syndrome: many of the community's attractive features that drew us here are jeopardized by these changes that are being imposed upon us for the sake of future development.

From the Sun reports and from the Feb. 9 hearing it seems the SHA had violated its mission to serve the public without favoritism for particular interests, namely developers.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

*Patricia A. Dabbs*

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

351

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 12, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Patricia A. Dabbs  
3301 Elko Drive  
Ellicott City, Maryland 21042

Dear Ms. Dabbs:

Thank you for your recent letter commenting on the Maryland Route 100 project. Your comments will be reviewed and evaluated by members of the project planning team before a decision is reached on the proposed alignment for this project.

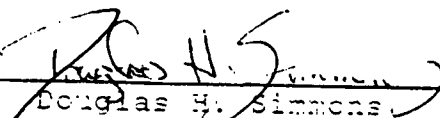
The intersections of Elko Drive and Glenmar Drive with Maryland Route 104 will not be affected by this project. Motorists travelling on these two roadways will be allowed to turn either left or right onto Maryland Route 104 which will be widened through the project area.

A map is enclosed which shows the proposed improvements to Maryland Routes 104 and 109.

Thank you for your interest in the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

By:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
Attachment

My telephone VIII-155 \_\_\_\_\_

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Richard P and Carol L. Boyer DATE 2/18/88

PLEASE PRINT ADDRESS 5921 Meadow Ridge Road  
CITY/TOWN Elkridge STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

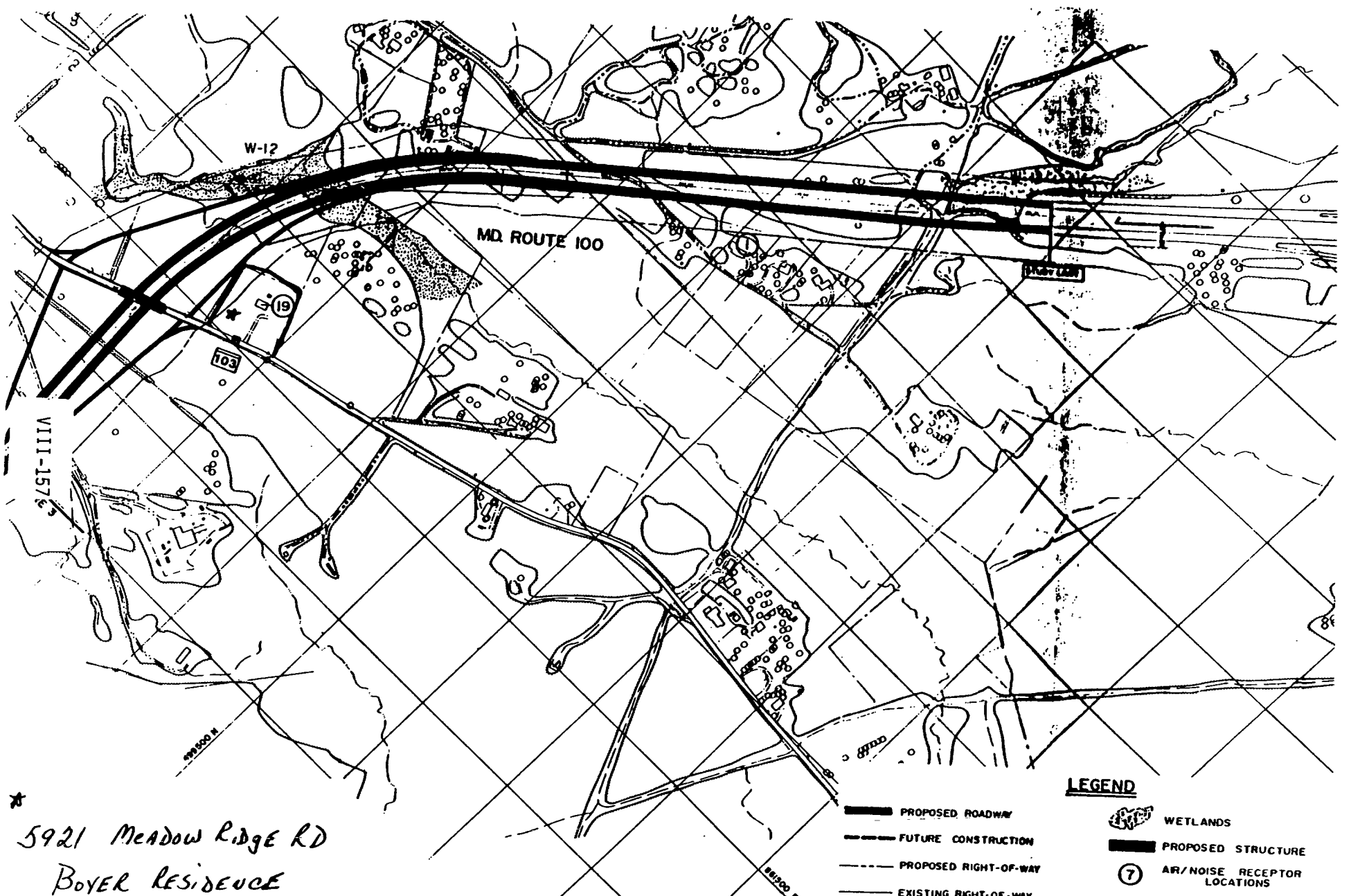
Attached is a copy of our residential location as shown on (Preferred) Alternate 3  
As you can see, our property line will only be about 90 feet from the on-ramp of the  
diamond interchange. In addition, after reviewing the maps displayed at Howard High  
School on February 9, we learned that the SHA is proposing a right-of-way on  
approximately 100 feet of our property.

As a property owner adjacent to this proposed highway, our property value will be  
severely affected by the presence of this highway. Therefore, we feel because there  
is no residential homes nearby that our property, and any neighboring properties,  
should be included in a commercial zoning change as requested. It is our contention  
that when Rt. 100 is completed, our property, and neighboring properties, would  
better serve the community because of the close proximity to the proposed diamond  
interchange. If this requested change is subsequently approved, the land would be  
better suited for the development of offices or community stores (strip mall).

In addition, we have also noted that our property was included in the noise impact  
analysis, and it is predicted that we will be in a noise sensitive area. We feel  
because we are the only residential home immediately adjacent to the Meadow Ridge Rd.,  
diamond interchange, that the SHA should NOT rule out protective screening, such as a  
berme, landscaping with shrubs, etc. We have just as much rights as a single  
property owner as 50 property owners in the same situation, and money should not be an  
issue if it will make this highway more comfortable for the property owners it will

- Please add my/our name(s) to the Mailing List.\* severely affect.
- Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



\*  
 5921 MEADOW RIDGE RD  
 BOYER RESIDENCE

\*BASED ON FEDERAL INSURANCE  
 ADMINISTRATION FLOODPLAIN MAPS

**LEGEND**

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL RELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

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**Maryland Department of Transportation  
State Highway Administration**

Richard H. Traino  
Secretary  
Hal Kassoff  
Administrator

April 12, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Richard P. Boyer  
5921 Meadowridge Road  
Elkridge, Maryland 21227

Dear Mr. & Mrs. Boyer:

Thank you for your recent letter commenting on the Maryland Route 100 project.

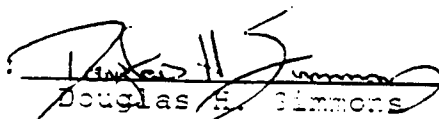
Your request to be included in a commercial zoning change should be forwarded to the Howard County Office of Planning and Zoning. The State Highway Administration is not directly involved with zoning issues as this is a county responsibility.

Earthen berms and landscape planting are being studied throughout the project corridor. It is not anticipated that an earthen berm would be constructed in the vicinity of your property. However, landscape planting could be incorporated into the design to serve as a visual screen.

Thank you for your interest in the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

By:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone number is (301) \_\_\_\_\_





**Maryland Department of Transportation  
State Highway Administration**

356.

Richard H. Train  
Secretary  
Hal Kassoff  
Administrator

April 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Sonia H. Burton  
8601 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Ms. Burton:

Thank you for your recent letter requesting information concerning the Maryland Route 100 project.

Alternate 3 and the No-Build Alternate are currently under consideration as alternative recommendations for this project. It is anticipated that a decision will be made this spring as to which alternate will be carried forward.

If Alternate 3 is selected, a new access point for Oak Run Way onto Maryland Route 104 would be required. However, the overflow parking along Oak Run Way would remain in place.

Right-of-way throughout the project corridor will need to be acquired. No right-of-way will be required from Timber Run Valley which is north of Oak Run Way.

We are currently studying the feasibility of constructing an earthen berm for minimizing the noise and visual impacts to your community. This berm would be designed to protect the first floor of the adjacent town homes from excessive noise levels. The final design of this berm would be determined during the design phase of this project.

The issue of overhead signing has not been addressed at this time.

333-1190

My telephone number is VIII-160

Teletypew  
383-7555 Baltimore Metro - 565-0-  
707 North Calvert Str., Baltimore, Maryland 21203-0717  
Hearing or Speech  
ro - 1-800-492-5062 Statewide Toll Free




Ms. Sonia H. Burton

Page 2

Thank you for your interest in the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

WALTER VEASEL  
5025 MONTGOMERY RD.  
ELLCOTT CITY, MD. 21043

PROJECT  
DEVELOPMENT

FEB 21 11 16 AM '68

Douglas H. Semmons, Proj. Mgr.  
State Hwy Admin.  
707 N. Calvert St.  
Baltimore, Md. 21202

Dear Mr. Semmons,

As per our telephone conversation, I am writing to request information involving proposed changes in the area of my property as shown on enclosed map (in red), relating to alignment of Md 100.

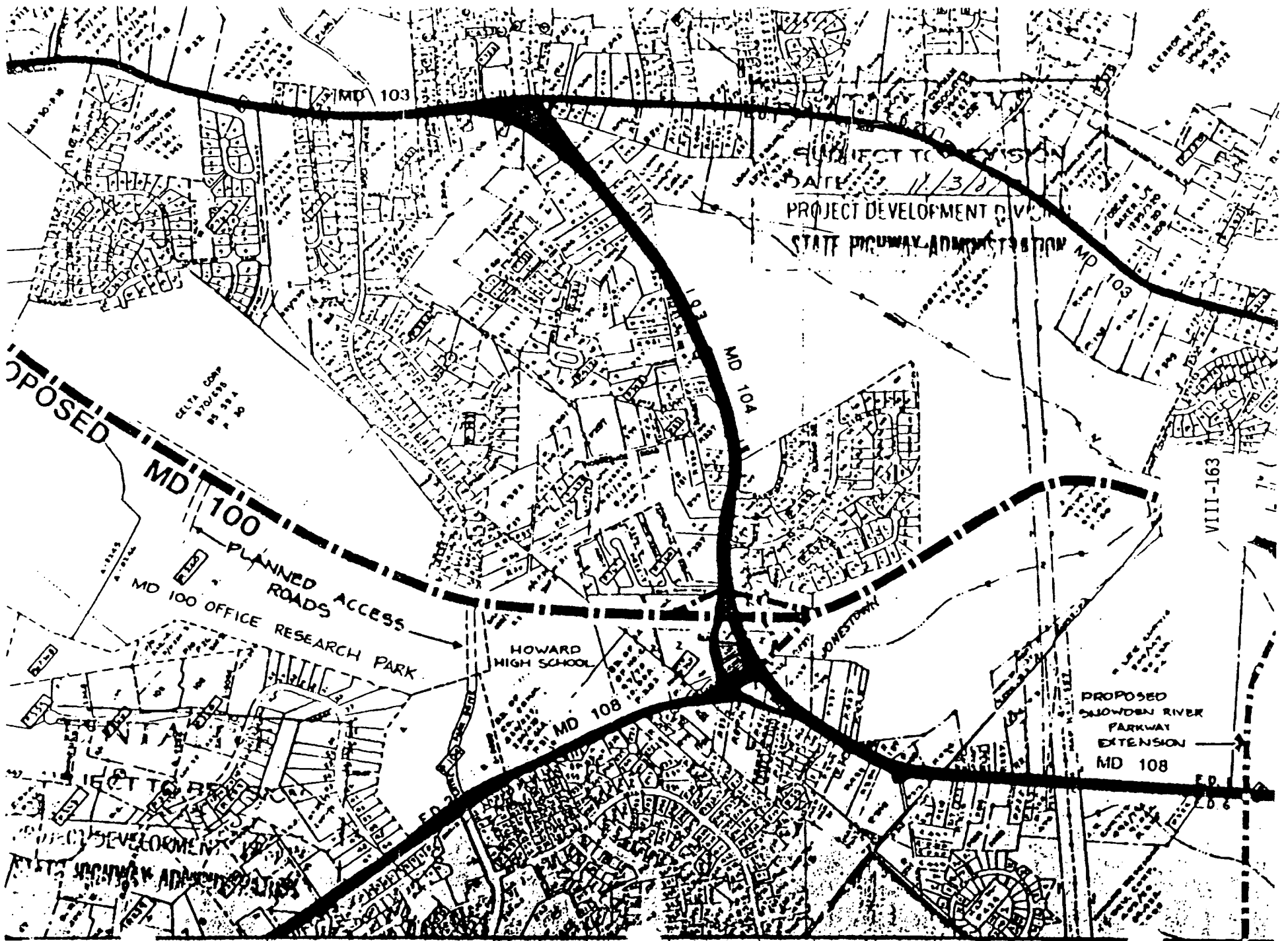
I'd be interested in any preliminary sketches if available and answers to questions such as follows.  
Is there going to be an interchange at Routes 108 + 104?  
How would my property be impacted? Anticipated traffic flow? What access to Routes 108 + 104?  
Do you feel the changes will justify rezoning of my property?

Thank you for your reply.

Sincerely,  
Walter Veasel

enc. map

357



SUBJECT TO REVISION  
 DATE 11/3/81  
 PROJECT DEVELOPMENT DIVISION  
 STATE HIGHWAY ADMINISTRATION



**Maryland Department of Transportation**  
**State Highway Administration**

360  
Richard H. Traino  
Secretary  
Hal Kassoff  
Administrator

April 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132059

Mr. Walter Veasel  
5025 Montgomery Road  
Ellicott City, Maryland 21043

Dear Mr. Veasel:

Thank you for your recent letter requesting information about the Maryland Route 100 project. Attached are two maps which outline the impacts to your property.

It is anticipated that a decision will be made this spring as to whether or not an interchange or an intersection will be constructed connecting Maryland Route 100 with Maryland Route 104. Maryland Routes 108 and 104 will be connected by an intersection.

Maps showing the average daily traffic volumes for both the No-Build Alternate and Alternate 3 are attached for your information.

Your property will continue to have access to Maryland Route 108 via Old Waterloo Road.

The issue of rezoning your property should be forwarded to the Howard County Office of Planning and Zoning. The State Highway Administration is not directly involved with zoning as this is a county responsibility.

My telephone nu

333-1190

Teletypewi  
383-7555 Baltimore Metro - 565-04  
707 North Calvert S

VIII-164

ired Hearing or Speech  
ro - 1-800-492-5062 Statewide Toll Free  
re, Maryland 21203-0717

Mr. Walter Veasal

Page 2

Thank you for your interest in the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
~~Douglas H. Simmons~~  
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
Attachments

PROJECT DEVELOPMENT DIVISION

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

MAR 4 3 20 PM '88

Contract No. HO 661-101-770 PDMS No. 132062 Combined/Location Design Public Hearing Maryland Route 100 U.S. Route 29 to Interstate Route 95 Howard High School Tuesday, February 9, 1988 - 7:00 p.m.

NAME Charles Halcomb DATE 2/10/88

PLEASE PRINT ADDRESS 5848 MONTGOMERY RD.

CITY/TOWN ELKRIDGE STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

I OPPOSE ALTERNATE 3 BECAUSE IT COMES MUCH TOO NEAR MY HOME WITH A 6 LANE HIGHWAY. IT WILL DESTROY THE QUIET AND PEACEFULNESS OF THE AREA. IT WILL ALSO LOWER THE VALUE OF MY PROPERTY SIGNIFICANTLY.

IF RT 100 IS BUILT I FEEL THE SHA AT LEAST OWES ME (AND MY NEIGHBORS):

(1) A Berm structure adequate to lower the noise and visual pollution resulting from 100.

(2) A Wood fence instead of the Chain-link-fence, to fence the ROW. - I would not put up a chain link fence myself and if you put up a fence it should meet with my approval.

(3) Plant adequate evergreen trees, tall and dense enough to block the view of 100 from the 2nd floor of my house.

(4) Compensate me for the loss of value of my home/property.

Also send me maps showing limits of construction & ROW near my home & property.

I feel that considering the disruption it will cause, my requests are very minimal.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Charles Halcomb  
5848 Montgomery Road  
Elkridge, Maryland 21227

Dear Mr. Halcomb:

Thank you for your recent letter expressing your opposition to the Maryland Route 100 project.

As a part of this project, we are studying the feasibility of constructing earth berms to mitigate the noise and visual impacts on your community. In addition, we are investigating the possible use of appropriate landscaping measures to provide additional visual screening.

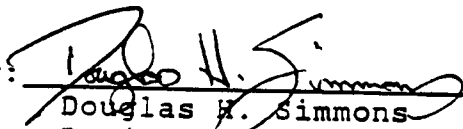
Your concerns will be reviewed and addressed by the project planning team before a decision is reached on the proposed alignment of this project.

A map is attached which shows the location of the proposed extension of Maryland Route 100 in the vicinity of your property.

Should you have any further questions or comments, please feel free to contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
Attachment

My telephone number is (301) 333-1190

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770

PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100

U.S. Route 29 to Interstate Route 95  
Howard High School

Tuesday, February 9, 1988 - 7:00 p.m.

FEB 22 11 29 AM '88

NAME Robert A. Younkin DATE 3/2/88

PLEASE  
PRINT

ADDRESS 5275 Five Fingers Way

CITY/TOWN Columbia STATE Md ZIP CODE 21045

I/We wish to comment or inquire about the following aspects of this project:

Suggest you Reexamine the need for R+100  
Address in light of Recient Howard  
County proposals that would limit  
new subdivisions to 20 acre average.

This would drastically reduce growth  
projections

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.





Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
PDMS No. 132059

Mr. Robert A. Younkin  
5275 Five Fingers Way  
Columbia, Maryland 21045

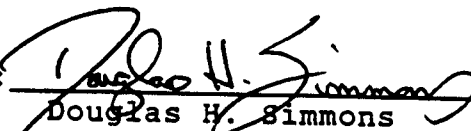
Dear Mr. Younkin:

Thank you for your recent suggestion that we reexamine the need for Maryland Route 100 project in light of the recent proposal to restrict development in western Howard County to one residence per twenty acres. Since the proposed rezoning was not approved, this issue no longer requires further examination.

Thank you for your interest in the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone number

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Hugh & Kathryn Getmeyer DATE 3-15-88

PLEASE PRINT

ADDRESS 2390 Mitzy Ln

CITY/TOWN Elliott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

On the map we received, our home and those of our neighbors are not even on it. We were told at the purchase of our home that Rt 100 was slated to be built 200 ft behind the lots allotted for homes on the south side of Mitzy Ln. If we cannot stop construction or move the highway, we would like to be assured of some items that will make living so close bearable. 1) Keep the trees that are already there standing so as to create a slight visual barrier. 2) On the far side of trees (close to highway) create either an earthen berm or a wood or concrete sound barrier. 3) Installing a traffic light at entrance of Elko onto Rt. 100. Traffic now makes it difficult to get out and with Rt 100 it would be impossible. 4) If you require a cyclone fence please put it nearest the highway not Mitzy Ln so that we won't encounter it as soon as we're on the street. We feel that we have had no voice in the decision of if and where this highway is going. It seems as though developers are making governmental decisions instead of the government who are to serve the people.

Please add my/our name(s) to the Mailing List.\* Add also

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a cc on the project Mailing List. s brochure through the mail are already



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 8, 1988

**RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062**

Mr. & Mrs. Hugh D. Reitmeyer  
8390 Mitzy Lane  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Reitmeyer:


Thank you for your recent letter about the Maryland Route 100 project.

We are currently studying the feasibility of constructing earth berms to provide noise abatement. All efforts will be made to keep as many of the existing trees along Mitzy Lane as possible. In addition, landscaping techniques would be incorporated into the design of these berms to maintain a pleasing visual appearance. A decision as to whether or not the berms will be constructed should be reached this spring.

Should you have any further questions or comments, please contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons's telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

PROJECT DEVELOPMENT DIVISION

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

FEB 22 10 53 AM '88

Contract No. HO 661-101-770 PDMS No. 132062 Combined/Location Design Public Hearing Maryland Route 100 U.S. Route 29 to Interstate Route 95 Howard High School Tuesday, February 9, 1988 - 7:00 p.m.

NAME HUGH D. REITMEYER DATE 2/17/88

PLEASE PRINT

ADDRESS 8390 MITZY LANE

CITY/TOWN ELLICOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

1) OUR HOUSE AND OUR NEIGHBORS HOUSES ARE NOT ON THE PROPOSED MAPS. WE ARE HOWEVER CLOSER TO THE PROPOSED HIGHWAY THAN ANY OTHER DEVELOPMENT.

2) THE PROPOSED MAP SHOWS NO POLLUTION OR NOISE ABATEMENT ON THE SOUTH SIDE OF MITZY LANE BETWEEN OUR HOUSES AND THE PROPOSED HIGHWAY.

3) I REQUEST THAT THE TREES REMAIN ALONG THE SOUTH SIDE OF MITZY LANE AS A VISUAL BARRIER. THAT THE ADMINISTRATION INSTALL NOISE AND POLLUTION ABATEMENT BETWEEN THE PROPOSED HIGHWAY AND MITZY LANE. AND THAT THE RIGHT-OF-WAY FENCE STAY AS CLOSE TO THE HIGHWAY AS POSSIBLE.

4) I AM CONCERNED THAT THE DEVELOPERS HAVE HAD MORE OF A VOICE IN THIS PROJECT THAN THE PEOPLE IT WILL AFFECT. IS THIS A CALCULATED DECISION OR AN OVERSIGHT BY THE SHA?

