

FINAL ENVIRONMENTAL IMPACT STATEMENT

Section 4(f) Evaluation

**I-695: BALTIMORE BELTWAY
I-70 to MD Route 170**

**MD 295: BALTIMORE -
WASHINGTON EXPRESSWAY
MD Rte. 46/I-195 to the Baltimore City Line**



Prepared by

and

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MD DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

REPORT NUMBER:

CONTRACT NUMBER:

FHWA-MD-EIS-88-03-F

AW-758-151-072

2

REPORT NUMBER: FHWA-MD-EIS-88-03-F
REGION III

I-695: BALTIMORE BELTWAY
from I-70 to Md. Route 170
MD ROUTE 295: BALTIMORE-WASHINGTON EXPRESSWAY
from Md. Route 46/I-195 to the Baltimore City Line

FINAL ENVIRONMENTAL IMPACT STATEMENT
SECTION 4(f) EVALUATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
AND
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
COOPERATING AGENCY - U.S. ARMY CORPS OF ENGINEERS

Submitted Pursuant to 42 U.S.C. 4332 (2)(C) 23 C.F.R. 771,
and 49 U.S.C. 303

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

Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
Telephone: (301) 333-1130
Hours: 8:15 A.M. - 4:15 P.M.

Neil J. Pedersen
Maryland State Highway
Administration
Director, Office of Planning
and Preliminary Engineering

Sept. 5, 1991
Date

Mr. Herman Rodrigo
Planning, Research, Environmental
and Safety Engineer
Federal Highway Administration
The Rotunda - Suite 220
711 West 40th Street
Baltimore, Maryland 21211
Telephone: (301) 962-4440
Hours: 7:45 A.M. - 4:15 P.M.

Herman Rodrigo
Federal Highway Administration
Director, Office of Planning
and Program Development

Sept 9, 1991
Date

The purpose of this project is to accommodate increases in traffic volumes along both I-695 and Maryland Route 295 and to enhance traffic operations and safety. This purpose is to be achieved by adding a fourth lane to 9.0 miles of the Baltimore Beltway (I-695) and a third lane to 4.1 miles of the Baltimore-Washington Expressway (Maryland Route 295), and by modifying three existing interchanges. These improvements are designed to increase traffic capacity, improve safety conditions and enhance traffic operations.

A No-Build Alternate and Build Alternate, with Options, were considered and presented in the Draft Environmental Impact Statement (May 1988) and were presented at the Combined Location/Design Public Hearing (June 22, 1988). The Selected Action proposes mainline widening, with minor interchange ramp adjustments necessary to accommodate the widened Beltway. Three Interchange Options will provide for revisions to existing ramps or additional lanes to improve the operation of the I-70, Hollins Ferry Road and Maryland Route 295 interchanges.

SUMMARY

SUMMARY

1. Administrative Action
(Federal Highway Administration)

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

2. Informational Contacts

Additional information concerning this action may be obtained by contacting:

Mr. Louis H. Ege, Jr.
 Deputy Director
 Office of Planning and
 Preliminary Engineering
 State Highway Administration
 707 North Calvert Street
 Baltimore, Maryland 21202
 Telephone: (301) 333-1130
 Hours: 8:15 A.M. - 4:15 P.M.

Mr. Herman Rodrigo
 Planning, Research, Environmental
 and Safety Engineer
 Federal Highway Administration
 The Rotunda - Suite 220
 711 West 40th Street
 Baltimore, Maryland 21211
 Telephone: (301) 962-4440
 Hours: 7:45 A.M. - 4:15 P.M.

3. Description of Proposed Action

The purpose of this project is to accommodate projected increases in traffic volumes along both I-695 and Maryland Route 295 and to enhance traffic operations and safety. This purpose is to be achieved by widening 9.0 miles of the Baltimore Beltway (I-695) and 4.1 miles of the Baltimore-Washington Expressway (Maryland Route 295), and modifying three existing interchanges. These improvements are designed to increase traffic capacity, improve safety conditions and enhance traffic operations (see Figure S-1).

The Selected Action involves adding one lane in each direction to I-695 and Maryland Route 295. Along I-695, this would generally involve adding a fourth lane to the outside of the existing three lanes except in two locations. Along I-695 between I-95 and U.S. Route 40 the existing northbound roadway is four lanes. Therefore the additional lane of the Selected Action would provide a fifth lane. In the section between I-95 and Wilkens Avenue, the Selected Action involves adding two lanes to the outside of the existing roadway in order to improve the I-95 interchange operation. Along Maryland Route 295 the additional lane would be a third lane, added in the median to the existing two lanes.

The Selected Action also involves the modification of ramps within the I-695 interchanges at I-70, Hollins Ferry Road and Maryland Route 295.

5

The northern limit of this study along I-695 was extended to include the I-70 interchange after the approval of the Draft Environmental Impact Statement. The additional impacts associated with the improvements proposed at this interchange are relatively minor and therefore a Supplemental Environmental Impact Statement is not required.

Improvements to I-695 and Maryland Route 295 are consistent with goals of Baltimore County and Anne Arundel County. This project is listed in the "Development and Evaluation Program" of the 1990-1995 Consolidated Transportation Program of the Maryland State Highway Administration.

4. Alternates Considered

Alternates were presented to the public during the Alternates Public Meeting held November 26, 1985 and during the Combined Location/Design Public Hearing held June 22, 1988. The State Highway Administration's planning process, including coordination with the community and elected officials, has resulted in the selection of proposed improvements. The Selected Action is presented in detail in Section II of this document.

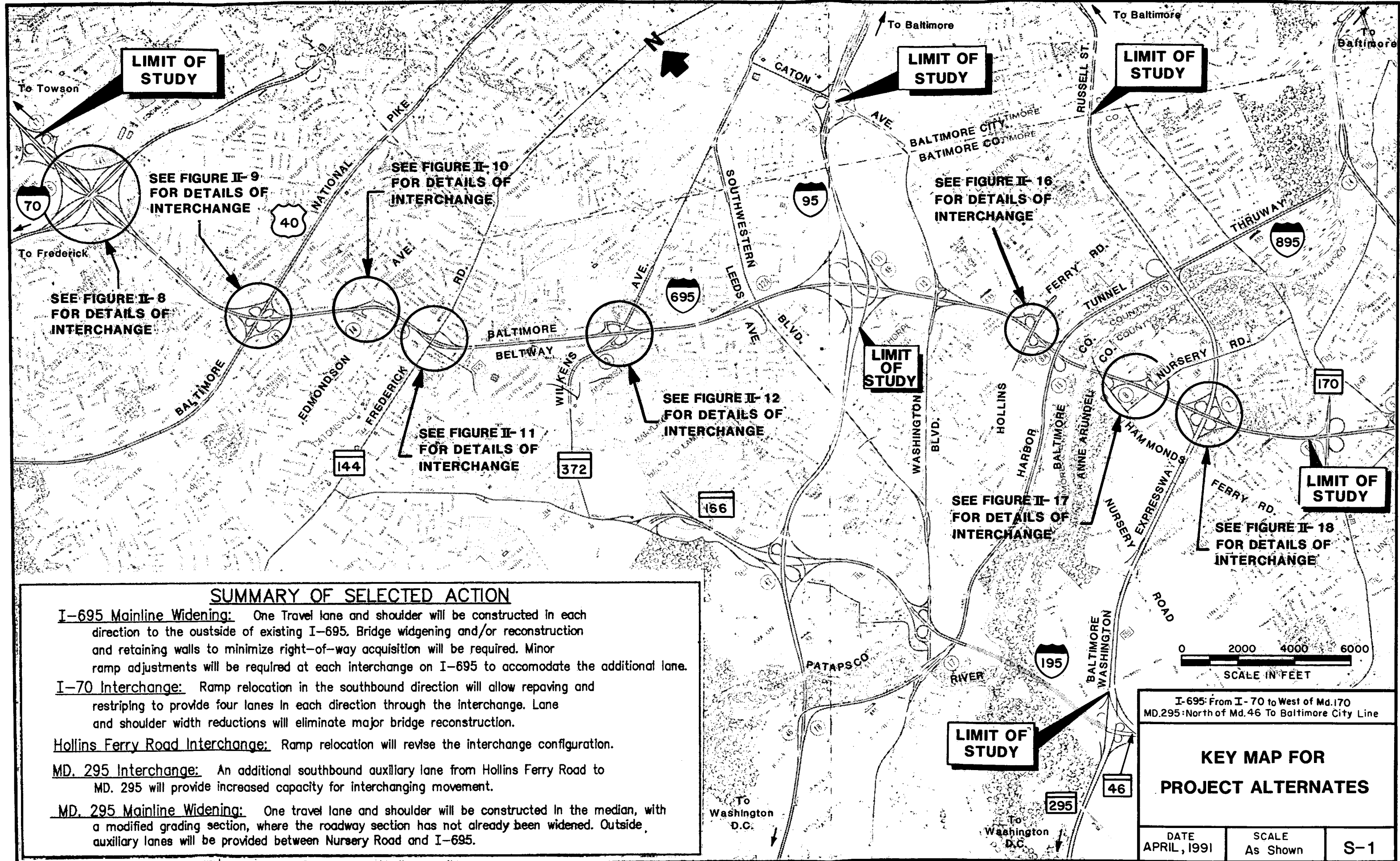
Alternate 1: No-Build

The No-Build Alternate would provide no major improvement or increases in capacity along the study segments of I-695 or Maryland Route 295. Improvements to I-695, Maryland Route 295 and their interchanges such as bridge deck replacement and resurfacing, would occur as part of normal highway maintenance and safety operations and would be provided where required within the existing highway right-of-way. Improvements currently programmed or under construction have been considered as part of the No-Build.

Alternate 2: Mainline Widening

This Alternate proposes the addition of one travel lane and a shoulder in each direction to the outside of existing I-695 and in the median of Maryland Route 295. Bridge widening and/or reconstruction and the provision of retaining walls to minimize right-of-way acquisition would be required. This alternate would require ramp adjustments at each interchange along I-695 to tie into the additional mainline lane. Major reconfiguration of the existing interchanges was not proposed.

The proposed Interchange Options were developed in order to be combined with alternates on an interchange by interchange basis. Interchange Options 1, 2 and 3 would provide interchange modifications based on examination of the safety and capacity constraints along I-695. Interchange Options were proposed at the following I-695 interchanges: U.S. Route 40, Edmondson Avenue (two options), Frederick Road, Wilkens Avenue, Hollins Ferry Road, and Nursery Road/Maryland Route 295 (three options).



SUMMARY OF SELECTED ACTION

I-695 Mainline Widening: One Travel lane and shoulder will be constructed in each direction to the outside of existing I-695. Bridge widening and/or reconstruction and retaining walls to minimize right-of-way acquisition will be required. Minor ramp adjustments will be required at each interchange on I-695 to accommodate the additional lane.

I-70 Interchange: Ramp relocation in the southbound direction will allow repaving and restriping to provide four lanes in each direction through the interchange. Lane and shoulder width reductions will eliminate major bridge reconstruction.

Hollins Ferry Road Interchange: Ramp relocation will revise the interchange configuration.

MD. 295 Interchange: An additional southbound auxiliary lane from Hollins Ferry Road to MD. 295 will provide increased capacity for interchanging movement.

MD. 295 Mainline Widening: One travel lane and shoulder will be constructed in the median, with a modified grading section, where the roadway section has not already been widened. Outside, auxiliary lanes will be provided between Nursery Road and I-695.

I-695: From I-70 to West of Md.170
MD.295: North of Md.46 To Baltimore City Line

KEY MAP FOR PROJECT ALTERNATES

DATE APRIL, 1991	SCALE As Shown	S-1
---------------------	-------------------	-----

7

Interchange Option 1 proposed a Collector-Distributor (C-D) road system at U.S. Route 40 and at Maryland Route 295, ramp relocations at Wilkens Avenue and Hollins Ferry Road, and mainline adjustments at Edmondson Avenue and Frederick Road. The improvements associated with these modifications required limited amounts of right-of-way.

Interchange Option 2 proposed a fly-over ramp from Maryland Route 295 to I-695, generally in a southern direction. This modified configuration would be compatible with the interchange movements providing direct access from northern Anne Arundel County to the City. At the Edmondson Avenue interchange, a second option proposed the relocation of Ramp D on a separate structure parallel to the mainline facility.

Interchange Option 3 utilized a portion of I-895 to allow City-bound traffic from northern Anne Arundel County to use I-895. Ramps were proposed at the I-895 'Y' split interchange and the I-895/Maryland Route 295 interchange.

5. Selected Action

Following review of public and agency comments, the following Alternates/Options were selected: Alternate 2 - mainline widening on I-695 and Maryland Route 295; improvements at the I-70 interchange; Interchange Option B at the Hollins Ferry Road interchange; and Option 1 - reduced grading section on Maryland Route 295. The reasons for these selections are as follows (see Section II for more details):

- The Build Alternate was chosen along I-695 because the No-Build Alternate would not alleviate chronic traffic congestion and safety problems. The Build Alternate increases the existing capacity by adding a fourth lane in each direction on the Beltway and a third lane in each direction on Maryland Route 295.
- The Build alternate would involve minor ramp adjustments at each of the interchanges, primarily in the ramp gore areas to accommodate the widening. At Frederick Road, Ramp F would be realigned directly across from Ramp E to allow for future signalization.
- The build alternate would involve adding a fifth lane along the southbound roadway between Hollins Ferry Road and Maryland Route 295. This will provide additional capacity for interchanging movements along the facility. This option was studied following the Combined Location/Design Public Hearing.
- Along Maryland Route 295, Option 1 was chosen because it retains the integrity of the parkway-type facility.

- 8
- Improvements at the I-70 interchange would consist of a ramp relocation combined with repaving and restriping in the southbound direction. Repaving and restriping in the northbound direction would also be done. These, improvements were studied following the Combined Location/Design Public Hearing.
 - Option B was chosen at the Hollins Ferry Road interchange because it does not affect the railroad structure over the Beltway and allows continued operation of the on-ramp from I-895. This option was one of four studied following the Combined Location/Design Public Hearing.

6. Environmental Impacts

The major concern of the residents in the communities within the Study Area is the impact of highway noise. The SHA has several noise barrier projects (identified as Type II, Retrofit) completed or in the design phase. These projects address the noise generated by current traffic conditions. Noise levels as a result of the widening project have been predicted by evaluating the traffic conditions which would occur in the 2015 design year. The noise analysis indicates that there would be some areas for which noise abatement criteria would be exceeded under Selected Action conditions. Based on the noise analysis study completed to date, SHA has determined that noise abatement measures in the form of barriers at NSAs A, B, D, E, F, H, HH, II, L, S, V, W, and Z are considered reasonable and feasible. A final decision on implementation of abatement measures will be made during the design phase of the project.

The Selected Action would not adversely affect the socio-economic character of the Study Area. The established communities along the Beltway and Maryland Route 295 would not be divided, nor would their pedestrian or vehicular access be modified. There would be no violations of State or national ambient air quality standards for carbon monoxide with the Selected Action.

The level of traffic service would be improved with the increase in capacity provided by the additional lanes constructed with the Selected Action. In addition, the accident rate and cost associated with accidents would decrease with the Selected Action.

The three historic sites, which are National Register Eligible (NRE), and two archaeological sites located in the Study Area would not be impacted by the Selected Action.

7. Section 4(f) Impacts

The Selected Action for the widening of I-695 and Maryland Route 295 would affect one Section 4(f) resource. Impacts to this resource consist of 0.13 acres, primarily used for parking for a school facility (Maiden Choice Center). The investigation of avoidance and mitigation has shown that there is acceptable replacement due to the loss of access and parking spaces directly on the school site. Through coordination with Baltimore County Public Schools this issue has been resolved.

8. Permits Required

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

U.S. Army Corps of Engineers

Maryland Department of the Environment
Water Quality Certificate

Maryland Department of Environment
Stormwater Management Plan and Sediment Control Plan

Maryland Department of Natural Resources
Waterway Construction Permit

9. Summary of Impacts

Table S-1 compares impacts associated with the No-Build Alternate and the Selected Action.

TABLE S-1: COMPARISON OF ALTERNATES (1 OF 3)

I-695: From I-70 to Maryland Route 170 (9.0 miles)
 MD 295: From Maryland Rte. 46/I-195 to the Baltimore City Line (4.1 miles)

<u>Comparison Factor</u> (and Section IV references)	<u>Alt. 1</u> <u>No-Build</u>	<u>Selected</u> <u>Action</u>
<u>Social Impacts</u> (Section IV-B)		
1. Properties Affected	0	10
2. Private Property Required (acres)		
Residential		2.5
Commercial		7.1
<u>Agricultural</u>		<u>0</u>
Total Acres	0	9.6
3. Residences Displaced	0	1
<u>Economic Impacts</u> (Section IV-B)		
1. Businesses Displaced	0	0
2. Long-term effect on Business	Adverse	Beneficial
<u>Land Use Plans</u> (Section IV-B)		
Consistent with adopted Regional & County Land Use Plans	No	Yes
<u>Air Quality</u> (Section IV-E)		
1. Conformity with State Implementation Plan for Air Quality	See discussion on page IV-21	
2. Number of violations of National and State one-hour CO Standard in 2015	0	0
3. Number of violations of National and State eight-hour CO standard in 2015	0	0
<u>Noise Levels</u> (Section IV-F)		
1. Range of existing Noise Levels, 1986 thru 1991, dBA (Leq)	57-73	-
2. Predicted range of Noise Levels at selected receptors in 2015, dBA	59-75	61-75
3. Number of noise sensitive areas exceeding FHWA Noise Abatement Criteria	21	21

TABLE S-1: COMPARISON OF ALTERNATES (2 OF 3)

I-695: From I-70 to Maryland Route 170 (9.0 miles) MD 295: From Maryland Route 46/I-195 to the Baltimore City Line (4.1 miles)					
<u>Comparison Factor</u> (and Section IV references)		<u>Alt. 1</u> <u>No-Build</u>		<u>Selected</u> <u>Action</u>	
<u>Traffic</u> (Section IV-C)		2015 <u>Peak Hour</u>		2015 <u>Peak Hour</u>	
		<u>Traffic</u> <u>Volumes</u> (vph)	<u>LOS</u>	<u>Traffic</u> <u>Volumes</u> (vph)	<u>LOS</u>
a. I-695: South of U.S. Route 40					
	AM Northbound	5,700	D	6,300	C
	AM Southbound	6,500	D	6,900	D
	PM Northbound	7,300	D	7,800	C
	PM Southbound	6,100	D	6,300	C
b. Maryland Route 295: South of I-695					
	AM Northbound	3,200	E	3,200	B
	AM Southbound	5,200	F	5,200	D
	PM Northbound	5,200	F	5,200	D
	PM Southbound	3,100	D	3,100	B
<u>Safety Operations</u> (Section IV-C)					
Anticipated degree of highway safety provided to the motorists		Less than desirable		Improved	
<u>Streams</u> (Section IV-D.3)					
1.	Linear Feet of Permanent Stream Relocation	0		0	
2.	New Stream Crossings	0		0	
<u>Wetlands</u> (Section IV-D.5)					
Acres of wetland taken (non-tidal)		0		0.065 Ac.	
<u>Floodplains</u> (Section IV-D.6)					
Acres of encroachment onto 100-year floodplain		0		0	

TABLE S-1: COMPARISON OF ALTERNATES (3 OF 3)

I-695: From I-70 to Maryland Route 170 (9.0 miles)
MD 295: From Maryland Route 46/I-195 to Baltimore City Line (4.1 miles)

<u>Comparison Factor</u> (and Section IV references)	<u>Alt. 1</u> <u>No-Build</u>	<u>Selected</u> <u>Action</u>
<u>Woodlands</u> (Section IV-D.8) Acres of woodland required	0	0
<u>Parklands/Recreation</u> (Section IV-D.10) Impacts to Maiden Choice Center - School	0	0.13 Ac.
<u>Farmland</u> (Section IV-D.2) 1. Farms displaced 2. Agricultural land required (acres) 3. Prime farmland soils required (acres)	0 0 0	0 0 0
<u>Impacts to Historical & Archaeological Sites</u> (Section IV-G) 1. Impacts to historic sites on or eligible for National Register 2. Impacts to archaeological sites	None 0	None 0
<u>Construction Costs (Millions 1991 \$)</u> 1. Engineering 2. Right-of-Way/Relocation 3. Highways & Structures <u>TOTAL</u>	0 0 <u>0</u> None	\$ 18.6M 1.9 <u>235.7</u> <u>\$256.2M</u>

TABLE OF CONTENTS

T A B L E O F C O N T E N T S

<u>TITLE PAGE</u>	<u>PAGE NO.</u>
<u>SUMMARY</u>	
1. Administrative Action	S-1
2. Informational Contacts	S-1
3. Description of Proposed Action	S-1
4. Alternates Considered	S-2
5. Selected Action	S-3
6. Environmental Impacts	S-4
7. Section 4(f) Impacts	S-4
8. Permits Required	S-5
9. Summary of Impacts	S-5
<u>TABLE OF CONTENTS</u>	i
<u>LIST OF TABLES</u>	vii
<u>LIST OF FIGURES</u>	ix
<u>I. PURPOSE AND NEED</u>	
A. Project Location	I-1
B. Project Description	I-1
C. Purpose of Study	I-4
D. Need for the Project	
1. The Regional Transportation Problem	I-4
2. Existing Traffic Problems	I-7
3. Design Deficiencies of the I-695 Existing Facility	I-8
4. Safety	I-10
5. Relationship to Other On-Going Projects	I-11
<u>II. ALTERNATES</u>	
A. Alternates Presented at the Alternates Public Meeting	II-1
B. Alternates Presented at the Combined Location/Design Public Hearing	II-2
1. Alternate 1 - No-Build	II-3
2. Alternate 2 - Mainline Widening	II-3
3. Interchange Options 1, 2 and 3	II-4
4. Maryland Route 295 Alternate 2 - Mainline Widening	II-5

15

TABLE OF CONTENTS
(Continued)

	<u>PAGE NO.</u>
II. <u>ALTERNATES</u> (continued)	
C. Selected Action	
1. Introduction	II-6
2. Selected Action	II-7
3. Selected Interchange Options	II-10
4. Grading Alternatives	II-11
5. Auxiliary Lanes	II-13
6. Bridges	II-13
7. Interchange Options Not Selected	II-17
D. Design Exceptions	II-22
E. Construction Techniques	II-31
III. <u>AFFECTED ENVIRONMENT</u>	
A. Introduction	III-1
B. Socio-Economic Overview	
1. Social Environment	III-1
a. Population	III-1
b. Population Characteristics	III-6
c. Neighborhoods	III-6
d. Community Facilities and Services	III-6
i. Churches	III-6
ii. Schools	III-9
iii. Parks and Recreation Areas	III-10
iv. Law Enforcement and Fire Protection Services	III-10
v. Medical Facilities	III-12
2. Economic Setting	III-12
3. Land Use	
a. Existing Land Use	III-13
i. Baltimore County	III-13
ii. Anne Arundel County	III-14
b. Future Land Use/Planning	III-14
C. Traffic and Safety	
1. Transportation Facilities	III-15
2. Traffic Operations	
a. Volumes	III-19
b. Level of Service	III-21
3. Accidents and Safety	III-23

TABLE OF CONTENTS
(Continued)

	<u>PAGE NO.</u>
III. <u>AFFECTED ENVIRONMENT</u> (continued)	
D. Natural Environment	
1. Climate	III-26
2. Geological	
a. Topography and Geology	III-26
b. Soils	III-27
c. Mineral Resources	III-28
3. Water Resources and 100-Year Floodplain	
a. Surface Water and Groundwater	III-29
b. 100-Year Floodplain	III-32
4. Upland and Wetland Vegetation Systems	III-32
5. Terrestrial and Aquatic Habitat	III-42
6. Prime Farmland	III-43
7. Woodlands	III-43
8. Rare, Threatened and Endangered Species	III-43
9. Parklands	III-44
10. Existing Sensitive Natural Areas	III-44
E. Air Quality	III-45
F. Noise	
1. Description of Noise Sensitive Areas	III-45
2. Ambient Noise Levels	III-49
G. Cultural Resources	
1. Historic Sites	III-50
2. Archaeological Sites	III-51
 IV. <u>ENVIRONMENTAL CONSEQUENCES</u>	
A. Introduction	IV-1
B. Social, Economic and Land Use	
1. Social	IV-1
2. Economic	IV-3
3. Land Use	IV-4
C. Transportation	
1. Traffic Volumes	IV-5
2. Traffic Operations	IV-6
3. Accidents	IV-8
D. Natural Environment	
1. Effects on Topography, Geology and Soil	IV-9
2. Effects on Farmland	IV-10
3. Effects on Water Resources	IV-10
4. Effects on Coastal Resources	IV-13
5. Effects on Wetlands	IV-13
6. Effects on Floodplains	IV-15
7. Effects on Terrestrial Habitat	IV-17
8. Effects on Woodlands/Reforestation	IV-17
9. Effects on Wildlife, Threatened or Endangered Species	IV-18
10. Effects on Parklands	IV-18
11. Effects on Sensitive Natural Areas	IV-18
12. Effects on Visual Quality	IV-19

17

TABLE OF CONTENTS
(Continued)

	<u>PAGE NO.</u>
IV. <u>ENVIRONMENTAL CONSEQUENCES</u> (continued)	
E. Air Quality Impacts	
1. Findings	IV-20
2. Analysis Objectives and Methodology	IV-20
3. Consistency with State Implementation Plan	IV-21
4. Construction Impacts	IV-21
F. Noise Impact Analysis	
1. Noise Abatement Criteria and Land Use Relationships	IV-25
2. Predicted Noise Levels	IV-27
3. Impact Analysis and Feasibility of Noise Control	IV-27
4. Other Mitigation Measures	IV-49
5. Summary	IV-49
6. Construction Impacts	IV-50
G. Cultural Resources	
1. Impact on Historic Sites	IV-50
2. Impact on Archaeological Sites	IV-51
H. Relationship Between Short-Term Effects and Long-Term Productivity and Enhancement	IV-51
I. Irreversible and Irretrievable Commitment of Resources	IV-52
V. <u>SECTION 4(f) EVALUATION</u>	
A. Introduction	V-1
B. Description of the Selected Action	V-1
C. Description of 4(f) Resource	V-2
D. Impacts of the Selected Action	V-2
1. Air Quality Impacts	V-3
2. Noise Impacts	V-4
E. Avoidance Options and Their Impacts	V-4
F. Mitigation	V-6
G. Summary	V-7
H. Coordination	V-7
VI. <u>LIST OF PREPARERS</u>	VI-1
VII. <u>DISTRIBUTION LIST</u>	VII-1
VIII. <u>COMMENTS AND COORDINATION</u>	VIII-1
A. Agency Comments Received on the Draft EIS (May 1988) and Responses Thereto Concerning the Selected Action	VIII-A1
B. Summary of and Responses to Public Hearing Testimony	VIII-B1
C. Summary of and Responses to Public Written Comments	VIII-C1
D. Agency Coordination	VIII-D1
E. Community Association Coordination	VIII-E1

T A B L E O F C O N T E N T S
(Continued)