[X] Please add my/our name(s) to the Mailing List.\* - Added 3/11/88

[ ] Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy VIII-172 brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 8, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Hugh D. Reitmeyer  
8390 Mitzy Lane  
Ellicott City, Maryland 21043

Dear Mr. Reitmeyer:

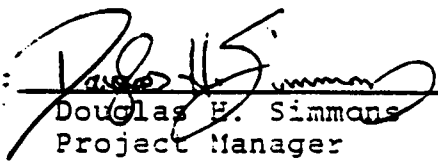
Thank you for your recent letter about the Maryland Route 100 project.

We are currently studying the feasibility of constructing earth berms to provide noise abatement. All efforts will be made to keep as many of the existing trees along Mitzy Lane as possible. In addition, landscaping techniques would be incorporated into the design of these berms to maintain a pleasing visual appearance. A decision as to whether or not the berms will be constructed should be reached this spring.

Should you have any further questions or comments, please contact me or Mr. Douglas H. Simmons, the Project Manager. Mr. Simmons's telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:ES:ds

Some trees may be impacted with construction of the selected alternatives and placement of the recommended berms. The potential displacement of trees will be assessed again during the design phase and mitigation will be studied and coordinated with the Maryland State Forests.

PROJECT DEVELOPMENT DIVISION  
STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770 PDMS No. 132062  
FEB 19 9 37 AM '88

Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Robert A. + Margaret J. Frazer DATE 2/17/88

PLEASE PRINT ADDRESS 8603 Spruce Run Ct. Timber Run Valley

CITY/TOWN Ellicott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

To SHA -

In December 1982, we put a contract on our home - we were the first  
to do so on Spruce Run Ct. - The land hadn't been cleared  
yet + construction was months away. With the help of our Realtor, we  
chose not only the specific townhome we wanted, but also which  
side of the street + which direction we wanted the sun shining in the  
windows in the am - pm. We chose our home for the 'open space' behind  
us with the understanding that the Arrow Co-op was planning one more small  
row of townhomes - + the Court would be called 'Holly Court'. (Actually, we  
wanted to wait for Holly Court - but they had no time schedule set up yet on  
construction) We nearly bought a home near Rt 32 - but didn't due to  
the proposed 'new 32' being considered so close. Our Realtors told us our  
Timber Run woods open space would remain - but 2 yrs ago, suddenly,  
Rt 100's issue was raised once again... but this time it looks  
as if it will happen - now that it involves disturbing the residents that  
are 'not' due to this project! Plus we are also trying to fight to  
keep our main entrance road to our community, 'Oak Run Way', from  
being moved, closed, etc. due to Rt 100's plans. You say the noise won't be  
over a certain level - well, compared to our "NO NOISE" all day + night now -

- Please add my/our name(s) to the Mailing List. \*any extra traffic will be
- Please delete my/our name(s) from the Mailing List. 100 land for our quiet community. We are also

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

VIII-174

against the 2 lane road from Centropark Dr  
before actual Rt. 100 construction begins - And we  
do not need it to connect to Oak Run way. / signed J. Jones

3/11/88  
-1983 - Rt. 100 would a closed course - see us. brought

-2-

I have enclosed a photo of our home when it was 'under construction' - you can see our luscious forest behind us - and it continues around 3 sides of our community. As of last spring, the woods at the end of the 'open space' are so thinned out due to the "2 lane" development road, we now look at the Howard High Stadium lights, hear the school's "games" much better - and, that ugly water tower <sup>(behind School)</sup> is now part of our living room decor!! (By the way - that water tower was also "sneaked" in - we could hear something being ~~built~~ built, but never knew what it was until it was taller than the High School! (coming from Rt. 29, east of Rt. 708). We also have a Movie Palace & a Restaurant that sells liquor - near ~~the~~ high school!). We never read anything about a water tower being built near us - amazing!

Please, please consider another way to plan Rt. 100 - plan it as if you were living in our beautiful Timber Run Valley -!  
 We've had enough!

Thank you -

Margaret J. Jager



**Maryland Department of Transportation**  
**State Highway Administration**

372  
Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

April 6, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Robert A. Frazer  
9603 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Frazer:

Thank you for your recent letter commenting on the Maryland Route 100 project.

Your concerns will be discussed by the project planning team before a decision is reached on the alignment of this project.

We are currently studying the feasibility of providing earth berms to minimize the noise and visual impact to your community. In addition, landscaping and privacy fencing may also be utilized to reduce the impact of this project.

Should you have any further questions or comments, please contact me or Douglas H. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: 

Douglas H. Simmons  
Project Manager

SHA recommends that earth berms be constructed if the soil is available to provide full mitigation for the Timber Run Community. The selected alternate and Centre Park Drive is designed as a full movement, at-grade, T-intersection.

My telephone nu: VIII-176

Teletypewr  
383-7555 Baltimore Metro - 585-04  
707 North Calvert S

ired Hearing or Speech  
o - 1-800-492-5062 Statewide Toll Free  
e. Maryland 21203-0717



373

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT DEVELOPMENT DIVISION  
MAR 15 10 29 AM '88

NAME Sigitas Zubkus / Celta Corp. DATE March 8, 1988

PLEASE PRINT

ADDRESS 101 Chestnut Str. #125

CITY/TOWN Gaithersburg, STATE Maryland ZIP CODE 20877

I/We wish to comment or inquire about the following aspects of this project:

We feel that Route #100 should not be constructed as a major highway at the location presently proposed. Instead, Routes 103 and 108 should be widened, upgraded, between I-95 and Rt. 29 to serve as major connectors as traffic dictates. We are covering too much of our landscape with concrete and asphalt as it is.

- Please add my/our name(s) to the Mailing List.\*
- Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 1, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Sigitas Zubkus  
Celta Corporation  
101 Chestnut Street, #125  
Gaithersburg, Maryland 20877

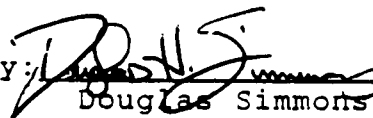
Dear Mr. Zubkus:

Thank you for your recent letter in opposition to the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas Simmons  
Project Manager

LHE:DS:ds

The rationale for not upgrading Maryland Routes 103 and 108 are discussed in the FEIS Section II page II-1 and II-2.

My telephone number is (301) \_\_\_\_\_

PROJECT DEVELOPMENT DIVISION

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

FEB 19 9 37 AM '88

Contract No. HO 661-101-770 PDMS No. 132062 Combined/Location Design Public Hearing Maryland Route 100 U.S. Route 29 to Interstate Route 95 Howard High School Tuesday, February 9, 1988 - 7:00 p.m.

NAME Dr and Mrs. Mark J. NUELL DATE 2/16/88

PLEASE PRINT

ADDRESS 8611 Spruce Run Ct.

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

- 1. It is our understanding that the options of joining Rte 100 to the east side of the 105-104 "T" intersection (Alternates 2 and 4) were not really seriously considered. Please provide us with your materials presenting evidence to the contrary. Compared to \$1000/foot for Alternate 3, ~~that~~ should be cheaper; the money saved could go to merit pay for Howard County teachers.
2. Given the present plan we request that the developer's road along Oak Run Way be delayed until construction of Rte 100 by the state begins and that construction of a landscaped visual/sound barrier be completed before any roadbed construction begins.
3. We would prefer that the access road to the industrial park along Oak Run Way be canceled entirely.
4. We request that the state and/or Howard County be required to insure the property value of the Timber Run properties (cost + appreciation). Residents should not lose the investment value of their homes due to development "needs" of corporate real estate owners.

So was the environmental impact statement prepared by an uninterested party?

Checked box: Please add my/our name(s) to the mailing List. - Added 3/11/88
Unchecked box: Please delete my/our name(s) from the mailing List.

\*Persons who have received a copy VIII-178 brochure through the mail are already on the project Mailing List.

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator



**Maryland Department of Transportation**  
**State Highway Administration**

April 4, 1988

RE: Contract No. HO 661-201-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Dr. and Mrs. Mark J. Nuell  
8611 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Dr. and Mrs. Nuell:

Thank you for your recent letter commenting on the Maryland Route 100 project.

Alternates 2 and 4 were developed and presented at an Alternates Workshop in January, 1987. Following this workshop, a decision was reached by the project planning team to drop these alternates from further study due to their inability to accommodate the predicted traffic volumes. In addition, Alternates 2 and 4 were dropped because of their impacts to historic or recreational properties.

The two lane developer road is to be constructed through the Howard County subdivision process. This road will be required to provide sufficient access to the proposed developments between U.S. Route 29 and Maryland Route 104. It is not anticipated that construction of this roadway will be delayed by the county.

Past experience with highway projects has shown that property values often increase as access to a major highway is improved. The State Highway Administration cannot insure an increase or decrease in property values. Property values vary through the normal functions of the marketplace which are beyond our control.

The Draft Environmental Impact Statement was prepared by our Environmental Management Section. The preparation of this document involved extensive coordination with the appropriate state and federal agencies including the Federal Highway Administration.

My telephone nu

133-1190

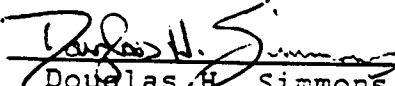
-Page Two-

Should you have any additional questions or comments, please contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
cc: Mr. W. Miley

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

FEB 19 9 37 AM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Grace Kubofcik DATE 2/9/88

PLEASE PRINT ADDRESS 4801 Carmen Drive

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

Why was Rt 103, Rt 104 + Rt 105 shown as 2 lane roadways  
when the Howard County General Plan shows these roads  
for r/w equal to 4 lanes -  
What would be the proposed level of service for these  
roads given 4 lane build?

Figure 10 - traffic between Rt 29, Montgomery Rd and  
Long Gate Parkway extended does not make logical sense  
given the projected numbers using Long Gate Parkway  
12,000 / 23,000 and traffic on Rt 103 18,420 / 21,000.

Also Ellicott City Middle School has been renamed  
Ellicott Mills and is functioning as a Middle School not  
closed

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from Mailing List.

\*Persons who have received a copy of the project brochure through the mail are already on the project Mailing List.

379



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 4, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132059

Ms. Grace Kubofcik  
4801 Carmen Drive  
Ellicott City, Maryland 21043

Dear Ms. Kubofcik:

Thank you for your recent letter about the Maryland Route 100 project.

In preparing the traffic forecasts for this project, Maryland Routes 103, 104 and 108 were considered to remain the same width as today.

With four lanes, traffic would operate as follows along these routes:

- 1) No-Build Alternate - Level of Service F
- 2) Alternate 3 - Level of Service C

Attached are the projected turning movements between U.S. Route 29, LongGate Parkway and Maryland Route 103.

Should you have any additional comments relating to these traffic projections, please contact Mr. Robert Lambdin at (301) 333-1375.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

LHE:DS:ds  
Attachment

by:   
Douglas Simmons  
Project Manager

My telephone ni 333-1130

PROJECT DEVELOPMENT DIVISION  
STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770 MAR 7 4 04 PM '88

PDMS No. 132062

Combined/Location Design Public Hearing

Maryland Route 100

U.S. Route 29 to Interstate Route 95

Howard High School

Tuesday, February 9, 1988 - 7:00 p.m.

NAME MARGARET SeBOUR DATE 2-9-88

PLEASE PRINT ADDRESS 4721 YORKSHIRE DR.

CITY/TOWN ELLCOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I had hoped to testify at the Rt. 100 hearing but the list of speakers far exceeded the evening hours. My comments -

1. I am concerned about what I perceive to be procedural deficiencies in regards to the 1970 NEPA rulings that concern the how when the public was involved in the Rt. 100 planning process. Why is it we seemed to get information only after the fact?

2. If a project of this magnitude is under consideration then safety must be a primary factor. The new Alternate 3 route proposes dips and bends (curves) that were never in the original proposed route. No one from SH&D has address the safety factors of such a curving high speed road as opposed to the straighter original route. Are not lives more important than developing pockets?

3. The two lane "developed 100" is premature. <sup>is self serving</sup> For the sake of our community living make all the men at once

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from \_\_\_\_\_ g List.

\*Persons who have received a copy on the project Mailing List.

\_\_\_\_\_chure through the mail are already

rather than subjecting us to years of dust and noise.





**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 4, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Margaret SeBour  
4721 Yorkshire Road  
Ellicott City, Maryland 21043

Dear Ms. SeBour:

Thank you for your letter commenting on the Maryland Route 100 project.

We have tried to keep the public current on the study to the extent possible. An Alternates Workshop was held on January 31, 1987 to provide the results of the preliminary engineering and environmental studies and to receive public input. The recent Public Hearing was held to present the results of the detailed studies and to receive public input. In addition many community meetings have been held. No final decisions will be made until all comments received during and subsequent to the public hearing and as a result of the circulation of the environmental document have been evaluated.

The Maryland Route 100 project is being designed to meet 60 mph design speed criteria. The posted speed would be a minimum of 10 mph less. Although, there are several curves in the alignment, Maryland Route 100 will provide a safe and efficient facility.

The two lane developer road is to be constructed through the Howard County subdivision process to provide access to proposed developments located between Maryland Route 104 and U.S. Route 29. This roadway project will be necessary with or without the completion of Maryland Route 100.

121-1100

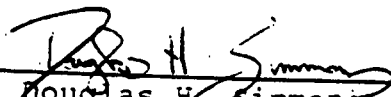
My telephone number \_\_\_\_\_

-Page Two-

Should you have any further questions or comments, please contact me or Mr. Douglas Simmons the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours.

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

383

OK

Contract No. HO 661-101-770  
PDMS No. 132062

PROJECT  
DEVELOPMENT  
DIVISION

Combined/Location Design Public Hearing  
Maryland Route 100

U.S. Route 29 to Interstate Route 95  
Howard High School

MAR 15 10 29 AM '88

Tuesday, February 9, 1988 - 7:00 p.m.

NAME HARRY W. MILNER DATE 3-8-88

PLEASE  
PRINT

ADDRESS 4535 MONTGOMERY RD.

CITY/TOWN EKKICOTT CITY STATE MD. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

THE FINAL MEETING WAS PRESENTED  
WELL. PLEASE BEGIN ACTUAL  
CONSTRUCTION A.S.A.P. TO RELIEVE  
THIS IMPOSSIBLE CONDITION ON RTE.  
103.

SINCERELY,

H. W. MILNER

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a brochure on the project Mailing List.

is brochure through the mail are already



**Maryland Department of Transportation  
State Highway Administration**

384

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 1, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Harry W. Miliner  
4535 Montgomery Road  
Ellicott City, Maryland 21043

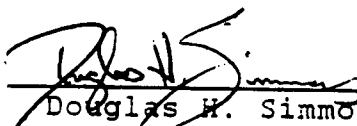
Dear Mr. Miliner:

Thank you for your recent letter supporting the Maryland Route 100 project. Construction of this project is scheduled to begin during 1992.

Should you have any additional comments or questions, please feel free to contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone number

333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

385

PROJECT DEVELOPMENT DIVISION  
Contract No. HO 661-101-07  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 15 10 30 AM '88

NAME JOHN Hickey DATE 3-8-88

PLEASE PRINT

ADDRESS 5325 EASTCLEN RD

CITY/TOWN ELlicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I LIVE IN THE GLENMAR SUBDIVISION AT THE ABOVE ADDRESS AND HAVE BEEN FOLLOWING THE PROCEEDINGS OF ROUTE 100. I DO NOT HAVE ANY DIFFICULTIES WITH THE CURRENTLY PROPOSED ROUTING OF ROUTE 100. IT WOULD BE BENEFICIAL TO ME IN ACCESSING INTERSTATE 95.

John Hickey

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

386  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 1, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. John Hickey  
5325 EastGlen Road  
Ellicott City, Maryland 21043

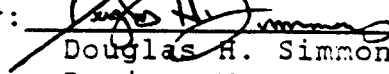
Dear Mr. Hickey:

Thank you for your recent letter supporting the Maryland Route 100 project. Construction of this project is scheduled to begin during 1992.

Should you have any additional comments or questions, please feel free to contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone nu

387  
~~577~~  
2-317

February 19, 1988

Harold E. Hamil, Jr.  
Barbara A. Hamil  
8386 Mitzy Lane  
Ellicott City, MD 21043

State Highway Administration  
Office of Planning and Preliminary Engineering  
Box 717  
Baltimore, Maryland 21203

Re: Contract No. 661-101-770  
PDMS No. 132062  
RT 100 Howard County

TO WHOM IT MAY CONCERN:

We are writing to you to express our concerns over the proposed Route 100 Highway in Howard County. We realize the road is soon to be a reality and we do not oppose it. We are somewhat concerned however that it will be closer to our property than originally planned. In light of this, we ask that as many trees as possible remain standing when construction begins. The trees provide a natural noise barrier and will help to block off the view of the highway.

Thank you for your consideration.

Mr. & Mrs. Harold Hamil  
Mr. & Mrs. Harold Hamil



**Maryland Department of Transportation  
State Highway Administration**

388

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 1, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Harold Hamil  
8386 Mitzy Lane  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Hamil:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project.

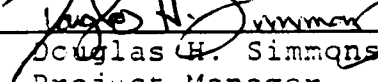
We are currently studying the feasibility of providing earth berms to minimize the noise and visual impacts to your community. Landscaping and privacy fencing may also be utilized to reduce the impact of this project. In addition, every effort will be made to retain as many of the existing trees as possible.

Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone num



## PUBLIC NOTICE

MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATIONMaryland Route 100  
U.S. Route 29 to Interstate Route 95

We have been notified by the U.S. Postal Service that there have been some problems with the delivery of a number of pre-addressed mailers. As a result the commenting period has been extended until March 16, 1988.

We regret any inconvenience that may have resulted.

Hal Kasso  
State Highway Administrator

March 2, 1988

Dear Hal,  
Please see my  
comments attached.

Thanks

Jim Priddy

3/3/88

390  
OK

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME BRIAN W. SKELLY DATE 2/17/88

PLEASE PRINT ADDRESS 8540 PINE RUN COURT

CITY/TOWN ELLCOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I feel that both of the relocated entrances to Timber Run Valley shown in the Route 100 brochure will have a severe impact on the residents of Timber Run and the surrounding community. Several people including myself supported a third entrance to Timber Run at the Route 100 Design Hearing. This entrance would connect Timber Run to Horseshoe Rd. I have enclosed two more proposed entrances for your consideration. Proposed entrance #1 begins across from Elko, runs close to Route 104 and then connects to the existing entrance to Timber Run. Proposed entrance #2 would start at Route 104 opposite the Gleason Rd. intersection and connects to the dead end side of Timber Run. I have also enclosed a summary of the impact each of the five relocated entrances would have on the residents of Timber Run and the surrounding community. I hope the SHA will make a serious effort to minimize the impact of the new entrance. I also encourage a meeting with all residents of the community to discuss the possible entrances.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy VIII-194 brochure through the mail are already on the project Mailing List.

391



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

April 1, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Brian W. Skelly  
3540 Pine Run Court  
Ellicott City, Maryland 21043

Dear Mr. Skelly:

Thank you for your recent letter suggesting improvements to the proposed entrance for Timber Run.

We are currently studying several options for providing access to Timber Run in addition to those presented at the Public Hearing. We hope to meet with the community to discuss these options. It is our goal to develop an option which is mutually acceptable to the community and the State Highway Administration.

Should you have any further suggestions, please contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone number is (301) 333-1190

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

MAR 22 11 26 AM '88

Contract No. HO 661-101-770.  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME JOHN KERESTER DATE 3/15/88

PLEASE PRINT ADDRESS 1712 SWANN STREET, NW.

CITY/TOWN WASHINGTON STATE DC ZIP CODE 20009

I/We wish to comment or inquire about the following aspects of this project:

Please forward me a Project Description Book for MD Rt 100 b/ Rt 29 & I-95; and for MD Rt 100 b/ I-95 and Rt 3/301

Thank you  
J Kerester.

Please add my/our name(s) to the Mailing List.\* Added 2/25  
 Please delete my/our name(s) from \_\_\_\_\_ Mailing List.  
\*Persons who have received a copy on the project Mailing List. \_\_\_\_\_ brochure through the mail are already



**Maryland Department of Transportation**  
**State Highway Administration**

393  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 31, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. John Kerester  
1712 Swann Street, N.W.  
Washington, D.C. 20009

Dear Mr. Kerester:

Thank you for your recent letter requesting information on the Maryland Route 100 projects. Attached are two brochures which should answer most of your questions concerning these projects. If you have any questions regarding the extension of Maryland Route 100 between U.S. Route 29 and Interstate Route 95, please contact Mr. Douglas Simmons at (301) 333-1190. Please contact Mr. Steven Foster at (301) 333-1259 for information covering the extension of Maryland Route 100 between Interstate Route 95 and Maryland Route 3.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DHS:ds  
Attachment

333-1190

My telephone nu

Teletypew alred Hearing or Speech  
383-7555 Baltimore Metro - 565-0 tro - 1-800-492-5062 Statewide Toll Free  
707 North Calvert VIII-197 ore, Maryland 21203-0717

394

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

MAR 14 10 40 AM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PLEASE  
PRINT

NAME

SH08004 HO 7 15

ADDRESS

BILL SHOWALTER  
BENDIX FIELD ENGN. CORP.  
1 BENDIX ROAD  
ELLCOTT CITY MD 21045

CITY/TOWN

CODE

I/We wish to comment

this project:

1.) Let's get the project going and do the limited  
access approach

*William M. [Signature]*

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a brochure through the mail are already on the project Mailing List.



60  
**Maryland Department of Transportation  
State Highway Administration**

395 Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 31, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. William Showalter  
Bendix Field Engineering Corporation  
1 Bendix Road  
Ellicott City, Maryland 21045

Dear Mr. Showalter:

Thank you for your recent letter supporting the construction of the Maryland Route 100 project.

Should you have any further comments or questions concerning this project, please contact Mr. Douglas Simmons, the Project Manager at (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone number is (301) \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100

MAR 17 8 00 AM '88

U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME ROBERT MERRILL DATE 3/14/88

PLEASE  
PRINT

ADDRESS BOX 417

CITY/TOWN ELICOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

THE ROAD IS LONG OVERDUE  
AND IS NEEDED TO RELIEVE CONGESTION  
ON Rtes 103 + 175.

PLEASE INITIATE CONSTRUCTION  
AS SOON AS POSSIBLE.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy  
on the project Mailing List.

s brochure through the mail are already





*Maryland Department of Transportation*  
*State Highway Administration*

397

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 31, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Robert Merbler  
Box 417  
Ellicott City, Maryland 21043

Dear Mr. Merbler:

Thank you for your recent letter supporting the construction of the Maryland Route 100 project.

Should you have any further comments or questions concerning this project, please contact Mr. Douglas Simmons, the Project Manager at (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: *Douglas H. Simmons*  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

333-1190

My telephone number

Teletypewriter: 383-7555 Baltimore Metro - 565-0700  
Hearing or Speech Impaired: 1-800-492-5062 Statewide Toll Free  
707 North Calvert VIII-201, Baltimore, Maryland 21203-0717

398

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

OK  
3/28

RECEIVED  
#381  
MAR 15 1988

PLANNING & PRELIMINARY ENGINEERING

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT DEVELOPMENT DIVISION  
MAR 15 2 43 PM '88

NAME William & Andra Kroach DATE 3-12-88

PLEASE PRINT ADDRESS 8606 honeysuckle Ct.

CITY/TOWN Ellicott City STATE Md ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

3/ put along <sup>the</sup> Rt. 103 part of this project you will see that issue will not be taken care of in the optimum way for the home owners along the route. You are going to be applying for Federal funds for this project. I am forwarding these comments to our county, state and federal representatives and am actively engaging the help of our federal representative and senators to withhold federal funding unless the noise and visual abatement measures discussed herein are incorporated into the project and its budget. If this aid from these government officials <sup>is not received</sup>, I will campaign actively for their opponents in the next election.

Andra Kroach

P.S. How clever of the planners to make the entrance/exit ramp for Rt. 103, Long Gate Parkway, where there are currently no people living to insist on noise abatement, visual barriers, etc.

- Please add my/our name(s) to the Mailing List.\*
- Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



*Maryland Department of Transportation*  
*State Highway Administration*

399

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 31, 1988

Mr. & Mrs. William Kroah  
8606 Honeysuckle Court  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Kroah:

Thank you for your recent letter about the Maryland Route 100 project.

Maryland Route 100 is planned as a six lane highway in order to service the traffic volumes forecasted for 2015. As you noted in your letter, there are several areas where the proposed highway would pass between existing developments. Noise and visual mitigation techniques are currently under study for existing communities which are located adjacent to the proposed Maryland Route 100 alignment.

It has been our understanding that Howard County would assume responsibility for ensuring that all future developments and developments which are currently under construction along the Maryland Route 100 corridor would have adequate mitigation measures incorporated into their design. You should contact Mr. Uri Avin, the Director of the Office of Planning and Zoning, 3430 Courthouse Drive, Ellicott City, Maryland 21043.

Should you have any further questions concerning this project, please feel free to contact me, or Mr. Douglas Simmons, Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

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

NJP:ds

cc: Mr. L. H. Ege, Jr.

Information regarding noise mitigation can be found in the FEIS, Section IV Noise Impact Analysis.

My telephone number is (301) 333-1110

400

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School

MAR 22 4 23 PM '88

Tuesday, February 9, 1988 - 7:00 p.m.

NAME Mrs. Timothy F. McCormack DATE 3-4-88

PLEASE  
PRINT

ADDRESS 6333 Wimbledon Court

CITY/TOWN Elkridge STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

Where will the intersection at Rt 100  
& meadowridge be exactly? I can't tell  
from the maps you provided. I live in the  
new Wimbledon Townhouses off of meadowridge.  
Will it be near our development, or on the  
other side of the meadowridge Bar?

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy  
on the project Mailing List.

brochure through the mail are already



**Maryland Department of Transportation  
State Highway Administration**

401

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 29, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mrs. Timothy F. McCormack  
6333 Wimbledon Court  
Elkridge, Maryland 21227

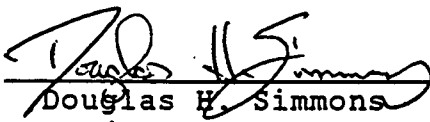
Dear Mrs. McCormack:

Thank you for your recent letter. A map has been attached which will hopefully explain the location of the Maryland Route 100 project in relation to the Wimbledon townhouse community. Your community is located south of the Meadowridge Bar which is located between you and the Maryland Route 100 alignment.

Should you have any further questions, please contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
Attachment

333-1190

My telephone nu

) \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 22 11 25 AM '88

NAME Kenneth J. Springer DATE 15 MAR 88

PLEASE  
PRINT

ADDRESS 5270 WATER LOU RD  
CITY/TOWN ELLICOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I would like to see the entrance to Timber Run go out the back of the development to S. Street/Horseshoe Road. The residents of this area already have asked the county to put in sidewalks, curbs and ~~re~~ drains and to improve the road. It also (this road) empties out 1/2 mile before the current 104-108 intersection. This road would save my pasture for my daughter 4-H horse project and make her and myself very happy.

If I can help you in any way, please feel free to call or write me.

Thank you

Ken Springer

301-465-7191

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy on the project Mailing List.

s brochure through the mail are already

403



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 29, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Kenneth J. Springer  
5270 Waterloo Road  
Ellicott City, Maryland 21043

Dear Mr. Springer:

Thank you for your recent letter about the Maryland Route 100 project. Your preference for providing access to Timber Run Valley via Horseshoe Road will be discussed by the project planning team before a decision is reached on the proposed alignment.

Should you have any further questions or comments, please feel free to contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

Access to Timber Run will be provided via the modified access option which connects Oak Run Way to Maryland Route 104 opposite Elko Drive. Appropriate landscaping measures will be incorporated into the design to create a visual screen between the roadway and the community.

333-1190

My telephone number is (301) \_\_\_\_\_

404

State Highway Administration  
Project Development Division  
P.O. Box 717  
Baltimore Maryland, 21203

**RECEIVED**

#251  
FEB 18 1988

DIRECTOR, OFFICE OF  
PLANNING & PRELIMINARY ENGINEERING

Re: Contract No. HO 661-101-770  
PDMS No. 132062  
Maryland Route 100

Gentlemen:

We, the undersigned wish to have ourselves known and to go on record, stating that we are in support of the construction of Route 100 according to the plans provided in Alternate 3.

We also urge the authorities concerned that all lands adjoining the intersection of Route 100 and Meadowridge Road be provided with necessary water and sewer lines prior to construction of the highway because such utilities which are presently not available along Meadowridge Road will be very hard to place after the bridges and highways have already been constructed. This is specially important because some of the lands may become non serviceable by ordinary methods of utility construction once the roads go through.

All lands in this vicinity, from Montgomery Road to the intersection of MD 100 and further South along Meadowridge Road, should be rezoned to Commercial and Office use, locating the Commercial zones along Meadowridge road close to the intersection, because there will be an increase in households in this vicinity in large numbers with no support or convenience businesses. Presently the nearest shopping areas are inconveniently far away. About ten thousand homes are expected to be built in this area within the next five years. This will also increase employment opportunities for the county and markedly add to the tax base. This will also serve as an added convenience for travellers along Interstate 95, there being no shopping areas along the highway at any interchange as close to the highway as this one in the Baltimore Washington corridor.

Respectfully submitted:

No.	Name	Address	Signature
-----	------	---------	-----------

- |    |               |  |                    |
|----|---------------|--|--------------------|
| 1. | AHSAN S. KHAN | 8313 GARRET LANE Ellicott City Md 21043      | <i>[Signature]</i> |
| 2. | Jo-Ann Khan   | 8313 Garret Lane<br>Ellicott City, Md. 21043 | <i>[Signature]</i> |

VIII-208



- 15 John S. Barroule 2411 Fleetwood Ave  
Baltimore MD. 21214 John Barroule
- 16 Susan Helt 815 Benninghaus Rd.  
Balto., Md 21212 Susan F. Helt
- 17 Kim Doonan 6722 Weedley Rd.  
Balto., Md. 21222 Kim Doonan
- 18 Kathy Caudill 2 WINDY AVENUE  
BALTO MD 21222 KATHY CAUDILL.
- 19 FRANK ROGOWSKI 8111 DAVALL AV  
BALTO. MD 21237 Frank Rogowski
- 20 Nick King 2834 Hudson St  
Balto Md 21224 Nick King
- 21 Patricia Strong 1701 Brookview Rd.  
Balto Md 21224 Patricia Strong
- 22 RITA HASLIP 913 EASTERN BLVD  
BALTIMORE MD 21221 Rita A. Haslip
- 23 Bruce Myers 1708 Hall Ave  
Baltimore md 21227 Bruce M. Myers
- 24 CAROL LYN CLARK 2011 JASMINE RD.  
BALTIMORE, MD.  
21222 Carol Lyn Clark
- 25 RASHID KHAN 1229 Stevens Ave  
Baltimore MD 21227 Rashid Khan

3. Mary L. Aorn 700 LUCIBALGON Mill Rd. Westminster, MD 21157 Mary L. Aorn
4. Georgiana M. Simmel 3557 Lake Way Dr Ellicott City, Md 21043 Georgiana M. Simmel
5. Mike Watson 100 N. Summington Ave Balto, Md. 21228 Mike Watson
6. Dave Hamilt 6 Hickory Ridge Ct Catonsville Md 21228 DAVE Hamilt.
7. Rose Marie Strause 6702 Harmon Rd Balto, Md 21228 Rose Marie Strause
8. Mergand Stabsdale 4135 Wharton Pl Balto MD 21228 Midge Stabsdale
9. WILLIAM J. KROFKA 1111 NEWFIELD RD. Balt. Md. 21207 William J. Krofka
10. DOUGLAS A. SCHUBERT 237 ALTAMONT AVE. BALTO., MD. 21228 Douglas A. Schubert
11. Jean Duffey 242 Hilltop Ave Balto. Md. 21228 JEAN C. DUFFEY
12. Anna Mae Rogowski 8111 Durrell Ave Balto. Md 21237 ANNA MAE ROGOWSKI Anna Mae Rogowski
13. Deborah Kay Burke 2616 Snyder Ave Balto. MD 21219 Deborah Kay Burke
14. Anne Buettner 307 S. Conkling St Balto, Md 21224 Anne Buettner

26 Paula A Crizer

3441-D Plumtree Dr.  
Ellicott City, MD 21043

PAULA S. CRIZER

27 BENJAMIN J. DUBIN

7113 PHEASANT <sup>CROSS</sup> BLVD  
BALTIMORE MD



28 VALAPARAMBIL SIVANI

4405 Falls Bridge Dr  
Baltimore, MD 21211



29 Mohammad TAQI

100 N. Broadway  
Balt MD 2122



30

31

32

33



57

**Maryland Department of Transportation**  
**State Highway Administration**

408  
Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Anne Buettner  
307 S. Conkling Street  
Baltimore, Maryland 21224

Dear Ms. Buettner:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone num

333-1110



**Maryland Department of Transportation  
State Highway Administration**

409  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. John S. Barroule  
2411 Fleetwood Avenue  
Baltimore, Maryland 21214

Dear Mr. Barroule:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110



**Maryland Department of Transportation  
State Highway Administration**

410  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Susan Holt  
810 Benninghaus Road  
Baltimore, Maryland 21212

Dear Ms. Holt:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110



**Maryland Department of Transportation  
State Highway Administration**

411

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Kim Doonan  
6722 Woodley Road  
Baltimore, Maryland 21222

Dear Ms. Doonan:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110

Teletype  
383-7555 Baltimore Metro - 565-  
707 North Calvert

Deaf Hearing or Speech  
Metro - 1-800-492-5062 Statewide Toll Free  
Baltimore, Maryland 21203-0717

VIII-215



**Maryland Department of Transportation**  
**State Highway Administration**

412  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Kathy Caudill  
2 Winona Avenue  
Baltimore, Maryland 21222

Dear Ms. Caudill:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110





**Maryland Department of Transportation  
State Highway Administration**

413

Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Frank Rogowski  
8111 Duvall Avenue  
Baltimore, Maryland 21237

Dear Mr. Rogowski:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110

Teletypew  
383-7555 Baltimore Metro - 565-0  
707 North Calvert

alred Hearing or Speech  
tro - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717

VIII-217



**Maryland Department of Transportation  
State Highway Administration**

414

Richard M. T. for  
Secretary

Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Tish King  
2834 Hudson Street  
Baltimore, Maryland 21224

Dear Ms. King:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110

Teletypewr  
383-7555 Baltimore Metro - 565-04  
707 North Calvert

ired Hearing or Speech  
o - 1-800-492-5062 Statewide Toll Free  
re, Maryland 21203-0717

VIII-218



**Maryland Department of Transportation  
State Highway Administration**

415

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Patricia Strong  
1701 Brookview Road  
Baltimore, Maryland 21224

Dear Ms. Strong:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110



**Maryland Department of Transportation  
State Highway Administration**

416

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Rita Haslup  
913 Eastern Boulevard  
Baltimore, Maryland 21221

Dear Ms. Haslup:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone (301) 333-1110



46  
411

**Maryland Department of Transportation**  
**State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Rashid Khan  
1229 Stevens Avenue  
Baltimore, Maryland 21227

Dear Mr. Khan:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110

Teletypewriter: 383-7555 Baltimore Metro - 565-0400  
707 North Calvert Street  
VIII-221  
Hearing or Speech Impaired: 1-800-492-5062  
Statewide Toll Free  
Baltimore, Maryland 21203-0717



**Maryland Department of Transportation**  
**State Highway Administration**

418

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Carol Lyn Clark  
2011 Jasmine Road  
Baltimore, Maryland 21222

Dear Ms. Clark:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is 333-1110



**Maryland Department of Transportation  
State Highway Administration**

419

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Bruce Myers  
1708 Hall Avenue  
Baltimore, Maryland 21227

Dear Mr. Myers:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110

Teletype  
383-7555 Baltimore Metro - 565-  
707 North Calvert

paired Hearing or Speech  
etro - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717

VIII-223



**Maryland Department of Transportation  
State Highway Administration**

420

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Rashid Khan  
1229 Stevens Avenue  
Baltimore, Maryland 21227

Dear Mr. Khan:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110





Maryland Department of Transportation  
State Highway Administration

421

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Paula S. Crizer  
3441-D Plumtree Drive  
Ellicott City, Maryland 21043

Dear Ms. Crizer:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110

Teletypewriter

383-7555 Baltimore Metro - 565-04  
707 North Calvert

read Hearing or Speech  
or - 1-800-492-5062 Statewide Toll Free  
or, Maryland 21203-0717

VIII-225



**Maryland Department of Transportation  
State Highway Administration**

422

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Benjamin J. Dubin  
7113 Pheasant Cross Drive  
Baltimore, Maryland

Dear Mr. Dubin:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone nu

333-1110



**Maryland Department of Transportation  
State Highway Administration**

423

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Valaparambil Sivan  
4405 Falls Bridge Drive  
Baltimore, Maryland 21211

Dear Mr. Sivan:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110

Teletypewriter  
383-7555 Baltimore Metro - 565-04  
707 North Calvert

Free Hearing or Speech  
VIII-227 - 1-800-492-5062 Statewide Toll Free  
Baltimore, Maryland 21203-0717



**Maryland Department of Transportation  
State Highway Administration**

424

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Mohammad Taqi  
100 N. Broadway  
Baltimore, Maryland 21222

Dear Mr. Taqi:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110



**Maryland Department of Transportation  
State Highway Administration**

425

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Jean Duffy  
202 Hilton Avenue  
Baltimore, Maryland 21228

Dear Ms. Duffy:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110

Teletype  
383-7555 Baltimore Metro - 565-0  
707 North Calvert

VIII-229

aired Hearing or Speech  
tro - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717



Maryland Department of Transportation  
State Highway Administration

426

Richard L. Brannan  
Secretary  
Hal Kassoff  
Administrator

March 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Anna Mae Rogowski  
81111 Duvall Court  
Baltimore, Maryland 21237

Dear Ms. Rogowski:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

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Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

333-1110

My telephone number is (301) \_\_\_\_\_

Teletypew  
383-7555 Baltimore Metro - 565-0.  
707 North Calvert

aired Hearing or Speech  
tiro - 1-800-492-5062 Statewide Toll Free  
re, Maryland 21203-0717

VIII-230



**Maryland Department of Transportation  
State Highway Administration**

427

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. JoAnn Khan  
8313 Church Lane  
Ellicott City, Maryland 21043

Dear Ms. Khan:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110

Teletypewriter 383-7555 Baltimore Metro - 565-0470  
707 North Calvert Street

Deaf Hearing or Speech  
- 1-800-492-5062 Statewide Toll Free  
e, Maryland 21203-0717



28  
428

**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. JoAnn Khan  
8313 Church Lane  
Ellicott City, Maryland 21043

Dear Ms. Khan:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone nu

333-1110

Teletypew  
383-7555 Baltimore Metro - 565-0  
707 North Calvert

VIII-232  
aired Hearing or Speech  
ore - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717





**Maryland Department of Transportation  
State Highway Administration**

429

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Mary L. Dorn  
700 Lucabaugh Mill Road  
Westminster, Maryland 21157

Dear Ms. Dorn:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone nu

333-1110

Teletypew  
383-7555 Baltimore Metro - 565-0  
707 North Calvert

VIII-233

aired Hearing or Speech  
tro - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717



**Maryland Department of Transportation  
State Highway Administration**

430

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Georgia M. Simmel  
3557 Lake Way Drive  
Ellicott City, Maryland 21043

Dear Ms. Simmel:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110



**Maryland Department of Transportation**  
**State Highway Administration**

431

Richard M. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Dave Hamilton  
6 Hickory Ridge Court  
Catonsville, Maryland 21228

Dear Mr. Hamilton:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

333-1110

My telephone nu

Teletypew  
383-7555 Baltimore Metro - 565-04  
707 North Calvert

Video Hearing or Speech  
tiro - 1-800-492-5062 Statewide Toll Free  
VIII-235, Maryland 21203-0717



**Maryland Department of Transportation  
State Highway Administration**

432

Richard M. Warner  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Mike Watson  
100 N. Symington Avenue  
Baltimore, Maryland 21228

Dear Mr. Watson:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number

333-1110

Teletype  
383-7555 Baltimore Metro - 565-0  
707 North Calvert

Deaf Hearing or Speech  
Toll Free  
1-800-492-5062 Statewide  
VIII-236, Maryland 21203-0717



**Maryland Department of Transportation  
State Highway Administration**

433

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Margaret Stocksdale  
4135 Wheaton Place  
Baltimore, Maryland 21228

Dear Ms. Stocksdale:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110

Teletypewr                      Hired Hearing or Speech  
383-7555 Baltimore Metro - 565-04      ro - 1-800-492-5062 Statewide Toll Free  
707 North Calvert      VIII-237      re, Maryland 21203-0717



**Maryland Department of Transportation  
State Highway Administration**

434

Richard M. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. William J. Krofka  
1111 Newfield Road  
Baltimore, Maryland 21207

Dear Mr. Krofka:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone n

1) 333-1110

Teletype  
383-7555 Baltimore Metro - 565-1  
707 North Calvert

VIII-238

Impaired Hearing or Speech  
Metro - 1-800-492-5062 Statewide Toll Free  
Baltimore, Maryland 21203-0717



**Maryland Department of Transportation  
State Highway Administration**

435

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Douglas A. Schubert  
237 Altamont Avenue  
Baltimore, Maryland 21228

Dear Mr. Schubert:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone n

333-1110



**Maryland Department of Transportation  
State Highway Administration**

436

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 24, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Deborah Kay Burke  
2616 Snyder Avenue  
Baltimore, Maryland 21219

Dear Ms. Burke:

Thank you for sending a copy of the petition supporting the construction of the Maryland Route 100 project. Your requests for the provision of water and sewer lines along the Maryland Route 100 corridor and for rezoning of lands in this vicinity have been forwarded to the Howard County Office of Planning and Zoning. The petitioners' names have been placed on the project mailing list through which they will be informed of the future progress of the project.

Please feel free to contact me if you have any questions or comments concerning this project.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.  
Mr. Uri Avin

My telephone number is (301) 333-1110

Teletypew  
383-7555 Baltimore Metro - 565-0  
707 North Calvert

Alfred Hearing or Speech  
Toll Free - 1-800-492-5062 Statewide Toll Free  
Baltimore, Maryland 21203-0717

VIII-240



437

February 25, 1988  
4614 New Cut Rd  
Ellicott City, MD 21043

Mr. Neil J Pederson, Director  
Office of Planning & Preliminary Engineering  
State Highway Administration  
707 North Calvert Street  
Baltimore, MD 21202

Dear Mr. Pederson:

I left the hearing on Tuesday, Feb 9th, relative to the proposed location and design of MD Rte 100, very concerned and disturbed, because I am convinced that three or four adjacent landowners have had far greater influence in determining both location and design of this road than consideration for the health, safety and welfare of the people of Maryland.

I have been advised by the Dept of Transportation that the alignment between Old Montgomery Rd and MD Rte 104 was curved in a northerly direction to minimize impact on proposed Montgomery Run subdivision. The Department of Transportation's responsibility to an existing subdivision is far greater than to a proposed one. A more direct alignment between Old Montgomery Rd and Rte 104 would not only be more cost effective but would also greatly reduce impact on the 100 year flood plain and wet lands.

The placement of at-grade crossover at stations 72+ and 96+ is beyond my comprehension. The crossovers are in direct violation and are contrary to the purpose of the project which is to provide a controlled-access east-west highway that would be a safe and efficient highway link for moving people, goods, and services more quickly and directly. These crossovers, if constructed, would not only decrease the level of service in a most critical area but would also severely diminish safe driving conditions. The relatively small areas serviced by these crossovers have direct access to MD Rte 108 which, in turn, has unobstructed access to US Rte 29, MD Rts 100 and 175.

**RECEIVED**

# 327  
MAR 1 1988

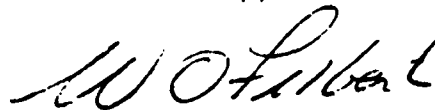
DIRECTOR'S OFFICE  
PLANNING & PRELIMINARY ENGINEERING

VIII-241

The justification for a crossover at station 26+ is stated as being the only means to provide northbound US Rte 29 traffic the opportunity to travel east or west on MD Rte 103. I contend that the crossover is actually for the prime benefit of LONG GATE VENTURE. North US 29 to east-west Rte 103 can easily be accommodated by an overpass ramp which will carry north US 29 traffic over west Rte 100 - north US 29 traffic. The connection of the ramp to Rte 103 would be similar the other three quadrants. Not only would the direct ramp to Rte 103 be ultimately less costly, it would also eliminate future construction of an overpass at Long Gate Venture, provide for uninterrupted traffic flow and eliminate vehicular and pedestrian hazards.