	<u>PAGE NO.</u>
IX. <u>APPENDICES</u>	
APPENDIX A - Figures II-1 through II-22	A-1
APPENDIX B - Supporting Data	B-1
APPENDIX C - Summary of the Relocation Assistance Program of the State Highway Administration of Maryland.	C-1
APPENDIX D - Glossary	D-1
APPENDIX E - Index	E-1

19

T A B L E O F C O N T E N T S
(Continued)
L I S T O F T A B L E S

<u>Section and Number</u>	<u>Title</u>	<u>Page</u>
SUMMARY		
S-1	Comparison of Alternates	S-6
SECTION II: Alternates		
II-1	Summary of I-695 Alternates and Interchange Options	II-8
II-2	Existing and Proposed Lanes on I-695	II-14
II-3	I-695 Selected Action Bridge Impacts	II-16
II-4	Maryland Route 295 Selected Action Bridge Impacts	II-16
II-5	AASHTO Design Exceptions Required with Selected Action - I-695 Mainline and Ramp Geometrics	II-25
II-6	AASHTO Design Exceptions Required with Selected Action - I-695 Horizontal and Vertical Clearance	II-27
II-7	AASHTO Design Exceptions Required with Selected Action - I-95 Horizontal and Vertical Clearance	II-29
II-8	AASHTO Design Exceptions Required with Selected Action - Md. 295 Horizontal Clearance	II-30
SECTION III: Affected Environment		
III-1	Regional Population Data	III-2
III-2	Study Area Employment by Classification	III-5
III-3	Study Area Population Characteristics	III-7
III-4	Study Area Park Facilities	III-10
III-5	Station #350 Ambulance Response Data	III-11
III-6	I-695/Md. 295/I-895 Mainline Average Daily Traffic (ADT)	III-20
III-7	I-695/Md. 295 Mainline Level of Service	III-22
III-8	I-695/Interchange Accident Data	III-24
III-9	Baltimore Metropolitan Area Monthly Average Temperature and Rainfall Data	III-26
III-10	Study Area Wetlands	III-34
III-11	I-695/Md. 295/I-895 Ambient Noise Levels	III-46
III-12	Study Area Historic Sites	III-50

T A B L E O F C O N T E N T S
(Continued)
L I S T O F T A B L E S

<u>Section and Number</u>	<u>Title</u>	<u>Page</u>
SECTION IV: Environmental Consequences		
IV-1	Wetland Impacts	IV-16
IV-2	Summary: CO Concentrations	IV-20
IV-3	Air Receptor Sites	IV-22
IV-4	One-Hour CO Concentrations	IV-23
IV-5	Eight-Hour CO Concentrations	IV-24
IV-6	Noise Abatement Criteria Specified in 23 CFR 772	IV-26
IV-7	Comparison of Ambient and Predicted Leq Noise Levels	IV-28
IV-8	Noise Abatement Analysis Summary	IV-46
 APPENDIX B: Supporting Data		
B-1	Analysis of Comments - Alternates Public Meeting	B-2
B-2	Summary of Responses Resulting from Location/Design Public Hearing	B-3
B-3	Study Area Population Data	B-4
B-4	Study Area Household Data	B-5
B-5	Classifications of Employment	B-6
B-6	Wetland Classifications in Study Area	B-7

21

TABLE OF CONTENTS
(Continued)

LIST OF FIGURES

<u>Figure Number</u>	<u>Title</u>	<u>Follows Page</u>
SUMMARY		
S-1	Key Map for Project Alternates	S-2
SECTION I: Purpose and Need		
I-1	Project Location Map	I-2
I-2	I-695 Study Area	I-2
I-3	Md. 295/I-895 Study Area	I-4
SECTION II: Alternates (see Mapping in Appendix A)		
II-1	I-695 Index	II-8
II-2	Md. 295 Index and Project Legend	II-8
SECTION III: Affected Environment		
III-1,2	I-695 Census Tracts, Md. 295/I-896 Census Tracts	III-2
III-3,4	I-695 Environmental Inventory Map, Md. 295 Environmental Inventory Map	III-8
III-5,6	I-695 Land Use, Md. 295/I-895 Land Use	III-14
III-7	Average Daily Traffic Volumes	III-16
III-8	I-695 ADT at Station #32	III-16
III-9	Md. 295 ADT at Station #25	III-16
III-10	High Accident Locations	III-22
SECTION IV: Environmental Consequences		
IV-1	I-695 Year 2015 Traffic Flow Curve	IV-6
IV-2	Md. 295 Year 2015 Traffic Flow Curve	IV-6
IV-3	Noise Sensitive Areas and Air & Noise Monitoring Sites	IV-20
SECTION V: Section 4(f) Statement		
V-1	Location of Section 4(f) Impact Area	V-2
V-2	4(f) Involvement at Maiden Choice Center	V-2
V-3	Cross Section at 4(f) Impact Site No. 1	V-2
V-4	4(f) Avoidance at Maiden Choice Center	V-7

22

TABLE OF CONTENTS
(Continued)

LIST OF FIGURES
(Continued)

<u>Figure Number</u>	<u>Title</u>	<u>Follows Page</u>
Appendix A: Alternates Mapping		
II-1	I-695 Index	A-1
II-2	Md. 295 Index and Project Legend	A-1
II-3	Typical Sections I-695 Selected Action Mainline Widening	A-1
II-4	Typical Sections I-695 Selected Action Mainline Widening	A-1
II-5	Typical Sections I-695/Md. 295 Selected Action Mainline Widening	A-1
II-6	Typical Sections Md. 295 Selected Action Mainline Widening	A-1
II-7	Typical Sections Selected Action on I-95	A-1
II-8	Selected Action - I-695: I-70 Interchange to North of US Route 40	A-1
II-9	Selected Action - I-695: North of US 40 to South of Ingleside Avenue	A-1
II-10	Selected Action - I-695: North of Edmondson Ave. to South of Edmondson Avenue	A-1
II-11	Selected Action - I-695: North of Frederick Road to South of Frederick Road	A-1
II-12	Selected Action - I-695: North of Wilkens Avenue to South of Wilkens Avenue	A-1
II-13	Selected Action - I-695: North of Westland Boulevard to South of Benson Avenue	A-1
II-14	Selected Action - I-695: North of I-95 to South of Washington Blvd.	A-1
II-15	Selected Action - I-95: I-695 to Caton Avenue	A-1
II-16	Selected Action - I-695: North of B&O Railroad to South of Harbor Tunnel Thruway	A-1
II-17	Selected Action - I-695: North of Hammonds Ferry Road to South of Nursery Road	A-1
II-18	Selected Action - I-695: North of Md. 295 to North of Md. 170	A-1
II-19	Selected Action - Md. 295: Limit of Study to South of West Nursery Road	A-1
II-20	Selected Action - Md. 295: South of West Nursery Road to South of Hammonds Ferry Road	A-1
II-21	Selected Action - Md. 295: South of I-695 to Patapsco River	A-1
II-22	Selected Action - Md. 295: South of I-895 to Limit of Study	A-1

SECTION I

PURPOSE AND NEED

I. PURPOSE AND NEED

A. PROJECT LOCATION

This project encompasses the southwestern portion of the Baltimore Beltway (I-695) and portions of I-95, Maryland Route 295 and I-895 in the vicinity of the Beltway. The Baltimore Beltway carries high volumes of commuter traffic, as well as high truck volumes, and encircles Baltimore City. Mainline sections vary from two to four lanes per direction (see Figure I-1). The portion of I-695 in the Study Area is located in southwestern Baltimore and northern Anne Arundel Counties.

The portion of I-95 in the Study Area provides four lanes of traffic in each direction and a directional interchange with the Beltway. I-95 carries interstate traffic along the northeast corridor between Maine and Florida. The Ft. McHenry Tunnel provides a connection for I-95 through Baltimore City.

Maryland Route 295 provides a direct link between Baltimore and Washington, D.C., and also provides access to Maryland Route 46/I-195, the major connection between I-95 and the Baltimore-Washington International (BWI) Airport. Maryland Route 46/I-195 is used by Baltimore and Washington, D.C. area commuters to access employment facilities in the growing BWI business vicinity, as well as the airport. In the Maryland Route 295 Study Area, located in northern Anne Arundel County and southwestern Baltimore County, the existing facility consists of two travel lanes per direction. A third lane has been added between the Baltimore City Line and Hammonds Ferry Road in the southbound direction only. The existing Maryland Route 295 transitions in the northern portion of the project to a six-lane section and in the City to Russell Street, a major Baltimore City arterial. Trucks are prohibited on Maryland Route 295 south of Maryland Route 176, but are not restricted within the Study Area.

Discussion of this project within this document has oriented the Baltimore Beltway and Maryland Route 295 in a north/south direction. References to the inner and outer loops of the Beltway refer to the northbound and southbound roadways, respectively.

B. PROJECT DESCRIPTION

This document evaluates improvement alternatives for I-695 and Maryland Route 295. As discussed in Section II-B, the existing highways have full control of access. Several of the interchange ramps and several mainline sections experience accident rates which exceed the statewide average rate, as designated by SHA Bureau of Accident Statistics. Future growth will increase traffic volumes, causing further increases in traffic congestion and deterioration and accident rates.

25

I-695 - Baltimore Beltway

The Baltimore Beltway, crossing through Baltimore and Anne Arundel Counties, is one of the most important highways in the Baltimore Metropolitan Area. In addition to regional transportation of goods and services, the circumferential highway is an important commuter route. The Study Area portion of I-695 provides connections between I-70 on the north and I-95, I-895 and Maryland Route 295, as well as I-97, Maryland Route 10 and the Francis Scott Key Bridge to the south and east.

The I-695 study limits (see Figure I-2) extend in a southeastern direction from the I-70 interchange to just west of Maryland Route 170. There are a total of twelve interchanges within the I-695 study limits. I-695 is currently three lanes in each direction, separated by a concrete median barrier, with a fourth climbing lane provided in the northbound direction between I-95 and U.S. Route 40. Trucks are restricted from the inner two lanes along the northbound roadway in this four-lane section. The fourth lane drops at the ramp to I-70.

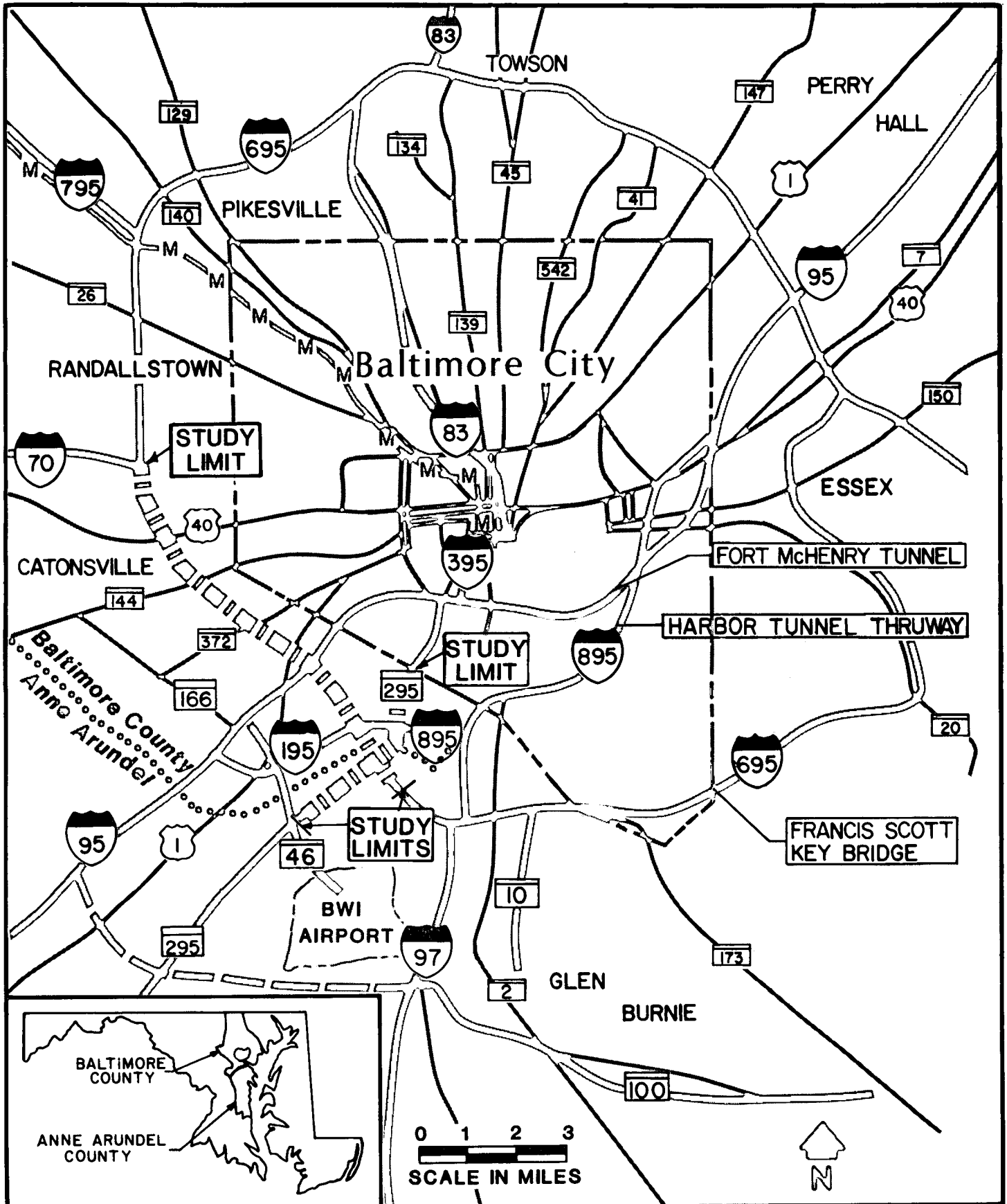
Freeway-to-freeway interchange connections are located along I-695 at I-70, I-95, I-895 and Maryland Route 295. The land use adjacent to I-695 between I-70 and I-95 is residential, whereas the section between I-95 and Maryland Route 295 is industrial. This difference in land use is reflected in the percent of truck traffic during the design hour in the two segments:

<u>I-695 Segment</u>	<u>% Trucks (design hour)</u>
U.S. Route 40 to I-95	4%
I-95 to Maryland Route 170	8%


Evaluation of improvements to the southwestern portion of the Beltway begin in the vicinity of the I-70 directional interchange. In this portion of the Study Area, I-695 passes through the residential communities of Westview Park, Edmondson Ridge, Dunmore Estates, Catonsville, Paradise and Arbutus. Access to the Beltway is provided at U.S. Route 40 by a full cloverleaf interchange; at Edmondson Avenue by a partial diamond interchange; at Frederick Road (Maryland Route 144) by a full diamond interchange; at Wilkens Avenue (Maryland Route 372) by a partial cloverleaf interchange; and at Leeds Avenue/Southwestern Boulevard (US Route 1) by a half-diamond interchange.


The I-695/I-95 interchange is a fully directional interchange* except for one loop ramp (which provides for movement from northbound I-695 to southbound I-95). At three locations within the interchange, the merging of two ramps, prior to the merge with the mainline of I-695 or I-95, results in conflicts due to high traffic volumes.

* All movements are high speed and free flowing, with no weaving sections.



LEGEND

PROJECT LOCATION 

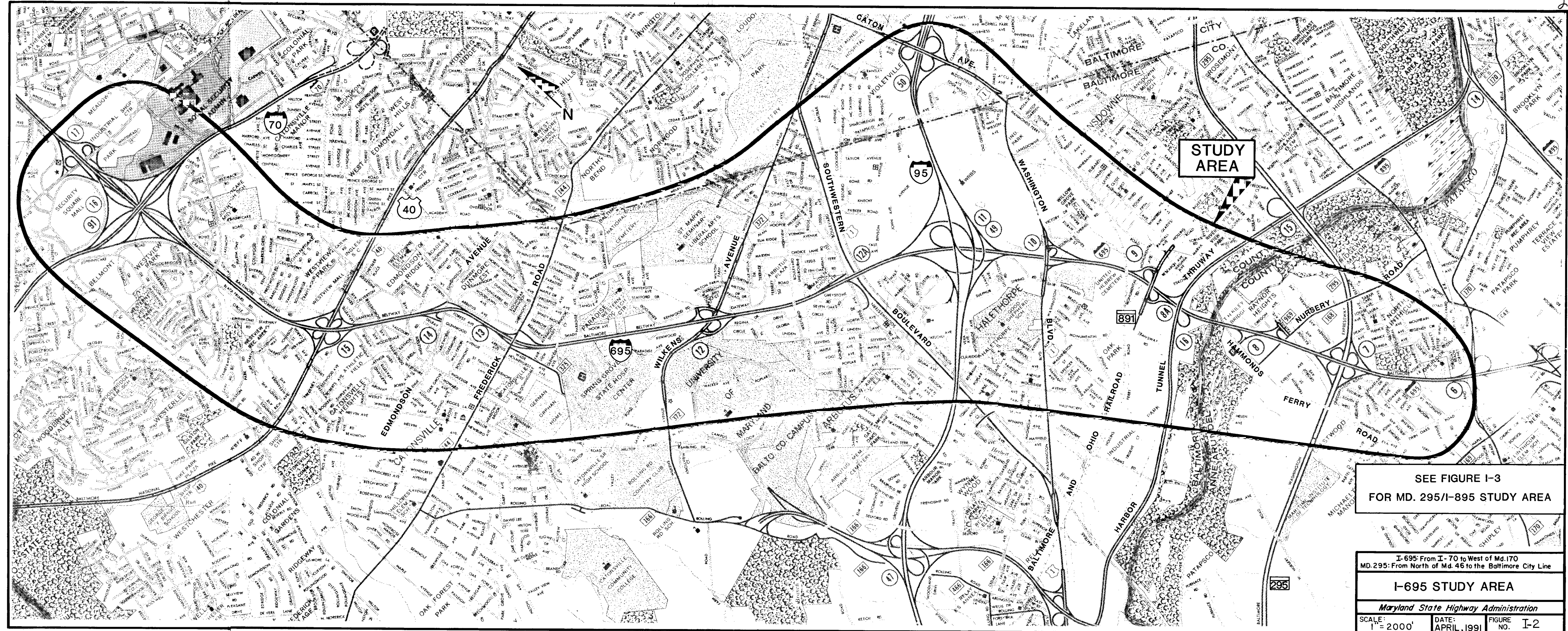
AREA OF HIGHWAY AND INTERCHANGE CONSTRUCTION PROPOSED BY OTHER SHA PROJECTS 

I-695: From I-70 to West of Md.170
 MD. 295: From North of Md. 46 to the Baltimore City Line

PROJECT LOCATION MAP

Maryland State Highway Administration

SCALE: As Shown	DATE: APRIL, 1991	FIGURE NO. I-1
--------------------	----------------------	-------------------



STUDY AREA

SEE FIGURE I-3
FOR MD. 295/I-895 STUDY AREA

I-695: From I-70 to West of Md.170
MD.295: From North of Md.46 to the Baltimore City Line

I-695 STUDY AREA

Maryland State Highway Administration

SCALE: 1" = 2000' DATE: APRIL, 1991 FIGURE NO. I-2

South of I-95, the Beltway crosses through a more industrialized area, beginning at Washington Boulevard (U.S. Route 1 Alternate), where the interchange provides six of the eight possible ramp movements. The Beltway is crossed by the mainline of the Baltimore and Ohio (CSX) Railroad (89 trains per day, both freight and commuter); Hollins Ferry Road (Maryland Route 891), with a partial-cloverleaf interchange; and the Harbor Tunnel Thruway (I-895), with a partial interchange. The Beltway crosses the Patapsco Valley State Park and the Patapsco River, which is also the boundary between Baltimore and Anne Arundel Counties.

The Anne Arundel County portion of this study along I-695 includes two interchanges. The Nursery Road interchange is offset, and the four ramps access secondary roads prior to Nursery Road (Fairview Avenue to the east and Hammonds Ferry Road to the west). The Maryland Route 295 full cloverleaf interchange is adjacent to industrial development on the northern half of the interchange and residential development, close to the existing highway right-of-way, in the southern half of the interchange. Overlook Park is adjacent to the northbound Beltway roadway in North Linthicum. The southern boundary of this study joins I-97, which will provide five lanes in the northbound and southbound directions to the new I-695/I-97 interchange. The southern study limit of this project lies just north of the Maryland Route 170 interchange.

Maryland Route 295 - Baltimore-Washington Expressway

Maryland Route 295 is a four-lane expressway between Washington D.C. and Baltimore, with a transition to six lanes at the Baltimore City line, where Russell Street begins. A portion of the southbound roadway has also been widened between the City Line and just south of the bridge at Hammonds Ferry Road. Partially maintained by the National Park Service, the section of Maryland Route 295 in the Study Area is under the jurisdiction of the Maryland State Highway Administration (SHA). A new full interchange at Maryland Route 46/I-195 has been completed since this study began. This is the southern limit of the Baltimore-Washington Expressway portion of the project. The divided highway is currently crossed by West Nursery Road, Hammonds Ferry Road, I-695, Nursery Road, the Patapsco River, the Harbor Tunnel Thruway (I-895) and the Baltimore Highlands pedestrian overpass (see Figure I-3). A full cloverleaf interchange is provided at I-695/Maryland Route 295; partial access is provided at the Maryland Route 295 crossing of the Harbor Tunnel Thruway and full access is provided at W. Nursery Road.

I-95 - From South of I-695 to Baltimore City Line

I-95 is an interstate highway which extends along the east coast of the United States from Maine to Florida. In the Baltimore area, the eight-lane Ft. McHenry Tunnel (I-95), opened in November 1985, has provided relief to the previously over-utilized four-lane Harbor Tunnel Thruway (I-895). The new tunnel carries approximately 65,000 vehicles per day.

29

Within the Study Area, I-95 consists of an eight-lane facility, with a median that transitions from a wide grassed median at I-695 to a closed median prior to Caton Avenue. Interchanges are provided at I-695 and Caton Avenue.

C. PURPOSE OF STUDY

The purpose of this project is to accommodate increases in traffic volumes along both I-695 and Maryland Route 295 and to enhance traffic operations and safety. This purpose is to be achieved by widening 9.0 miles of the Baltimore Beltway (I-695) and 4.1 miles of the Baltimore-Washington Expressway (Maryland Route 295), and adjusting interchanges in order to increase traffic capacity, improve safety conditions and enhance traffic operations.

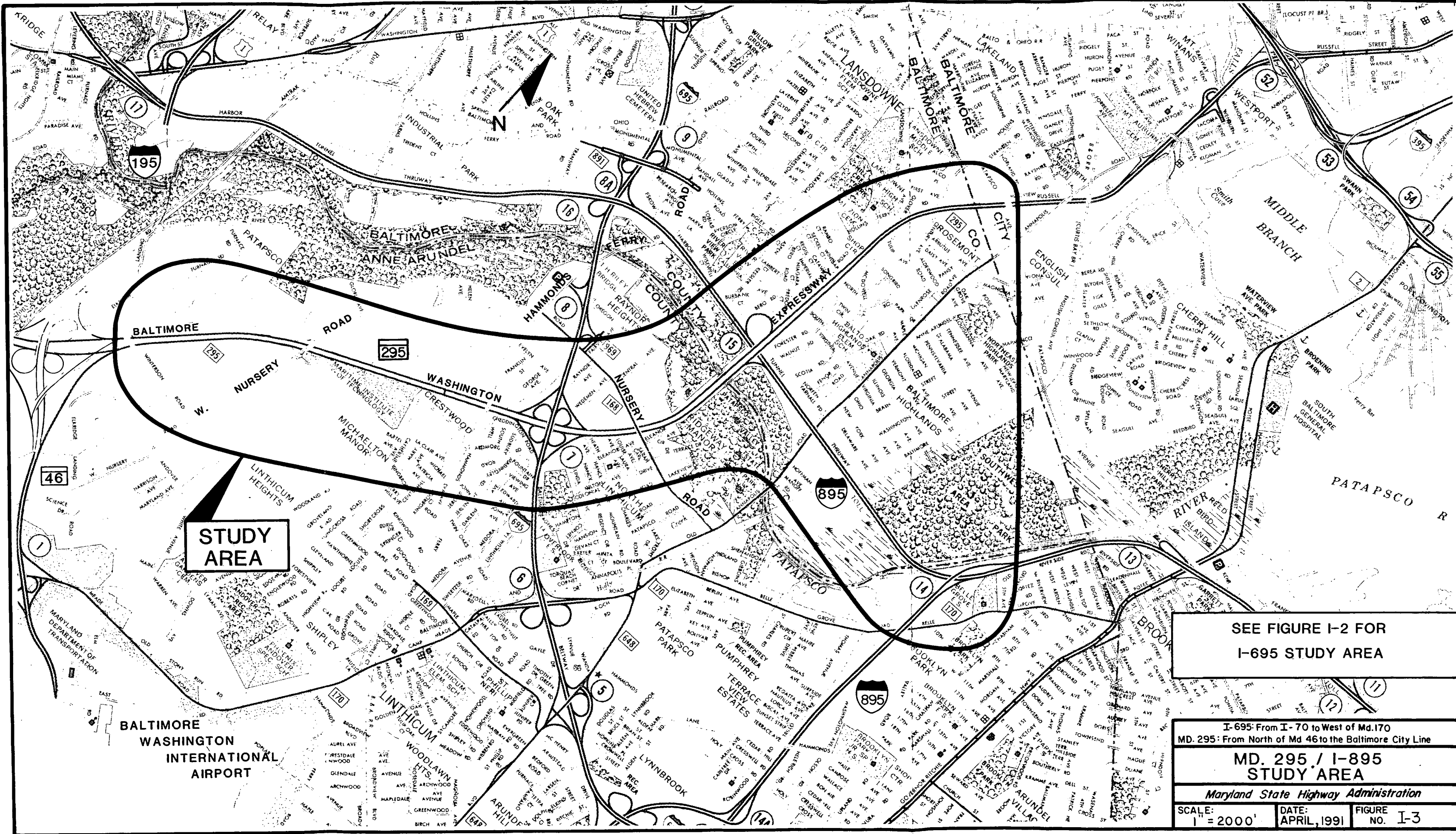
The Selected Action provides mainline widening, with minor interchange ramp adjustments necessary to tie into the widened facility. The interchange improvements proposed at I-70 would relocate one ramp, and include repaving, restriping and minor widening in both the northbound and southbound directions of I-695, thus providing four mainline lanes through the interchange and continuous auxiliary lanes between I-70 and U.S. Route 40. Interchange Option B at Hollins Ferry Road provides for reconfiguration of an existing ramp to improve the operations of the existing interchange configuration. A continuous auxiliary lane between Hollins Ferry Road and Maryland Route 295 will provide additional capacity for interchanging movements along the facility.

The Selected Action along Maryland Route 295 provides an additional mainline lane in each direction within the median to provide needed additional capacity. The reduced grading section will maintain the parkway characteristics of the facility. Outside lanes would provide auxiliary lanes between the two major interchanges: West Nursery Road and I-695.

D. NEED FOR THE PROJECT

1. The Regional Transportation Problem

Transportation changes in the Baltimore metropolitan area are very similar to trends experienced around the country in the past 10 to 15 years. For example, trip origins and destinations are becoming more scattered, and increasingly the metropolitan area lacks a single, highly concentrated activity center. Suburb-to-suburb commuting patterns are overtaking once dominant radial commuting patterns (to urban cores). In fact, the U. S. Census Bureau estimated that in 1980, almost twice as many commuters travelled from point-to-point within suburbs as travelled from suburb to central city.



STUDY AREA

SEE FIGURE I-2 FOR
I-695 STUDY AREA

I-695: From I-70 to West of Md.170
MD. 295: From North of Md 46 to the Baltimore City Line

**MD. 295 / I-895
STUDY AREA**

Maryland State Highway Administration

SCALE: 1" = 2000'	DATE: APRIL, 1991	FIGURE NO. I-3
----------------------	----------------------	-------------------

Increases in suburb-to-suburb travel are evident in the Baltimore metropolitan area, where traffic along the Beltway has become more congested. Current transportation and land use policies encourage development in what used to be remote areas of Baltimore and northern Anne Arundel Counties. As measured by its share of the region's total employment, the importance of the Baltimore Central Business District (CBD) has decreased. Suburban communities have experienced traffic congestion similar to the CBD as they become centers for industry, business and commerce.

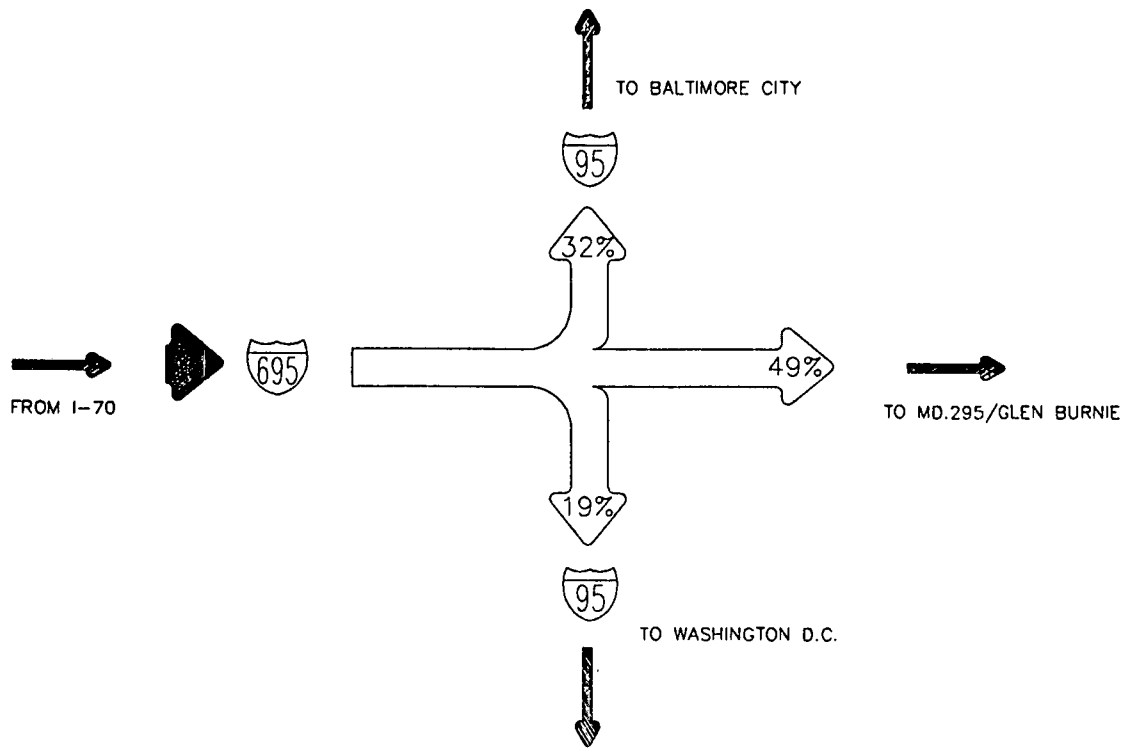
As residential and business areas become more dispersed, it is difficult to maintain an efficient bus and rail system. The quality of street and highway service becomes even more essential in maintaining urban mobility, especially for home-to-work trips. Auto dependency is substantiated by the fact that between 1964 and 1984, motor vehicle registrations in Anne Arundel County increased 202 percent, Baltimore County registrations increased 114 percent, and Baltimore City registrations increased 6.3 percent. Baltimore County currently has more motor vehicles registered than any other Maryland political sub-division. This trend, together with regular annual increases in statewide gross vehicle miles travelled, is expected to continue. The results will be increased congestion on the existing highway system, increased travel times and increased accidents.

Costs associated with increased congestion include excessive vehicle operating costs, wasted commuter time, higher accident rates, reduced industrial productivity and lost business efficiency. In response, there is a conscious effort being made to improve the quality of travel in the region. The transportation projects in the vicinity of the Study Area currently under study, design or construction are presented in Section I-D.5.

Increased mobility demands have contributed to increased traffic volumes on the Baltimore Beltway. Current average daily traffic (ADT) volumes on the Beltway vary from 103,000 vehicles west of Maryland Route 295 to 156,000 vehicles east of U.S. Route 40. Between 1983 and 1989, traffic volumes on the Beltway between I-95 and U.S. Route 40 have increased approximately 30 percent, with an additional increase of approximately ten percent anticipated by the 2015 design year. These rapidly increasing volumes will result in congestion on the Beltway before the design year. The 17 percent increase on Maryland Route 295 between 1983 and 1989 further justifies the need for capacity improvements. Analysis of the 2015 design year No-Build Alternate indicates that daily peak period traffic is expected to be roughly equivalent to the typical Friday evening rush hour as it exists today, which is characterized by recurrent stoppages.

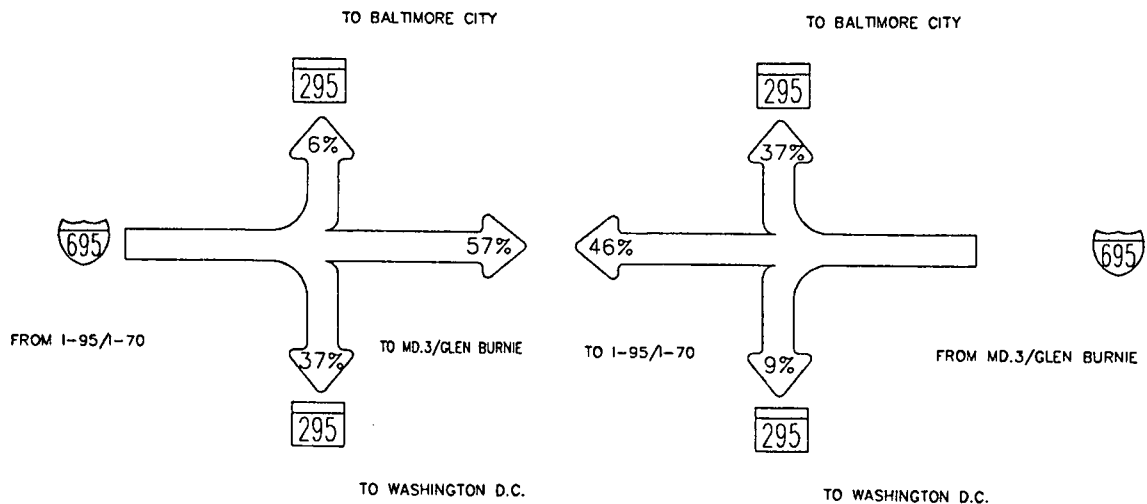
Due to the non-continuity of I-70, the portion of the Beltway between I-70 and I-95 carries traffic destined for the Ft. McHenry Tunnel, downtown Baltimore City and I-95 southbound, as well as suburban trips to destinations along the Beltway.

32



With the completion of Maryland Route 100 from I-97 to I-95, Interstate 195 from BWI to I-95, and Maryland Route 32 west to I-95, traffic which currently uses the Beltway to travel between areas in northern Anne Arundel and Howard County will have three additional east/west routes by which to travel, thus avoiding the Beltway. These new facilities, which will decrease the number of vehicles making that movement on I-695, have been incorporated into the analysis of design year traffic on the Beltway.

The completion of the upgrading of Maryland Route 3 to I-97 will primarily affect traffic movements from northern Anne Arundel County destined to either Baltimore City or the Beltway.



Traffic projections which were developed for this project assumed completion of the following projects:

- o Maryland Route 100: between I-97 and I-95
(and eventually to US Route 29)
- o I-195: from BWI to I-95
- o I-97: from I-595 (U.S. Route 50) to I-695

Traffic demand along Maryland Route 295 is largely commuter-related. A large increase in office construction growth in the BWI Airport vicinity is on-going. The reconstruction of the Maryland Route 295/Maryland Route 46 interchange, the extension of Maryland Route 46/I-195, and the completion of the West Nursery Road diamond interchange have improved access to BWI Airport and the growing number of employment facilities located in the vicinity.

This project provides improvements to important regional links between the Baltimore and Washington D.C. areas, as well as other areas. I-695 is a circumferential highway connection around the outskirts of Baltimore City, and a vital link to and from suburban residential and employment centers.

This study has been listed in the Maryland Department of Transportation Consolidated Transportation Program (CTP FY 1990-FY 1995) for both the Anne Arundel County and Baltimore County portions.

2. Existing Traffic Problems

Traffic conditions on this section of the Baltimore Beltway also affect operating conditions on the surrounding local and arterial street systems. Backups and delays on I-695, I-95 and Maryland Route 295 are common during peak hours. It is difficult for traffic to avoid this congestion except by diverting to local radial streets, resulting in adverse traffic congestion, and air and noise impacts to adjacent communities.

The Baltimore Beltway, originally designed to provide a Baltimore bypass, presently handles substantial volumes of commuter and through traffic. In the Study Area, between 103,000 and 156,000 vehicles per day (vpd) utilize the facility. Subsequent development in areas adjacent to the Beltway have also generated numerous local trips, which require frequent maneuvering at freeway interchanges. These include work trips from the City of Columbia, Howard, Prince George's and Montgomery Counties, and Washington, D.C., to and from employment centers north of the Beltway along I-95 and I-83. This combination of through and local trips, coupled with the high volume of truck traffic and less than desirable design features, have created intensely congested operating conditions during peak travel periods.

34

As growth in this region continues, the volume of traffic using area roadways will increase. Traffic conditions for this portion of the Baltimore Beltway, projected for the year 2015, are described in Section IV-C of this document. These projections emphasize the need to increase the capacity of this section of the Baltimore Beltway.

The 1989 ADT data for this portion of the Beltway indicates that the segments between I-70 and I-95 have increased approximately 34,000 vpd, an overall increase of 34 percent since 1983. Between Maryland Route 295 and I-95 the increase was approximately 10,000 vpd, an increase of approximately ten percent. With traffic volumes anticipated to increase over 40 percent by the year 2015, congestion on the section between I-70 and I-95 is anticipated to be a recurring situation.

Congestion is a daily occurrence on I-695 between I-70 and I-95 during the morning in the southbound direction and during the evening in the northbound direction. During the morning peak hour, a combination of insufficient roadway capacity, a large number of on-ramps, and geometric conflicts contribute to a very poor traffic level of service. This is evident in the stoppages between U.S. Route 40 and Wilkens Avenue, and again at the approach to I-95.

In the northbound direction congestion still occurs, although traffic entering from I-95 is constrained by the confluence of two lanes into one lane at the Beltway. The three percent grade between I-95 and U.S. Route 40 severely limits the roadway from being fully utilized. The high volume of truck traffic along this portion of the Beltway also contributes to the congestion.

Severe congestion is currently experienced in both the northbound and southbound directions in the vicinity of the I-695/I-95 interchange. Morning congestion at I-95 is evident along the southbound I-695 roadway, where heavy volumes of traffic exiting onto I-95 are constrained by the exit ramp. Evening congestion occurs on the southbound I-95 roadway where traffic queues along the ramp entering onto northbound I-695. Construction of an auxiliary lane between Caton Avenue and I-695 has recently been completed along southbound I-95 which has eased this congestion.

3. Design Deficiencies of the I-695 Existing Facility

A comparison of existing design features along the Beltway portion of the Study Area with current design policies indicates that there are several deficiencies in the original design. The Beltway was designed in the 1950's, when design standards did not have the complexity of current design standards.

In fact, since the Beltway was designed and constructed, the American Association of State Highway and Transportation Officials has revised their standards four times: A Policy On Arterial Highways in Urban Areas - 1957; A Policy On Geometric Design of Rural Highways - 1965; A Policy On Design of Urban Highways and Arterial Streets - 1973; and A Policy On Geometric Design of Highways and Streets - 1984. As the evolution of design elements has become more precise, Beltway traffic volumes have steadily increased, thus compounding design deficiencies on I-695.

Major design deficiencies along I-695 are summarized below (specific locations are cited). Section II - Alternates, describes the proposed improvements which address many of these deficiencies. However, due to cost and right-of-way constraints, all of the deficiencies cannot be addressed.

- Interchange spacing on the Study Area portion of the Beltway is less than desirable. While interchange spacing in an urban area is one mile between interchanges, there are 12 interchanges in this 9.0 mile portion. Compounding the problem of the closely spaced interchanges is the type of traffic utilizing the different sections. The area between I-95 and Maryland Route 295 has much heavier truck usage due to the adjacent industrial development.
- Shoulders are provided on freeway facilities for many reasons, not the least of which is to provide refuge in case of emergency. A standard of 10 or 12 feet has been determined to be suitable for this type of high design roadway, particularly if large volumes of truck traffic are accommodated. One specific location in the Study Area does not have adequate left-hand shoulders - U.S. Route 40 to Frederick Road.
- While outer or right-hand shoulders are provided throughout most of the Study Area, at some interchange locations ramp tapers end at bridges, without outside shoulders. This causes a safety problem as far as driver expectancy is concerned. This situation occurs at three specific locations along the inner loop of I-695: the on-ramp from Nursery Road, which ends at the Patapsco River Bridge; the on-ramp from Hollins Ferry Road which ends at the B&O (CSX) Railroad bridge; and, the on-ramp from Leeds Avenue, which ends at the Shelbourne pedestrian overpass.
- The geometry of the ramps adjacent to the Beltway, particularly the loop ramps, are a problem both on the ramps and on the deceleration or acceleration lanes adjacent to them. The loop radii, some of which are currently 85-feet, 100-feet, and 150-feet, are below the minimum of 280-feet for a 30 mph ramp design. These ramp radii occur at U.S. Route 40, Edmondson Avenue, Wilkens Avenue, Washington Boulevard, Hollins Ferry Road, I-895, Nursery Road and Maryland Route 295.

- 36
- A deficiency at Edmondson Avenue and Frederick Road involves the sight distance of the horizontal mainline curve. Currently, the sight distance provided is less than desirable for 60 mph speeds. This lack of adequate sight distance creates a conflict, because the driver does not have adequate distance to stop in an emergency. This deficiency is compounded in these two areas by lack of full median shoulders.
 - The existing Beltway facility provides insufficient traffic carrying capacity (number of lanes) for the continued growth in demand on the three- and four-lanes per direction portions of the Beltway.

When considered in combination with the type of traffic and high volumes which the Beltway must accommodate, the roadway design features outlined above summarize the general engineering concerns of choosing the No-Build Alternate for this project. The combination of these undesirable conditions on this major interstate facility produces a more adverse total effect than these same design deficiencies might produce in less critical locations. This lack of design consistency must be recognized as a major factor in the accident rates and poor operating conditions experienced on this section of the Baltimore Beltway.

4. Safety

A study of accidents occurring between 1987 and 1989 was conducted by the SHA Bureau of Accident Statistics for the I-695 and Maryland Route 295 portions of the project.

I-695 - Baltimore Beltway

I-695, between I-70 and west of Maryland Route 170, experienced 1,201 accidents, a rate of 86 accidents/100 million vehicle miles (MVM), significantly higher than the 74 acc/100 mvm statewide average for similar facilities. Of the accidents occurring during this time period, one involved a fatality, 55 percent involved property damage only, and the remainder were personal injury accidents. Both the northbound (inner loop) and the southbound (outer loop) have experienced accident rates that significantly exceed the statewide average.

The Beltway portion of the Study Area had two high accident sections along the mainline for the study period of 1987 to 1989: the Frederick Road area and the Wilkens Avenue area. The U.S. Route 40 interchange had a significant accident experience with 48 accidents. Accidents are primarily congestion related, as indicated by sideswipe and rear-end accident statistics (see Section III.C.3 for discussion). The I-695 Study Corridor experiences a greater than average portion of congestion related accidents, such as side-swipes, rear-ends, and pedestrian accidents. Nine of the twelve interchanges along I-695 had High Accident Interchange Ramps (see Figure III-10).

The Bureau of Accident Statistics has identified specific causes of accidents to be:

- Signing
- Weaving movements
- Short interchange spacing
- Roadway configuration
- Less than desirable acceleration/deceleration lanes

Maryland Route 295 - Baltimore-Washington Expressway

The Maryland Route 295 portion experienced 366 accidents, a rate exceeding the statewide average for similar facilities. Of these accidents, six involved fatalities and 158 involved property damage. The one cause identified with accidents along the Maryland Route 295 portion is the weaving distance between the cloverleaf ramps at I-695.

I-95 - From South of I-695 to Baltimore City Line

The I-95 portion experiences an accident rate of 139 accidents/100 mvm, significantly higher than the statewide average for similar facilities. Sixty-two percent of the 162 accidents were property damage only and none involved fatalities.

5. Relationship to Other On-Going Projects

In addition to major highway construction/reconstruction, improvements such as bridge deck replacement and resurfacing would occur on Maryland State Highways, Maryland Toll Facilities, and County maintained roadways in the Study Area as part of other projects. Those projects which will have a major effect on the Study Area include:

- a. **I-95:**
City Line to I-395

This project will provide reconstruction of the existing three-lane facility to a four-lane facility. The transition from three lanes to four lanes currently occurs north of Caton Avenue.

Status:

This project is currently under construction and is expected to be completed by January 1992.

- b. **Maryland Route 3/I-97:**
I-695 to U.S. Routes 50/301

This project will provide an improved connection between Baltimore and Annapolis. Existing Maryland Route 3 will be upgraded and widened to an eight-lane interstate highway from south

38

of I-695 to Maryland Route 174; a six-lane interstate highway between Maryland Route 174 and Maryland Route 178 at Dorrs Corner; and a four-lane freeway, on new location between Maryland Route 178 and U.S. Routes 50/301 (I-68), to relieve existing Maryland Route 178.

Status:

The section between U.S. Routes 50/301 and Maryland Route 178, and the I-695/I-97 interchange, have been completed and are open to traffic. The section between Maryland Route 178 and I-695 are under construction, except for the Maryland Route 174, 100 and 176 interchanges. The Maryland Route 176 interchange and the seventh and eighth lanes to I-695 have not yet been programmed for construction.

**c. Maryland Route 46/I-195:
Baltimore-Washington International Airport to I-95**

This four-lane freeway will provide the missing link between the BWI Airport and I-95, and will provide the capacity needed to relieve segments of I-695 and Maryland Route 295.

Status:

The portion between Maryland Route 295 and I-95 has been completed and is open to traffic. The portion from BWI to south of Maryland Route 295 is in final design.

d. Maryland Route 100: Maryland Route 3 to I-95

This project will provide a multi-lane highway from Maryland Route 3 (future I-97) to I-95. The portion of Maryland Route 100 between I-95 and U.S. Route 29 is being studied as part of a separate project.

Status:

The Maryland Route 295/Maryland Route 100 interchange is under construction. The section between Maryland Route 3 and I-95 is currently in final design.

e. Maryland Route 10: Arundel Expressway

This project would extend the Arundel Expressway, which is open to traffic between the Baltimore Beltway and Maryland Route 648, to Maryland Route 2 via a controlled access highway. A 2.65-mile connection will complete the existing Arundel Expressway, and thus providing a complete eastern bypass of Glen Burnie.

Status:

The construction of this facility was recently completed and is currently open to traffic.

f. I-695: Key Bridge Toll Plaza to Maryland Route 151

This study will investigate the need for highway improvements for approximately 3.6 miles of I-695 in Baltimore County, Maryland. A Feasibility Study will be followed by initial and final project planning studies, and preliminary engineering services, to document the need for improving I-695 in this area.

Status:

Feasibility Study was begun in Summer 1990.

g. Other SHA Projects:

- **Hammonds Ferry Road:** North of Hollins Ferry to Poplar Avenue - Reconstruct to a four-lane dual highway.
- **U.S. 1 Amtrak/Potomac Avenue over Md. 644:** Bridge replacement currently in design.
- **I-695/I-70:** Bridge redecking project recently completed, included eight bridges in the interchange.
- **I-95 from Caton Avenue to south of I-695:** Bridge maintenance project along northbound and southbound I-95, recently completed. Shoulder reconstruction on southbound I-95, which was required for maintenance of traffic, was converted to an auxiliary lane to be consistent with the Selected Action shown in this FEIS.
- **I-695 over Security Boulevard:** Bridge rehabilitation in design.

h. BWI Airport

The Maryland State Aviation Administration has recently expanded passenger Pier D. Projects which are currently underway include the extension of a runway to shift propeller aircraft from jet runways, construction of a parking structure, and construction of a 7,800-foot runway parallel to the current main instrument runway.

i. Harbor Tunnel Thruway

Following the opening of the Ft. McHenry Tunnel (I-95) in 1985, the Baltimore Harbor Tunnel underwent extensive rehabilitation. Between March 1987 and May 1989, improvements to the thruway that leads to the tunnel required closure of one tube at a time of the dual tube tunnel, and two-lane traffic along one side of the four-lane divided highway. This rehabilitation is now complete and the four lanes of the Baltimore Harbor Tunnel Thruway are open to traffic.

j. Mass Transit - Rail

Rail studies by the Mass Transit Administration (MTA) included feasibility studies in the north, south, northeast and western corridors of Baltimore. The western corridor lends itself to the use of heavy rail, possibly in the Edmondson Avenue to U.S. Route 40 corridor, with a terminus at the Social Security Complex.

Design and construction efforts in the north-south corridor are currently underway for a 30-mile light rail system. The completed system will serve northern Anne Arundel County, beginning at the Dorsey LRT stop below the intersection of Maryland Route 3 and Maryland Route 648 in Glen Burnie. Currently a total of eleven stations are proposed between Camden Yards and Dorsey. A spur to BWI, with at least one station, is under consideration.

Three LRT stops, located near the Study Area, have been adopted by MTA and are in final design. The light rail line will parallel Maryland Route 170 in the Linthicum vicinity. The three stops which are currently proposed are:

- o Nursery Road LRT stop - platform located to the east of the intersection of Nursery Road and Maryland Route 170.
- o North Linthicum LRT stop - station located to the east of the Maryland Route 170/Maryland Route 648 intersection. Access would be provided from Maryland Route 170 with platform to the east of the tracks.
- o Linthicum LRT stop - Platform located to the west of Maryland Route 170 with the platform to the east of the tracks.

k. Statewide Commuter Assistance Study

During 1988, the Maryland Department of Transportation initiated the Statewide Commuter Assistance Study to determine the feasibility of multi-modal transportation improvements, such as Light Rail Transit, Commuter Rail, express bus service, High Occupancy Vehicle (HOV) lanes and highway improvements. This study addressed future travel demands in 24 major corridors throughout the state. The goal of this study was to determine how best to move people along the most heavily travelled corridors in the State.

The Baltimore Beltway, designated as Corridor 1, was examined as part of this study. In the initial phase of the study each mode was examined to determine the appropriateness for the corridor. Light Rail Transit, other guideway transit and Commuter Rail were determined to not be appropriate because they do not meet the needs of the type of traffic using the corridor. The report stated that "the many trips occurring within the Beltway Corridor are very dispersed as to origin and destination, and many involve only short segments with the circumferential corridor itself. Future travel projections indicate continuation of this pattern, a pattern extremely difficult to serve effectively with a fixed guideway system."¹

The final phase of this study, completed in 1990, examined the addition of one HOV lane in each direction to the existing Beltway. The result of this analysis indicates that an HOV lane would not attract a large number of users and would, therefore, increase congestion on the remaining lanes. Therefore, HOV lanes were not recommended for further consideration.

1 "A Study of Appropriateness and Applicability of Light Rail Transit in Maryland - Final Report to the Legislative Policy Committee", Maryland Department of Transportation, October 1, 1988, p. 6-4.

SECTION II
ALTERNATES

II. ALTERNATES

A. ALTERNATES PRESENTED AT THE ALTERNATES PUBLIC MEETING

Approximately 400 citizens attended an Alternates Public Meeting on November 26, 1985 at the Catonsville Senior High School. The findings of the conceptual engineering and environmental studies for the three alternates were presented on aerial photographic mapping and were described in a slide presentation. Following an overview presentation of the project, public comments were received. Written comments received subsequent to the meeting have been responded to, and are summarized in Appendix B, Table B-1.

The following alternates were presented at this meeting:

1. Alternate 1 - No-Build

No significant improvements were proposed along the study segments of the I-695, Maryland Route 295 and I-895 roadways.

2. Alternate 2 - Lane Addition and Ramp Adjustments.

Generally, one travel lane and a shoulder were proposed to be added in each direction to the existing I-695 and the Maryland Route 295 roadways. Lane widening to the outside of I-695 would require ramp adjustments at all of the existing interchange ramps along this portion of I-695. Interchange ramp adjustments would not be necessary along Maryland Route 295 because the planned widening would be in the median. Additional ramps would be constructed on I-895 at the Y-split and at the Maryland Route 295/I-895 interchange.

3. Alternate 3 - Lane Addition and Interchange Modifications.

Similar to Alternate 2, this alternate proposed adding one travel lane and a shoulder per direction to the existing I-695 roadway and providing additional improvements at interchanges. The additional improvements would include mainline and ramp adjustments and more extensive reconfiguration of some interchanges. For example, Collector-Distributor (C-D) roads were proposed at the U.S. Route 40 and Maryland Route 295 interchanges and an interchange ramp reconfiguration at the Wilkens Avenue interchange.

44

B. ALTERNATES PRESENTED AT THE COMBINED LOCATION/DESIGN PUBLIC HEARING

Following the Alternates Public Meeting, the State Highway Administration Planning Team met to review the results of the Stage I studies and assess the public comments received (both written and verbal). On the basis of this review, the following decisions were made concerning the Stage I Alternates:

- No Build Alternate - retain for further study in Stage II
- Alternate 2 - retain for further study in Stage II as the Build Alternate (also referred to as the "Widening Alternate")
- Alternate 3 - retain some of the interchange modifications for further study in Stage II as interchange options, which could be combined with the Build or Widening Alternate on an interchange by interchange basis

Subsequent to the Alternates Public Meeting, and in response to the need to fully address the I-695/I-95 interchange, a portion of I-95 from just south of I-695 to north of Caton Avenue was added to this project. Although adverse socio-economic impacts are not associated with this addition, traffic operations and other issues can be more fully addressed by its inclusion in this study.