I request that you reevaluate the design of this final segment of Rte 100, using as your criteria those factors which best promote the health, safety and welfare of the public and thus restore trust and confidence to the Engineering Profession, and Government.

Sincerely,



William O. Filbert

cc: Howard County Council  
U.S. Dept Transportation



24 439

**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 21, 1988

Mr. William O. Filbert  
4614 New Cut Road  
Ellicott City, Maryland 21043

Dear Mr. Filbert:

Thank you for your recent letter about the Maryland Route 100 project.

The goal of the Maryland Route 100 project has been to design an efficient and cost-effective highway to serve Howard County's future traffic demands. Project planning activities have been included and reflect input from Howard County public officials, local citizens, community organizations, area developers, and state and federal agencies.

Your comments regarding the alignment location, provision of at-grade intersections, and the design of the US Route 29/ Maryland Route 103 interchange will be discussed as the project planning team formulates its recommendation.

Should you have any further questions or comments, please feel free to contact me.

Very truly yours,

*Neil J. Pedersen*

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

NJP:db

cc: Mr. Louis H. Ege, Jr.

My telephone number is (301) 333-1110

Teletypewriter 383-7555 Baltimore Metro - 565-0 707 North Calvert VIII-243  
Hired Hearing or Speech ro - 1-800-492-5062 Statewide Toll Free re, Maryland 21203-0717

Dean and Lisa Garlick  
8362 Mitzy Lane  
Ellicott City, MD 21043  
(301) 461-0960

Feb. 18, 1987

Dear Mr. Simmons,

We are writing to you as concerned citizens of Howard County in reference to the Route 100 Project. Our new home is located on Mitzy Lane off of Elko and Route 104. Our concerns are based on some issues that were raised at the Public Hearing held on Feb 9, 1988.

We are requesting, along with other members of our community, that the trees aligning the south side of Mitzy Lane, which separates Mitzy and the proposed Route 100, remain untouched. We understand that the developer wants to remove them for construction purposes. We see no reason why an already existing natural barrier be removed. The trees will help to preserve the country appeal and hide Route 100 when we look out our front window. We are also requesting a sound berm be placed just on the outside of the tree line. This will reduce the noise level make and the area safer for our children. In addition, the cost for this berm would be minimal in comparison to the amount of tax dollars spent on the project.

We also understand that a car exiting from our community onto Route 104 would not be allowed access to Route 100. If this is indeed the case, we would receive no benefit from the new road and in fact all of the sacrifices that we would make would be in vain. Access to Route 100 from Elko and Route 104 is important to our community.

We respect the decision to build the new road and realize the importance of it to the county. However, we feel our community is sacrificing a lot and desire some consideration in return. We ask you to please investigate and address the issues that we have outlined. We cannot express the the importance of this matter or the magnitude of our concerns. We are only after a safe and pleasant environment for ourselves and our children to in which to live. We are available to discuss this if the need arises, please feel free to contact us at your convenience.

respectfully,

  
Dean S. and Lisa F. Garlick



Maryland Department of Transportation  
State Highway Administration

56

441

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 21, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Dean Garlick  
8362 Mitzy Lane  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Garlick:

Thank you for your recent letter about the Maryland Route 100 project.

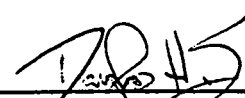
As a part of this project, we are studying the possibility of constructing noise berms to mitigate the noise and visual impacts on your community. In addition, landscaping measures will be implemented to provide additional visual screening.

A concrete median is not proposed in front of Elko Drive. All vehicles on Elko Drive would be allowed to turn either left or right onto Maryland Route 104 and would also have direct access onto Maryland Route 100.

Should you have additional questions or comments, please contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas Simmons  
Project Manager

LHE:DS:ds

FHA recommends that earth berms be constructed if soil is available to provide full mitigation. The berms will be landscaped with trees.

My telephone r (1) 333-1190



53

442

OWEN BROWN COMMUNITY ASSOCIATION, INC.  
6800 Cradlerock Way Columbia, Maryland 21045 (301) 384-0202

February 26, 1988

Mr. Neil J. Pederson, Director  
Office of Planning and Preliminary Engineering  
State Highway Administration  
707 North Calvert Street  
Baltimore, Maryland 21202

Dear Mr. Pederson,

The Owen Brown Community Association is opposed to the extension of Centre Park Drive to proposed Route 100 (in Howard County). The Centre Park Drive/Route 100 intersection is approximately 2000 ft. from the Route 100/Route 104 interchange. From a safety point of view, this is too close.

Secondly, Centre Park Drive is actually an extension of Phelps Luck Drive (as it crosses Route 108). Phelps Luck Drive is a residential street. Connecting Centre Park Drive with Route 100 would provide a very attractive shortcut between Route 100 and Route 175 for motorists via Phelps Luck Drive. This would turn a residential street (Phelps Luck Drive) into a major thoroughway. We feel that this is unacceptable. Far too much traffic and noise would be generated down a residential street. The office park area around Centre Park Drive can be adequately served by the Route 100/Route 104 interchange. It's less than 3000 ft. away.

For the sake of the residents living in the Phelps Luck neighborhood and for safety reasons, we request that the state delete the Centre Park Drive/Route 100 intersection.

Sincerely,

Andrew C. Stack, Chairman  
for the  
Owen Brown Village Board

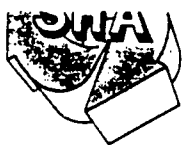
ACS:rb

RECEIVED

# 333  
MAR 2 1988

DIRE  
PLANNING & I

VIII-246



March 18, 1988

Mr. Andrew C. Stack, Chairman  
for the Owen Brown Village Board  
Owen Brown Community Association, Inc.  
6800 Cradlerock Way  
Columbia, Maryland 21045

Dear Mr. Stack:

Thank you for your recent letter about the Maryland Route 100 project.

Your opposition to the proposed connection between Maryland Route 100 and Centre Park Drive will be discussed by the Project Planning Team before a decision is reached on the location and design of this project.

Should you have any further concerns, please feel free to contact me.

Very truly yours,

*Neil J. Pedersen*

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

NJP:bh

cc: Mr. Louis H. Ege, Jr.

The selected alternate does provide a connection to Centre Park Drive.

My telephone number is (301) 333-1110

Teletyp  
383-7555 Baltimore Metro - 565  
707 North Calve

Impaired Hearing or Speech  
Metro - 1-800-492-5062 Statewide Toll Free  
more, Maryland 21203-0717

444

PROJECT DEVELOPMENT

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-~~FEB~~ FEB 22 10 53 AM '88  
PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME G. Melvin Mills, Jr. DATE 2/11/88

PLEASE PRINT ADDRESS 210 Pennsylvania Avenue

CITY/TOWN Westminster STATE Maryland ZIP CODE 21157

I/We wish to comment or inquire about the following aspects of this project:

Gentlemen:

I have enclosed a copy of the previous letter in opposition to the planned Route 100 Alternatives 3 & 4. I am again going on record taking opposition to Alternate 3 for the same reasons as stated in the previous letter. We have also added another known use that provides paging services for the Columbia area. I do not want you to think that I purposely am taking opposition just to be heard, but I have gone through many times the zoning process with regard to gaining permits to erect towers and it is not only expensive (legal fees) but very time consuming and local jurisdictions do not favor communications towers.

I selfishly urge you to please consider Alternate 1 which is No-Build. Thank you for keeping the citizens concerns in mind in making this decision.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this notice through the mail are already on the project Mailing List.





mills'  
communications  
inc.

445  
Two-Way Radio Sales & Service

210 Pennsylvania Ave., Westminster, Md. 21157  
Frederick Tel. 301-473-7900

Tel. 301-876-8600  
Tel. 301-848-8600

March 9, 1987

Md. Dept. of Transportation  
State Highway Administration  
Office of Planning & Engineering  
Box 717  
Baltimore, MD 21203

Dear Sir:

I am writing in reference to the proposed Md. Route 100 from U.S. Rt. 29 to Interstate Rt. 95. I am the property owner of Parcel 532, Grid 19, Map 31, District 01, recorded among the Land Records of Howard County in Liber 1075, Folio 087, located at the intersection of the now Rt. 104 and 108. This subject property happens to be affected by your alternate plan #3 and your alternate plan #4.

The property is now used by a communications tower that provides communications for various users directly involved in services in that locality. If plans 3 and 4 are considered, it would mean the tower would have to be taken down and the property vacated. Due to the tightening of regulations with most counties with regards to tower locations, it would be very difficult to relocate the tower without creating a large degree of public concern and zoning problems.

The tower is a vital communications need to service that area. The people that are utilizing that tower are involved in residential development, plumbing & heating, towing, security, highway construction and a nationally known heating oil delivery and burner service operation. It is the link of communication for these people from Baltimore to Washington.

The property has a pipeline easement as set forth in a construction workspace permit between Colonial Pipeline Company and Winter W. Wright (the former owner) dated January 7, 1981, and recorded among the Land Records of Howard County in Liber CMP1041, Folio 52. I am taking opposition to the planned Rt. 100 if alternate #3 and 4 is implemented.

cont....

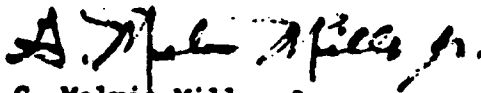
Md. Dept. of Transportation  
Page - Two  
3/9/87

If the State of Maryland Dept. of Transportation decides on either alternate 3 or 4 I am definitely going to need assistance from the State and County to relocate the tower in a suitable location in order to continue to provide the communications necessary for the people involved.

Should you have any further questions, please feel free to contact me at your convenience.

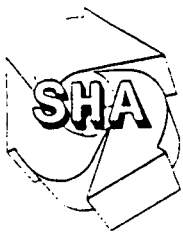
Respectfully,

MILLS' COMMUNICATIONS INC.



G. Melvin Mills, Jr.  
President

GMM, Jr:ff



**Maryland Department of Transportation**  
**State Highway Administration**

447

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 15, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. G. Melvin Mills, Jr.  
210 Pennsylvania Avenue  
Westminster, Maryland 21157

Dear Mr. Mills:

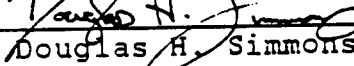
Thank you for your recent letter expressing your preference for the No-Build Alternate.

We are currently studying options to shift the alignment to avoid impacting your tower. It is anticipated that a decision will be reached on the location of the alignment during April, 1988.

Should you have any further questions concerning this project, please contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

The SHA is making every effort to minimize the impact on the Mill Communication Tower as a result of MD 100. The final decision will not be made until Final Design.

My telephone number is \_\_\_\_\_ 333-1190

448 - 317

DONALD M. AND JOAN M. JOLLEY  
8378 MITZY LANE  
ELLCOTT CITY, MARYLAND 21043

MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF PLANNING & PRELIMINARY ENGINEERING  
BOX 717  
BALTIMORE, MARYLAND 21203

February 19, 1988

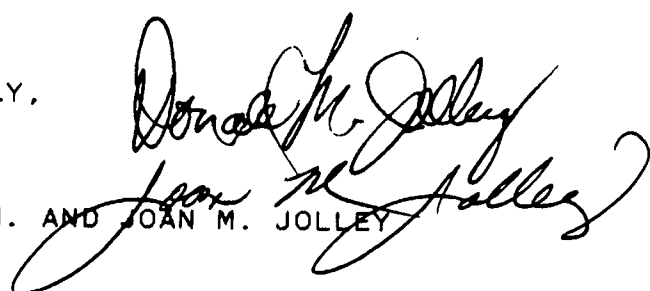
DEAR SIRs:

IN THE NEAR FUTURE A MAJOR HIGHWAY, ROUTE 100 IS SUPPOSE TO BE BUILT 200 FEET FROM OUR FRONT DOOR. WE ARE DEEPLY CONCERNED THAT THIS WILL ENDANGER OUR SAFETY AND OUR PRIVACY. IN THE PAST YEAR NINE NEW HOUSES HAVE BEEN BUILT ON MITZY LANE. ALTOGETHER THERE ARE OVER 15 CHILDREN IN THE NEIGHBORHOOD OF WHICH 9 ARE UNDER SEVEN YEARS OLD. TWO OF THESE CHILDREN ARE OUR 5 YEAR OLD TWINS.

RIGHT NOW THERE ARE TREES STANDING ON THE PROPERTY BETWEEN OUR HOUSE AND THE SITE FOR ROUTE 100. WE REQUEST THAT EVERY EFFORT BE MADE TO LEAVE THE TREES AND LAND THE WAY IT IS NOW. WE HAVE ALREADY EXPERIENCED THE NOISE POLLUTION FROM THE CONSTRUCTION OF THE TOWNHOUSES BEYOND THE SITE OF THE PROPOSED ROAD. FOR THE PAST FEW MONTHS THE BULLDOZERS AND THE CONSTRUCTION EQUIPMENT SOUND LIKE THEY ARE IN OUR FRONT YARD, SO WE CAN IMAGINE WHAT THE CONSTRUCTION OF AND THE TRAFFIC OF A FOUR LANE ROAD WILL BE.

WE ARE REQUESTING AN EARTH BERN OR SOUND FENCING BE BUILT TO HELP ELIMINATE SOME OF THE NOISE, AND TO PROVIDE PROTECTION FOR OUR CHILDREN AND PETS.

SINCERELY,



DONALD M. AND JOAN M. JOLLEY

P.S. PLEASE PUT US ON THE MAILING LIST FOR FURTHER DEVELOPMENTS OF ROUTE 100. (Added 3/11/88)

449

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator



**Maryland Department of Transportation**  
**State Highway Administration**

March 15, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Donald M. Jolley  
8378 Mitzy Lane  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Jolley:

Thank you for your recent letter about the Maryland Route 100 project.

We are currently studying the possibility of providing earth berms to minimize the visual and noise impacts of this project on your community. Fences will be constructed along Maryland Route 100 to restrict access to the highway. In addition, landscape planting will also be included in the project although we will attempt to leave as many of the existing trees in place as possible.

Should you have any additional questions or comments, please feel free to contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: *Douglas H. Simmons*  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

450

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME George W. Dress, III. 461-7624 DATE 2/16/88

PLEASE PRINT ADDRESS 4755 Bates Drive  
Ellicott City MD 21043  
CITY/TOWN STATE ZIP CODE

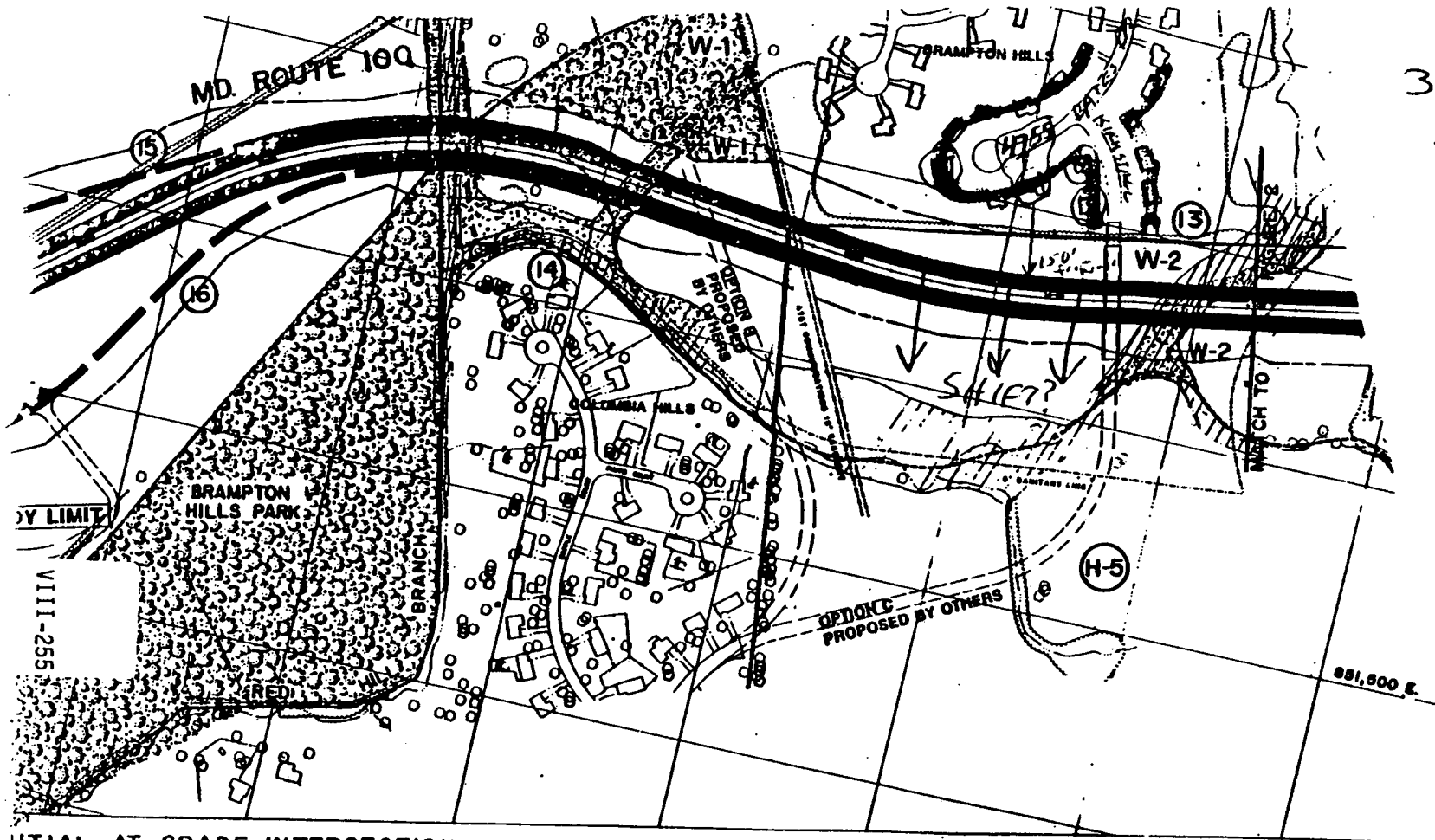
I/We wish to comment or inquire about the following aspects of this project:

1. Why are 2 Houses on Kirkstall Rd. and 1 house on Bates Drive still not shown on your map? see attached. They are within 200' of the road. 2. Why can't the road be shifted away from these homes? My house is @150' from the road. All homes were purchased prior to the 8/85 Howard Cnty Council "decision" to purchase the rights of way. In fact the Council had deleted Rt. 100 from the Master Plan altogether when the homes were purchased. Does the right of way have to come right to my property line?
3. Will a sound abatement berm be constructed at the same time the first 2 lanes of the developers' road are built? 4. What assurances can you give me that the existing tree line along my property line will be protected? 5. Is it possible for me to start planting trees on the other side of my property line?
6. The Homes indicated on the attached map are most directly affected by Rt.100. When could you arrange for someone to meet with us to go over these questions and show us the positioning of the road?

*Thank you,  
George W. Dress*

- Please add my/our name(s) to the Mailing List.\*
- Please delete my/our name(s) from \_\_\_\_\_ ng List.

\*Persons who have received a copy on the project Mailing List. \_\_\_\_\_ rochure through the mail are already



INITIAL AT GRADE INTERSECTION,  
 ESTIMATE 3/4 DIAMOND INTERCHANGE

**LEGEND**

- PROPOSED ROADWAY
- FUTURE CONSTRUCTION
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- RESIDENCE TO BE ACQUIRED
- 100 YEAR FLOODPLAIN BOUNDARY \*
- WETLANDS
- PROPOSED STRUCTURE
- AIR/NOISE RECEPTOR LOCATIONS
- PARKLAND BOUNDARY
- POSSIBLE AND NATIONAL REGISTER ELIGIBLE HISTORIC SITE BOUNDARY
- INVENTORY LEVEL HISTORIC SITE

MARYLAND ROUTE 100  
 U.S. 29 TO I-95

**ALTERNATE 3  
 (PREFERRED ALTERNATE)**

DATE

SCALE

FIGURE



1







**Maryland Department of Transportation  
State Highway Administration**

453

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 15, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to Interstate  
Route 95  
PDMS No. 132062

Mr. George W. Dress, III  
4755 Bates Drive  
Ellicott City, Maryland 21043

Dear Mr. Dress:

Thank you for providing us with the recent opportunity to speak with your community about the Maryland Route 100 project.

The houses in question along Kirkstall Road and Bates Drive were placed on the mapping prior to the Public Hearing, but did not appear within the brochure.

A southern shift in the alignment away from your community would result in a longitudinal impact to Red Hill Branch. A minor change in the alignment will be studied further during the Final Design phase.

The construction of noise berms during the initial construction of the two lane County highway would be the responsibility of the developer and would be encouraged by the State Highway Administration. It is anticipated that if excess earth is remaining, this could be used for construction of berms. It is our recommendation that you contact Howard County to express your support for the construction of berms.

We will attempt to minimize the impacts to the tree line along the south side of your property. Should a berm be constructed in this location, additional trees will be planted as part of the project landscaping.

Should you have any further questions, please contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' phone number is 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

LHE:bh  
Mr. Robert Sanders

My telephone ni \_\_\_\_\_

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT  
DEVELOPMENT  
DIVISION

MAR 7 4 05 PM '88

NAME ALEK BERI JR DATE 3-3-88

PLEASE  
PRINT

ADDRESS 5311 DEBBIE CT.  
CITY/TOWN ELLCOTT CITY STATE MO. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

NO MATTER WITH ALTERNATE IS BUILT I WOULD LIKE TO SEE A DIRT TYPE  
NOISE BARRIER BUILT FROM RT 104, EAST ON PROPOSED RT 100 TO OR PAST  
THE DEEP RUN STREAM TO PROTECT THE RESIDENTS OF GLENNA 1 & II.

THIS BARRIER WOULD SERVE TO PROTECT THE DEEP RUN STREAM FROM OIL &  
SPILLAGE CONTAMINATION AND MOST IMPORTANT IT WOULD PROTECT US RESIDENTS  
ON DEBBIE CT. FROM THE NOISE THIS HWY IS GOING TO CREATE. ITS BAD EVEN  
WE MUST CONTEND WITH THE NOISE POLLUTION FROM THE AIRCRAFT FLYING  
OVERHEAD, BUT NOW WE MUST ALSO CONTEND WITH THE GROUND NOISE  
THAT RT 100 IS GOING TO CREATE. BARRIERS CANNOT BE BUILT TO PROTECT  
US FROM THE AIRCRAFT NOISE, BUT BARRIERS CAN SURE BE BUILT TO  
PROTECT US FROM THE RT 100 GROUND NOISE.