Approximately 500 citizens attended the Combined Location/Design Public Hearing on June 22, 1988 at the Catonsville Senior High School. The findings of the preliminary engineering and environmental studies were presented in the Draft Environmental Impact Statement/Section 4(f) Evaluation report available in May, 1988. These findings were presented on aerial photogrammetric mapping depicting the proposed widening alternate and optional improvements. Additionally, representatives were available to discuss traffic, noise, right-of-way and other issues. A short slide presentation featuring an overview of the project was followed by receipt of public testimony. A court reporter was available during the entire meeting for private testimony, as well. Verbal comments received during the meeting and their responses are summarized in Section VIII. Written comments received subsequent to the meeting have been responded to, and are presented in Section VIII, also.

The following alternates were presented at the Combined Location/Design Public Hearing:

1. Alternate 1 - No-Build

The No-Build Alternate would utilize the existing I-695, Maryland Route 295, and I-95 roadways and interchanges with no major improvements. This would include normal roadway maintenance such as shoulder modification and pavement rehabilitation, rehabilitation of bridges and other structures, and roadway improvements such as signing, marking, lighting and other traffic control measures. These routine operations would not measurably increase the capacity of these roadways to accommodate the predicted increase in traffic volumes for the design year 2015.

Existing roadway geometric design deficiencies would remain, however, and under steadily increasing traffic demands, operating and safety conditions would be expected to further deteriorate. The No-Build Alternate would not be consistent with County or State plans for this area and would result in deteriorating safety conditions and transportation service along I-695, Maryland Route 295 and I-95 as traffic volumes increase.

Transportation System Management or TSM projects and other special projects have been studied as part of Alternate 1. The examination of TSM projects was limited to the intersections adjacent to interchanges. Some locations are being studied by SHA District offices for consideration as Special Projects. For example, the signalization of the ramp intersections with Frederick Road is being considered as a Special Project. The other improvements studied were deleted because they did not provide measurable improvements.

Expanding the mass transportation network through the use of buses (rail service would require extensive right-of-way and a major capital investment) would not serve the project's needs because it would not serve the types of trips currently being accommodated on the Beltway.

2. Alternate 2 - Mainline Widening

The Mainline Widening Alternate proposed adding a mainline travel lane along the Baltimore Beltway from U.S. Route 40 to Maryland Route 170. The additional lane and shoulder would be constructed adjacent to the existing outside lane (in the area now occupied by the existing shoulder). This additional lane would provide four continuous travel lanes in the southbound direction and four continuous travel lanes in the northbound direction, with five northbound lanes between I-95 and U.S. Route 40. The existing three lanes northbound and southbound on the Beltway through the I-95 interchange would be maintained.

Each ramp which directly accesses the Beltway would require an adjustment in horizontal, and often, vertical geometry in order to continue to provide that connection. This would require the reconstruction of several hundred feet of the ramp proper. Acceleration or deceleration lane construction would also be required along the mainline.

46

Along I-695 between U.S. Route 40 and Frederick Road, the mainline widening of Alternate 2 would include widening to provide a full 10-foot median shoulder along both the northbound and southbound roadways. A transition within each of these two interchanges would meet the existing full width median condition. A reduction in the outside mainline shoulder width adjacent to the auxiliary lanes would be required.

Portions of the existing noise barrier along the Beltway, south of Frederick Road, would require relocation with Alternate 2.

3. Interchange Options 1, 2, and 3

Optional improvements were proposed at several interchanges to fully address the ramp operations. Interchange improvements were proposed at locations where they could be accomplished within the limited SHA right-of-way or by acquiring small portions of right-of-way. These improvements could be constructed in addition to the Alternate 2 improvements at specific interchange locations.

Interchange Option 1 proposed modifications to six interchanges along the Beltway:

- U.S. Route 40 - A one lane Collector-Distributor (C-D) road system would be constructed along both the northbound and southbound roadways to reduce the number of interchanging conflict points within the interchange.
- Edmondson Avenue - Shift the mainline of the southbound lanes of the Beltway to provide the minimum horizontal sight distance for the northbound roadway. Ramp D would be modified to tie into the new location on the Beltway.
- Frederick Road - Restripe the southbound median shoulder to provide the minimum horizontal sight distance for the southbound roadway.
- Wilkens Avenue - Replace existing Ramp B by a diamond type ramp on the north side of the interchange.
- Hollins Ferry Road - Relocate Ramp F beginning near Hollins Ferry Road, paralleling I-695, crossing beneath the CSX Railroad east of the existing bridge to eliminate the need for reconstruction of the bridge over the Beltway.
- Maryland Route 295 - A two-lane Collector-Distributor (C-D) road would be constructed along the northbound and southbound roadways, including the Nursery Road interchange, to reduce the number of interchanging conflict points.

Interchange Option 2 proposed modifications to two interchanges along the Beltway:

- Edmondson Avenue - Relocation of Ramp D on a separate structure parallel to the Beltway to eliminate the need to depress Edmondson Avenue (required with Alternate 2 and Interchange Option 1).
- Maryland Route 295 - A four-lane fly-over ramp from Maryland Route 295 to I-695, generally in the southern direction, to address two major movements.

Interchange Option 3 proposed an alternate route for City-bound traffic on the Baltimore Beltway from northern Anne Arundel County. This was an option to the proposed improvement at the I-695/Maryland Route 295 interchange. The Option proposed the interchange construction necessary to permit traffic headed for Baltimore City from northern Anne Arundel County to utilize the Harbor Tunnel Thruway (I-895) as an alternate route instead of the more heavily traveled portion of the Baltimore Beltway between Maryland Route 3/I-97 and Maryland Route 295. The construction included with Option 3 would not have any effect or interfere with the improvements proposed in the median of the Baltimore-Washington Expressway. The construction of four new ramps along I-895 were required with this interchange option.

4. Maryland Route 295 Alternate 2 - Mainline Widening

Along Maryland Route 295, Alternate 2 proposed the addition of a lane and shoulder to the existing mainline roadway in each direction from Winterson Road (north of Maryland Route 46) to the vicinity of the Baltimore City Line. This widening would be in the existing median and would provide three continuous lanes in both the northbound and southbound direction from the City Line to the Maryland Route 46/I-195 interchange. The proposed widening would be compatible with the Maryland Route 46/I-195 interchange at the south end of this project. At the north end of the project, the three lane section would join the existing three-lane per direction roadway just south of the Baltimore City Line. A portion of the widening in the southbound direction only, from the City line to Hammonds Ferry Road south of the Beltway, has been completed as an SHA District Special Project.

In the I-695/Maryland Route 295 interchange, two-lane Ramp D from southbound I-695 (with I-695 Alternate 2, Interchange Option 1 or 2) to southbound Maryland Route 295 would allow one lane to be continued southbound as an auxiliary lane to W. Nursery Road. No other modifications are proposed for the Maryland Route 295/W. Nursery Road interchange. This would allow a two-lane exit at W. Nursery Road and would require additional lanes at the ramp intersection with W. Nursery Road. An auxiliary lane would also be provided along the northbound Maryland Route 295 roadway between W. Nursery Road and I-695.

Two typical sections for the median grading along Maryland Route 295 were studied, except in the area of widening completed by the SHA District Special Project.

48

- o Full safety graded median
- o Reduced graded median

A. full safety graded median section would require elimination of a large portion of the existing vegetated median, which is the major element that provides the "parkway" characteristics along Maryland Route 295.

The reduced graded median section would maintain as much of the vegetation in the median as possible. A guardrail would be placed four feet from the edge of the roadway, with a 4-foot backing and adequate grading to meet existing median conditions.

C. SELECTED ACTION

1. Introduction

The Selected Action was determined after careful evaluation of the engineering criteria, environmental consequences, the input of citizens, community associations, agency representatives and elected officials, as well as the preliminary estimate of the construction cost. The Build Alternate and three specific interchange modifications were selected over the No-Build Alternate for several reasons. One reason is that the traffic volumes along the Beltway have already exhibited tremendous growth between the years 1983 and 1989, resulting in extended periods of congestion, which justifies the need for additional capacity. The projected design year traffic volumes are based on a constrained traffic system which will control the flow. It is expected that the design year traffic conditions could be reached prior to the year 2015.

The traffic in the area uses the Beltway for local trips as a result of the lack of available, non-congested, parallel routes. Both Anne Arundel and Baltimore County Planning Departments have recognized this fact, which has, therefore, resulted in the maintenance of Beltway widening in their Master Plans.

The marked percentage increase in traffic volumes is a characteristic of the mainline and not ramp traffic. The interchange options which would improve ramp operations were not selected in many cases because the improvements would only provide marginal improvements. This is further justified by the traffic data provided for year 1989.

Additionally, expanding the mass transportation network through the use of buses (rail service would require extensive right-of-way and a major capital investment) would not serve the project's needs because it would not serve the types of trips currently being accommodated on the Beltway.

The discussion of this project within this Document has oriented I-695 and the Maryland Route 295 in a north/south direction. References to the inner loop of the Beltway refer to the northbound roadway and likewise, the outer loop of the Beltway is considered the southbound roadway.

Because the Build Alternate and Interchange Options consist of the reconstruction of existing major highways, several instances occur where reconstruction in full accordance with current design criteria may not be possible due to limited right-of-way or construction funds. In these cases, justifications are provided in Section II-D of this EIS for possible design exceptions that were identified during project planning. Approval for revised interchange access points to the existing Interstate system will be evaluated using Federal requirements current at the time of proposed construction.

The Figures in this EIS for the Selected Action are indexed on Figures II-1 and II-2. The improvements proposed at each segment of the Baltimore Beltway are shown on these figures and are described on the following pages. Typical Sections of the proposed improvements are illustrated on Figures II-3 through 7. All Figures for this Section can be found in Appendix A.

2. Selected Action I-695 Baltimore Beltway
Figures II-8 to II-22 (See Appendix A)

The original study limits of this project ended just north of the U.S. Route 40 (West) Interchange. Following receipt of comments provided by Baltimore County Department of Public Works and others, the limits were extended to include the provision of four lanes through the I-70 interchange. The other Interstate interchanges with I-695, those at I-95 (South of Baltimore), and I-795 (the Northwest Expressway), have a large amount of traffic exiting or entering on either side, such that the operations within the interchange do not require another mainline lane. For the major portion of the Beltway, however, four continuous lanes will be provided as a result of the widening proposed by this study and the northern Baltimore Beltway Study.

The Selected Action on I-695 will provide an additional mainline travel lane along the Baltimore Beltway from I-70 to Maryland Route 170. An overlay for the entire length will be provided. Restriping and/or additional construction will be required in the different portions of the project. Beneath the I-70 bridges, the existing roadway will be maintained and overlaid and restriped to reduce the shoulder and lane widths to provide four through lanes. The actual distribution of the 6-foot usable shoulder beneath I-70 will be determined during final design. The additional lane and shoulder from U.S. Route 40 to the south will be constructed adjacent to the existing outside lane (in the area now occupied by the existing shoulder). This additional lane will provide four continuous travel lanes in the southbound direction and four continuous travel lanes in the northbound direction, with five northbound lanes between I-95 and U.S. Route 40. The fifth northbound I-695 lane will drop at the I-70 interchange. Only three mainline lanes will be provided northbound and southbound on the Beltway through the I-95 interchange.

Each ramp which directly accesses the Beltway will require an adjustment in horizontal, and often, vertical geometry in order to continue to provide that connection. This will require the reconstruction of several hundred feet of the ramp proper. Acceleration or deceleration lane construction will also be required along the mainline.

Along I-695 between U.S. Route 40 and Frederick Road, the mainline widening of the Selected Action will include widening to provide a full 10-foot median shoulder along both the northbound and southbound roadways. A reduction in the outside mainline shoulder width adjacent to the auxiliary lane will be required.

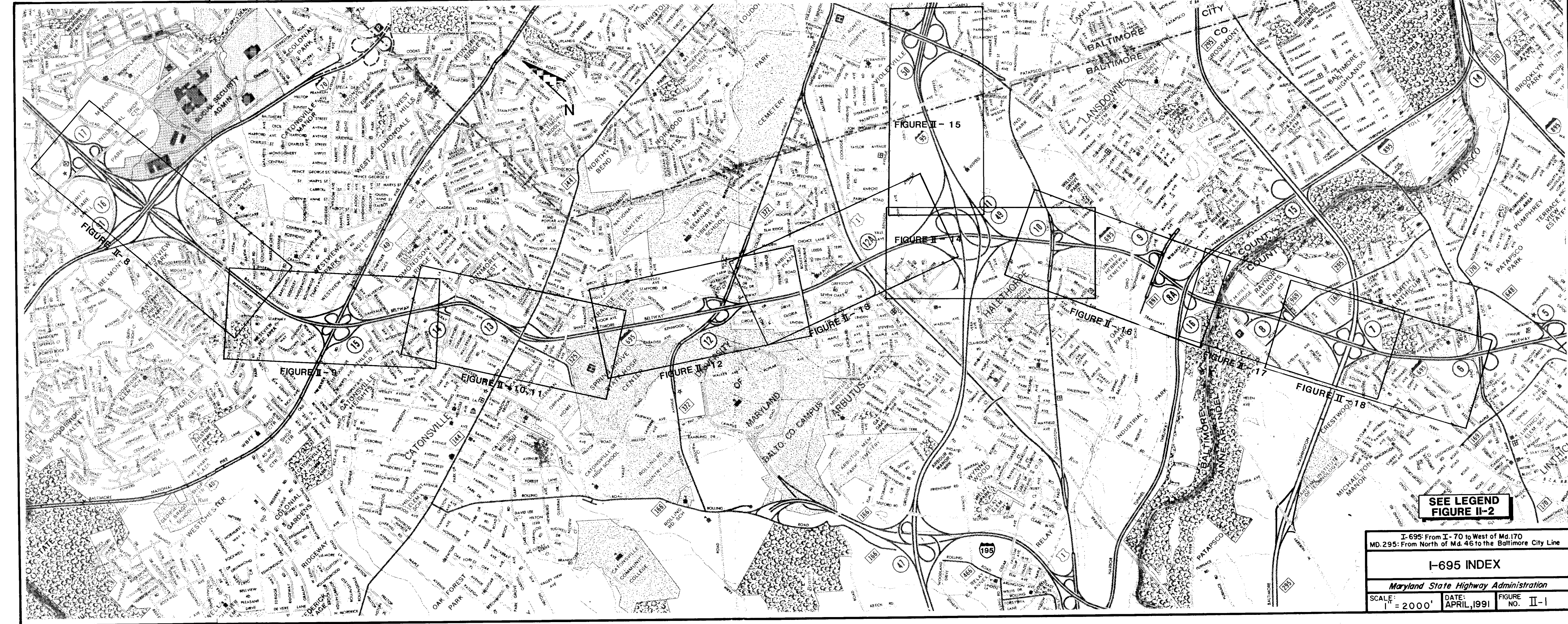
Portions of the existing noise barrier along the Beltway, south of Frederick Road, will require relocation with the Selected Action (see Figure II-11, Appendix A).

At Wilkens Avenue, the revisions will include ramp adjustments near the Wilkens Avenue intersection west of the outerloop, to improve operations. Ramp B from southbound I-695 will be relocated and widened to accommodate a double left turn and Ramp F will be adjusted for that realignment and widening.

Table II-1 indicates the Interchange Alternates/Options considered as part of the project. Those Alternates/Options which were selected are noted with an asterisk(*).

TABLE II-1 - SUMMARY OF I-695 ALTERNATES AND INTERCHANGE OPTIONS

<u>Interchange Location</u>	<u>Build Alternate 2</u>	<u>Option 1</u>	<u>Option 2</u>	<u>Other Option</u>
I-70				* Selected
U.S. Route 40	X*	X		
Edmondson Ave.	X*	X	X	
Frederick Road Maryland Route 144	X*	X		
Wilkens Ave. Maryland Route 372	X* with modification	X		
Leeds Avenue	X*			
I-95	X*			
Washington Blvd. U.S. Route 1 Alt.	X*			
Hollins Ferry Rd. Maryland Route 891	X	X		* Option B
I-895	X*			
Nursery Road	X*	X		Option 3
Maryland Route 295	X* with modification	X	X	X



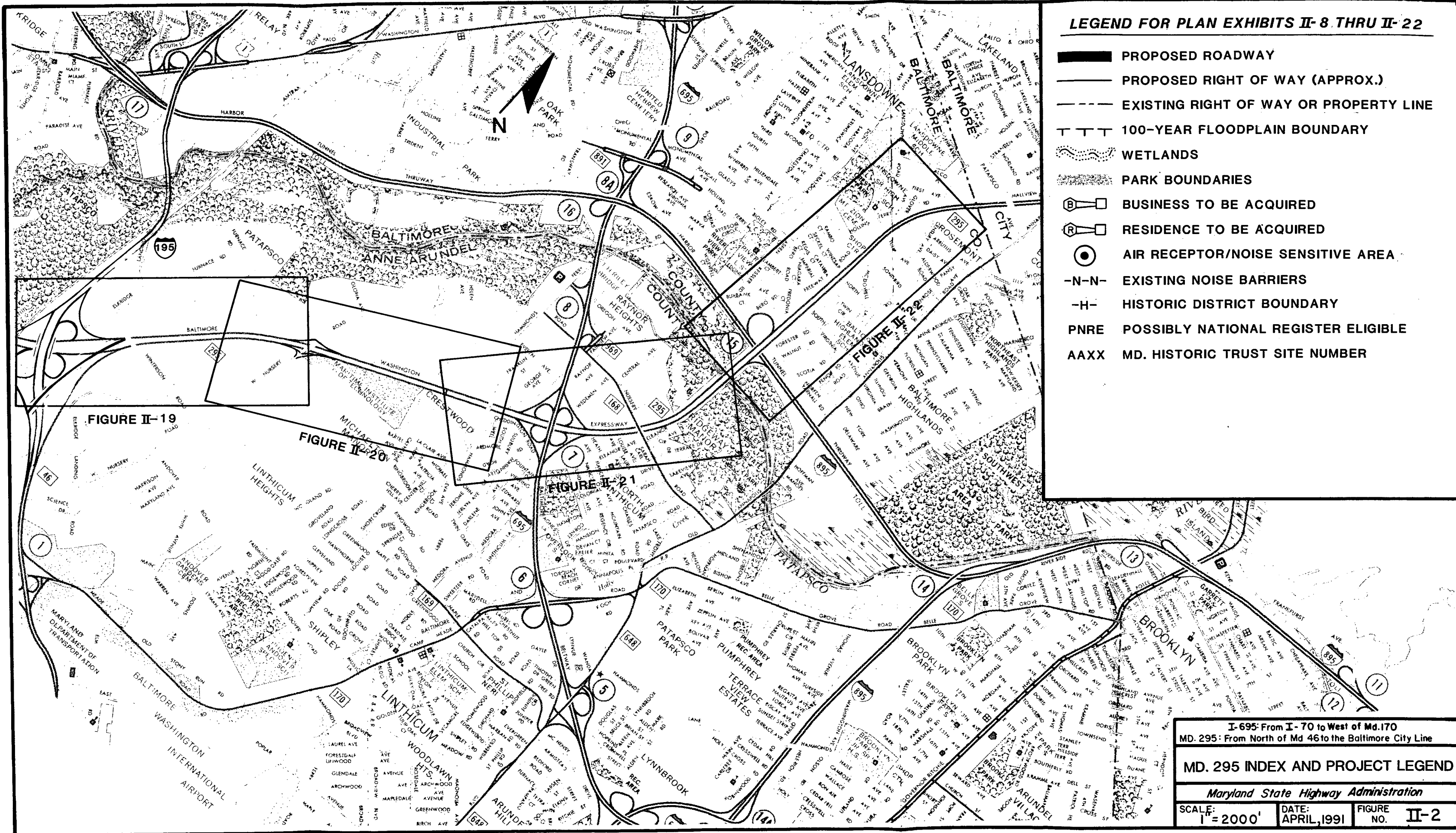
SEE LEGEND
FIGURE II-2

I-695: From I-70 to West of Md.170
MD.295: From North of Md.46 to the Baltimore City Line

I-695 INDEX

Maryland State Highway Administration

SCALE: 1" = 2000'	DATE: APRIL, 1991	FIGURE NO. II-1
----------------------	----------------------	--------------------



LEGEND FOR PLAN EXHIBITS II-8 THRU II-22

- PROPOSED ROADWAY
- PROPOSED RIGHT OF WAY (APPROX.)
- EXISTING RIGHT OF WAY OR PROPERTY LINE
- 100-YEAR FLOODPLAIN BOUNDARY
- WETLANDS
- PARK BOUNDARIES
- BUSINESS TO BE ACQUIRED
- RESIDENCE TO BE ACQUIRED
- AIR RECEPTOR/NOISE SENSITIVE AREA
- EXISTING NOISE BARRIERS
- HISTORIC DISTRICT BOUNDARY
- PNRE POSSIBLY NATIONAL REGISTER ELIGIBLE
- AAXX MD. HISTORIC TRUST SITE NUMBER

I-695: From I-70 to West of Md.170
 MD. 295: From North of Md 46 to the Baltimore City Line

MD. 295 INDEX AND PROJECT LEGEND

Maryland State Highway Administration

SCALE: 1" = 2000'	DATE: APRIL, 1991	FIGURE NO. II-2
----------------------	----------------------	--------------------

The Selected Action will provide a major fork design in the southbound direction at the I-695/I-95 interchange approach from the west. These improvements will include dualizing two ramps and will require some revisions to I-95 between I-695 and Caton Avenue (see Figures II-14, II-15, Appendix A).

The improvements on the west side of the I-95 interchange propose a fork design in the southbound direction. A lane will be added from Ramp F at Wilkens Avenue and will continue to the I-95 interchange. This will provide five southbound travel lanes. The exit to Leeds Avenue will require a deceleration lane adjacent to the mainline. Beginning near Leeds Avenue, the five mainline Beltway lanes will begin to divide into a three-lane/three-lane split. The I-695 mainline will continue as three lanes and the traffic movements to northbound and southbound I-95 will be in the three right-hand lanes. The three-lane ramp section will divide into a two/two split with two lanes destined to I-95 northbound and two lanes tapering to one lane destined to I-95 southbound. On the east side of the I-695/I-95 interchange, one lane of the two-lane ramp from I-95 will be added to the three southbound Beltway lanes which continue through the I-95 interchange to provide four southbound travel lanes on the Beltway.

The improvements along I-95 northbound are required due to the merging of a one lane outer ramp (Ramp F), the two-lane ramp from southbound I-695 (Ramp C), and the four-lane I-95 facility. The outer ramp lane will taper into the sixth lane. The sixth lane will be an exit-only lane to the Collector-Distributor (C-D) road at Caton Avenue. The fifth lane will provide a choice between exiting onto the C-D road or continuing on I-95. Along I-95, this lane will taper into the fourth mainline lane¹ south of the Caton Avenue crossing (see Figure II-15, Typical Section - Figure II-7, Appendix A).

On I-695 northbound, a major merge has been developed at the I-95 Interchange. The four lanes east of the interchange will become three lanes as one mainline lane would be dropped at Ramp A to southbound I-95. The continuing three mainline lanes will be joined by three lanes from I-95 just west of the interchange. Two lanes from I-95 southbound (Ramp I) and one lane from I-95 northbound (Ramp J) join I-695 northbound as "add" lanes. The outer lane (sixth lane) will be dropped at Wilkens Avenue (Ramp A), providing five continuous northbound travel lanes. Access from Leeds Avenue will be retained and a standard acceleration lane will be provided.

On southbound I-95 from the Caton Avenue interchange, a continuous auxiliary lane has been constructed between Ramp A from Caton Avenue and Ramp I to I-695 northbound. This will essentially operate as a fifth, exit only, lane. The fourth lane will be a choice lane which will provide a second ramp lane to northbound I-695 or the fourth lane continuing on I-95 southbound.

1 The addition of a fourth travel lane is under construction by Baltimore City for I-95 between Caton Avenue and Washington Boulevard. See "Relationship to Other On-Going Projects" on page I-13.

54

Specific interchange options at the I-695/I-70 Interchange, I-695/Hollins Ferry Road Interchange and I-695/Maryland Route 295 Interchange have been added or substituted for those presented at the Location/Design Public Hearing. The details of the specific interchange options are described following this introduction. Descriptions of interchange options not selected are retained in this FEIS for comparison. Figures showing improvements not selected have been deleted for clarity, but may be reviewed in the Draft EIS.

3. Selected Interchange Options

Optional improvements were considered at eight interchanges to fully address the ramp operations. Interchange improvements were proposed at locations where they could be accomplished within the limited SHA right-of-way or by acquiring small portions of right-of-way. Selected Action interchange improvements are described, followed by those considered but not selected.

Selected Action - I-70 Interchange Figure II-8 (see Appendix A)

The selected action at the I-70 interchange provides an additional lane in each direction from U.S. Route 40 to north of I-70. Therefore, five lanes (four mainline and one auxiliary lane) will be provided in each direction between U.S. Route 40 and I-70.

The existing I-695 roadway will be repaved to provide two 12-foot wide and two 11-foot wide mainline lanes along southbound I-695 under the I-70 structure. The distribution of the available 6-foot shoulder beneath the I-70 bridge will be determined in final design. From the ramp to I-70 (Ramp E) to the U.S. Route 40 (West) interchange (Ramp H), four mainline lanes will be provided tapering to/from the constriction at I-70. This taper will begin approximately 700-feet north of the underpass and will then extend that same distance on the southside to meet the shoulder required to cross under the Crosby Road bridge. The two-lane ramp from I-70 (Ramp D) to southbound I-695 will require the inside ramp lane to be a continuous lane to Ramp H at the U.S. Route 40 interchange. The outer ramp lane will merge prior to the overpass at Crosby Road. In order to provide this widening without reconstruction of the Crosby Road bridge, a reduction of the available 10-foot shoulder will be provided and distribution will be determined in final design. The inside shoulder will be increased to 10 feet from south of Crosby Road to U.S. Route 40. Retaining walls will be constructed as needed to avoid impacting the drainage ditch which parallels the roadway. Four continuous mainline lanes and one continuous auxiliary lane will be provided to the U.S. Route 40 interchange. The continuous auxiliary lane that is provided from Ramp D (north of the Crosby Road overpass) to U.S. Route 40 will be maintained by widening the roadway up to 14-feet.

Ramp M from Security Boulevard to southbound I-695 will be relocated behind the piers which support the mainline and other ramps within the I-695/I-70 interchange. Ramp M will merge with I-695 about 1,000 feet south of the I-70 structure, prior to the point where Ramp D enters I-695.

In the northbound direction, a similar improvement will be provided. The roadway between U.S. Route 40 and I-70 will be repaved and widened up to 14 feet to provide four mainline lanes and auxiliary lane. For the purpose of this document, a 4-foot outside shoulder has been provided. The inside shoulder will transition from 10-feet to 6-feet at the Crosby Road overpass to avoid reconstruction of that bridge. The auxiliary lane will drop as an "exit-only" lane at Ramp A. North of Ramp A, four mainline lanes will be provided by repaving and restriping the roadway. Reduced shoulders will be required to provide four lanes under the I-70 bridges and north through the Security Boulevard interchange. The distribution of shoulders will be determined in final design.

Selected Action - Hollins Ferry Road (Maryland Route 891)
Figure II-16 (See Appendix A)

Existing Ramp F in the northeast quadrant provides direct access from Hollins Ferry Road to I-695 northbound, with its terminus near the CSX Railroad bridge. The Selected Action will relocate Ramp F to the southeast quadrant of the interchange, requiring removal of the existing Ramp F pavement. A new four-way intersection will be created by placing the relocated Ramp F directly across from existing Ramp B. In order to provide access to the residential, commercial and industrial uses within the relocated loop ramp, an access road will be constructed tying into the ramp. Between Hollins Ferry Road and the access road, two-way operation will occur on the ramp. The unrestricted movement would be from Hollins Ferry Road to the ramp. The access road to ramp to Hollins Ferry Road movement will have a stop control. Relocated Ramp F will join Ramp A from I-895 southbound to northbound I-695 approximately 650 feet prior to the Beltway. An auxiliary lane between Relocated Ramp F/Ramp A and off-Ramp B from northbound I-695 to Hollins Ferry Road will be approximately 900 feet long. Ramp B will be adjusted to provide a maximum distance for that weave. This will require reconstruction of part of existing Ramp B.

Selected Action - Maryland Route 295 Interchange
Figure II-17, 18 (See Appendix A)

An additional (fifth) lane will be provided along southbound I-695 between Hollins Ferry Road and Maryland Route 295. The lane will begin at Hollins Ferry Road Ramp H and extend to Maryland Route 295 Ramp D, where it will drop. Deceleration lanes to I-895 Ramp B, Nursery Road Ramp H and Maryland Route 295 Ramp D will also be provided. An acceleration lane for Nursery Road Ramp D will be provided.

4. Grading Alternatives

One of the goals of this planning study was to minimize the amount of right-of-way required with the proposed improvements, particularly in residential areas. This was accomplished by using retaining walls placed 14 feet from the outside edge of the roadway, with a jersey barrier on top facing the roadway. The retaining walls vary in height and length. In areas where the distance between retaining wall/jersey barrier combinations was

54
less than 500 feet, a jersey barrier was used to provide visual consistency. The result of the use of retaining walls is that only one residence would be acquired and 9.6 acres of right-of-way required with the Selected Action.

During the final design phase of the project, alternative grading sections may be considered providing they do not result in significant increases in impacts. The design team will consider alternative grading sections in order to develop the most suitable design for the specific locations. Among the items to be considered will be compatibility with proposed impacts, the suitability with the community, and the cost. These alternatives are:

- Full safety grading section

This would provide a 10-foot shoulder and 50 mph or 60 mph safety grading. A retaining wall could be used in order to contain this typical section within the proposed right-of-way.

- Modified grading section

This would provide a 10-foot shoulder to a guardrail, offset 2 feet with 6-feet of outside grading. This section is similar to the existing condition. Retaining walls could also be used to contain this typical section within the proposed right-of-way.

- Jersey barrier section

This would provide a jersey barrier placed 14 feet from the outside edge of the roadway, with grading at 2:1 beyond the barrier. A retaining wall could also be used to contain the typical section within the proposed right-of-way.

Selected Action - Maryland Route 295

Figure II-19 to Figure II-22 (See Appendix A)

This Selected Action provides the addition of a lane and shoulder to the existing mainline roadway in each direction from Winterson Road (north of Maryland Route 46/I-195) to the vicinity of the Baltimore City Line. This widening, primarily in the existing median, will provide three continuous lanes in both the northbound and southbound direction from the City Line to the Maryland Route 46/I-195 interchange. The proposed widening will be compatible with the Maryland Route 46/I-195 interchange at the south end of this project. At the north end of the project, the three-lane section will join the existing three-lane per direction roadway just north of Nursery Road. A transition within the West Nursery Road interchange will require some outside widening to avoid reconstruction of the bridge overpassing Maryland Route 295. A portion of the widening in the southbound direction only, from the City Line to Hammonds Ferry Road south of the Beltway, was completed as an SHA District Special Project. An overlay of the entire portion will be provided where new construction will add lanes.

57

In the I-695/Maryland Route 295 interchange, two-lane Ramp D from southbound I-695 to southbound Maryland Route 295 will allow one lane to continue southbound as an auxiliary lane to West Nursery Road. A two-lane exit at West Nursery Road and will require additional lanes at the ramp intersection with West Nursery Road. An auxiliary lane will also be provided along the northbound Maryland Route 295 roadway between West Nursery Road and I-695.

The existing partial interchange at the Harbor Tunnel Thruway (I-895) services traffic from northbound Maryland Route 295 to the Harbor Tunnel Thruway and from the Harbor Tunnel Thruway to southbound Maryland Route 295. There are no other revisions proposed for this interchange with the Selected Action.

Maryland Route 295 underpasses the following existing roadways; Winterson Road, West Nursery Road, Hammonds Ferry Road, I-695, Nursery Road, and a pedestrian overpass at Baltimore Highlands. Reconstruction of the bridges at I-695, Hammonds Ferry Road and Nursery Road will be required with the Selected Action.

The reduced grading section in the median will maintain as much of the vegetation in the median as possible. A guardrail is proposed to be placed 14 feet from the edge of the roadway, with a 5-foot backing and adequate grading to meet existing median conditions.

5. Auxiliary Lanes

Along I-695, the existing interchanges are closely spaced and therefore many have weaving lanes between them. These 12-foot wide weaving lanes will be maintained to facilitate vehicular entrance and exit maneuvering. An additional weaving lane will be provided in two locations. First, along southbound I-695 between Frederick Road and Wilkens Avenue. Second, along northbound and southbound Maryland Route 295 between Nursery Road and I-695.

Auxiliary lanes have also been added for sections of I-695 where heavy traffic volumes require them. These sections include northbound and southbound traffic from I-95 to Wilkens Avenue, and southbound I-695 from Hollins Ferry Road to Maryland Route 295.

Table II-2 summarizes the proposed changes in the number of mainline and weaving lanes for the Selected Action.

This document addresses the construction of an additional lane in each direction on the beltway. These additional lanes, which were originally designed for general purpose use, could be converted to HOVs as a transportation demand management measure. Further, the improved mainline cross-section and overpassing structures have been designed so as not to preclude the future restriping of this facility for further capacity expansion. Any additional capacity provided on this facility in the future would be subject to a future environmental evaluation to comply with applicable environmental requirements.

6. Bridges

Nineteen bridges along I-695, and eight bridges along Maryland Route 295 are included within the limits of the proposed widening. These are listed in Tables II-3 and II-4.

58

TABLE II-2 - EXISTING AND PROPOSED LANES ON I-695

Location	Existing/No-Build No. of Lanes		Selected Action No. of Lanes	
	NB	SB	NB	SB
	I-70 to U.S. Route 40	3ML+1AUX	3ML	4ML+1AUX
U.S. Route 40 to Edmondson Ave.	4ML+1AUX	3ML+1AUX	5ML+1AUX	4ML+1AUX
Edmondson Ave. to Frederick Rd.	4ML+1AUX	3ML+1AUX	5ML+1AUX	4ML+1AUX
Frederick Rd. to Wilkens Ave.	4ML	3ML	5ML	4ML+1AUX
Wilkens Ave. to Leeds Ave.	4ML	3ML	5ML+1AUX	4ML+1AUX
Leeds Ave. to I-95	4ML	3ML	5ML+1AUX	4ML+1AUX
I-95 Interchange	3ML	3ML	3ML	3ML
I-95 to Washington Blvd.	3ML+1AUX	3ML	4ML+1AUX	4ML+1AUX
Washington Blvd. to Hollins Ferry Rd.	3ML+1AUX	3ML	4ML	4ML
Hollins Ferry Rd. to I-895	3ML+1AUX	3ML+1AUX	4ML+1AUX	5ML+1AUX
I-895 to Nursery Road	3ML	3ML	4ML	5ML
Nursery Road to Maryland Route 295	3ML+1AUX	3ML+1AUX	4ML+1AUX	5ML

Abbreviations: ML - mainline travel lane
 AUX - continuous auxiliary lane
 (i.e. weaving lane, not acceleration/
 deceleration lane)

The majority of bridges where I-695 overpasses a cross-street must be widened due to the addition of the mainline lane widening along the outside of the existing roadway. All of these I-695 bridges have been examined to determine whether they can be structurally widened. A preliminary determination has been made regarding the proposed vertical clearance under these bridges once the widening is completed. If the widening of these existing bridges would result in less than minimum AASHTO recommended vertical clearance or County standards, a design exception may be required (see Section II-D).

Four bridges which pass over I-695 in the Study Area will be affected by the addition of the mainline lane widening. These bridges are located at Crosby Road, Frederick Road, Westland Boulevard and at the Shelbourne pedestrian overpass. The desirable outside shoulder will be provided along I-695. A minimum vertical clearance over I-695 will be maintained and an attempt will be made during final design to maintain existing clearance or provide the desirable clearance of 16 feet, 9 inches.

For those bridges that are not being reconstructed, design exceptions for shoulder width on I-695 and vertical clearance over I-695 may be required (see Section II-D).

Along Maryland Route 295, three bridges will require reconstruction in order to accommodate the proposed addition of one lane in each direction in the median.

The criteria used to determine whether a bridge would require reconstruction in order to accommodate the Selected Action includes the following:

- Bridge condition/expected life
- Accident experience
- Design consistency with mainline roadway
- Horizontal sight distances
- Vertical clearance
- Design consistency of interchanges
- Maintenance of traffic
- Environmental impacts
- Structure costs including redecking
- Roadway costs
- Right-of-way costs

Based on these analyses, bridge revision requirements are summarized on Tables II-3 and II-4.

¹ A Policy On Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, Washington, D.C. 1984

60

TABLE II-3 - I-695 SELECTED ACTION BRIDGE IMPACTS

<u>Bridge Location</u>	<u>Widen</u>		<u>Reconstruct</u>
	<u>NBR</u>	<u>SBR</u>	
I-70	-	-	-
Crosby Road	-	-	X
U.S. Route 40	X	X	-
Ingleside Avenue	X	X	-
Edmondson Avenue	X	X	-
Frederick Road	-	-	X
Wilkins Avenue	X	X	-
Westland Boulevard	-	-	X
Shelbourne Pedestrian	-	-	X
Leeds Avenue/Southwestern Blvd.	-	-	X ¹
Benson Avenue	X	X	-
Washington Boulevard	-	-	-
CSX Railroad	-	-	-
Hollins Ferry Road	-	-	-
I-895	-	-	X
Patapsco River (Hammonds Ferry Road)	-	-	X ¹
Nursery Road	X	X	-
Maryland Route 295	-	-	X ²
Maryland Route 170	-	X	-

- 1 Reconstruction may be required to retain structural integrity and has been assumed for planning purposes.
- 2 Reconstruction required due to widening along Maryland Route 295.

TABLE II-4 - MARYLAND ROUTE 295 SELECTED ACTION BRIDGE IMPACTS

<u>Bridge Location</u>	<u>Widen</u>		<u>Reconstruct</u>
	<u>NBR</u>	<u>SBR</u>	
Winterson Road	-	-	-
West Nursery Road	-	-	-
Hammonds Ferry Road	-	-	X
I-695	-	-	X
Nursery Road	-	-	X
Patapsco River	-	-	-
I-895	-	-	-
Baltimore Highlands Pedestrian Overpass	-	-	-

61

The criteria used to consider whether a structure needed to be reconstructed focused on the ability to provide the lane widening and a sufficient shoulder. The optimum would be a 10-foot outside shoulder on open-graded sections or 14 feet to a barrier or retaining wall with a ten-foot construction easement behind. A reduction to 7 feet on the outside and 3-1/2 feet on the inside for the mainline, or 6 feet outside an auxiliary lane, was considered the minimum acceptable before reconstruction needed to be considered.

7. Interchange Options Not Selected

Figures showing options not selected have been deleted for clarity, but may be reviewed in the Draft EIS.

U.S. Route 40 Interchange Option 1 - Not Selected

A one-lane Collector-Distributor (C-D) road would have been constructed along the northbound and southbound roadways of I-695 throughout the interchange vicinity. In the northbound direction, the C-D road would have begun north of Edmondson Avenue (Ramp E), proceed through the interchange and taper into the fifth mainline Beltway lane, which would be tapered into the lane to be dropped at the exit to I-70.

In the southbound direction, the ramp from I-70 would have been extended to provide a fourth southbound mainline Beltway lane. The C-D road would have begun north of U.S. Route 40, continue through the interchange, then would have become the auxiliary lane between the U.S. Route 40 interchange and Edmondson Avenue interchange.

The bridge over U.S. Route 40 would have been widened and a new bridge for each C-D Road would have been constructed.

Retaining walls would have been constructed along the northbound and southbound roadways.

This Option was not selected because it resulted in an undesirable weaving condition between Edmondson Avenue and the U.S. Route 40 C-D Road. Also, the weaving within the U.S. Route 40 interchange would not have been improved.

Edmondson Avenue Interchange Option 1 - Not Selected

This option proposed a shift of the southbound mainline lanes of the Beltway to provide the minimum horizontal sight distance for the northbound roadway. This would have been accomplished by relocating the median barrier, thereby requiring a southbound lane shift.

The bridge over Ingleside Avenue and the bridge over Edmondson Avenue would have been widened with this Option. Additionally, the Edmondson Avenue roadway would have been depressed approximately 2-feet and the intersection of Forest Avenue with Edmondson Avenue would have been relocated.

62

Retaining walls were proposed along the mainline and ramps.

Ramp F in the southeast quadrant would have been relocated to terminate opposite Ramp E in the northeast quadrant.

The intersection of Arbutus Avenue would have been relocated to a location across from Harlem Lane.

This option was not selected for a number of reasons.

- o There was no direct correlation between accident occurrence and the lack of horizontal sight distance.
- o An acceptable alternate was not available to replace the intersection of Edmondson Avenue and Forest Avenue.
- o Retaining the existing intersection of Ramp F and Arbutus Avenue is an acceptable alternative to avoidance of wetlands because the intersections are not contributing to existing congestion or accidents.

Edmondson Avenue Interchange Option 2 - Not Selected

A physically separated ramp and acceleration lane would have been provided for Ramp D. The separate roadway would have risen slightly above the existing Beltway grade, thereby not requiring adjustment to be made to Edmondson Avenue or to the intersection of Forest Avenue as required with Interchange Option 1.

Widening of the bridge over Edmondson Avenue and a new bridge for Ramp D would have been required. Retaining walls would have been required along Ramp D.

The relocation of Ramp F and the intersection of Arbutus Avenue would have been constructed.

This option was not selected because of the cost and the lack of a definitive relationship between the Ramp D proposed relocation and accident occurrence.

Frederick Road (Maryland Route 144) Interchange Option 1 - Not Selected

A mainline shift, was proposed as Frederick Road Interchange Option 1. This shift would have been accomplished by adjusting the striping along the southbound median shoulder.

Retaining walls would have been required north and south of the interchange along both northbound and southbound roadways. Relocation of portions of the existing noise barrier would have been required.

63

Ramp F in the southeast quadrant would have been removed and replaced with a diamond type ramp, which would intersect with Frederick Road directly across from Ramp E in the northeast quadrant. The existing Ramp F pavement would have been removed.

This option was not selected because there was no direct correlation between accident occurrence resulting from lack of horizontal sight distance.

Wilkins Avenue (Maryland Route 372) Interchange Option 1 -
Not Selected

The existing loop ramp along southbound I-695 (Ramp B) would have been replaced by a diamond type ramp with the proposed improvements with this interchange option. Retaining walls would have been required along relocated Ramp B (new Ramp C). New Ramp C would terminate at Wilkins Avenue directly across from Ramp F, at which the existing signal would have been maintained. A two-lane storage area would have been provided for left-turning vehicles on new Ramp C.

The existing intersection at Kenwood Road and Ramps D and H would have been modified and the existing left turn from Ramp D to Kenwood Road would have been eliminated. The existing bridge along northbound I-695 would have required widening.

This option was not selected for two reasons:

- o The steep downgrade of the proposed Ramp B would have likely resulted in a high rate of rear-end accidents along the ramp.
- o The existing intersection with Kenwood Avenue is not contributing to accidents and congestion within this interchange.

Hollins Ferry Road (Maryland Route 891) Interchange Option 1 -
Not Selected

Existing Ramp F in the northeast quadrant provides direct access from Hollins Ferry Road to I-695 northbound, with its terminus near the B&O Railroad bridge. Interchange Option 1 would have relocated Ramp F beginning near Hollins Ferry Road, paralleling I-695 and crossing under the CSX Railroad east of the existing bridge crossing of I-695. The terminus of the ramp, therefore, would have been shifted further north along northbound I-695. The existing pavement of Ramp F would have been removed. This interchange option would not require reconstruction of the bridge structure crossing over the Beltway, although it would have required construction of a separate B&O Railroad structure over relocated Ramp F.

This option was not selected due to cost and property impacts.

64

Maryland Route 295 Interchange Option 1 - Not Selected

A two-lane Collector-Distributor (C-D) road would have been constructed along the northbound and southbound roadways for Interchange Option 1. Both the Nursery Road and Maryland Route 295 interchanges would have been involved because of the proximity of the two interchanges. The option would have provided four mainline lanes on the Beltway and a two-lane C-D road through the interchange. This would have then transitioned into the five-lane section to the south as provided for in the I-97 project. Additional lanes for weaving between ramps would have also been provided.

The bridge over Nursery Road would have required widening and both the Maryland Route 295 and Patapsco River bridges would have required widening and reconstruction.

Along the northbound roadway, retaining walls would have been required. An open-graded section along southbound I-695 would have limited the length of the retaining walls. These walls would have been between Nursery Road and partially around Ramp D and partially along Ramp C and southbound I-695 to the south at the Maryland Route 295 Interchange.

This option was not selected because it did not markedly improve the weaving and diverging conditions at the Maryland Route 295 interchange and it created an unacceptable diverging condition at the C-D Road exit.

Maryland Route 295 Interchange Option 2 - Not Selected

A four-lane ramp, carrying two lanes in each direction, would have provided a direct connection from the median of Maryland Route 295 to the median of I-695. The southbound Maryland Route 295 to southbound I-695 connection would have begun near the Patapsco River bridge, with two lanes in the median adjacent to the three mainline lanes. Two of the four ramp lanes on the four-lane bridge would have curved to the south and would then have tied into the median of I-695. The two median lanes would have joined the four mainline lanes. The outer mainline lane would have been dropped at Maryland Route 648.

The northbound I-695 to northbound Maryland Route 295 connection would have begun in the median of I-695 just north of Maryland Route 170. Two of the four ramp lanes on the four-lane bridge would have curved to the north and tied into the median adjacent to the three mainline lanes. The two ramp lanes would have tapered into the mainline of Maryland Route 295.

While Ramp B would have been replaced by the proposed fly-over ramp, Ramp H would have continued to operate for traffic destined to Maryland Route 170.

65

A large number of retaining walls would have been required along the Beltway for this interchange option. In addition to the new four-lane bridge, with two lanes per direction separated by a median barrier, reconstruction of the bridges on I-695 over Maryland Route 295 and the Nursery Road Bridge over Maryland Route 295 would have been required.

This option was not selected because of cost and the fact that it only addressed two major interchange movements.

I-695/Maryland Route 295 Interchange Option 3 - Not Selected

A new direct ramp (Ramp Y-2) would have carried northbound traffic on I-895 westerly onto I-895 toward Maryland Route 295. A proposed diamond ramp in the northeast quadrant of the I-895/Maryland Route 295 interchange would have permitted traffic to turn north onto the Baltimore-Washington Expressway and proceed into Baltimore City.

A proposed loop ramp in the southwest quadrant would have permitted returning traffic southbound on the Baltimore-Washington Expressway to turn east onto I-895 and then, via a direct ramp in the Y-Split interchange (Ramp Y-1) and proceed south into Anne Arundel County on Maryland Route 2 or Maryland Route 3.

Widening of the following bridges would have been necessary with this interchange option:

- o I-895 Spur over Belle Grove Road, southbound.
- o I-895 over Patapsco River.
- o Maryland Route 295 over I-895, southbound.

Additionally, new bridges would have been required for both Ramps Y-1 and Y-2 in the Y-split vicinity and for Ramp Y-2 over Belle Grove Road along northbound I-895 Spur.

This option was not selected for a number of reasons:

- o Reasonable alternatives exist to avoid the parkland and wetland impacts incurred by this option.
- o This option does not provide measurable relief of the traffic volumes at the Maryland Route 295 interchange.
- o Nontoll-paying traffic would be introduced onto a toll facility.

66

D. DESIGN EXCEPTIONS

In order to obtain final approvals of the proposed Selected Action in the Study Area, design exceptions for current AASHTO standards will be required. This description does not constitute the request for the exceptions, it simply documents the types of exceptions required for the Selected Action. The design speed for I-695 is 60 mph while the design speed on Maryland Route 295 is 60 or 70 mph, depending on the location. The items which will require design exceptions include the following:

Mainline - The Beltway was designed for 60 mph in the 1950's. Since that time, the standards have been revised and current horizontal sight distance requirements are greater than what is provided on two segments of the Beltway in the Study Area: Edmondson Avenue and Frederick Road. A design exception will be required for horizontal sight distance at these two locations.

During this study, reconstruction of the mainline in the Edmondson Avenue vicinity was examined in order to revise the horizontal sight distance to current standards. It was determined that due to cost and impacts, this reconstruction is not cost effective. Likewise, that same determination was made regarding the revisions in the Frederick Road vicinity. However, during design the placement of the concrete median barrier will be evaluated to maximize the available sight distance.

Lane width reductions are required under the I-70 bridges in both the northbound and southbound directions in order to eliminate the need for reconstructing the triple decker structure.

All bridge shoulder widths will be consistent with the adjacent roadway sections.

Outside shoulders - Full outside shoulders of 10 feet could not be maintained throughout the Study Area due to the cost of the bridge reconstruction and right-of-way impacts. The provision of full shoulders, particularly at the Edmondson Avenue interchange, would require the taking of properties adjacent to the Beltway. In addition, many bridges which are in good structural condition would require reconstruction. As a result, portions of the Beltway will have shoulders which range from 4 feet to 10 feet. These reduced shoulders are primarily along those segments between U.S. Route 40 and Wilkens Avenue, and between I-95 and I-895.

Along I-95 northbound in the Caton Avenue vicinity, five lanes are proposed for the mainline. In order to utilize the existing and recently redecked bridge, the mainline would be shifted, resulting in a reduction of the outside shoulder.

Median Shoulders - A reduced median shoulder will be provided between the Washington Boulevard interchange and the I-895 interchange along I-695. This section of the Beltway is already constrained by some bridges, such as the CSX Railroad overpass. The Hollins Ferry Road bridge was reconstructed in 1988. It was not designed to accommodate the full shoulders required with the Beltway widening. When the Beltway is widened in this section, therefore, the existing bridges will be maintained, resulting in a reduced shoulder in the median, as well as to the outside. To provide consistent driver expectancy, the reduced shoulder will be maintained through the entire section. Reduced median shoulders will also be provided from north of U.S. Route 40 to retain existing bridges at Crosby Road and I-70.

Ramps - The existing interchange loop ramps radii range from a minimum of 105 feet to 180 feet. The proposed Selected Action of the interchange ramps will result in ramp radii ranging from a minimum of 85 feet to 250 feet. The reduced ramp radii will occur at the following interchanges: U.S. Route 40, Edmondson Avenue, Wilkens Avenue, Washington Boulevard, Hollins Ferry Road, and Maryland Route 295.

Ramp C from I-695 southbound to I-95 northbound will be dualized with the Selected Action. The required horizontal sight distance for that bridge would require additional widening by 10 feet. Due to cost, this bridge is not proposed for widening to provide the clearance.

Bridge Vertical Clearance - A preliminary investigation of existing and proposed vertical clearances has been performed to determine where it may not be possible to achieve the desired clearance. The following conclusions have been reached (see Table II-6).

- o All bridges which must be reconstructed to accommodate the widening will be designed to provide a 16-foot or more clearance.
- o For bridges passing over I-695 which are not being reconstructed, the widening and overlay will be done to maintain the existing clearance.
- o Of the I-695 bridges which cross over other roads, three may not meet vertical clearance criteria with the Beltway widening. These three bridges are Edmondson Avenue, Ingleside Avenue and Hammonds Ferry Road.

An attempt will be made during final design to maintain or improve vertical clearances. The following order of priority will be used to evaluate bridge clearance:

1. Provide desirable AAHTO clearance.
2. Provide minimum AASHTO clearance.
3. Maintain existing clearance.

68

However, due to impacts that would be incurred, roads with substandard vertical clearance are not proposed to be reconstructed to maintain clearance or increase clearance to standard requirements. Where an existing vertical clearance is less than or equal to current requirements, this clearance will be maintained by milling the pavement prior to placing the overlay. Where the existing vertical clearance is greater than the standard requirements, that clearance will not be reduced to substandard.

I-695 from I-95 west to the project limit is on the 26,000 Mile Priority Network (Network established by Department of Defense, State, and FHWA to meet the most urgent national defense needs). Proposed vertical clearance design exception (including exceptions which do not upgrade existing deficiencies) are to be sent to the FHWA Washington Office for coordination with the Military Traffic Management Command (in accordance with the FHWA May 11, 1990, Memorandum from the Associate Administrator for Engineering and Program Development).

The following four tables summarize design exceptions identified during project planning. Table II-5 provides a summary of the exceptions to the geometrics of the mainline and ramp alignments. Tables II-6, II-7 and II-8 provide a summary of the exceptions for shoulder widths (horizontal clearances) and vertical clearances on both the roadways and bridges.

TABLE II-5
AASHTO DESIGN EXCEPTIONS REQUIRED WITH SELECTED ACTION
I-695 MAINLINE AND RAMP GEOMETRICS

I-695 MAINLINE LOCATION (STA.)	DESIGN EXCEPTION REQUIRED	REQUIRED TO MEET AASHTO CRITERIA	PROVIDED WITH SELECTED ACTION	JUSTIFICATION FOR DESIGN EXCEPTION
1. I-70	Mainline Lane Width	four 12 foot lanes	two 12 foot lanes two 11 foot lanes	Reduction required to allow clearance under three level bridges at this interchange.
2. U.S. Route 40	Ramp Radii transition	Ramp R* = 280 feet	Ramp A R = 100' B R = 100' C R = 150' D R = 140'	Revision to design would require large right-of-way acquisition to provide additional length for weaving and to increase the ramp radii.
3. Edmondson Avenue (Sta. 325± to 305±)	NB median shoulder Horizontal Sight Distance	15 feet to meet criteria for 3°30' curve	10 feet	Meets minimum Design Speed Standard (Lower Values) for sight distance. Required Value could not be achieved due to cost and impacts of widening of structure and roadway. Also, would reduce radii of already substandard Ramp D. See p. II-19 for further discussion.
4. Edmondson Ave.	Ramp Radii	Ramp R = 280 feet	Ramp D R = 85'	Redesign of this ramp would require relocation of Ramp H and would require residential right-of-way acquisition.
5. Frederick Road (Sta. 300± to 280±)	SB median shoulder Horizontal Sight Distance	12 feet to meet criteria for 3° curve	10 feet	Same as Edmondson Ave., although ramps are not affected. See page II-19 for further discussion.

* Ramp R = Required ramp radius to meet AASHTO criteria.