I KNOW THIS ROAD IS PART OF THE PROGRESS WE MUST SUFFER FOR  
EXPANDING HOWARD COUNTY, BUT AS A HOME OWNER I FEEL THE STATE  
& COUNTY SHOULD DO ITS BEST TO PROVIDE A COMFORTABLE SURROUNDING FOR  
US RESIDENTS TO LIVE IF WE MUST PROGRESS. I AM ASKING FOR THIS NOISE  
BARRIER NO MATTER THE COST, SO I AND MY FRIENDS ON DEBBIE CT.  
CAN ENJOY A EVENING IN OUR BACK YARDS WITHOUT THE CONSTANT NOISE  
OF AUTOMOBILES.

THANKS  
*Alek Beri Jr.*

Please <sup>keep</sup> add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

13

455

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Alek Beri, Jr.  
5311 Debbie Court  
Ellicott City, Maryland 21043

Dear Mr. Beri:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project.

We are currently studying the feasibility of providing earth berms to minimize the noise and visual impacts on your community. In addition, landscaping and privacy fencing may also be utilized to reduce the impact of this project.

Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

SHA recommends that earth berms be constructed if soil is available to provide full noise mitigation for the Glen Mar community.

My telephone number is (301) 333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION

MAR 10 10 43 AM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Vincent Saccardi DATE 3-6-88

PLEASE PRINT

ADDRESS 4746 Bates Drive

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

As this project will lie within 200 ft of our home, we would request that landscaping be done prior to construction. Please advise what plans there are for berms and landscaping to shelter us from construction. Also, is there an intention to put up any fencing to prevent children from wandering into the construction site or later in the future into traffic.

At the general meeting erecting berms and landscaping with the very beginning of the project was mentioned.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

457

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 11, 1983

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Vincent Saccardi  
4746 Bates Drive  
Ellicott City, Maryland 21043

Dear Mr. Saccardi:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project.

We are currently studying the feasibility of providing earth berms to minimize the noise and visual impacts on your community. In addition, landscaping and privacy fencing may also be utilized to reduce the impact of this project.

Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: *Douglas H. Simmons*  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

The berm and landscaping proposed for your area cannot be completed until construction due to unknown factors associated with the construction of MD 100. Fencing is being proposed for MD 100.

My telephone n 333-1190

458  
#276 OK  
3/9

February 17, 1988

Mr. Neil J. Pederson, Director  
Office of Planning and Preliminary Engineering  
State Highway Administration  
Post Office Box 717  
Baltimore, Maryland 21203-0717

RE: Location and Design - Maryland Route 100

Dear Mr. Pederson:

I have previously submitted comments on the above referenced project. My specific concern is how the project will impact our farm property (Curtis Farm). I am the oldest son of Mr. and Mrs. R. Lee Curtis and along with my brother, Glenn Allen Curtis, are heirs to the farm property.

My specific concern is that the Route 100 right-of-way be located on the opposite or northeast side of Deep Run Branch from the rest of our farm property. I also favor the minor relocation of Deep Run Branch so that our farm is still served by water. I favor a right-of-way location which minimizes direct impact to the stream and retains as much natural stream channel as possible.

I also favor noise berms and vegetative screening on the north side of the Route 100 right-of-way to minimize adverse noise impacts to the newly developed subdivision which currently adjoins our farms' northeast property boundary.

Thank you for the opportunity to present my views on Route 100 location and design.

Sincerely,



Robert L. Curtis, Jr.  
Route 1, Box 453-A  
Apple Hill Farm  
Lake City, Tennessee 37769

459 Doug J.



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 11, 1988

Mr. Robert L. Curtis, Jr.  
Route 1, Box 453-A  
Apple Hill Farm  
Lake City, Tennessee 37769

Dear Mr. Curtis:

Thank you for your recent letter about the Maryland Route 100 project.

The Maryland Route 100 project includes the provision for relocating Deep Run Branch to provide water to your farm. All efforts will be made during the final design phase to minimize the extent of stream relocation required.

We are currently studying the possibility of providing earth berms to mitigate noise and visual impacts on the Hunt Country Estates development on the northern side of your property.

Thank you for your support of the Maryland Route 100 project. Should you have any further questions or comments, please feel free to contact me.

Very truly yours,

*Neil J. Pedersen*

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

NJP:ds

cc: Mr. L. H. Ege, Jr.  
Mr. R. Sanders

Current design plans show an 1800' relocation of Deep Run Creek to provide water to your farm.

The construction of earth berms has been recommended for Hunt Country Estates located on the northern side of your property.

My telephone number is (301) 333-1110

VIII-262

Teletypewrit  
383-7555 Baltimore Metro - 585-045  
707 North Calvert St

and Hearing or Speech  
- 1-800-492-5062 Statewide Toll Free  
Maryland 21203-0717

460

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Gerald A. Gietka DATE 2/15/88

PLEASE PRINT ADDRESS 8394 Mitsy Lane  
CITY/TOWN Ellicott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I feel extremely distraught by the information I received at the Public Meeting at Howard High School.

I heard and discovered the concerns of people from two communities (Timber Run & Hunt Country Estates) and am appalled that it appears to be a fait accompli with nothing left but trade offs to be made.

I am from neither of these communities. I am involved. I have recently purchased a new home at 8394 Mitsy Lane (across the street from item 7 on figure 3). When I originally contracted for this home (settled in July, 1987) I was told that the lots across the street would also be developed and then, beyond these homes, there was a possibility of Route 100 being built in @ 5 years.

I am writing to you advising you that I am in fact asking for special consideration. Everything possible should be done to insulate me, my family and my property from any infringements on my present life style. From the time I contracted for this house and now, I have developed a heart condition and had open heart surgery.

At this point, I do not know if your plans include something to keep the environment here intact - i.e. the trees across the street, barriers to keep the noise level down, berms and fences, etc. I do know that by copy of this letter I am advising you of my condition. I will consider, (and advise my family and associates) any aggravation to my condition a direct cause of this intrusion on my present lifestyle if you do not.

Please add my/our name(s) to the Mail (see attached)  
 Please delete my/our name(s) from the list.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Therefore, the SHA and the State of Maryland will hold responsibility.

Originally (as explained when we contracted for this house), the plans for Route 100 showed the roadway to be a considerable distance further away from my home.

For whatever reasons, developers interests, politics, money, these plans were changed. Now the plans call for the right of way for this project to be right across the street from my home. I only hope that again, for my reasons, which hopefully will be given as great a consideration as those that caused the change, you will see fit to insulate myself (and other homeowners in this new project) from the effects of your changes.

I simply cannot believe, nor accept, the fact that certain properties and home sites do not even show on your planning maps. Yet, as yet undeveloped land, owned by developers (i.e. the new Montgomery Run Project by Mack) is planned for, and concessions and exceptions are made for them. MY HOME IS ALREADY BUILT-THEIR LAND IS STILL AS YET UNDEVELOPED. I also cannot believe that you would allow for the additional expenses of moving the road around this proposed development (rather than a straight line through it). That is hardly the use I intended for my tax dollars.

Do it right or don't do it at all.

*Garrett A. Smith*

Sent CERTIFIED MAIL

462



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Gerald A. Gietka  
8394 Mitzy Lane  
Ellicott City, Maryland 21043

Dear Mr. Gietka:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project.

We are currently studying the feasibility of providing earth berms to minimize the noise and visual impacts on your community. In addition, landscaping and privacy fencing may also be utilized to reduce the impact of this project.

Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

Noise berms and landscaping is proposed for the Glen Mar Community and Metzy Lane.

For additional information refer to

Section IV Earth Berm Feasibility.  
333-1190

My telephone nu

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION  
MAR 7 4 04 PM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME James T. (Jim) Brindisi DATE 3/3/88

PLEASE PRINT

ADDRESS 8606 Spruce Run Court

CITY/TOWN Ellicott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

The current plans to create Maryland Route 100 from U.S. Route 29 to Interstate 95 seems awfully inorganic because of its close proximity to a major High School (Howard High) and to a residential community (Timber Run). The impact of this proposed artery would be so great that it would impose a tremendous burden on the High School and surrounding community, let alone the danger inherent to the students and residents of the adjacent areas...

I believe this proposed project should be given more thought and study, and an alternate route recommended.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

Sincerely,  
Jim Brindisi

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

Ellicott City  
resident.



**Maryland Department of Transportation  
State Highway Administration**

464

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 11, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. James T. Brindisi  
8606 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Mr. Brindisi:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project.

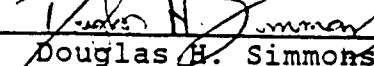
We are currently studying the feasibility of providing earth berms to minimize the noise and visual impacts on your community. In addition, landscaping and privacy fencing may also be utilized to reduce the impact of this project.

Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

SHA recommends earth berms be constructed at Timber Run if the soil is available. Noise analysis conducted at Howard High School indicates no mitigation warranted at the school itself. A pedestrian overpass is being studied to provide access to Howard High School.

My telephone number is (301) 333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION

FEB 24 11 46 AM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Wm Hoeric Hs DATE 2/12/88

PLEASE PRINT

ADDRESS 8522 Pine Run Court

CITY/TOWN Ellicott City STATE Md ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I would like to see S.H.A. Use option 104 A. This option to be put in ~~the~~ ASAP for the Timber Run Residents. Get the birms put in so we do not have to hear or see the construction of Route 100. Letting the left ~~out~~ part of Oak Run may be used for the overflow parking for the residents of Timber Run. Not having the two lanes of the Developer road at all if the project must be put in at all!

Please add my/our name(s) to the \_\_\_\_\_ st.\*  
 Please delete my/our name(s) from \_\_\_\_\_ g List.

\*Persons who have received a copy of \_\_\_\_\_ ure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

466

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. William Hoerichs  
8522 Pine Run Court  
Ellicott City, Maryland 21043

Dear Mr. Hoerichs:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

SHA has selected option 104-A which includes a modified access option for residence of Timber Run. This option will connect Oak Run Way to Maryland Route 104 opposite Elks Drive.

Earth berms have been recommended to provide full noise mitigation for the Timber Run community.

My telephone n. ) 333-1190

Teletypew VIII-269  
363-7555 Baltimore Metro - 565-0  
707 North Calvert ...  
Haired Hearing or Speech  
tiro - 1-800-492-5062 Statewide Toll Free  
...ore, Maryland 21203-0717

PROJECT DEVELOPMENT  
STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS DIVISION

Contract No. HO 661-101-770 FEB 19 9 37 AM '88  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME <sup>DHA</sup> Kate Benedict <sup>Ph.D</sup> Jeff Benedict DATE 2-16-88  
ADDRESS 5414 Spruce Run Ct  
CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

PLEASE PRINT

We wish to comment or inquire about the following aspects of this project:

1. We do not support the construction of the "developer's road" before the construction of the highway. This road opportunity comes along the route of the developer's road poses a serious threat to the safety & integrity of the Lumber Run Valley community.
2. We urge the building of extra berms to mitigate against the noise, atmosphere, and visual pollution of this community and the Howard High School environment.
3. We oppose the construction of Oak Run Way and the developer's road.
4. We question the philosophy behind a "6 lane highway" with at grade interchanges to "developer's roads". Who is served by such a "highway"? Who is funded by such a "highway"? Who is funded by such a "highway" but exempted from producing to developers?

Kate Benedict  
Jeffrey P. Benedict, Ph.D.

Please add my/our name(s) to the Mr... \*  
 Please delete my/our name(s) from the List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

468

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HC 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Jeffrey P. Benedict  
8614 Spruce Run Court  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. Benedict:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

The county developer road will be constructed to tie into MD 104 approximately 1/2 way between Oak Run Way and MD 108. Oak Run Way will not tie into the county road 100. Earth berms will be considered if soil is available during the ultimate construction of MD 100.

My telephone n

333-1190



**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT  
DEVELOPMENT  
DIVISION

MAR 7 4 05 PM '88

NAME H. S. PELCIN MD DATE 3-2-88

PLEASE  
PRINT

ADDRESS \_\_\_\_\_

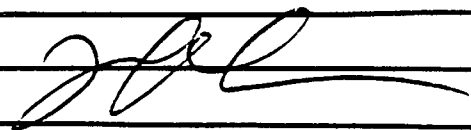
CITY/TOWN \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

I/We wish to comment or inquire about the following aspects of this project:

I and my Neighbor don't want  
Connection Rt. goes true Rt 103.  
We have terrible traffic and noise  
Now.

We urge you to consider option  
Rt. 108 or  
Rt. 175 -

Thank you



Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from

Mailing List.

\*Persons who have received a brochure  
on the project Mailing List.

is brochure through the mail are already



**Maryland Department of Transportation  
State Highway Administration**

470

Richard H. Traino  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

H. S. Celgin, M.D.  
4631 Montgomery Road  
Ellicott City, Maryland 21043

Dear Dr. Celgin:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone n 333-1190

Teletype VIII-273  
383-7555 Baltimore Metro - 565-0  
707 North Calvert  
Haired Hearing or Speech  
Metro - 1-800-492-5082 Statewide Toll Free  
Baltimore, Maryland 21203-0717

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

471

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 7 4 04 PM '88

NAME MRS MRS W. LEE MCFARLANE DATE \_\_\_\_\_  
5 E MONTGOMERY RD  
ELLICOTT CITY MD21043

ADDRESS W. LEE MCFARLANE  
5 E MONTGOMERY RD  
ELLICOTT CITY MD21043

CITY/TOWN \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE 21043

PLEASE  
PRINT

I/We wish to comment or inquire about the following aspects of this project:

*We are in favor of the "Preferred Option" presented at the hearing. We are in favor of building the road, regardless of alignment, to address the problem of traffic flow.*

MCFW001: NO 7: 15

W. LEE MCFARLANE  
5645 MONTGOMERY ROAD  
ELLICOTT CITY MD 21043

*Cancel this name, leave the "Mr & Mrs" on the mailing list.*

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List. *I received 2 copies, the other one was addressed to Mr. & Mrs. W. Lee McFarlane.*

\*Persons who have received a cc on the project Mailing List. s brochure through the mail are already



Maryland Department of Transportation  
State Highway Administration

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. W. Lee McFarlane  
5645 Montgomery Road  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. McFarlane:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone n

333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 10 10 48 AM '88

NAME Inita F. Johnson DATE 3/5/88

PLEASE  
PRINT

ADDRESS 5329 Maryland Road

CITY/TOWN Wheat City STATE MO ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

The Public Mtg. conducted on  
Tues, Feb. 9, '88 at Howard High  
was very well planned & coordinated.

The hearing notice attracted many  
Residents and felt the SHA was  
able to hear both sides - pro &  
con.

I feel the construction of Route 100  
will not only provide a viable access  
from Columbia to Rte. 95 for  
commercial vehicles as well as private,  
but alleviate the Maryland Rd. (Rte.  
103) increased traffic!

SHA is responsible, though, for keeping  
Residents informed & "in the loop"!!

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a  
on the project Mailing List.

his brochure through the mail are already



**Maryland Department of Transportation  
State Highway Administration**

474

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mrs. Anita Fleshman  
5329 Montgomery Road  
Ellicott City, Maryland 21043

Dear Mrs. Fleshman:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: Douglas H. Simmons  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone n 333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062

Combined/Location Design Public Hearing  
Maryland Route 100

U.S. Route 29 to Interstate Route 95  
Howard High School

Tuesday, February 9, 1988 - 7:00 p.m.

MAR 3 9 10 AM '88

NAME LEROY S. LYDARD JR DATE 3-3-88

PLEASE  
PRINT

ADDRESS 5014 AVOCA AVE

CITY/TOWN ELLIOTT STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I HAVE REPRESENTED THE MONTGOMERY KNOLLS  
PEOPLE FOR YEARS IN THEIR MUTAL INTERESTS.  
WE FEEL RT 100 SHOULD BE A VERY LIMITED  
ACCESS HIGHWAY FOR HIGH SPEED TRANSPORTATION  
TO RELIEVE #103, #104, #108 AND OTHER OVERCROWDED  
LOCAL HIGHWAYS, THEREFORE TRAFFIC LIGHTS  
SHOULD NOT BE USED EXCEPT AT MAJOR  
HIGHWAY INTERSECTIONS, UNTIL MERGING IS  
POSSIBLE, THE EXISTING ACCESS TO DEVELOPMENTS  
SHOULD NOT BE ABSORBED AS IN THE CASE OF  
"TIMBER RUN". THREE TRAFFIC STOPS  
AT #104 & #108 ARE NOT GOING TO IMPROVE  
TRAFFIC, ONLY WORSEEN IT. THE TWO PROPOSED  
COMMERCIAL OR INDUSTRIAL CROSSINGS  
NORTH OF ROUTE #104 AND TRAFFIC LIGHTS  
IS A COMPLETE TRAVESTY OF THE <sup>RIGHTS</sup> PEOPLE <sup>OF</sup>  
OF HOWARD COUNTY, FOR THE BENEFIT OF  
DEVELOPERS WHO GOT THEIR WAY WITH ZONING  
WHICH WAS TURNED DOWN BY THE COURTS, BUT GOT

Please add my/our name(s) to the Mailing List.\*

THRU ANYWAY.

Please delete my/our name(s) from Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

is brochure through the mail are already



**Maryland Department of Transportation  
State Highway Administration**

476

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Leroy S. Lydard, Jr.  
5014 Avoca Avenue  
Ellicott City, Maryland 21043

Dear Mr. Lydard:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: *[Signature]*  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone r \_\_\_\_\_ 333-1190 \_\_\_\_\_



**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

**PROJECT  
DEVELOPMENT  
DIVISION**

**MAR 4 3 38 PM '88**

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

**NAME** M/ms PATRICIA McCuan **DATE** 2/23/88

**PLEASE  
PRINT**

**ADDRESS** 11838 Farnside Run

**CITY/TOWN** Elliott City **STATE** Md. **ZIP CODE** 21043

**I/We wish to comment or inquire about the following aspects of this project:**

We support this Project as located AND designed.

**Please add my/our name(s) to the Mailing List.\***

**Please delete my/our name(s) from the Mailing List.**

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. & Mrs. Patrick McCuan  
11838 Farside Road  
Ellicott City, Maryland 21043

Dear Mr. & Mrs. McCuan:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: *[Signature]*  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone n

1) 333-1190

Teletype  
383-7555 Baltimore Metro - 565-(  
707 North Calvert

VIII-281

paired Hearing or Speech  
etro - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717

479

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

PROJECT DEVELOPMENT DIVISION

MAR 5 4 05 PM '88

NAME Merton D. Mears DATE Mar 3, 1988

PLEASE PRINT

ADDRESS 4519 Montgomery Rd.

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

Comment: Traffic on Route 103 (Montgomery Rd)  
is terrific. Get Route 100 completed as soon  
as possible.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation**  
**State Highway Administration**

450

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Merton D. Mears  
4519 Montgomery Road  
Ellicott City, Maryland 21043

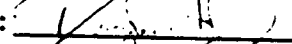
Dear Mr. Mears:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone number is (301) 333-1190

Teletype VIII-283  
383-7555 Baltimore Metro - 565-  
707 North Calvert  
Hired Hearing or Speech  
ro - 1-800-492-5062 Statewide Toll Free  
re, Maryland 21203-0717

481

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

MAR 7 4 06 PM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Esther M. Kendall DATE 3/2/88

PLEASE PRINT ADDRESS 9002 Dunloggin Road

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

The need for Rt. 100 beyond I-95 has not been demonstrated to me, a  
resident one block from Rt. 29. Major roads 32, 108, 40, and 70 feed  
from the beltway and Rt. I-95 across Rt. 29 and on to western areas.  
Rts. 103 and 175 feed into Rt. 29 also. Rt. 100 is almost upon Rt. 108.  
I see no need for Rt. 100 except as a service for developers. If Rt. 100  
is indeed planned for extension through the housing areas west of Rt. 29  
I am completely against this extension. It will disrupt housing and  
school areas. Furthermore, I consider the closed-door hearings about  
Rt. 100 with real estate investors while firming up these plans unethical.

*Esther M. Kendall*

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

482

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Ms. Esther M. Kendall  
9002 Dunloggin Road  
Ellicott City, Maryland 21043

Dear Ms. Kendall:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone number is (301) 333-1190

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

PROJECT  
DEVELOPMENT  
DIVISION

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

MAR 7 4 04 PM '88

NAME NORMAN E. MOXLEY DATE 2-2-88

PLEASE  
PRINT

ADDRESS 2925 NORMANDY DR

CITY/TOWN Ellicott City STATE Md ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

to build and build this road.  
It is needed. It should have  
been built before the develop  
ments started.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

Richard H. Traino  
Secretary  
Hal Kassoff  
Administrator

484

March 10, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Norman E. Moxley  
2985 Normandy Drive  
Ellicott City, Maryland 21043

Dear Mr. Moxley:

Thank you for your recent letter offering your comments regarding the Maryland Route 100 project. Your comments will be reviewed and evaluated prior to reaching a decision concerning the alignment of this project. Should you have any additional questions or comments, please contact Mr. Douglas Simmons, the Project Manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your interest in this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone

01) 333-1190



B-110  
#268

STATE PROJECT  
DEVELOPMENT  
DATA  
485

FEB 24 11 37 AM '88

Mr. Hal Kassoff  
Secretary of Highways  
State Highway Administration  
707 North Calvert Street  
Baltimore Maryland 21202

Mr. Ray G. Hovermill  
5311 Waterloo Road  
Ellicott City, Maryland 21043

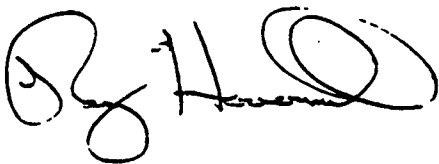
Dear Sir:

I viewed the proposed plans at the Route 100 Meeting on February 9th and spoke with several state officials concerning the matter of Right Away Lines on my property where Route 100 and 104 are supposed to cross over. I bought this property on February 5, 1987 (5311 Waterloo Road - Ellicott City - 21043) after being moved out by the State Roads in Elkridge for the Route 166 (I95 Leg to BWI). THE STATE HIGHWAYS INSPECTED AND EVEN PHOTOGRAPHED this Waterloo Road property before I could buy it. At no time was Route 100 even mentioned let alone the taking of footage from the property. After spending 85-86 agonizing what the State Roads officials were going to do to my family then here I find myself being tossed right back into the fire.