II-25

TABLE II-5 (continued)
AASHTO DESIGN EXCEPTIONS REQUIRED WITH SELECTED ACTION
I-695 MAINLINE AND RAMP GEOMETRICS

<u>I-695 MAINLINE LOCATION (STA.)</u>	<u>DESIGN EXCEPTION REQUIRED</u>	<u>REQUIRED TO MEET AASHTO CRITERIA</u>	<u>PROVIDED WITH SELECTED ACTION</u>	<u>JUSTIFICATION FOR DESIGN EXCEPTION</u>
6. Wilkens Ave.	Ramp Radii	Ramp R = 280 feet	Ramp B R = 140' Ramp D R = 150'	Redesign of this ramp would require relocation of outer Ramp F or replacement with Ramp C (Option 1). Implementation of either of these improvements would result in marginal operational ramp improvements.
7. Washington Blvd.	Ramp Radii	Ramp R = 280 feet	Ramp C R = 200'	Redesign to accommodate required radius would encroach on Ramp G and require right-of-way acquisition outside that ramp.
8. Maryland Route 295	Ramp Radii	Ramp R = 280 feet	Ramps E,F,G,H R = 135 feet	Redesign to accommodate required radius would require tremendous right-of-way acquisition.

20

II-26

TABLE II-6: AASHTO DESIGN EXCEPTIONS REQUIRED WITH SELECTED ACTION

I-695 HORIZONTAL AND VERTICAL CLEARANCE

HORIZONTAL CLEARANCE	Desirable Per AASHTO	Minimum Per AASHTO	Proposed	Reason for Exception
Mainline Roadway Inside Shoulder	10'	10'	North of I-70 - taper 10' to 2' I-70 Interchange - 2' South of I-70 to South of Crosby Road - taper 2' to 10' to 4' minimum at Crosby Road to 10' South of I-95 to Patapsco River Bridge - varies 3-1/2' to 10'	In the I-70 interchange, the shoulder reduction allows widening without extraordinary cost of reconstructing the triple overpass. The actual distribution of the usable shoulder will be determined during final design. FHWA and SHA conceptually agreed that reconstruction of the bridges with a remaining useful life was not prudent if the widening and minimal shoulder of 3-1/2' in constrained areas could be maintained. This is documented in the minutes of a meeting held on 12/16/83.
Mainline Roadway Outside Shoulder	14' closed	14' closed	I-70 interchange - 4-1/2' Crosby Road - 6' minimum B&O RR - 2' minimum	The shoulder reduction allows widening without extraordinary cost of reconstructing overpasses. The actual distribution of the usable shoulder will be determined during final design.
Auxiliary Lane Shoulder on Roadway	10' - with consistency to adjacent roadway approaches	6' or consistent with adjacent roadway approaches	North of I-70 to south of Frederick Road - 4' to 6' Hollins Ferry Road to I-895 interchange - 2' minimum (NB I-965 only)	Right-of-way constraints and bridge costs. An attempt will be made during final design to provide a 6' shoulder where feasible. Highway Development Manual Subject 3-6-7, approved by FHWA on 4/20/82, and documented by meeting minutes, allows reduction of auxiliary lane shoulder to 2'. This applies to weaving sections only. FHWA and SHA conceptually agreed that reconstruction of the bridges with a remaining useful life was not prudent if the widening and minimal shoulder of 3-1/2' in constrained areas could be maintained. This is documented in the minutes of a meeting held on 12/16/83.

II-27

TABLE II-7: AASHTO DESIGN EXCEPTIONS REQUIRED WITH SELECTED ACTION

I-95 HORIZONTAL AND VERTICAL CLEARANCE

HORIZONTAL CLEARANCE	Desirable Per AASHTO	Minimum Per AASHTO	Proposed	Reason for Exceptions That May Be Required
Mainline Roadway Inside Shoulder	10'	10'	Joh Avenue to Caton Avenue - 12' to 8' taper	FHWA and SHA conceptually agreed that reconstruction of the bridges with a remaining useful life was not prudent if the widening and minimal shoulder of 3-1/2' in constrained areas could be maintained. This is documented in the minutes of a meeting held on 12/16/83.
VERTICAL CLEARANCE				
Clearance over Interstate	16' 9"	16'	Caton Avenue Bridge maintain existing clearance (approximately 15'-11")	FHWA policy, as documented in 3/31/88 memo, requires a minimum vertical clearance of 16' over Interstate Routes.

II-29

73

TABLE II-8: AASHTO DESIGN EXCEPTIONS REQUIRED WITH SELECTED ACTION

MARYLAND ROUTE 295 HORIZONTAL CLEARANCE

HORIZONTAL CLEARANCE	Desirable Per AASHTO	Minimum Per AASHTO	Proposed	Reason for Exceptions That May Be Required
Mainline Roadway Inside Shoulder	10'	10'	4' beneath bridges available Winterson Road West Nursery Road Patapsco River Bridge I-895 Baltimore Highlands Pedestrian Overpass No reconstruction required	FHWA and SHA conceptually agreed that reconstruction of the bridges with a remaining useful life was not prudent if the widening and minimal shoulder of 3-1/2' in constrained areas could be maintained. This is documented in the minutes of a meeting held on 12/16/83.
Mainline Roadway Outside Shoulder	10'	10'	Winterson Road - 7'	FHWA and SHA conceptually agreed that reconstruction of the bridges with a remaining useful life was not prudent if the widening and minimal shoulder of 7' in constrained areas could be maintained. This is documented in the minutes of a meeting held on 12/16/83.
Mainline Bridge Shoulders	10' inside and consistent with adjacent roadway	10' inside and consistent with adjacent roadway	Patapsco River - 4' inside	Maintain existing shoulder not affected by widening. Bridge shoulder widths will be consistent with adjacent roadway sections.

SHA will review adding 10' inside shoulders at all bridges where cross over bridges are to be reconstructed.

E. CONSTRUCTION TECHNIQUES

While roadway widening, interchange modifications, and ramp improvements are all proposed as a part of the Build Alternate, the realities of available funding and the greater need for improvements in certain portions of the Study Area are anticipated to result in the staged construction of improvements over a ten to fifteen year time frame. Consequently, with the Selected Action, major improvements would be programmed to address the greatest project needs (i.e., areas with severe levels of congestion and/or high accident rates).

- Staging -

Following the Combined Location/Design Public Hearing, an analysis was made to segment the project into reasonable construction limits. Maintenance of Traffic (MOT), ease of construction and the overall size and cost of the construction contract were considered in making this determination.

The approach was focused on grouping the projects from minor to major using the following guidelines.

- Minor - generally low cost < \$1M
- ability to be constructed independently
- minimal or no right-of-way required

- Mid-Level - generally cost < \$5M
- sequenced to capitalize on ease of MOT
- interchange - related improvements for operations

- Major - primarily mainline widening with bridge construction required

Within each grouping, priorities were established based on the overall traffic capacity or safety improvement that could be achieved for the cost of the project. Some of the projects were sequenced for logical constructability.

For the southwest Beltway study, it was agreed that the area which had the highest priority was that between I-95 and Wilkens Avenue. A general consideration for all projects will be that an interim solution should not be incorporated if a return to a location in the future for further improvements would cause serious safety problems. Design of each segment would include the interchanges as well as the mainline. The design would be developed so that portions could be separated to allow for alternative funding sources or breakdown.

Review meetings to discuss changes in progress will be held on a semi-annual basis. The meetings, conducted in-house with SHA personnel, including the Administrator, would serve as updates for progress on design and construction.

76

Due to the high traffic volumes which use these sections of I-695, Maryland Route 295, and I-95, sequencing of construction to maintain safe and efficient traffic service is critical. Construction sequences would be developed for the Selected Action, which would reduce construction-zone accidents, driver confusion, and delays.

Initial stages of construction in the "major" category, primarily on I-695 within the study limits, would occur to the outside of each roadway. Work to be done during the construction phases would include, but not necessarily be limited to:

- : Outside bridge widenings.
- : Retaining walls and associated drainage structures.
- : Mainline paving and shoulder construction.
- : Safety grading as necessary.

Staged construction, primarily on Maryland Route 295, would generally consist of improvements in the median; i.e., construction of two additional traffic lanes, inside shoulders, median barrier or guardrail and associated drainage structures.

- Maintenance of Traffic -

In order to provide the highest degree of safety during these staged construction periods, the following measures would be utilized:

- : A 10 foot temporary shoulder will be provided adjacent to the temporary traffic lane for most of the project's length.
- : Temporary slope-faced concrete barriers will be provided throughout the construction area.
- : Through superelevated sections, the temporary traffic lanes will be superelevated and transitioned in conformance with AASHTO.
- : Slope-faced traffic barriers will be constructed on several bridge parapets.
- : Temporary acceleration/deceleration lanes will provide a high degree of safety in merging areas.
- : All signing, marking, barrier placement and channelization will be in accordance with the Manual on Uniform Traffic Control Devices (1988), including the latest revisions.

The affect of the construction on traffic service and adjacent communities has been considered. In order to minimize disturbance to traffic flow, construction will be limited to off-peak hours of the day and the existing number of lanes on I-695 will be maintained. In order to limit the disruption to adjacent residences, the State Highway Administration will work with Baltimore and Anne Arundel Counties and local residents. An attempt will be made to control noise in accordance with local noise ordinances.

SECTION III

AFFECTED ENVIRONMENT

III. AFFECTED ENVIRONMENT

A. INTRODUCTION

The I-695/Maryland Route 295/I-895 Study Area presents a diverse social, economic and natural environment. Residential development is located adjacent to most portions of the roadways, particularly between I-70 and I-95, and east of Maryland Route 295. Established industrial development is evident and the addition of more industrial developments is expected, especially between I-95 and Maryland Route 295 and along Maryland Route 295 south of the Beltway. The Patapsco Valley State Park crosses under each of the three roadways. While a Study Area has been delineated, it must be recognized that the existing roadway facilities under study for reconstruction are of regional significance.

B. SOCIO-ECONOMIC OVERVIEW

1. Social Environment

The Study Area is located within the Baltimore Standard Metropolitan Statistical Area (SMSA), comprised of the City of Baltimore and the five surrounding counties: Anne Arundel, Baltimore, Carroll, Harford, and Howard. The Baltimore SMSA experienced a 20.6 percent growth in population from 1960 to 1980¹. Anne Arundel County's population increased 79.4 percent from 206,634 in 1960 to 370,777 in 1980. During this twenty-year period, Baltimore County increased less than half as much (33.1 percent), with the period between 1970 and 1980 experiencing a population growth of only six percent.

The growth rates between 1980 and 1985 increased at a slightly slower rate, with Anne Arundel County experiencing a 7.1 percent increase and Baltimore County 1.5 percent. The entire State increased in population by 3.2 percent.

Table III-1 summarizes past and projected population growth data in Anne Arundel County, Baltimore County, the Baltimore SMSA and the State of Maryland.

a. Population

Examination of the 1980 Census of Population and Housing² indicated that 19 Baltimore County census tracts and 5 Anne Arundel County census tracts are located in the Study Area (see Figures III-1 and III-2). Growth in employment and number of employees is relevant because a high proportion of travel associated with work trips takes place in the morning and evening peak travel hours. These peak travel hour trips typically place the most stress on highway capacity.

1 1990 Census data not available during preparation of this document.

2 1980 Census of Population and Housing

80

TABLE III-1
Regional Population Data

<u>Year</u>	<u>Baltimore County</u>	<u>A. A. County</u>	<u>Balto. SMSA</u>	<u>Maryland</u>
1960	492,428	206,634	1,803,374	3,100,689
1970	620,409	298,042	2,069,841	3,923,897
1980	655,615	370,777	2,174,023	4,216,446
1985	665,200	397,277	2,227,500	4,350,000
1990 ¹	669,100	420,708	2,287,800	4,535,000
1995	677,700	441,673	2,341,300	n.a.
2000	689,900	457,669	2,397,800	4,862,900
2005	697,200	469,523	2,440,300	n.a.
2010	702,800	477,988	2,474,700	n.a.

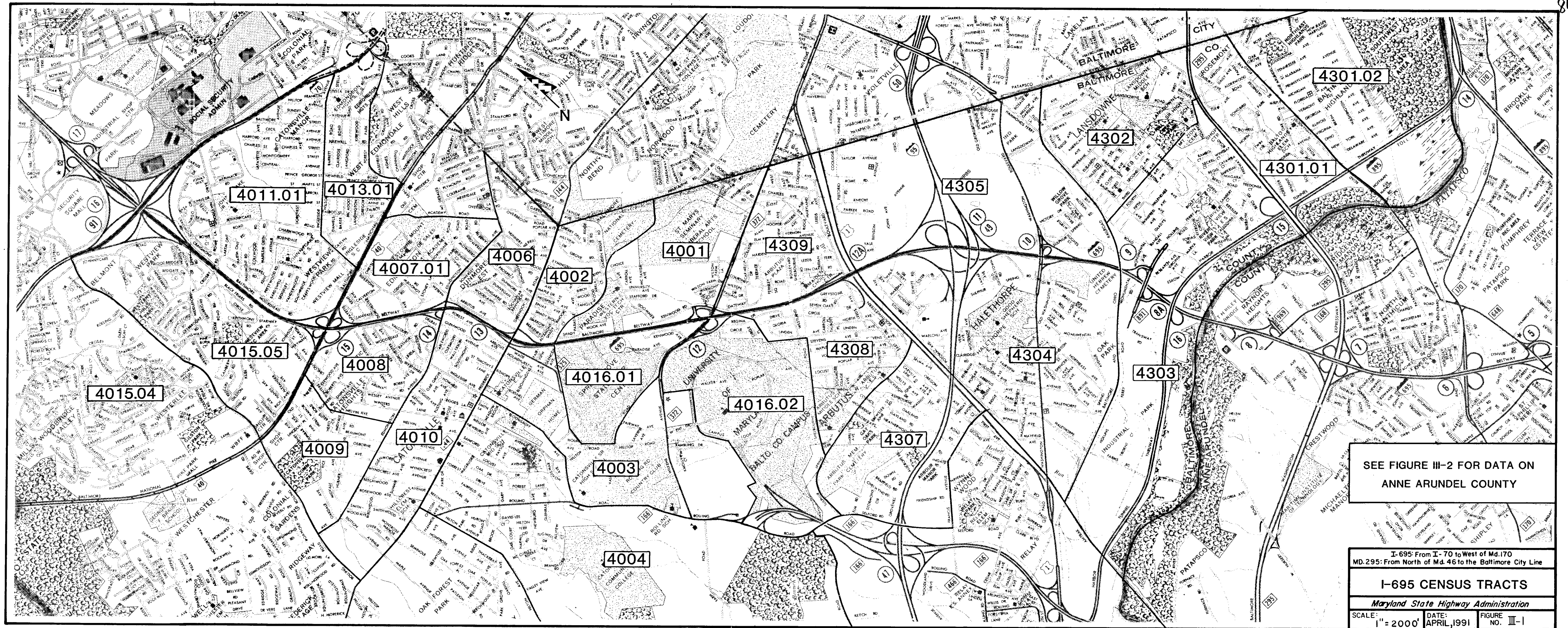
Sources: Bureau of the Census 1980: Baltimore County and Anne Arundel County Planning and Zoning (n.a., not available)

The location of this project in the Baltimore Standard Metropolitan Statistical Area (SMSA) emphasizes the important relationship between commuting and growth of the region. The 1960-1980 Census information, analyzed by the Regional Planning Council², identifies the following regional relationships:

- In the Baltimore SMSA, Baltimore County has experienced the greatest absolute increase in resident labor force over the 20-year period. In that period, the labor force grew by nearly 140,000 workers.
- Non-City workers have increased by 50 percent.
- Baltimore County has experienced the greatest absolute increase in the number of jobs over the period: 170,500 jobs.
- Non-City employment has increased its share of regional jobs by one-third over the period (from 38 percent to 53 percent).

1 1990 Census data not available during preparation of this document.

2 "Commuting In the Baltimore Region: Historical Perspectives and Current Trends" by Charles R. Goodman and John M. Bailey, June 1985, p. 7.



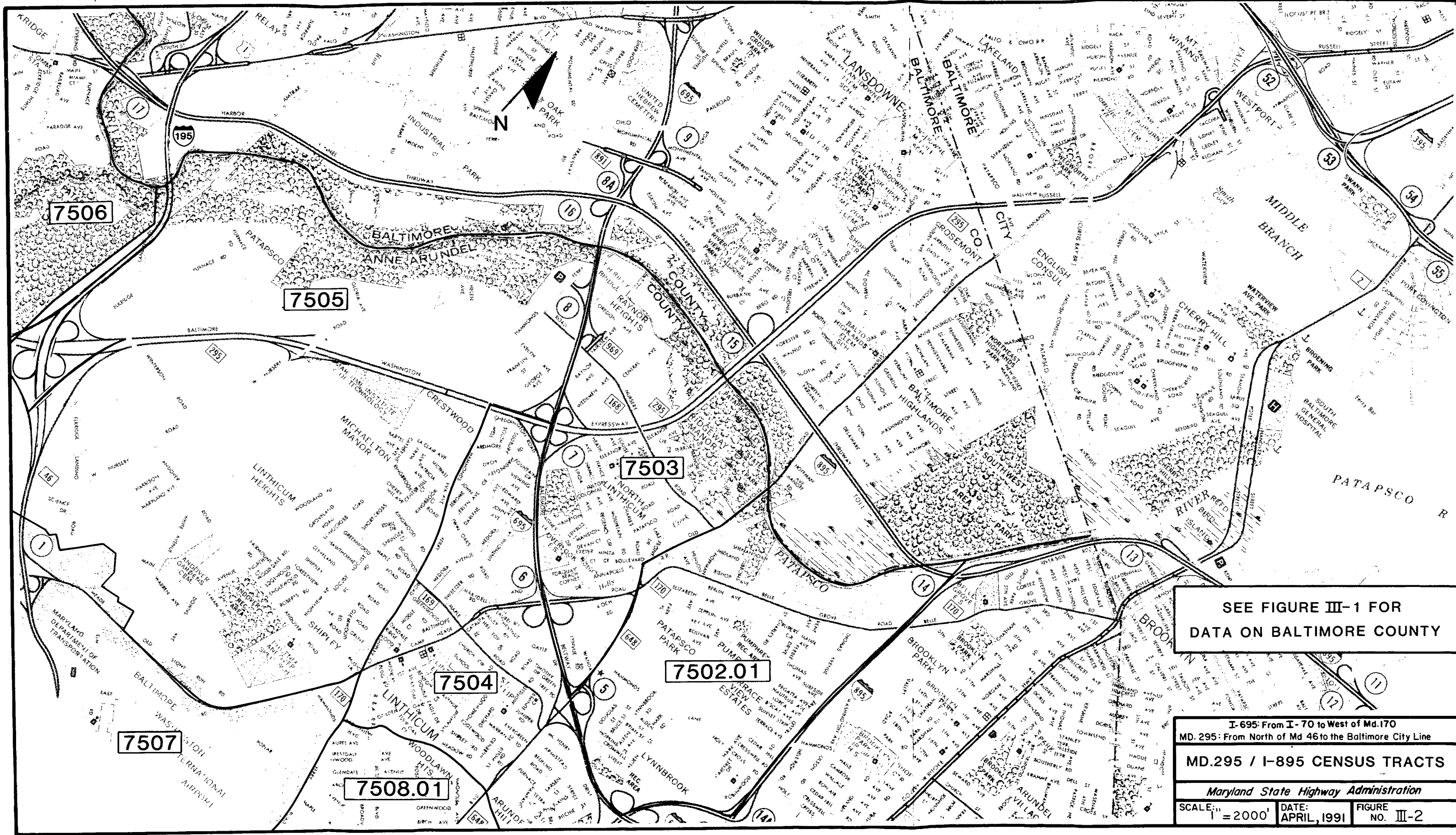
SEE FIGURE III-2 FOR DATA ON
ANNE ARUNDEL COUNTY

I-695: From I-70 to West of Md.170
MD.295: From North of Md.46 to the Baltimore City Line

I-695 CENSUS TRACTS

Maryland State Highway Administration

SCALE: 1" = 2000' DATE: APRIL, 1991 FIGURE NO. III-1



SEE FIGURE III-1 FOR
DATA ON BALTIMORE COUNTY

I-695: From I-70 to West of Md.170
MD. 295: From North of Md 46 to the Baltimore City Line

MD.295 / I-895 CENSUS TRACTS

Maryland State Highway Administration

SCALE: 1" = 2000' DATE: APRIL, 1991 FIGURE NO. III-2

In 1985, 81,500 persons, or 3.7 percent of the Baltimore SMSA population, resided in the I-695/Maryland Route 295 Study Area's population. (See Appendix B, Table B-3). Between 1980 and 1985, the population of the Baltimore SMSA increased by 2.5 percent, yet the Study Area increased by only 2 percent, with the majority of that growth in Anne Arundel County.

By the year 2010, the population of Baltimore County is projected to increase from a 1985 total of 665,200 to 702,800, an increase of 5.7 percent. Anne Arundel County's population is anticipated to increase from 397,300 to 478,000, an increase of 20.3 percent. The Study Area is anticipated to experience an overall decrease in population of 0.6 percent between the years of 1985 and 2005.

Between 1970 and 1980, the Catonsville-Arbutus area experienced an overall decrease in population, but a decided increase in housing development. In 1980, the population for the area was approximately 57,400 people. This represents a 9.2 percent decline from the 1970 approximation of 62,700 people. The decline in population has been attributed to the general decrease in family size. In 1970, the estimated household size was 3.1 persons per household, while in 1980, the estimated figure had decreased to 2.4 persons per household. (Appendix B, Table B-4).

The Security and Catonsville areas have seen marked increases in housing development between 1970 and 1980. Security had an increase of about 700 housing units; Catonsville had an increase of more than 2,650 units. During this same time period, Arbutus experienced a decrease in available housing of slightly more than 1,900 units.

Employment, however, is experiencing rapid growth. For example, in the greater Baltimore-Washington International (BWI) Airport vicinity between 1980 and 1985, employment was estimated to have grown by 44,000 employees or 48 percent. In the five years between 1985 and 1990, employment is estimated to have grown another 45,600, or 98 percent over 1980, with growth slowing beyond 1990. According to the Greater BWI Commuter Transportation Center, in 1990 retail and non-retail employment in the greater BWI area totaled 105,390. The greater BWI area is defined as the 10 square mile area surrounding the airport, bounded by I-695 on the north, Maryland Route 32 on the south, Maryland Route 3 on the east, and the Anne Arundel County/Howard County Line on the west (including a small portion of Annapolis Junction). As stated, the rate of growth is expected to slow beyond 1990, with total employment in 1995 estimated at 110,317 and in year 2000 at 112,996.

The region-wide impact of employment growth is substantially greater than population growth; population growing by 23 percent and employment growing by 124 percent between the years 1985 and 2005. These data are for the greater BWI area which includes the airport, Ft. George G. Meade and a portion of Howard County, but does not reflect growth in the entire Study Area.¹

The tremendous employment growth that is taking place to the north and west of BWI Airport is clearly evident. From an employment total of 20,200 in 1980, the immediate airport area has grown to 34,700 in 1985, an increase of 72 percent overall or 11 percent per annum. This is 15 times the annual rate of growth of population for the region for this time period. Moreover, this rate of growth is expected to continue from 1985 to 1990. An example of the growth in the vicinity is the Airport Square Technology Park with 18 buildings and over 1 million square feet of office space.

Other areas in the BWI study area will reflect an increase in employment, but not as great as that in the immediate airport area. While this area will experience a 262 percent employment increase between 1980 and 2005, the Ft. Meade area will have a 136 percent increase. Employment in the total Study Area is projected to increase by 127 percent.

Recent unemployment rates for the Baltimore Metropolitan Area, Anne Arundel County and Baltimore County are listed below:

<u>Unemployment Rate November 1990²</u>	
Maryland	5.3
Baltimore Metro. Area	5.6
Anne Arundel County	4.0
Baltimore County	4.9

Table III-2 indicates the employment by classification for the Study Area.

1 "Baltimore/Washington International Airport Master Plan Update" for State Aviation Administration, Maryland Department of Transportation, by the Ralph M. Parsons Company/Barton-Aschman Associates, Inc., Volume VII Highway Access Plan, September, 1986.

2 Office of Labor Market Analysis and Information, Maryland Department of Economic Development, January 1991.

S-III-5

TABLE III-2: STUDY AREA EMPLOYMENT BY CLASSIFICATION¹

<u>Baltimore County</u> <u>Census Tract</u> <u>Number</u>	<u>Total</u> <u>Employed</u> <u>Over</u> <u>Age 16</u>	<u>Managers</u> <u>and</u> <u>Professional</u>	<u>Technical</u> <u>Sales and</u> <u>Support</u>	<u>Service</u> <u>Occupations</u>	<u>Farming,</u> <u>Forestry,</u> <u>& Fishing</u>	<u>Precision</u> <u>Production</u>	<u>Operators,</u> <u>Fabricators,</u> <u>& Laborers</u>
4015.05	1,501	33.0%	44.6%	6.1%	1.2%	7.0%	8.1%
4011.01	2,450	24.6	38.0	12.4	0.6	10.8	13.6
4001	381	27.3	33.6	10.0	-	20.5	8.6
4002	1,533	28.2	36.5	12.1	0.4	14.5	8.3
4003	528	27.1	29.7	16.9	0.9	13.3	12.1
4006	1,482	29.2	42.0	8.0	-	11.0	9.8
4007.01	1,202	28.2	44.1	9.5	-	10.6	7.6
4008	1,480	22.4	35.1	17.3	-	11.8	13.4
4016.01	50	40.0	14.0	30.0	-	16.0	-
4016.02	454	20.9	41.9	13.0	-	4.6	19.6
4301.01	1,192	7.9	36.0	10.0	0.6	15.0	30.0
4301.02	1,289	10.2	34.6	13.3	0.4	19.9	21.6
4302	1,285	14.5	34.4	13.4	-	13.3	24.4
4303	2,881	10.0	32.7	11.5	0.4	18.6	26.8
4304	1,561	18.0	35.7	12.7	1.1	10.3	22.2
4305	470	3.4	39.6	10.8	-	19.8	26.4
4307	2,320	19.0	40.3	12.8	0.5	16.0	11.4
4308	1,826	24.9	40.9	9.1	-	10.7	14.4
4309	2,545	13.8	40.3	13.4	0.6	11.7	20.2
<u>Anne Arundel County</u>							
<u>Census Tract</u> <u>Number</u>							
7503	1,602	19.9	35.1	13.7	-	14.3	17.0
7505	2,135	20.7	38.8	9.0	0.5	16.6	14.4
7502.01	1,165	7.6	32.3	16.8	-	12.6	30.7
7502.02	1,538	14.4	34.3	12.9	0.6	17.5	20.3
7508.02	4,420	15.2	37.7	13.3	0.6	13.7	19.5

¹ See Appendix B for Table B-4 Classification of Employment

Sources: Bureau of Census 1980: Baltimore Metropolitan Area

85

b. Population Characteristics

Table III-3 indicates the portion of the Study Area that is composed of minorities, persons aged 65 and older and those under 18 years.

c. Neighborhoods

The I-695 roadway, constructed in the early 1960's, physically separated many of the communities in the Study Area. The residential communities between I-70 and I-95 remain very strong as evidenced by the extent and support of the community facilities and organizations. These established communities along the Beltway are particularly sensitive to the traffic and noise issues related to highway projects.

Residential communities in the area include Catonsville Heights, Edmondson Ridge, Dunmore Estates, Catonsville, Paradise, Arbutus, Halethorpe, Lansdowne, Baltimore Highlands, North Linthicum Crestwood, Raynor Heights, Linthicum, Rosemont, Baltimore Highlands and Ridgeway Manor. These residential areas are concentrated between I-70 and I-95 along the Beltway and between the Beltway and the Baltimore City Line along Maryland Route 295.

Recommended goals for the existing urbanized communities of Baltimore County, and for similar areas in Anne Arundel County, address pace of development, community services facilities, character, provision of infrastructure to satisfy the needs of residents in pursuit of work and leisure activities, and identity of community with regard to new development.¹

d. Community Facilities and Services

The I-695/Maryland Route 295 Study Area contains a wide variety of community facilities, including 18 schools, nine parks and recreation areas, and six medical facilities. The names and locations of these facilities are shown on Figures III-3 and III-4. The legend on Figure III-3 should be consulted for an explanation of the symbols used.

i. Churches

Many churches of different denominations are located in the I-695/Maryland Route 295 Study Area. Several of these churches operate schools or provide day care services. Two churches adjacent to the Beltway are located between Wilkens Avenue and Leeds Avenue. Westland Baptist Church is located along the northbound roadway and Holy Apostles Episcopal Church along the southbound roadway.

¹ Master Plan Baltimore County 1989-2000, Approved February 5, 1990, p. 23

TABLE III-3: STUDY AREA POPULATION CHARACTERISTICS

<u>Baltimore County Census Tract No.</u>	<u>TOTAL POPULATION</u>	<u>PERCENT BLACK POPULATION</u>	<u>PERCENT SPANISH/ASIAN POPULATION</u>	<u>PERCENT PERSONS UNDER 18 YEARS</u>	<u>PERCENT PERSONS 65 AND OVER</u>	<u>MEDIAN AGE</u>
4015.05	3026	12.6	3.2	24.1	12.8	38.7
4011.01	4858	11.0	2.1	24.5	12.2	34.9
4001	1159	0.4	1.8	15.0	34.3	50.7
4002	2806	0.4	1.4	18.9	17.0	33.1
4003	1036	3.6	1.1	23.3	15.3	36.2
4006	3070	0.8	0.8	18.5	22.6	37.5
4007.01	2262	2.5	0.4	13.2	24.0	43.0
4008	2891	32.6	0.8	21.7	15.0	36.3
4016.01	1096	23.1	1.6	2.8	25.6	52.7
4016.02	1139	23.9	6.5	1.2	0.3	19.8
4301.01	4659	2.0	2.6	30.8	4.0	24.3
4301.02	2646	0	0.9	23.0	12.3	38.7
4302	2839	1.4	0.7	24.6	12.3	33.3
4303	6615	6.1	4.0	35.8	4.5	25.0
4304	2992	10.4	2.4	23.1	13.3	34.0
4305	1079	0	1.3	24.3	16.2	36.3
4307	4520	1.0	1.4	25.7	11.5	33.7
4308	4035	1.4	2.0	21.0	17.5	40.7
4309	<u>5166</u>	<u>3.5</u>	<u>6.6</u>	<u>20.2</u>	<u>18.2</u>	<u>34.3</u>
Baltimore County Total	57894	6.3	2.5	23.3	13.6	36.0

Sources: Bureau of Census 1980: Baltimore and Anne Arundel County Planning and Zoning, pp. 21-24, 31-32, 65-68, 75-76

LD

8-III

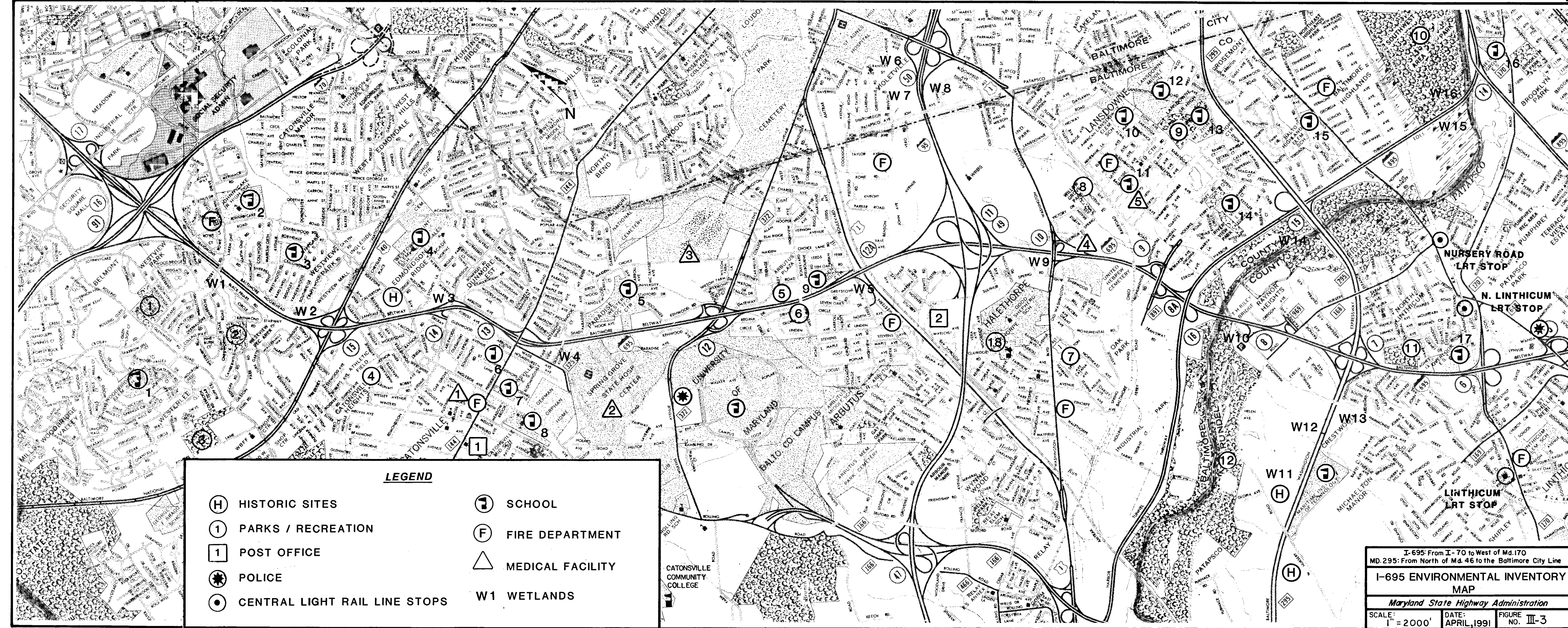
TABLE III-3: STUDY AREA POPULATION CHARACTERISTICS

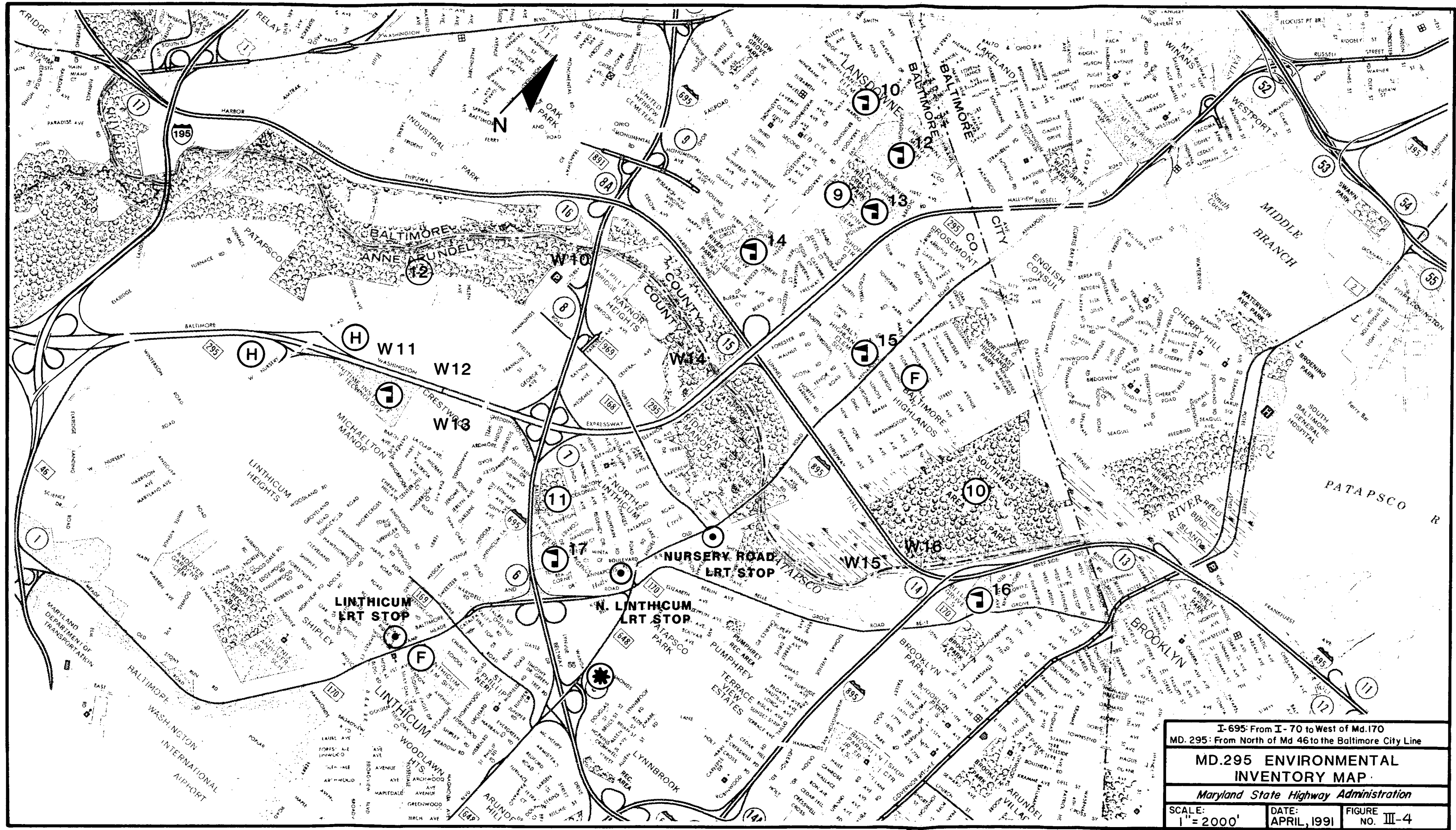
Page 2 of 2

<u>Anne Arundel County Census Tract No.</u>	<u>PERCENT TOTAL POPULATION</u>	<u>PERCENT BLACK POPULATION</u>	<u>PERCENT SPANISH/ASIAN POPULATION</u>	<u>PERCENT PERSONS UNDER 18 YEARS</u>	<u>PERSONS 65 AND OVER</u>	<u>MEDIAN AGE</u>
7503	3092	1.2	2.6	25.2	6.5	31.7
7505	4016	1.9	0.8	22.4	10.5	37.7
7502.01	2574	35.9	0.8	23.8	14.6	37.9
7502.02	3176	0	0.8	23.3	12.6	38.4
7508.02	<u>9151</u>	<u>5.5</u>	<u>3.8</u>	<u>27.7</u>	<u>6.9</u>	<u>29.3</u>
Anne Arundel County Total	22009	7.0	2.3	25.3	9.2	35.0
Study Area Total	79903	6.5	2.4	23.9	12.4	35.7

Sources: Bureau of Census 1980: Baltimore and Anne Arundel County Planning and Zoning, pp. 21-24, 31-32, 65-68, 75-76

88





I-695: From I-70 to West of Md. 170		
MD. 295: From North of Md 46 to the Baltimore City Line		
MD.295 ENVIRONMENTAL INVENTORY MAP		
<i>Maryland State Highway Administration</i>		
SCALE: 1" = 2000'	DATE: APRIL, 1991	FIGURE NO. III-4

ii. Schools

Several public and private schools accommodate children in grades Kindergarten through 12. The local public and private schools in the Study Area include the following:

1. Woodbridge Elementary School
2. Johnnycake Middle School
3. Johnnycake Elementary School
4. Westowne School
5. Western Vo-tech Center
6. United Cerebral Palsy of Central Maryland Inc.
7. Catonsville Elementary School
8. Catonsville Middle School
9. Maiden Choice Center
10. Lansdowne Middle School
11. St. Clement School
12. Lansdowne Middle School
13. Lansdowne Sr. High School
14. Riverview Elementary School
15. Baltimore Highland Elementary School
16. Belle Grove Elementary School
17. Overlook Elementary School
18. Halethorpe Elementary School

The locations of these schools are noted on Figures III-3 and 4. The University of Maryland Baltimore County Campus and Catonsville Community College are also in the Study Area.

The Maiden Choice Center, between Leeds Avenue and the Shelbourne pedestrian overpass, is a special education facility for retarded, autistic and handicapped students between ages 6 and 21. The 1990-91 enrollment is 150 students with a staff of about 43 persons. This facility is an annex to the Rolling Road School which cares for 120 students ranging from infants to children aged 6 years.

Western Vocational Technical School, a portion of which is located along northbound I-695, has a total enrollment of 1,000 students, with 500 in each of two sessions, morning and afternoon.

The University of Maryland Baltimore County (UMBC) campus is bounded by Wilkens Avenue, Shelbourne Road and Rolling Road and two residential communities. This branch of the University of Maryland provides programs in 11 Technical Major/Business Certificate Programs, 27 Undergraduate majors and 26 Graduate majors.

The Maritime Institute of Technology, located adjacent to northbound Maryland Route 295 near the W. Nursery Road interchange (see Figure III-4), provides training for Masters, Mates and Pilots. Programs available on the 50-acre campus vary, with eight-weeks being the longest program session. Approximately 70-75 students live in the facility at any one time.

92

iii. Parks and Recreation Areas

Twelve parks and recreation areas are located in the Study Area. They include community parks such as Maiden Choice Park, and county facilities such as Banneker Community Center, Westland Garden Community Park, Halethorpe Community Center, Hillcrest Park, Willow Grove Park, Overlook Park and Southwest Area Park. The Patapsco Valley State Park is a state owned and maintained park. Facilities provided range from tennis, basketball and picnicking facilities to fishing, jogging, biking, hiking, nature trails and camping. The focal point of the Patapsco Valley State Park is the Patapsco River. The parks and their locations are shown on Figures III-3 and 4. The table below indicates the recreation facilities available at parks in the Study Area:

TABLE III-4 - STUDY AREA PARK FACILITIES

Figures III-3 and 4 Reference Number	Name	Acreage	Parking	Picnic	Tennis	Tot Lot	Foot- ball	Base- ball	Basket ball	Trails	Swimming
Baltimore County											
1	Western Hills Comm. Park	18.5	X	X		X		X			
2	Westview Recreational Area	17.2		X		X		X		X	
3	Gilston Park	1.4*		X							
4	Benjamin Banneker Community Park	40	X				X	X			
5	Maiden Choice Park - Regina Dr.	5.7									
6	Westland Garden Community Park	2.4	X			X			X		
7	Halethorpe Community Center	3	X	X		X					
8	Willow Grove Park	2.3							X		
9	Hillcrest Park	20	X	X		X				X	
10	Southwest Area Park	230	X		X	X					
Anne Arundel County											
11	Overlook Park	20	X	X			X		X		X
12	Patapsco Valley State Park	11,347	X	X	X	X	X	X	X	X	

*1.4 acres is maintained by the Baltimore county Department of Parks. The Department of Public Works maintains the rest of the open lot.

iv. Law Enforcement and Fire Protection Services

Police protection for the Baltimore County portions of the Study Area is provided by Baltimore County Police, Precinct 1 Office, located at Wilkens and Walker Avenues. The Northern Anne Arundel County Police station, serving the Anne Arundel County portions of the project, is located in the Maryland Route 648/Hammonds Lane vicinity north of the Beltway. Maryland State Police provide protection along Maryland Route 295 and Toll Facilities Police provide protection along I-895. Their stations are located outside of the Study Area.

Fire protection is provided in the Study Area by the following Baltimore County engine companies:

- Station #13
Woodlawn Drive, Westview
- Station #4
Frederick Road, Catonsville
- Arbutus Volunteer Fire Department #350
Southwestern Boulevard, Arbutus
- Station #340
Benson Avenue, Violetville
- Station #5
Washington Boulevard, Halethorpe
- Station #360
Hazel Avenue, Lansdowne
- Station #370
Michigan Avenue, English Consul

The Anne Arundel County engine companies serving the Study Area are:

- Station #32
Camp Meade Road, Linthicum
- Station #31
Ritchie Highway, Brooklyn

The Arbutus Volunteer Fire Department is one of only six stations in Baltimore County having Emergency Rescue Equipment. Their responsibility ranges from the Patapsco River (County Line) to I-70. Their call statistics for 1985 to 1986 indicate that 30 percent of their responses are to the north of their location, requiring use of Ramp F from Leeds Avenue. Similar ambulance statistics are as follows:

TABLE III-5 - Station #350 Ambulance Response Data

<u>Year</u>	<u>Calls to North of Station Requiring Use of I-695</u>
1983	20 percent
1984	19 percent
1985	20 percent
1986 (4 months)	17.7 percent

94

v. Medical Facilities

There are several acute care clinics and professional medical centers in the Study Area. The Maryland Medical Laboratory (labelled as Medical 4 on Figure III-3) is located near I-695 and U.S. Route 1 Alternate, Washington Boulevard. Patients visit the facility - there is no emergency or ambulance service.

Spring Grove State Hospital Center is a psychiatric hospital and nursing home located on 200 acres adjacent to the Beltway between Frederick Road and Wilkens Avenue (labelled as Medical 2 on Figure III-3). The facility provides care for 900 to 1,000 clients with a 1,500 member staff composed of Hospital and other organization personnel. Adjacent to the Beltway are two cottages, one of which is no longer used and another for employees. One of the patient buildings, housing 160 clients and staff, is located near the Beltway at the north end of the property. The facility's staff maintains the 70 buildings and five miles of roadway on the property.

The other medical facilities shown on Figure III-3 are Meridian Nursing Center (Medical 1), Charlestown Retirement Center (Medical 3), and Lansdowne Medical Center and Pharmacy (Medical 5).

The German Orphan Home is a care facility for normal children aged 8 to 18 that have been neglected or abused. It is not a medical facility and the children attend schools in the community. Currently, approximately 50 children are in residence at this non-profit facility.

2. Economic Setting

The Baltimore-Washington region has enjoyed a long period of relative prosperity that strongly affects the Study Area. The current recession which is being experienced throughout the country, however, is also being felt in the region. Generally, the region is recognized as prosperous. Many commuters live in the Study Area and travel to the Washington, D.C. area, a trip of approximately 25 miles to the Capital Beltway. The growth that the BWI vicinity has experienced is a function of the increased flights and passenger capabilities as well as the large amount of office construction in that general vicinity. Expansion of the airport facility will result in an increase in the 600 daily flights on 29 air carriers.

Growth in Baltimore County includes the Town Centers of Owings Mills and White Marsh. Growth in Anne Arundel County between Baltimore and Annapolis is continuing and will contribute to the infilling of the Baltimore-Washington-Annapolis development triangle.

Growth in Howard, Harford and Carroll Counties is a result of excellent highway connections and desirable development densities. Employment centers, such as Columbia, are contributing to the increasing growth and stability of these outer-counties.

Additionally, the revitalization in Baltimore City will have an increasingly important influence on the economic conditions of the region. Firms locating and relocating in the City will provide a stable base for the growth in the Baltimore metropolitan region.

3. Land Use

a. Existing Land Use

The I-695/Maryland Route 295 Study Area is composed of two different types of land uses in Anne Arundel and Baltimore Counties. The land uses, as outlined below (see Figures III-5 and 6), are identical for existing and proposed conditions.

i. Baltimore County

Existing communities are defined on the basis of existing land use, with specific boundaries delineated using major natural or man-made barriers, such as rivers or limited access highways or boundaries of existing zoning districts that correspond to the edges of existing developed areas.

The Study Area from I-70 to I-95 contains residential development, with commercial development in the vicinity of the I-70 and U.S. Route 40 interchanges. Commuter oriented traffic often uses the Beltway due to the lack of alternate routes or to avoid the congestion of parallel arterial routes. Almost all of the residential development in the Study Area pre-dates construction of the Beltway and is closely adjacent to the existing highway right-of-way.

The portion of I-695 between I-95 and Maryland Route 170, has developed into a light industrial and commercial corridor. Development planned for existing open areas provides for a tightly woven commercial/industrial area. The Baltimore County 1989 to 2000 Land Use Plan¹ and the 1980 Anne Arundel County Transportation Plan indicate that the widening proposed in this Study of I-695/Maryland Route 295 is consistent with proposed development in the area.

Along Maryland Route 295, dense residential development is predominant in the Baltimore County portion north of the Patapsco River. The Baltimore Highlands pedestrian overpass allows for travel between the communities on either side of Maryland Route 295.

1 Master Plan Baltimore County 1989-2000, Adopted February 5, 1990.

96

ii. Anne Arundel County

Between the Patapsco River and Maryland Route 170 along I-695, land use has developed into a light industrial and commercial corridor. Development for existing open areas provides a tightly woven commercial/industrial area. South of the I-695/Maryland Route 295 interchange, residential development predominates along the Beltway.

Along the Maryland Route 295 portion of this project, the area just north of the Maryland Route 46/I-195 interchange has developed into an office/industrial corridor with access to the secondary street system. The Maryland Route 295/I-695 interchange quadrants are entirely developed, with improvements near the existing Maryland Route 295 right-of-way. The eastern side of the interchange is residential, while the western side is commercial/industrial.

The roadway study area along Maryland Route 295 from I-695 to the Baltimore City Line includes the Patapsco River crossing, which is primarily wetland or marshland open space.

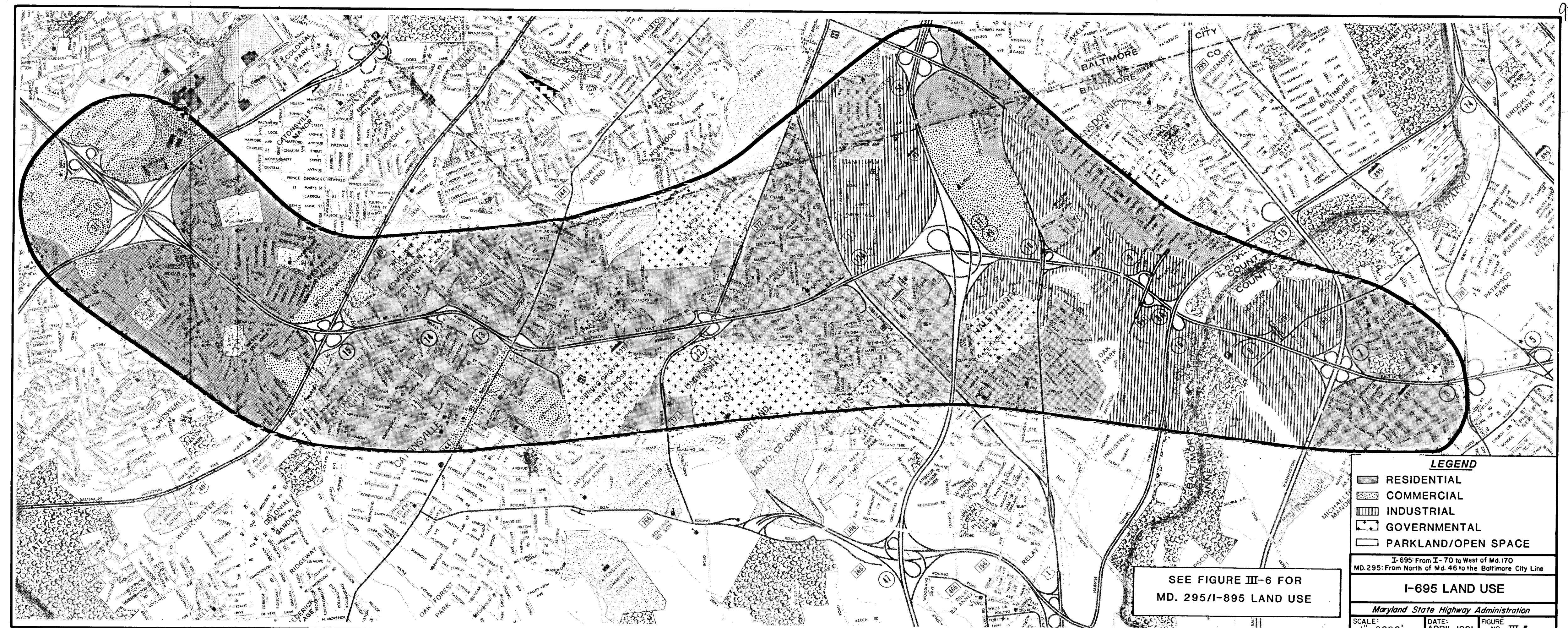
b. Future Land Use/Planning

The proposed land use is consistent with the type of development which has taken place along the Beltway and Maryland Route 295 (see Figures III-5 and 6).

The proposed land uses, reflected in the maps in the Baltimore County Master Plan document, are provided as a guide to zoning to ensure that there is an adequate and properly distributed supply of the various land uses to meet the County's projected residential, commercial, industrial and office needs. One of the goals within the Transportation Element of the Plan recognizes that adequate transportation infrastructure is needed to satisfy requirements for work and leisure travel, as well as to foster responsible land use decisions, provide for the economic growth strategies of the County, and fulfill Baltimore County's commitment to the regional planning process.¹ A revised "Land Use Policy Statement" will be prepared for approval by the Planning Board and Council prior to the Comprehensive Zoning Cycle in 1992.

Along the Study Area of Maryland Route 295, Anne Arundel County anticipates industrial park development, as well as the continuation of office development. The improvements proposed by this project, the improved link from I-95 to BWI (I-195) and the Maryland Route 295/W. Nursery Road interchange, will encourage this commercial industrial development. Anne Arundel County favors the encouragement of growth in the western part of the County.