In the proposal with the ramps, I would lose 25 feet of the property, with the interchange I would lose half of the front yard. In the ramp proposal why can't the Right Away line be moved or changed. There is a row of pine trees about 20 feet in height which provides a privacy barrier where the Right Away comes.

I spoke with a Mr. Simmons (State Planner) who informed me this Right Away line could only leave 25 feet from the house to the line. I know the road is coming but Please help at least to keep the Right Away line from squeezing me in. In both proposals my property would be cut with Right Away lines. Upon reviewing the proposals there appears to be plenty room for adjustment without affecting my property at all. After going through the mess in Elkridge 166 Project and seeing how sometimes the State can be blind to peoples lives. To straighten out that screwup I had to telephoneyou personally several times. I feel like I have been lied to by the State Relocation Department, Realtors and the former owner. No mention of Route 100 especially not the part about the Right Away lines. Why can't something be worked out. I think I deserve some kind of adjustment to the plans since the State inspected and photographed the house last year and didn't even warn me of anything.

I think I deserve an answer to this matter as soon as possible. Thank you for your co-operation in this matter.

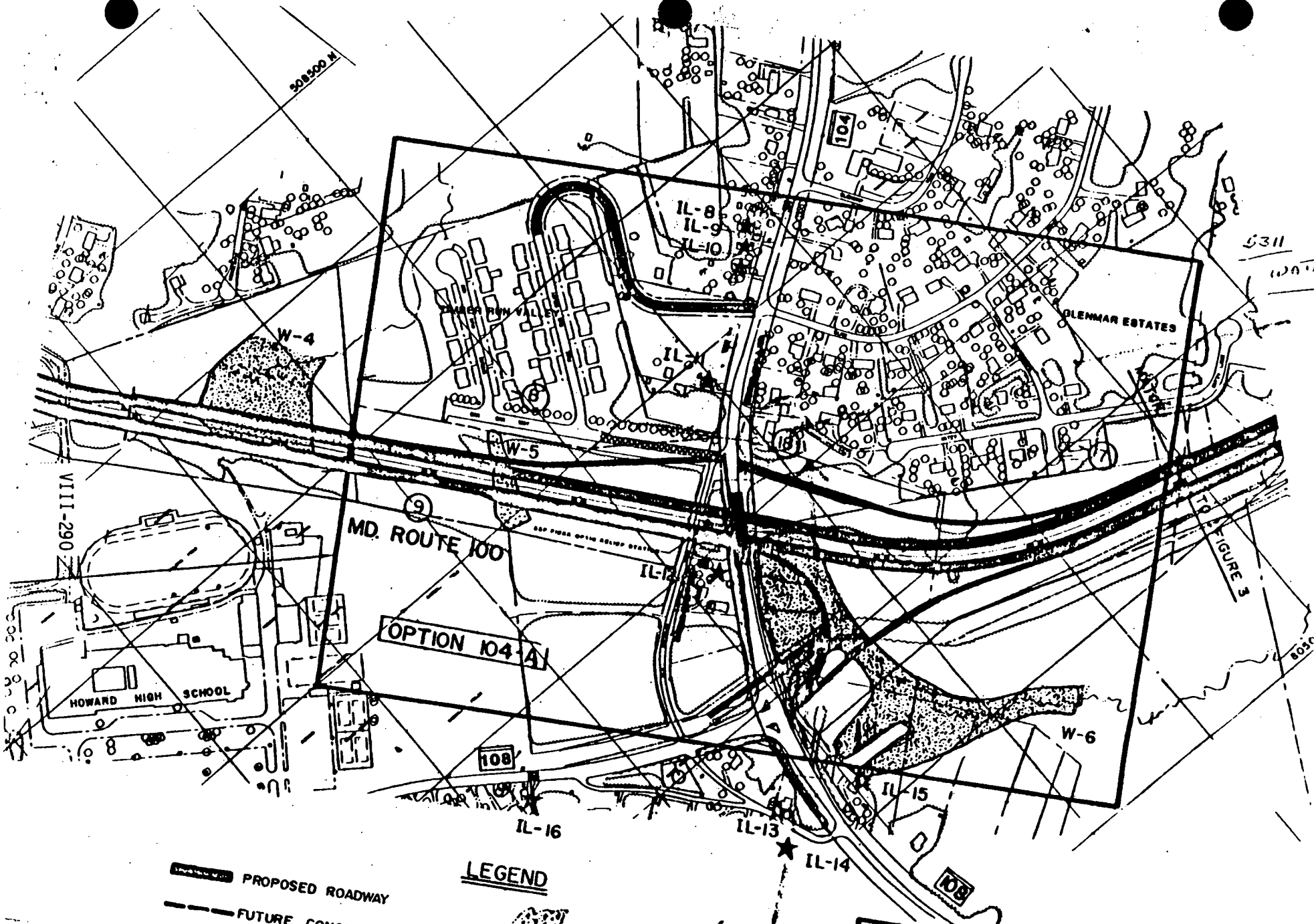


Ray G. Hovermill  
 5311 Waterloo Road  
 Ellicott City, Maryland 21043  
 461-8620

Attachment:

508500 N

5311  
12011



**LEGEND**

PROPOSED ROADWAY

FUTURE CONSTRUCTION

PROPOSED RIGHT OF WAY

WETLANDS

PROPOSED STRUCTURE

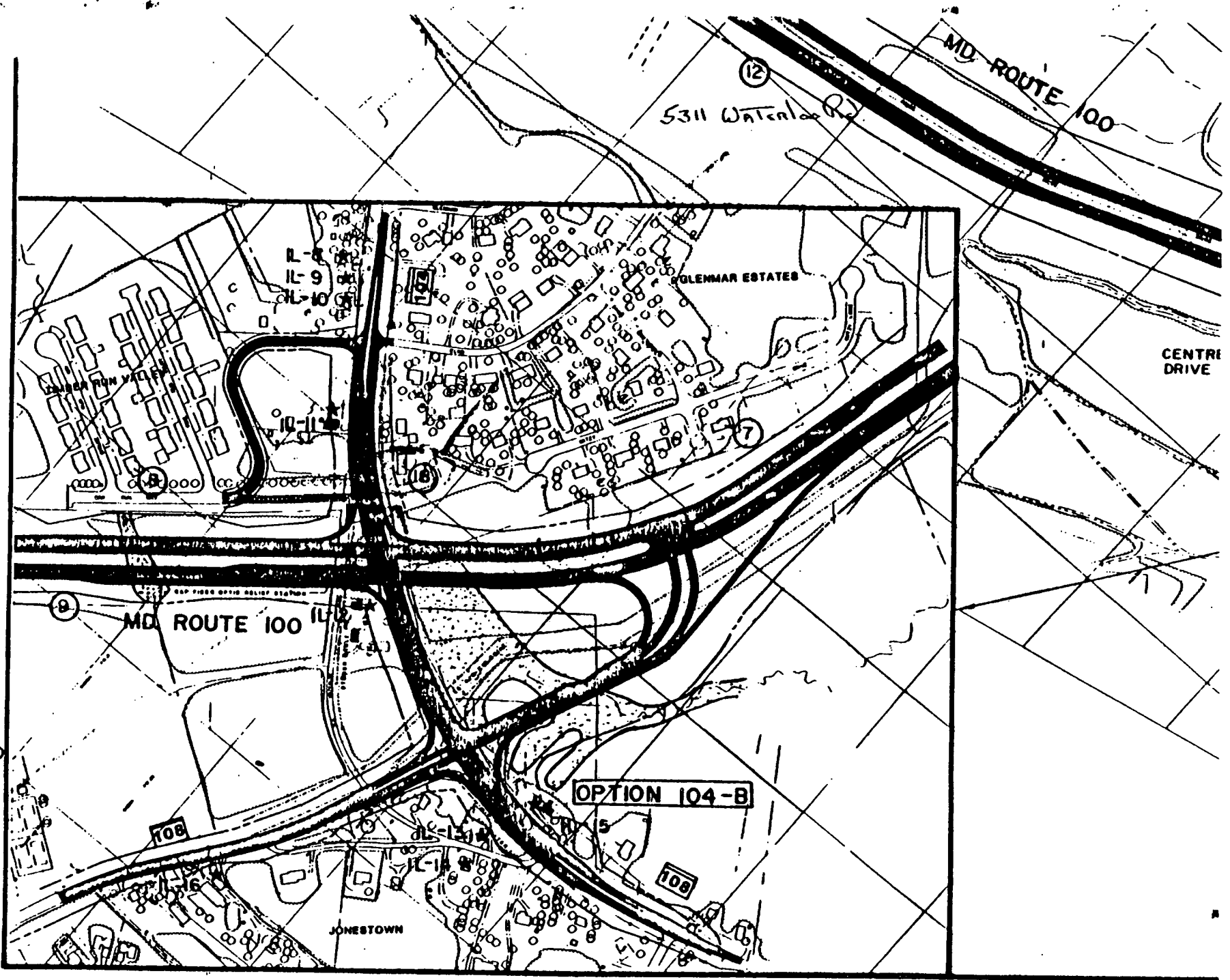
AIR/NOISE RECEPTOR

*Right of Way Line*

MARYLAND ROUTE 100  
U.S. 29 TO I-95

487

VIII-291



Rightway  
Line

488



**Maryland Department of Transportation**  
**State Highway Administration**

MAR 09 1980

489  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

Mr. Ray G. Hovermill  
5311 Waterloo Road  
Ellicott City, Maryland 21043

Dear Mr. Hovermill:

Thank you for your recent letters about the Maryland Route 100 project and its impact to your property.

We are currently investigating this situation in an attempt to minimize the amount of right-of-way required from your property. Under both Option 104-A and Option 104-B, however, right-of-way will be required from your frontage along Maryland Route 104 to allow for the proposed widening. To the south of your house, we are attempting to save your tree line by reducing the right-of-way requirements for the construction of the Maryland Route 100 exit ramps.

I have been informed that Mr. Douglas Simmons, the project manager, is to meet with you shortly, along with several members of the project planning team to discuss the impacts of the project on your property. Should you have any further questions concerning this project and how it affects you following this meeting, please feel free to contact me or Mr. Simmons at 333-1190.

Sincerely,

ORIGINAL SIGNED BY:  
HAL KASSOFF  
Hal Kassoff  
Administrator

HK:ds  
cc: Mr. Neil J. Pedersen  
Mr. Louis H. Ege, Jr.

It is not anticipated that your house will be displaced by the selected alternate.

My telephone number

490

**STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS**

**RECEIVED**

#198  
FEB 10 1988

DIRECTOR, OFFICE OF  
PLANNING & PRELIMINARY ENGINEERING

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME James R. Schulte DATE 2/10/88

PLEASE PRINT ADDRESS Security Development Corporation, P.O. Box 417

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

1. There are approximately 10 parcels of land lying between existing MD Rt.103 (Meadowridge Rd.) and proposed MD Rt.100, which rely on an existing private road (Mullineaux Ln) for access. The proposed Rt. 100 alignment will sever the private road and eliminate existing access to these properties. (see attached sketch). There is no County plan to provide access in this area. We ask that you consider means to provide substitute access to these parcels.

2. The new connection of proposed Rt. 100 to Meadowridge Road will be likely to increase traffic volume on Meadowridge. There are sections of this road which currently are substandard with regard to safety and traffic carrying capacity. We request that you include in the Rt. 100 project plans to upgrade Meadowridge Road to accommodate additional trips.

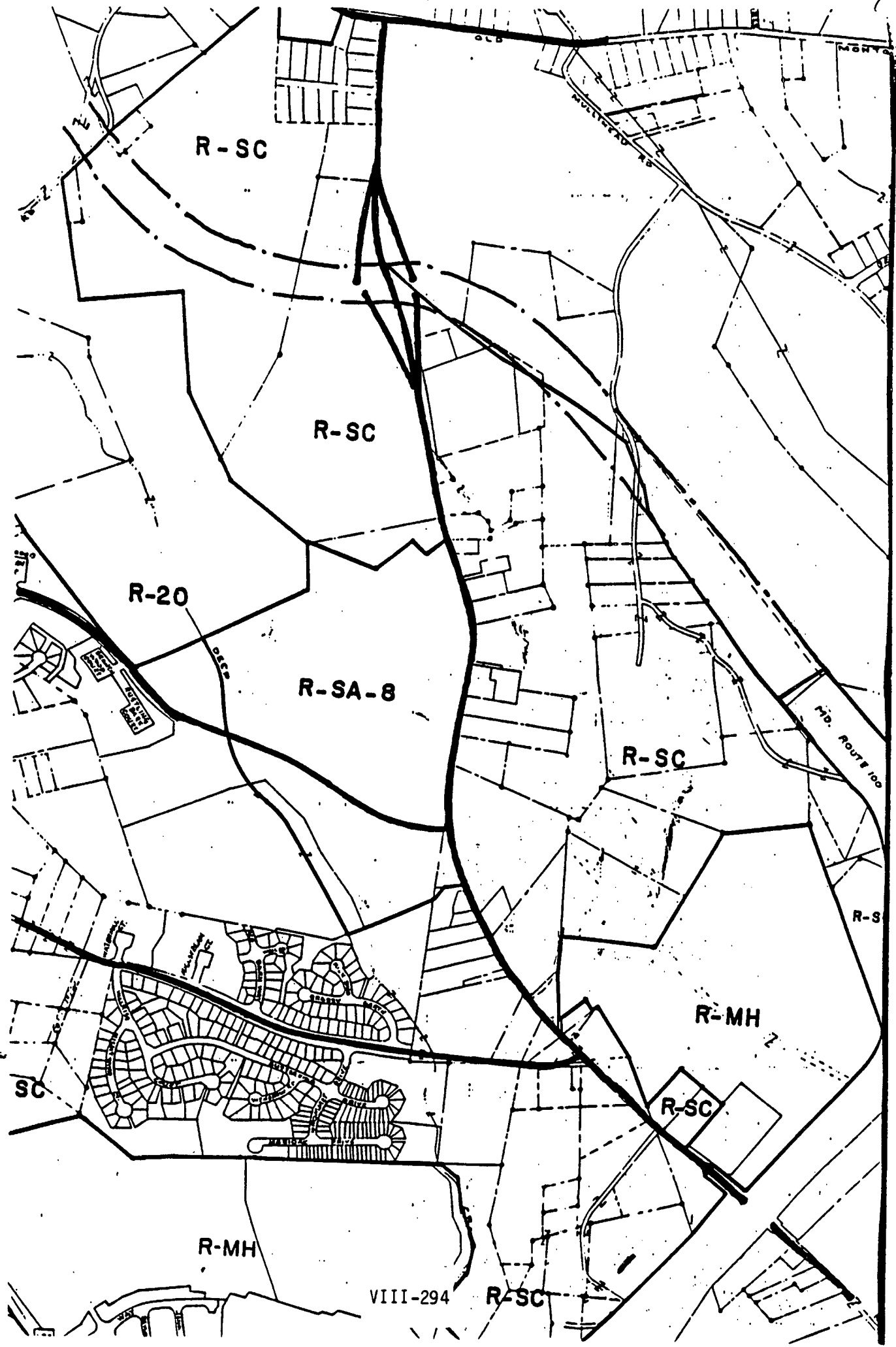
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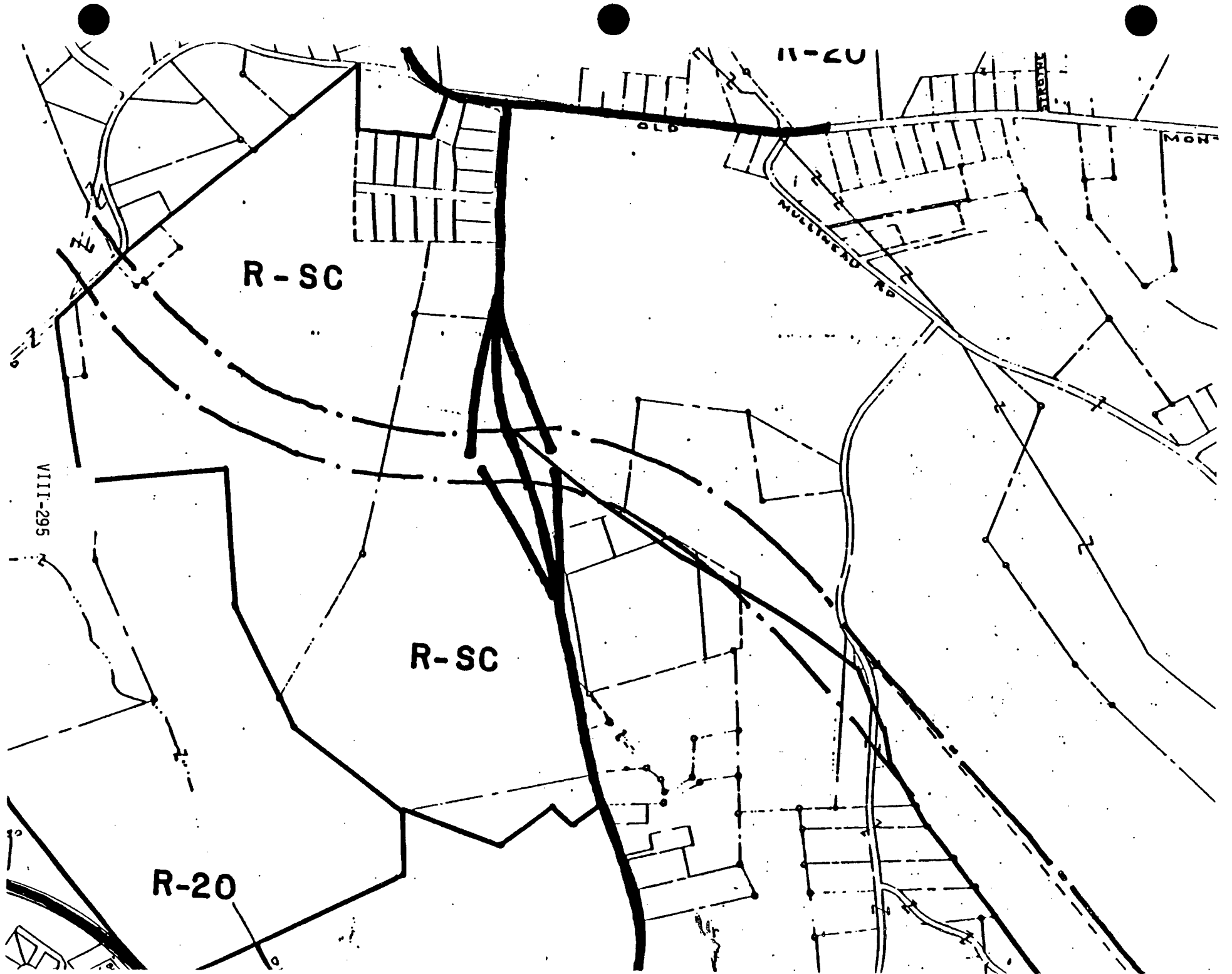
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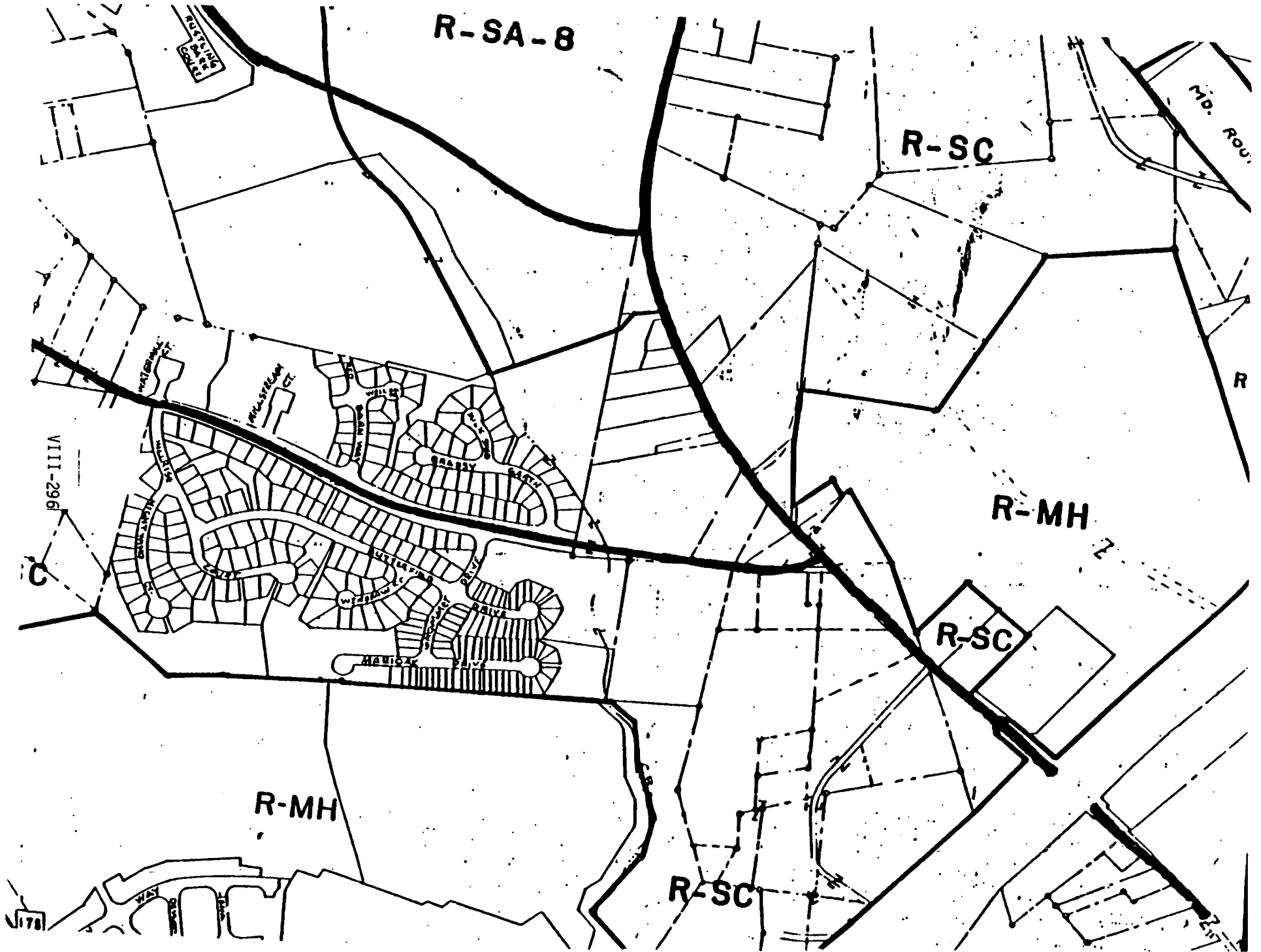
iling List.

\*Persons who have received a copy of VIII-293 brochure through the mail are already on the project Mailing List.









R-SA-8

R-SC

R-MH

R-SC

R-MH

R-SC

No. 100

VIII-296

493



**Maryland Department of Transportation  
State Highway Administration**

494

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

MAR 08 1986

Mr. James R. Schulte  
Security Development Corporation  
P.O. Box 417  
Ellicott City, Maryland 21043

Dear Mr. Schulte:

Thank you for your recent mailer regarding the Maryland Route 100 project.

We are currently working with Howard County to address the access issue for the Mullineaux Road residents. It is our goal to provide access to Mullineaux Road through the Howard County subdivision process. We will be meeting with Howard County officials in an effort to resolve this issue.

Improvements to Meadowridge Road have not been included as a part of the Maryland Route 100 project. Future improvements to Meadowridge Road are included in the State Highway Administration's Highway Needs Inventory. They have also been identified as a priority by Howard County for a project planning study. I would expect that we will undertake project planning for Meadowridge Road in the not too distant future.

Please feel free to call me if you have any further questions or comments concerning this project.

Very truly yours,

ORIGINAL SIGNED BY:  
NEIL J. PEDERSEN

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

NJP:ds

cc: Mr. Louis H. Ege, Jr.

My telephone number is \_\_\_\_\_

Teletypew  
383-7555 Baltimore Metro - 565-C  
707 North Calvert

aided Hearing or Speech  
1-800-492-5062 Statewide Toll Free  
Baltimore, Maryland 21203-0717

VIII-297

495

PROJECT DEVELOPMENT DIVISION

FEB 22 5 01 PM '88

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770 PDMS No. 132062 Combined/Location Design Public Hearing Maryland Route 100 U.S. Route 29 to Interstate Route 95 Howard High School Tuesday, February 9, 1988 - 7:00 p.m.

NAME Norman D. Zundel DATE 10 Feb '88

PLEASE PRINT

ADDRESS 6484 Grommet Drive

CITY/TOWN Elkridge STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

Comment: Looks like a great plan. I wish it were already finished! Why is it designed for only 60 mph? I'd think a higher design limit would be safer!

Question: My church is located at the intersection of Rt. 103 Rt. 29 and the new Rt. 100 (on St. John's Lane). I see no roads exiting Rt. 100 onto Rt. 103 so I can get to church. Can you give me any specifics? (I realize that this is not under the contract no. above.)

Request: Would you please send me a set of detailed maps such as those for the planned Rt. 100 from I-95 through Anne Arundel County to Rt. 3? I work in Parkway Center II at Dorsey Rd. and the B-W Parkway (RT-295) and especially would like information on the road gully/interchange at this point. If possible, please put me on the mailing list for this portion of the road also.

Thanks!

Norman D. Zundel

[X] Please add my/our name(s) to the Mailing List.\*

[ ] Please delete my/our name(s) from Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



**Maryland Department of Transportation  
State Highway Administration**

496

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 8, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Norman D. Zundel  
6484 Grommet Drive  
Elkridge, Maryland 21227

Dear Mr. Zundel:

Thank you for your recent letter supporting the Maryland Route 100 project.

Maryland Route 100 has been designed for 60 mph and will be posted at either 45 or 50 mph. It should be pointed out that much of the alignment does meet 70 mph design speed criteria. It is the belief of the State Highway Administration that the construction of Maryland Route 100 as currently proposed will provide a safe and efficient highway.

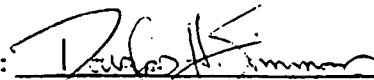
Access to your church will be provided by the construction of Long Gate Parkway between Maryland Route 100 and Maryland Route 103.

I have enclosed a brochure for the Maryland Route 100 project in Anne Arundel County. If you have any questions concerning this project, please contact Mr. Steven Foster at (301) 333-1254.

If you have any further questions or comments concerning the Maryland Route 100 project in Howard County, please contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' phone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds  
Attachment  
cc: Mr. Steven Foster  
My telephone

01) 333-1190

PROJECT  
DEVELOPMENT  
DIVISION

FEB 26 1 58 PM '88

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Richard J Muirhead DATE 2/12/88

PLEASE PRINT ADDRESS 4872 Montgomery Road

CITY/TOWN Ellicott City STATE Mo ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I congratulate you on pushing this badly needed traffic relief as rapidly as possible. The following comments are offered for possible further improvement.

1. Having on grade intersections at Centre Park Drive and Executive Park Drive will defeat the purpose of the entire Route 100 - to expedite traffic flow. Your traffic projections for 100 for the future are approximately the same as for Route 29 at present and you are currently taking extensive efforts to expedite traffic flow along 29, eliminating tie ups at on grade intersections. Plans MUST be made to eliminate ALL on grade intersections along Route 100.

a. There is NO NEED for Centre Park Drive to exit/enter Route 100. Traffic can flow quite easily into Route 100.

b. Land MUST BE acquired or provided for at the intersection with Executive Park Drive for exit/entry similar to that envisioned eventually for Long Gate Parkway or Snowden River Parkway.

2. I believe it may be well to restudy the desirability of having direct entry/exit from Route 29 to both Route 100 and Route 103, because of the close proximity of 100 and 103. The overpass over 29 from 103 to St Johns Lane is certainly needed. However, it would appear that traffic flow from 29 to 103 via Route 100 and the Long Gate Parkway should be adequately provided for without the direct 103/29 access. The money saved by eliminating or postponing the 103/29 direct access could very well be used to make the Long Gate Parkway overpass. Land might be acquired for future 103/29 access to be built when and if traffic warrants it.

IN CONCLUSION: This project is badly needed and long overdue. PLEASE DO NOT let it be ruined by some developer wanting on grade access for his projects.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



72

Maryland Department of Transportation  
State Highway Administration

498  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 3, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. Richard J. Muirhead  
4872 Montgomery Road  
Ellicott City, Maryland 21043

Dear Mr. Muirhead:

Thank you for your recent letter supporting the Maryland Route 100 project. Your suggestions for deleting or modifying the at-grade intersections will be discussed further by the Project Planning Team before a decision is reached on this issue.

The U.S. Route 29/Maryland Route 103 interchange would be modified to provide direct access to Maryland Route 100. Access to Maryland Route 103 would occur via Maryland Route 100 and Long Gate Parkway.

Should you have any future questions or comments, please contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' phone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
\_\_\_\_\_  
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone nu

333-1190

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION  
FEB 26 1 58 PM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME A.E. ARMSTRONG DATE 2-17-88  
PLEASE PRINT ADDRESS 3993 HIGH POINT ROAD  
CITY/TOWN ELLCOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

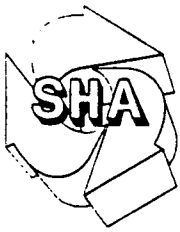
1. The most glaring mistake on this project is the inclusion of at-grade crossings in the proposed high speed dual highway design.
2. The next mistake is the west-bound merge lane from Route 104 on to Route 100. Leave it out and save all the changes to the Timber Run Valley development. Any one who wants to get to Route 29 pass Route 104 at that point can use Route 108.
3. Referring again to the at-grade crossings for Executive Park Dr. and Centre Park Drive; this should be ~~studied~~ studied carefully because there is the potential for a lot of Route 100 traffic cutting-through the industrial park to Route 108.
4. I see no reason to allow the extension of Snowden River Parkway to Route 100. It has access via Route 175 (4 lane) to Route 95 and Route 29. Enough of Rouse is enough!

Please add my/our name(s) to the Mailing List.\*  
 Please delete my/our name(s) from \_\_\_\_\_ing List.

\*Persons who have received a copy on the project Mailing List. \_\_\_\_\_rochure through the mail are already

VIII-302

I am pleased that you put the 103 interchange with Rt. 100.



Maryland Department of Transportation  
State Highway Administration

500

Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

March 3, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. A. E. Armstrong  
3993 High Point Road  
Ellicott City, Maryland 21043

Dear Mr. Armstrong:

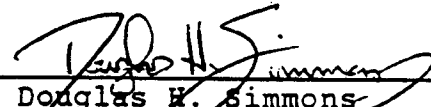
Thank you for your recent letter offering your suggestions for improving the proposed design of the Maryland Route 100 project. These suggestions will be discussed by members of the Project Planning team before a decision on the final alignment is reached.

Your name has been placed on the project mailing list through which you will be apprised of future project developments.

Should you have any further comments or questions concerning this project, please contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone n

1) 333-1190



PROJECT DEVELOPMENT DIVISION  
FEB 23 3 59 PM '88

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME R. Lee Curtis DATE Feb. 8, 1988

PLEASE PRINT ADDRESS 5771 Waterloo Road

CITY/TOWN Elliott City STATE Md. ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

Thank you for sending us a copy of the Maryland Route 100 Location design brochure.

We are in favor of Alternate 3 and are satisfied with the location of Route 100 as it affects our farm. We especially appreciate the relocation of the Deep Run stream, in order to make a supply of water available for our farm.

We regret that we will be unable to attend the February 9th meeting, since we will be out-of-state, and would appreciate any information you are in a position to give us regarding the outcome of the meeting.

We thank you in advance for ~~MR~~ your cooperation.

Yours truly,

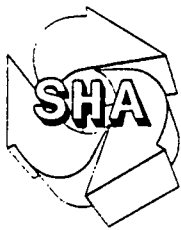
*R. Lee Curtis*

R. Lee Curtis  
250 Jacaranda Dr. Unit 410  
Plantation, FL 33324

Please add my/our name(s) to the \_\_\_\_\_ list.\*

Please delete my/our name(s) from \_\_\_\_\_ g List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

502

Richard H. Trainor  
Secretary

Hal Kassoff  
Administrator

March 3, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to  
Interstate Route 95  
PDMS No. 132062

Mr. R. Lee Curtis  
250 Jacaranda Drive, Unit 410  
Plantation, Florida 33324

Dear Mr. Curtis:

Thank you for your recent letter supporting Alternate 3 of the Maryland Route 100 project.

We are currently responding to the numerous comments and inquiries made during the Public Hearing on February 9, 1988. We hope to reach a final decision on the project in April, 1988.

Should you have any further questions or comments, please contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:   
Douglas H. Simmons  
Project Manager

LHE:DS:ds

My telephone nu

333-1190

Teletype  
383-7555 Baltimore Metro - 565-C  
707 North Calvert

VIII-305

aired Hearing or Speech  
etro - 1-800-492-5062 Statewide Toll Free  
ore, Maryland 21203-0717

PROJECT DEVELOPMENT DIVISION  
STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

FEB 13 9 37 AM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME JOHN W. MILNE DATE 9 FEB 1988

PLEASE PRINT

ADDRESS 8333 ELKO DRIVE (GLENMAR)

CITY/TOWN Ellicott City STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

WE have noted the appearance of what looks like a divider at the intersection of ELKO DRIVE AND WATERLOO RD (RT 104) in option 104B of the brochure. While this was not evident in more detailed drawings presented at the hearing, please make sure that no such divider is placed at the ELKO DRIVE - RT 104 intersection.

Considerable inconvenience would result if GLENMAR residents on ELKO DRIVE were prevented from turning left onto RT 104.

WE would also like to express our preference for option 104-A, i.e., the primary layout.

You are doing a fine job of keeping the public informed - THANK YOU!

John W & Ann E. Milne

Please add my/our name(s) to th

List.\*

Please delete my/our name(s) fro

ing List.

\*Persons who have received a copy VIII-306 brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

504  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

February 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to Interstate  
Route 95  
PDMS No. 132062

Mr. John W. Milne  
8333 Elko Drive  
Ellicott City, Maryland

Dear Mr. Milne:

Thank you for your recent letter expressing your preference for Option 104A of the Maryland Route 100 project.

Elko Drive will not have a median "divider" restricting turning movements onto Maryland Route 104 with either option 104 A or B. Vehicles on Elko Drive will be allowed to make both right and left turns onto Maryland Route 104.

Should you have any further questions, please contact me or Mr. Douglas Simmons, the project manager. Mr. Simmons' telephone number is (301) 333-1190.

Thank you for your support of this important highway project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

Douglas H. Simmons  
Project Manager

LHE:DHS:kw

SHA has selected option 104-A.

My telephone num/

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT  
DIVISION  
FEB 22 10 53 AM '88

Contract No. HO 661-101-770  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME Kathleen A. MAUCCI DATE 18 FEB 1988

PLEASE PRINT ADDRESS 8617 SPRUCE RUN COURT

CITY/TOWN ELICOTT CITY STATE MD ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I prefer the No-BUILD Alternate for ROUTE 100 AT THIS TIME

IF ALTERNATE 3 IS CHOSEN, PLEASE GIVE SERIOUS CONSIDERATION TO THE FOLLOWING:

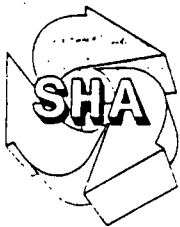
- DO NOT BEGIN CONSTRUCTION OF THE TWO LANES CONSTRUCTED BY PRIVATE DEVELOPERS UNTIL 1992.
- DO NOT TIE-IN THE DEVELOPERS' ROAD INTO TIMBER RUN COMMUNITY
- USE OPTION 104 A, WITH ROUTE 100 PASSING UNDER ROUTE 104
- WORK WITH RESIDENTS OF TIMBER RUN TO DEVELOP A VIABLE ALTERNATIVE FOR EXITING THEIR COMMUNITY - POSSIBLY TYING INTO HORSESHOE ROAD
- KEEP AS MUCH OF OAK RUN WAY AS POSSIBLE, FOR OVERFLOW PARKING
- CONSTRUCT BERMS BEFORE ANY CONSTRUCTION BEGINS FOR RESIDENCES ALL ALONG ALTERNATE 3

Kathleen A. Maucci

Please add my/our name(s) to the \_\_\_\_\_ list.\*

Please delete my/our name(s) from \_\_\_\_\_ ng List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation  
State Highway Administration

506  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

February 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to Interstate  
Route 95  
PDMS No. 132062

Ms. Kathleen A. Marucci  
8617 Spruce Run Court  
Ellicott City, Maryland 21048

Dear Ms. Marucci:

Thank you for your recent letter stating your preference of the No-Build Alternate for the Maryland Route 100 project.

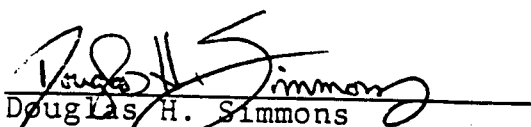
Your suggestions for improving Alternate 3 will be discussed by the Project Planning Team before a decision is reached on the Maryland Route 100 alignment.

Please contact me if you have any further suggestions or questions concerning this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
Douglas H. Simmons  
Project Manager

LHE:DHS:kw

Access to Timber Run will be provided via the modified access option which connects Oak Run Way to Maryland Route 104 opposite Elko Drive.

Appropriate landscaping measures will be incorporated into the design to create a visual screen between the roadway and the community.

My telephone num \_\_\_\_\_

507  
①

STATE HIGHWAY ADMINISTRATION  
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION  
FEB 4 10 33 AM '87

Contract No. HO 661-101-770  
PDMS No. 132062  
ALTERNATES WORKSHOP  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Saturday, January 31, 1987 - 10:00 a.m. - 4:00 p.m.

NAME BARBARA & STEVE WACHS DATE 2/1/87  
ADDRESS 5852 DUCKETT LN  
CITY/TOWN ENKBRIDGE STATE MD ZIP CODE 21227

PLEASE PRINT

I/We wish to comment or inquire about the following aspects of this project:

RT. 100 ALTERNATE #13 IS VERY MUCH  
NEEDED. IT IS NEEDED NOW. TRAFFIC ON  
MONTGOMERY & MEADOWRIDGE IS TOO HEAVY  
AND FAST NOW. THEY ARE TALKING ABOUT DISALLOWING  
THE BRIGHT FIELD DEVELOPMENT BECAUSE THE  
AREA ROADS CANNOT SUPPORT IT. RT 100 NEEDS  
TO BE NOT ONLY STUDIED NOW BUT FUNDED  
AS WELL. PLEASE PUSH FOR FUNDING AND  
GET IT STARTED AS SOON AS POSSIBLE.

WE ARE IN FAVOR OF THE OVERPASS OPTIONS VS.  
AT GRADE CROSSINGS IMPLEMENTED FROM THE  
START. AT GRADE ARE SHORT SITED & AS LONG  
AS YOU WILL BE STOPPING TRAFFIC NOW, WE  
COULD DO IT RIGHT THE FIRST TIME.

ALTHOUGH WE ARE NOT ADVERSELY AFFECTED BY RT 100  
WE WOULD SUPPORT NOISE BARRIERS ETC. FOR  
THOSE NEIGHBORHOODS AFFECTED FROM THE START.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



Maryland Department of Transportation

State Highway Administration

508  
Howard

William K. Hellmann  
Secretary

Hal Kassoff  
Administrator

February 25, 1987

Re: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
P.D.M.S. No. 132062

Mr. and Mrs. Steve Wachs  
5852 Duckett Lane  
Elkridge, Maryland 21227

Dear Mr. and Mrs. Wachs:

Thank you for your comments of February 1, 1987 regarding proposed Maryland Route 100. Your preference for Alternate 3 and the interchange options will be considered as development of this project proceeds. Funding for the construction of Maryland Route 100 may be requested in future Department of Transportation budget requests as the project proceeds through the planning and final design phases.

A detailed environmental study will be performed during the next stage of the project planning. The study will determine the need for and possible location of noise barriers throughout the project.

Your name has been added to our project mailing list and you will be notified of future developments relating to this project.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by: William D. Ermer  
William D. Ermer  
Project Manager

LHE/WDE/ih

cc: Mr. W. R. Clingan  
Ms. C. D. Simpson



STATE HIGHWAY ADMINISTRATION PROJECT DEVELOPMENT  
QUESTIONS AND/OR COMMENTS DIVISION

Contract No. HO 661-101-770 FEB 19 9 37 AM '88  
PDMS No. 132062  
Combined/Location Design Public Hearing  
Maryland Route 100  
U.S. Route 29 to Interstate Route 95  
Howard High School  
Tuesday, February 9, 1988 - 7:00 p.m.

NAME H. Edwin HETTCHEN DATE Feb 14, 1988

PLEASE PRINT ADDRESS 8417 ELKO DRIVE GLEN MAR

CITY/TOWN Ellicott STATE Md ZIP CODE 21043

I/We wish to comment or inquire about the following aspects of this project:

I see a need for Rt 100 thru Ha. Co. - but to move the traffic as predicted in 2015. It should be built as a limited access road (no at grade intersections) as Alt. 3 is proposed between Rt 29 + Rt 104. It would be like Rt 29 is now - and to bring it to acceptable level would cost more money and you may not be able to buy the land there. Also could you remove all at grade intersections from Rt 100 and making them at the intersection with Rt 104 + Rt 108.

ADVANTAGES

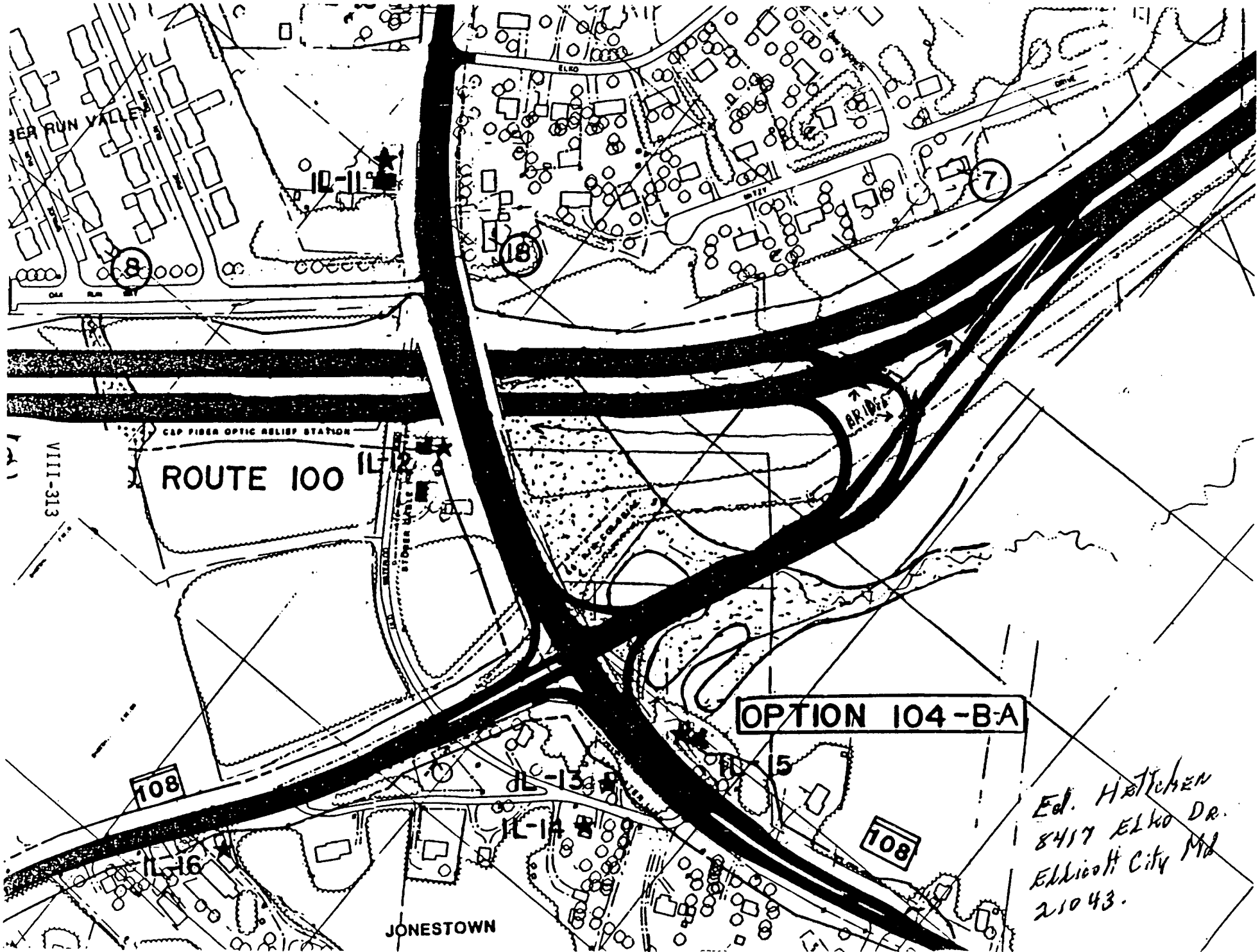
- ① Rt 100 being a recessed roadway making less noise to adjacent neighborhood.
- ② Rt 100 can handle more traffic at a better level since it would not be signalized.
- ③ Rt 100, Rt 108 and Rt 104 interchange could direct better the traffic with less conflict to the motorist with the many exits and entrances to Rt 100 in options A and option B.
- ④ Less property of the affected area to be taken in Glen Mar.

Please add my/our name(s) to the Mailing List.\*

Please delete my/our name(s) from the Mailing List.

\*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

Persons who have received a copy of this brochure through the mail are already on the project Mailing List.



ROUTE 100

OPTION 104-B-A

JONESTOWN

Ed. HATTCHEN  
8417 ELKO DR.  
Elliott City Md  
21043.

510

511

PROJECT  
DEVELOPMENT  
DIVISION

FEB 25 9 39 AM '88

8417 Elko Drive  
Ellicott City, MD  
February 22, 1988

Mr. Kark R. Teitt  
Project Engineer  
Maryland Route 100;  
Rt. 29 to I-95

Dear sir,

This letter is in response to the public hearing held on February 9. I am writing this since the letter sent with the state roads stamp was not delivered. The purpose of the road proposal is to plan for the future. I see a need for Rt. 100 but cannot find a reason to build a road that will not meet the future's demands. The preferred alternative (alternate 3) presented a bottleneck with a section being slowed down with at grade crossings on both Rt. 100 and Rt. 104. I feel the future would be better addressed by combining options "A" and "B" into the design I have attached. The advantages this plan provides are as follows:

1. Less congestion on Rt 104 and capacity to handle the high traffic projected in 2015 with a minimum of improvements.

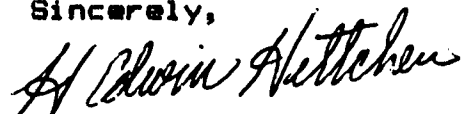
2. Rt 100 intersection at Rt 104 & Rt 108 could be better controlled and move more traffic than suggested by the plan presented by the State.

3. The Glenmar development will not be affected by cutting the lots facing Rt 104 and the noise level will be reduced when Rt 100 is below the surrounding area and there is no at grade intersection to cause cars and heavy trucks to stop and accelerate.

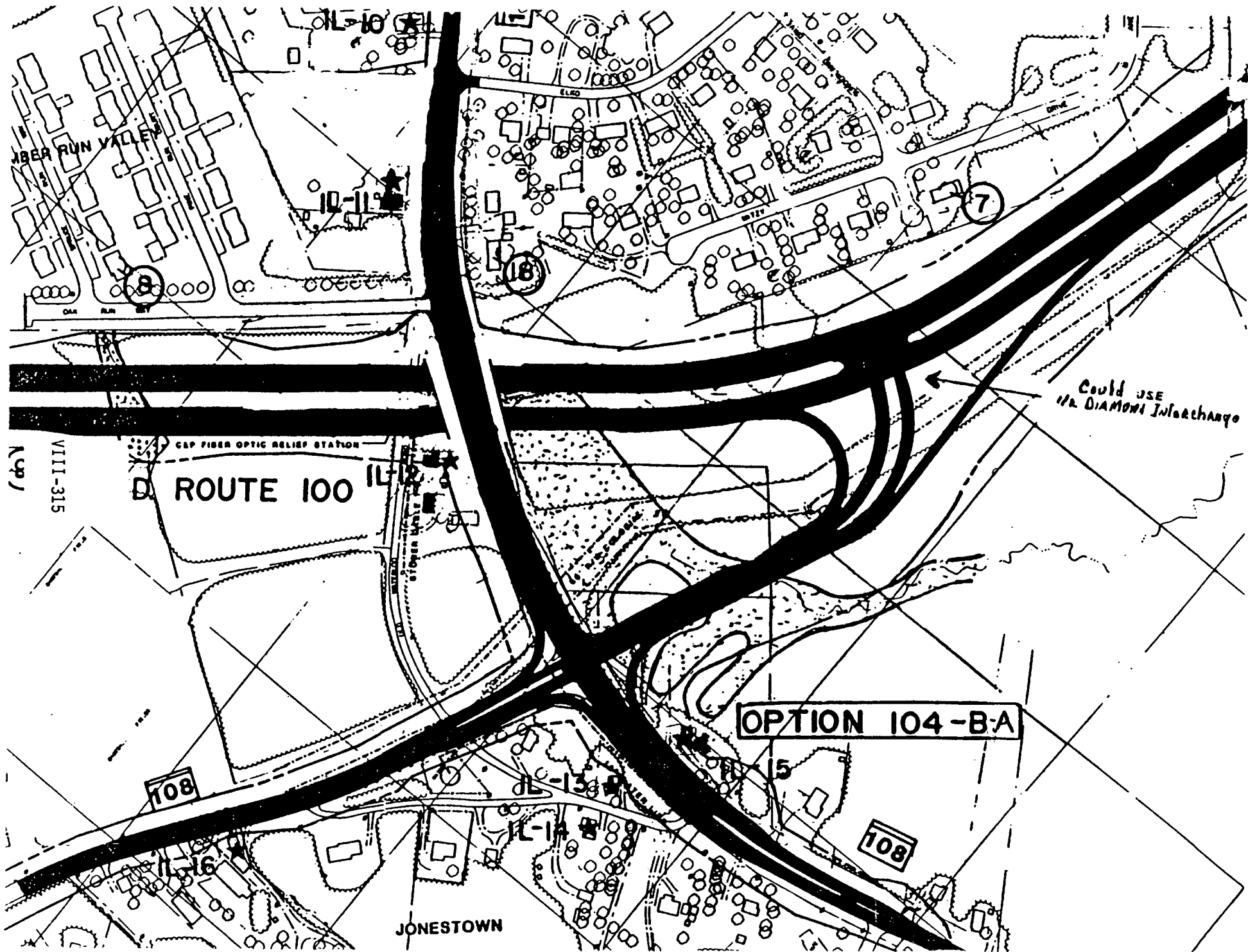
4. The intersection can be better identified so as not confuse motorists with intersections located about 600 feet apart.

I thank you for your consideration of my comments.

Sincerely,



H. Edwin Hettchen



ROUTE 100

OPTION 104-B-A

Could use  
1/2 DIAMOND Interchange

JONESTOWN

514



73  
**Maryland Department of Transportation  
State Highway Administration**

513  
Richard H. Trainor  
Secretary  
Hal Kassoff  
Administrator

February 25, 1988

RE: Contract No. HO 661-101-770  
Maryland Route 100  
U.S. Route 29 to Interstate Route  
95  
PDMS No. 132062

Mr. H. Edward Hettchen  
8417 Elko Drive  
Ellicott City, Maryland 21043

Dear Mr. Hettchen:

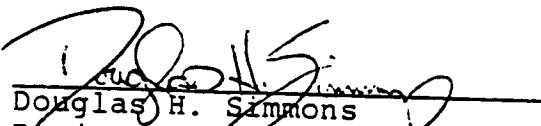
Thank you for your recent letter supporting the Maryland Route 100 project. Your suggestions for constructing the proposed highway as a limited access facility will be discussed as the Project Team decides on its final recommendation.

Should you have any further questions or suggestions, please contact me or the Project Manager, Mr. Douglas Simmons. Mr. Simmons' telephone number is (301) 333-1190.

Very truly yours,

Louis H. Ege, Jr.  
Deputy Director  
Project Development Division

by:

  
Douglas H. Simmons  
Project Manager

My telephone number

Section IX

**Appendices**

A. Glossary of Terms

GLOSSARY OF TERMS

- Arterial Highway - A highway primarily for through-traffic, usually on a continuous route.
- Association - A natural unit of vegetation characterized by the presence or dominance of certain species and identified by those species.
- Auxiliary Lane - The portion of roadway adjoining the traveled way for parking, speed change, or for other purposes supplementary to the through-traffic movement.
- Average Daily Traffic - The total volume of auto and truck traffic passing a given point in both directions during a given time period (greater than one day and less than one year) in whole days, divided by the number of days in that time period.
- Benthic - The bottom of an aquatic habitat, including the rocks, sand, and other materials.
- Biota - The total set of all organisms, both plant and animal, microscopic to macroscopic.
- Climax - A community which has reached relative constancy or stability of species composition.
- Community - The collection of plants and/or animals which exist in a particular location or habitat.
- Control of Access - Full-Complete restriction of access on a through facility except at interchanges. Grade separations for all crossings.  
 - Uncontrolled: Access control limited only to safe geometrics. All crossroads, driveways, etc. may have points of ingress or egress.
- Density - Refers to the number of organisms per unit area, assuming an even distribution.
- Design Hour Volume - The percent of average daily traffic (ADT) generally accepted as the criterion used in the geometric design of rural and urban highways. Ideally the 30th highest hourly volume during a year, the DHV is commonly found to vary from 8% to 12% of the ADT.



- Design Speed - A speed selection for purposes of design and correlation of those geometric features of a highway such as curvature and sight distance, upon which safe operations is dependent.
- Endangered - An organism of very limited numbers which may be subject to extinction, and is protected by law under the Endangered Species Act.
- Fauna - The animal life of an area.
- Flora - The plant life of an area.
- Grade Separation - Bridge structure such as an underpass or overpass that vertically separates two or more intersecting roadways, thus permitting traffic to cross without interference.
- Habitat - The physical, chemical and biological factors which comprise the area where a plant or animal lives.
- Herbaceous - A non-woody plant.
- Housing of Last Resort - A Maryland SHA program to rehouse people who are displaced by right-of-way acquisition for highway projects when the cost to do so exceeds the limits of the Uniform Relocation Act.
- Hydric - A very wet habitat, often with high ground water and saturated soils.
- Invertebrate - Refers to animals without internal, hard skeletal systems.
- Level of Service - Measure of the conditions under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy, and, of course, the volume of traffic.
  - Levels of Service on expressways and freeways with uninterrupted flow conditions are ranked from A to F (best to worst) as follows:
  - Level A - free traffic flow, low volumes, high speeds.
  - Level B - stable traffic flow, some speed restrictions.

- Level C - stable flow, increasing traffic volumes.
  - Level D - approaching unstable flow, heavy traffic volumes, decreasing speeds.
  - Level E - low speeds, high traffic volumes approaching roadway capacity; temporary delays.
  - Level F - forced traffic flow at low speeds; low volumes and high densities; frequent delays.
- Major Highway
- An arterial highway with intersections at-grade and direct access to abutting property, and on which geometric design and traffic control measures are used to expedite the safe movement of through-traffic.
- Median
- That portion of a divided highway separating the travelled ways for traffic in opposite directions.
- Old Field
- A shrubby thicket community of grasses and saplings which is succeeded from pasture and toward woodland.
- Outcropping
- A visible aggregation of rocks or boulders above the soil surface.
- Right-of-Way (R/W)
- 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 publicly owned land from a park, recreation area, wildlife and/or waterfowl refuge, or historic site of national, state or local significance can be used 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."
- Sensitive
- An organism or community very susceptible to environmental changes.
- Strata
- Layer of material.
- Stream Bed
- The physical limit of a stream, its channel, and associated substrate.

Stream Relocation

- The process involving the movement of a flowing stream from its present channel to a different channel.

Succession

- Chronologic change of community types over time, proceeding toward a stable ultimate community termed the climax.

Understory

- Shrubs and small trees growing under the larger tree canopy.

Unique

- An organism or community of an unususal nature and whose existence is dependent on a narrow range of specific needs, and is intolerable of environments which don't meet those needs.

Wetlands

- Areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats and natural ponds.

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B. Summary of Relocation

Attachment for Environmental  
Impact Documents  
Revised: November 29, 1985  
Bureau of Relocation Assistance

"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 amendments of 1987, 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, administers the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are \$15,000 for owner-occupants and \$4,000 for tenant-occupants. Certain payments may also be made for increased mortgage interest costs and/or incidental expenses, provided that the total of all housing benefits does not exceed the above mentioned limits. In order to receive these payments, the displaced person must occupy decent, safe and sanitary replacement housing. In addition to the replacement housing payments described above, there are also moving cost payments to persons, businesses, farms and non-profit organizations. Actual moving costs for residences include actual moving costs up to 50 miles or a schedule moving cost payment, including a dislocation allowance, up to \$500.

The moving cost payments to businesses are broken down into several categories, which include actual moving expenses and payments "in lieu of" actual moving expenses. the owner of a displaced business is entitled to receive a payment for actual reasonable moving and related expenses in moving his business, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable expenses are limited to a 50 mile 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 bid obtained. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business own vehicles or equipment, wages paid to persons who physically participate in the move, the cost of actual supervision of the move, replacement insurance for the personal property moved, costs of licenses or permits required, and other related expenses.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses. If the business is to be reestablished, 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 reestablished business, the payment will be the lesser of the difference between the value of the item for continued use in place and the net proceeds of the sale or the estimated cost of moving the item. 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 reimbursed for the actual reasonable expenses in searching for a replacement business up to \$1,000. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, within the maximum limit.

In lieu of the payments described above, the business may elect to receive a payment equal to the average annual net earnings of the business. Such payment shall not be less than \$2,500 nor more than \$10,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage, the business is not part of a commercial enterprise having at least one other establishment in the same or similar business that is not being acquired, and the business contributes materially to the income of a displaced owner during the two taxable years prior to displacement.

Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locations to the displaced business, and the availability of suitable replacement sites are also factors.

In order to determine the amount of the "in lieu of" moving expenses payment, the average annual net earnings of the business is considered to be one-half of the net earnings, before taxes, during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State may use another two-year period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, his spouse, or his dependents during the period. Should a business be in operation less than two years, the owner of the business may still be eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, for the tax years in question.

For displaced farms and non-profit organizations, the actual reasonable moving costs generally up to 50 miles, actual direct losses of tangible personal property, and searching costs are paid. The "in lieu of" actual moving costs payments provide that the State may determine that a displaced farm may be paid from a minimum of \$2,500 to a maximum of 410,000, based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive "in lieu of" actual moving cost payments, in the amount of \$2,500.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-profit organizations is available in Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons individually in the future 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 rehouse. Detailed studies must be completed by the State Highway Administration before "housing as a last resort" can be utilized.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any persons, or proceed with any construction project, until it has furnished satisfactory assurances that the above payments will be provided and that all displaced persons will be satisfactorily relocated to comparable decent, safe, and sanitary housing within their financial means or that such housing is in place and has been made available to the displaced person.

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C. Regional Birds



REGIONAL BIRDS

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<u>Common Name</u>	<u>Scientific Name</u>	
Whistling swan	<i>Olor columbianus</i>	S
• Mallard	<i>Anas platyrhynchos</i>	S
Canvasback duck	<i>Aythya Valisineria</i>	W
• Turkey vulture	<i>Cathartes aura</i>	P
• Black vulture	<i>Coragyps atratus</i>	P
Goshawk	<i>Accipiter gentilis</i>	W
Red-tailed hawk	<i>Buteo jamaicensis</i>	P
• Broad winged hawk	<i>Buteo platypterus</i>	S
Bald eagle	<i>Haliaeetus leucocaphalus</i>	P
Osprey	<i>Pandion haliaetus</i>	S
Peregrine falcon	<i>Falco peregrinus</i>	P
• Sparrow hawk	<i>Falco sparverius</i>	P
Ruffed grouse	<i>Bonasa umbellus</i>	P
Bob-white	<i>Collinus virginianus</i>	P
Ring-necked pheasant	<i>Phasianus colchicus</i>	P
Turkey	<i>Megascops gallopavo</i>	P
• Mourning dove	<i>Zenaidura macroura</i>	P
• Barn owl	<i>Tyto alba</i>	P
Screech owl	<i>Otus scio</i>	P
Great horned owl	<i>Bubo virginianus</i>	P
• Whip-poor-will	<i>Caprimulgus vociferus</i>	S
Chimney swift	<i>Chaetura pelagica</i>	S
Rufous-throated hummingbird	<i>Archilochus colubris</i>	R
Pileated woodpecker	<i>Dryocops pileatus</i>	P
Red-bellied woodpecker	<i>Centurus carolinus</i>	P
Downy woodpecker	<i>Dendrocopus pubescens</i>	P
Bank swallow	<i>Riparia riparia</i>	R
Barn swallow	<i>Hirundo erythrogaster</i>	S
Cliff swallow	<i>Petrochelidon pyrrhonota</i>	S
Purple martin	<i>Progne subis</i>	S

• Observed  
P Permanent resident  
S Summer  
W Winter

<u>Common Name</u>	<u>Scientific Name</u>	
• Blue Jay	<i>Cyanocitta cristata</i>	P
• Common crow	<i>Corvus brachyrhynchos</i>	P
• Black capped chickadee	<i>Parus stricapillus</i>	W
• White-breasted nuthatch	<i>Sitta carolinensis</i>	W
Brown creeper	<i>Certhia familiaris</i>	W
• House wren	<i>Troglodytes aedon</i>	S
Carolina wren	<i>Thryothorus ludovicianus</i>	P
• Mockingbird	<i>Mimus polyglottos</i>	P
Catbird	<i>Dumetella carolinensis</i>	S
• Robin	<i>Turdus migratorius</i>	P
• Wood thrush	<i>Hylocichla ustulata</i>	S
Eastern bluebird	<i>Sialia sialis</i>	P
• Starling	<i>Sturnus vulgaris</i>	P
Yellow warbler	<i>Dendroica petechia</i>	P
House sparrow	<i>Passer domesticus</i>	S
Eastern meadowlark	<i>Sturnella magna</i>	P
Red-winged blackbird	<i>Agelaius phoeniceus</i>	P
Baltimore oriole	<i>Icterus galbula</i>	S
• Common grackle	<i>Quiscalus quiscula</i>	R
Scarlet tanager	<i>Piranga olivacea</i>	P
• Cardinal	<i>Richemondia cardinalis</i>	P
Indigo bunting	<i>Passerina cyanea</i>	S
Purple finch	<i>Carpodacus purpureus</i>	U
American goldfinch	<i>Spinus tristis</i>	P
Veery sparrow	<i>Pooecetes graminea</i>	S
Tree sparrow	<i>Spizella arborea</i>	W
Chipping sparrow	<i>Spizella passerina</i>	S
• Field sparrow	<i>Spizella pusilla</i>	P
• Song sparrow	<i>Setoaniza melodia</i>	P
• Slate-colored junco	<i>Junco hyemalis</i>	W
American woodcock	<i>Philuhela minor</i>	S

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D. Regional Mammals

REGIONAL MAMMALS

<u>Common Name</u>	<u>Scientific Name</u>
*Opossum	Didelphis marsupialis
Masked shrew	Sorex cinereus
Short-tailed shrew	Blarina brevicauda
Least shrew	Cryptotis parva
*Eastern mole	Scalopus aquaticus
Little brown myotis	Myotis lucifugus
Keen's myotis	Myotis keenii
Silver-haired bat	Lasiurus noctivagus
Hoary bat	Lasiurus cinereus
Big brown bat	Eptesicus fuscus
Red bat	Lasiurus borealis
*Eastern cottontail rabbit	Sylvilagus floridanus
Woodchuck	Marmota monax
Eastern chipmunk	Tamias striatus
*Gray squirrel	Sciurus carolinensis
Fox squirrel	Sciurus niger
Southern flying squirrel	Glaucomys volans
*White-footed mouse	Peromyscus leucopus
*Meadow vole	Microtus pennsylvanicus
Pine vole	Microtus pinetorum
*Raccoon	Procyon lotor
Long-tailed weasel	Mustela frenata
Striped skunk	Mephitis mephitis
White tailed deer	Odocoileus virginianus
*Observed	

E. Regional Reptiles and Amphibians

REGIONAL REPTILES AND AMPHIBIANS

<u>Common Name</u>	<u>Reptiles</u>	<u>Scientific Name</u>
Eastern fence lizard		Sceloporus undulatus
Five-lined skink		Eumeces fasciatus
Broad-headed skink		Eumeces laticens
Brown snake		Storeria dekayi
Red-bellied snake		Storeria occipitomaculata
Ribbon snake		Thamnophis sauritus
Common garter snake		Thamnophis sirtalis
Eastern ringneck snake		Diadophis nunctatus
Eastern hognose snake		Heterodon nlatyrhionos
Worm snake		Carrhothis amoenus
Racer		Coluber constrictor
Rat snake		Elapshe obsoleta
Rough green snake		Opheodrys aestivus
Milk snake		Lampropeltis dolliata
Connerhead		Aphistrodon contortrix
Timber rattlesnake		Crotalus horridus
*Box turtle		Terrapine carolina

Amphibians

Jefferson salamander	Ambystona jeffersonianum
Spotted salamander	Ambystona maculatum
Marbled salamander	Ambystoma opacum
Went	Diemictylus viridescens
Red-backed salamander	Plethodon cinereus
Slimy salamander	Plethodon glutinosus
Red salamander	Pseudotriton ruber
Long-tailed salamander	Furycea longicauda
Eastern spadefoot	Scaphiopus holbrooki
Common american toad	Bufo terrestris
Woodhouse's toad	Bufo woodhouser
*Spring peeper	Hyla crucifer
Gray treefrog	Hyla versicolor
Chorus frog	Pseudacris nigrita
Bullfrog	Rana catesbeiana
Greenfrog	Rana clamitans
Leonard frog	Rana niwisiens
Wood frog	Rana sylvatica
Pickerel frog	Rana palustris

\*Observed