¹ Master Plan Baltimore County 1989-2000, Adopted February 5, 1990. pp. 19-23



SEE FIGURE III-6 FOR
MD. 295/I-895 LAND USE

LEGEND

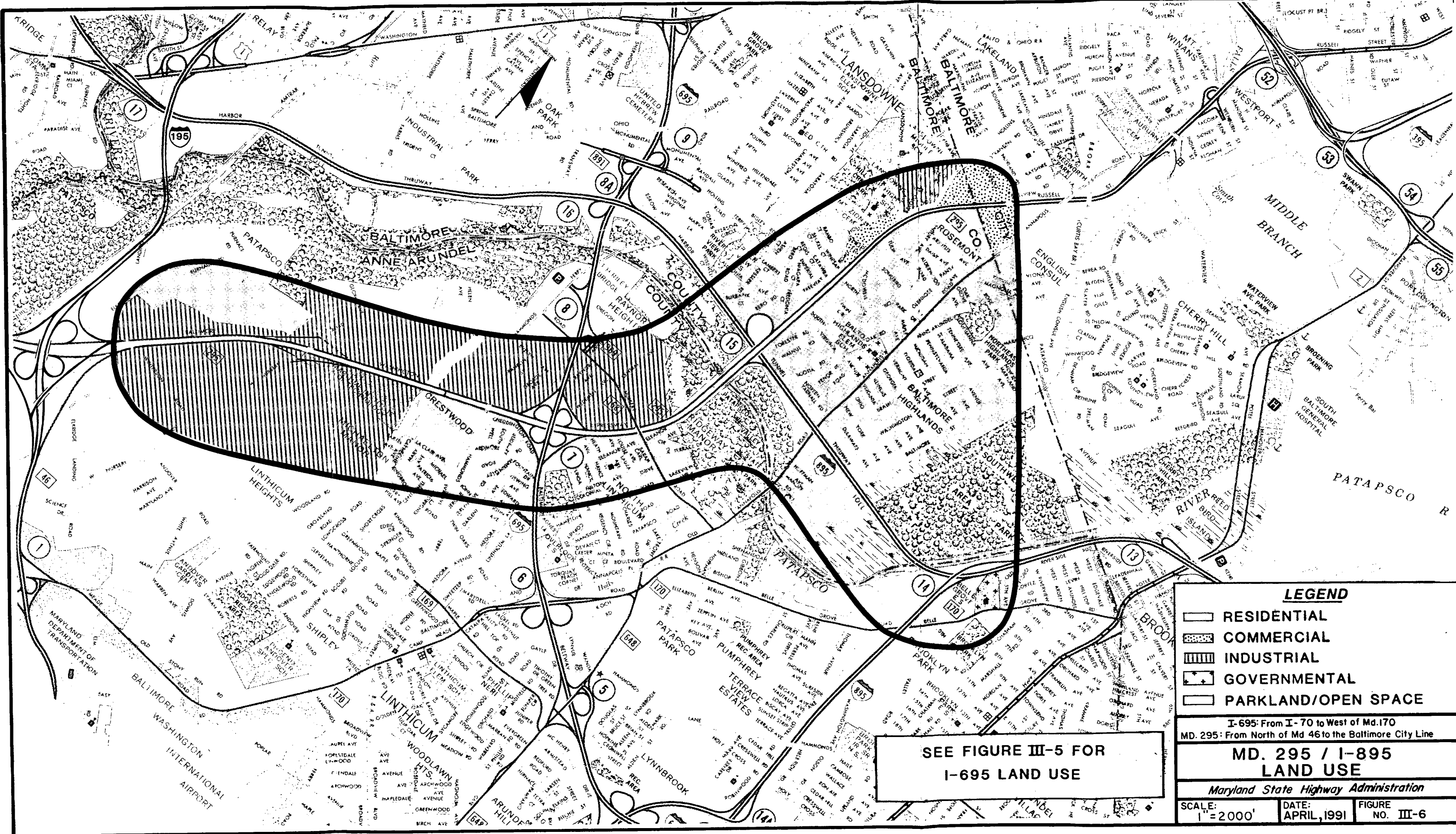
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- GOVERNMENTAL
- PARKLAND/OPEN SPACE

I-695: From I-70 to West of Md.170
MD.295: From North of Md.46 to the Baltimore City Line

I-695 LAND USE

Maryland State Highway Administration

SCALE: 1" = 2000'	DATE: APRIL, 1991	FIGURE NO. III-5
----------------------	----------------------	---------------------



SEE FIGURE III-5 FOR
I-695 LAND USE

LEGEND

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- GOVERNMENTAL
- PARKLAND/OPEN SPACE

I-695: From I-70 to West of Md.170
MD. 295: From North of Md 46 to the Baltimore City Line

**MD. 295 / I-895
LAND USE**

Maryland State Highway Administration

SCALE: 1" = 2,000' DATE: APRIL, 1991 FIGURE NO. III-6

Development will take advantage of the good transportation access, encourage the revitalization and support of existing communities, and reduce the potential for negative environmental impact to the Chesapeake Bay. Population forecasts indicate a 20.3 percent overall growth rate in Anne Arundel County between 1985 and 2005:

- 11.5% in North (I-695/Maryland Route 295 Study Area)
- 14.0% in East
- 12.9% in South
- 47.4% in West

In addition to residential growth, substantial office and industrial growth is anticipated around the airport.¹

Anne Arundel County land use development in the BWI vicinity is located along Nursery Road, Elkridge Landing Road, Andover Road and Maryland Route 295. The Airport Technology Park will ultimately consist of 40 buildings. A hotel/office complex on the southbound side of Maryland Route 295 near Winterson Lane is an example of the type of development anticipated.

C. TRAFFIC AND SAFETY

1. Transportation Facilities

The Baltimore Metropolitan Area is similar to other metropolitan areas in that trip origins and destinations are becoming more dispersed throughout the area. Emphasis on downtown-oriented travel has declined and regional shopping, office and industrial development has increased. As the suburban areas outside the Beltway have developed, so too have the suburb-to-suburb commuting patterns of the regional population for work, shopping and recreation trips.

The Study Area is served by a network of interstate highways and a system of principal and minor arterials, which carry traffic oriented towards the Central Business District (CBD) in Baltimore City as well as circumferential movements. The Baltimore Beltway provides access to Towson, the Baltimore County seat, and other destinations in the region. I-695 also interchanges with I-70 to western destinations, and with I-95, to northern and southern destination points beyond the Study Area (see Figure I-1).

¹ General Development Plan for Anne Arundel County and Round III Population Forecasts, Anne Arundel County Office of Planning and Zoning, May 1986.

100

Principal arterials include U.S. Route 40 (West), Rolling Road (Maryland Route 166), Metropolitan Boulevard, Frederick Road (Maryland Route 144), Wilkens Avenue (Maryland Route 372), Southwestern Boulevard (Alt. U.S. Route 1), Washington Boulevard (U.S. Route 1), and Caton Avenue (see Figure III-7). Minor arterials are Nursery and W. Nursery Roads, Sulphur Spring Road, Selford Road, Joh Avenue, Maiden Choice Lane, Bloomsbury Avenue, Ingleside Avenue, Edmondson Avenue, Edmondson Ridge, Prospect Avenue, Crosby Road, and Woodlawn Drive.

Two of the most important regional highway links are the Harbor Tunnel and the Ft. McHenry Tunnel, which cross beneath the Middle Branch of the Patapsco River and provide for northbound and southbound trips through the city. These tunnels are particularly beneficial for inter-regional trips. The Francis Scott Key Memorial Bridge provides continuity for the Beltway over the Middle Branch of the Patapsco River.

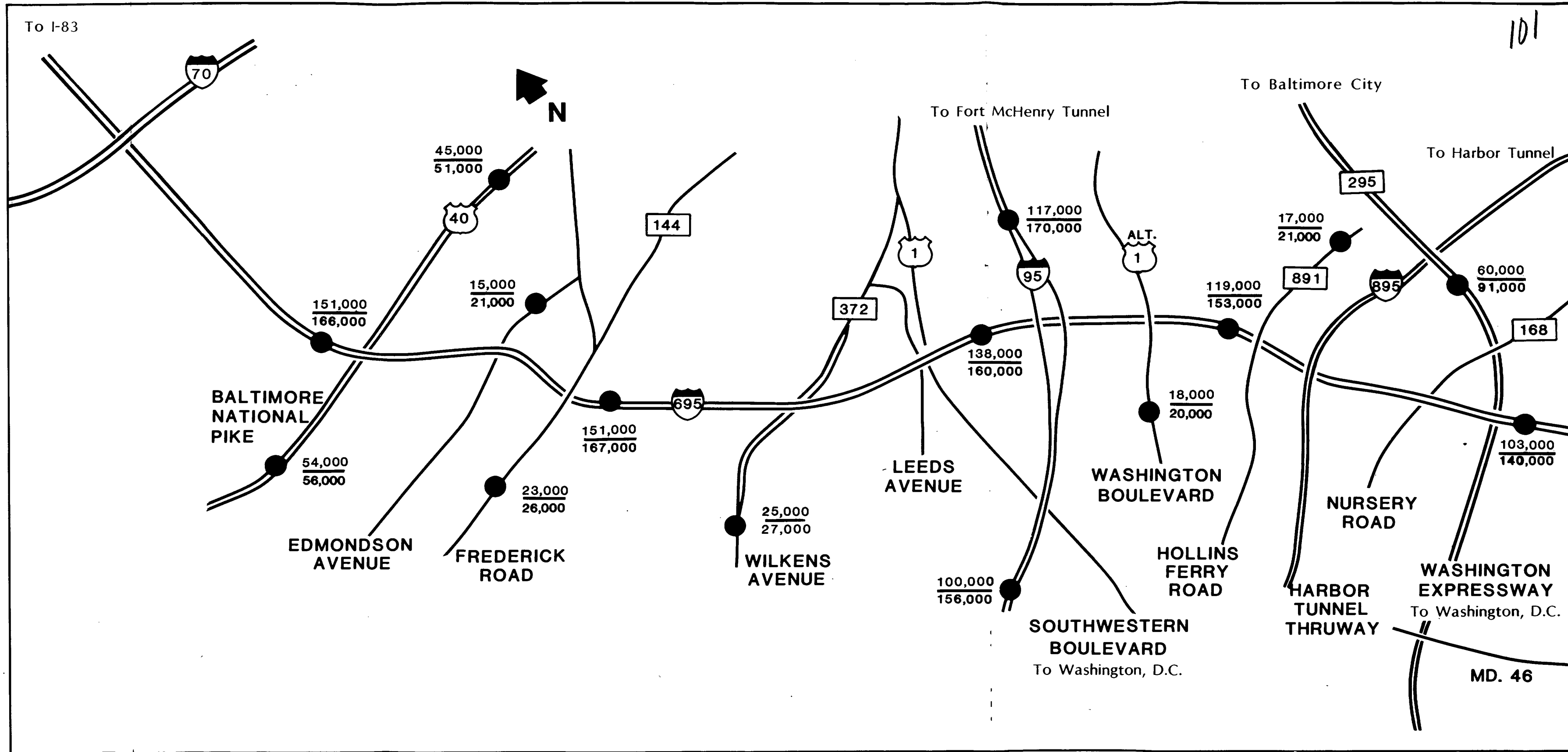
The emphasis and use of the Beltway has been changing with the growth of the region. While the initial emphasis was on regional travel, the Beltway is now used for shorter local trips when other arterials are either not available, or are too heavily utilized. Figure III-8 indicates the historical annual daily traffic (ADT) on the Beltway just south of U.S. Route 40 at SHA's Permanent Traffic Counter No. 32. The trends indicated by these annual volumes show that during the eleven-year period between 1979 and 1989 this portion of the Beltway experienced a 40 percent increase in traffic, with a 10.8 percent increase between 1985 and 1986.

Figure III-9 indicates the annual daily traffic on Maryland Route 295 just north of Maryland Route 176 at SHA's Permanent Traffic Counter No. 25. While this station is outside of the Study Area, the trends along Maryland Route 295 are similar to those on I-695, with an increase in the eleven-year period between 1979 and 1989 of 64 percent and a 6.5 percent increase between 1985 and 1986.

Rail

The Mass Transit Administration's (MTA) rail transit line currently consists of one line from Charles Center in Baltimore City to Owings Mills in Baltimore County. An extension to Johns Hopkins Hospital in Baltimore City is now under construction.

MTA completed a feasibility study for light rail transit (LRT) in the Baltimore Region, which included two corridors (north and south). The southern corridor runs to Glen Burnie, BWI and Annapolis. The entire 30 mile LRT line is now either in the final engineering phase or under construction.



LEGEND:

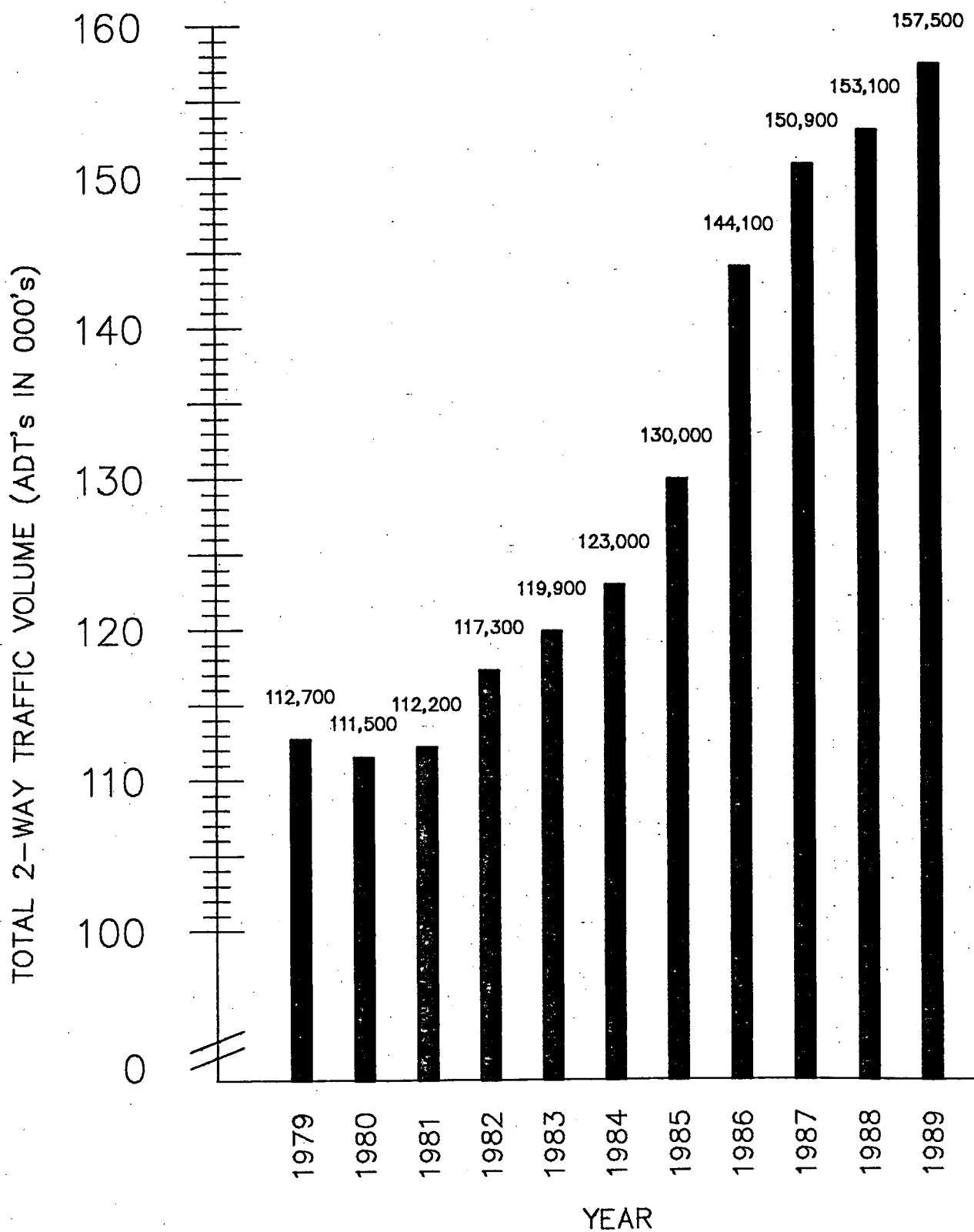
1989 ADT
 2015 ADT (Build)

I-695: From I-70 to West of Md.170
 MD.295: From North of Md. 46 to the Baltimore City Line

Average Daily Traffic Volumes

Maryland State Highway Administration

SCALE: NONE	DATE: APRIL, 1991	FIGURE NO. III-7
-------------	-------------------	------------------



PERMANENT COUNTER STATION #32
 LOCATED ALONG I-695 JUST SOUTH
 OF U.S. ROUTE 40

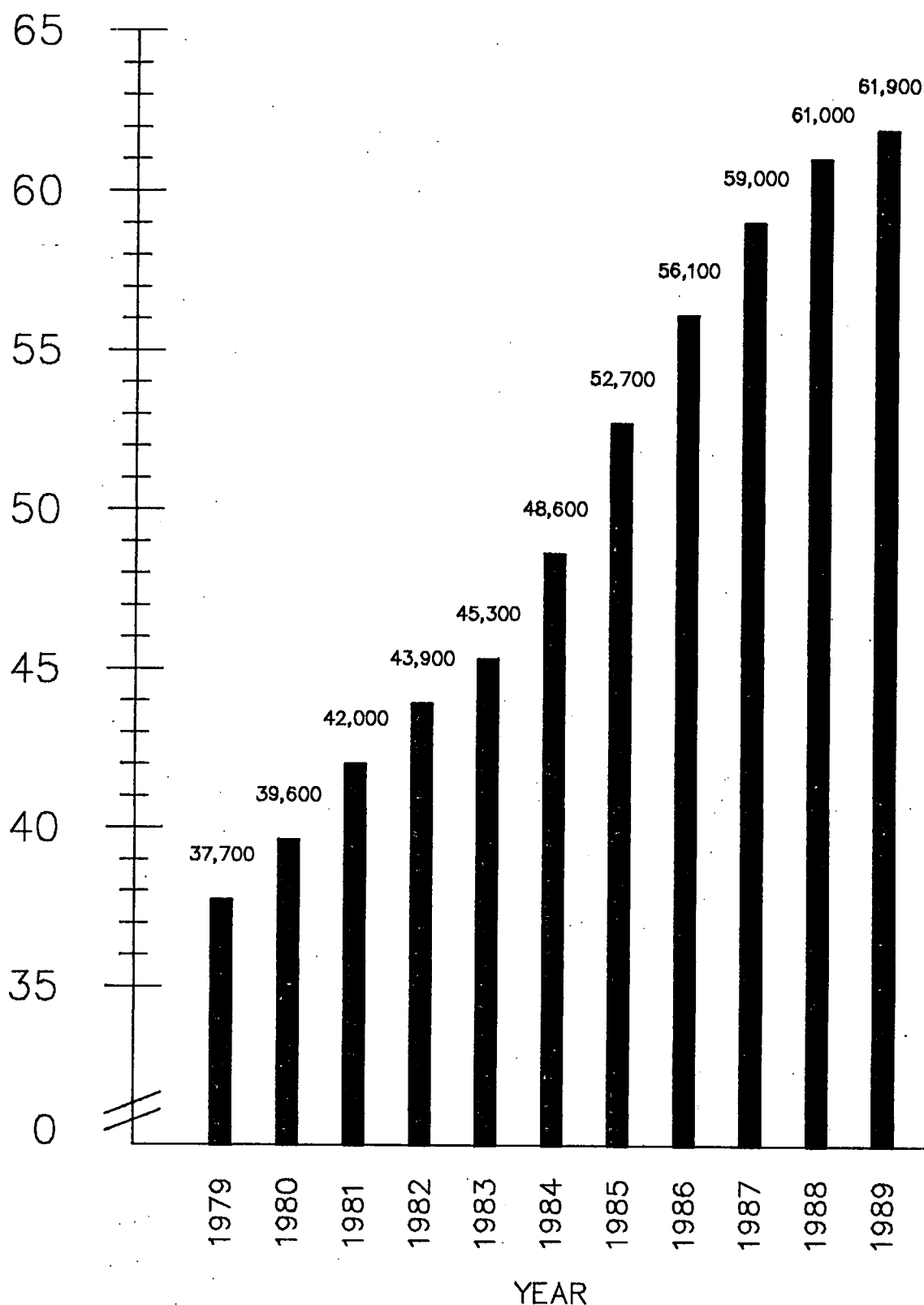
I-695: From I-70 to West of MD.170
 MD.295: From North of MD.46 to the Baltimore City Line

I-695 ADT at STATION #32

Maryland State Highway Administration

SCALE: NONE	DATE: APRIL, 1991	FIGURE NO. III-8
----------------	----------------------	---------------------

TOTAL 2-WAY TRAFFIC VOLUME (ADT's IN 000's)



103

PERMANENT COUNTER STATION #25
 LOCATED ALONG MD. 295 JUST
 NORTH OF MD. 176

I-695: From I-70 to West of MD.170
 MD.295: From North of MD.46 to the Baltimore City Line

MD. 295 ADT at STATION #25

Maryland State Highway Administration

SCALE: NONE	DATE: APRIL, 1991	FIGURE NO. III-9
----------------	----------------------	---------------------

The I-695 Study Area is crossed by two heavy rail lines:

- The B&O Railroad-Chessie System (CSX) serves industrial and commercial uses in the region. The system consists of 4 tracks on which 37 trains per day cross over the Beltway between the Washington Boulevard (US 1 Alt.) and the Hollins Ferry Road interchanges.
- The AMTRAK line is a 2-track high speed rail line which carries commuter and passenger trains along the Northeast Corridor. For instance, the Washington, D.C. to New York schedule crosses the Study Area every hour on the half hour. This crossing is adjacent to Southwestern Boulevard near the Leeds Avenue interchange.

MARC commuter rail service is provided by the Maryland Department of Transportation along both the B&O and AMTRAK lines. Within the Study Area, three stops are provided by MARC between Baltimore City and BWI along the Amtrak line. Five trains operate in the morning and evening, Monday through Friday.

Bus

Bus transit service is provided by MTA throughout Baltimore City and neighboring Baltimore County and Anne Arundel County.

The Study Area is currently served by MTA bus routes 2, 3, 11, 13, 15, 20, 22, 23, 31, 77, and 150/160. These bus routes provide internal access to many residential neighborhoods, UMBC, Catonsville Community College, and the Westview Shopping Center. External destination points include the Baltimore City CBD, the Old Court Road and Rogers Avenue Metro stations and Pikesville. The MTA 230 Flyer provides weekday service between downtown Baltimore and the Parkway Center Industrial Park. Specially designated service to the Social Security Administration than is provided via MTA lines 13, 15, 20, 23, 28, 44, 77, 86 and 87.

Other Transit

MTA provides a demand-responsive service for the transportation disadvantaged. Baltimore County sponsors County Ride, a paratransit service, which provided transportation to over 110,000 riders during 1989. Other private sector firms also provide paratransit services in Baltimore County¹.

1 Master Plan Baltimore County 1989-2000, Adopted February 5, 1990, p. 23

The Commuter Assistance Center, a transportation information service for commuters who work in the BWI Airport area, was established in 1983 to develop and promote a broad-based program of transportation services to improve commuter access to the BWI Airport employment area. The Center acts as a liaison between employers and transportation providers such as the Mass Transit Administration, State Railroad Administration (SRA), and private bus and vanpool operators, and also serves as a central information clearinghouse for employees.

Four carpool/park-and-ride lots are available, three in the Baltimore County portion of the Study Area and one in the Anne Arundel County portion.

- A carpool lot in Baltimore County, located at the I-70 terminus near Cooks Lane, is maintained by SHA. Capacity is 263 vehicles. Daily usage in 1990 was approximately 15 percent.
- A park-and-ride lot in Baltimore County, at the Westview Cinema on U.S. Route 40 west of the Beltway, is maintained and served by MTA and holds more than 250 vehicles. Daily usage in 1990 was approximately 30 percent.
- A park-and-ride lot in Baltimore County, at the end of Maryland 166 near UMBC, is maintained and served by MTA and has a capacity of 450 vehicles. This lot has been opened since Spring 1990. The usage rate for the first six months was 17 percent.
- A carpool lot in Anne Arundel County, located along Hammonds Ferry Road, is maintained by SHA. This lot has a capacity of approximately 200 vehicles. Daily usage in 1990 was approximately 53 percent.

Airport

The BWI Airport has experienced increased passenger loads due to the recent introduction of the Piedmont Airlines "hub". The increase in passenger load is expected to continue. Cargo loads at BWI have also increased, and this trend is expected to continue. To accommodate this expected growth, the General Aviation runway was lengthened in 1990. Pier D was also lengthened and new gates have been added. A combination of passenger and cargo loads maximizes the use of the runways in their present configurations. The gates handled an average of 27,700 passengers per day in 1990 for a total passenger load of 10.1 million. Shipping by air continues to be attractive to research labs, warehousing firms and high-technology manufacturing located in the BWI area since it saves delivery time and provides for safe transport of fragile cargo. In 1990 BWI handled 261 million pounds of inbound and outbound freight and 70 million pounds of mail¹.

¹ Office of Planning and Engineering, Maryland Aviation Administration, 1991.

Port

The Port of Baltimore is a major east coast port, handling approximately 29 million tons of cargo per year, of which 4.3 million tons are container cargo. Through the first half of 1990, 2.47 million tons of cargo entered the Port. Approximately 450,000 containers are transported on an annual basis in and around Baltimore for storage and miscellaneous staging on an annual basis. Although facilities are located primarily in the City of Baltimore, County facilities are also used for transporting, distributing and warehousing.

2. Traffic Operations

a. Volumes

Existing traffic volumes for 1989, as well as projected volumes for 2015 No-Build and Build conditions are summarized on Table III-6 (Average Daily Traffic (ADT) volumes). Projected volumes reflect traffic demand associated with planned developments within and adjacent to the Study Area.

The predominant traffic flow during the morning peak period is easterly along the principal arterials leading into Baltimore City. Traffic flow along I-695 is heavy in both directions, but heaviest in the southbound direction. The evening peak period reverses the flow from the City to and through the Study Area. Along U.S. Route 40 (West) the evening peak period experiences greater volumes of traffic than the morning peak period due to strip development patronized by residents from the Study Area.

Specific traffic trends are identifiable for two distinct portions of the I-695 Study Area: between Maryland Route 295 and I-95 and from I-95 to I-70. Trends for the more southerly portion reflect an almost even split on the northbound and southbound roadways during both the morning and evening peaks. Overall traffic volumes on this portion in 1989 were between 4,000 and 5,000 vehicles per hour (vph) during the morning peak and between 5,000 and 6,000 vph during the evening peak.

In 1989, the portion of I-695 between I-95 and I-70 had a larger volume in the southbound direction in the morning peak and much greater northbound volumes in the evening. The morning peak for both northbound and southbound directions ranges from 5,100 to 6,300 vph, while the evening peak ranges from 4,900 to 8,100 vph. The northbound evening peak ranges between 7,700 and 8,100 vph.

Several areas along the I-695 mainline in the Study Area carry traffic volumes which meet or exceed the projected year 2015 traffic volumes. Ramp volumes do not reflect these same trends; these volumes are considerably less than the design year volumes.

167

TABLE III-6

I-695/MD 295/I-895 MAINLINE AVERAGE DAILY TRAFFIC (ADT)			
<u>LOCATION</u>	<u>1989</u>	<u>2015 NO-BUILD</u>	<u>2015 BUILD*</u>
I-695 U.S. 40 to N. of Edmondson Ave.	156,000	165,000	171,000
I-695 N. of Edmondson Ave. to Edmondson Ave.	156,000	165,000	171,000
I-695: Edmondson Ave. to Frederick Road	154,000	164,000	170,000
I-695: Frederick Road to Wilkens Ave.	151,000	161,000	167,000
I-695: Wilkens Ave. to Leeds Ave.	150,000	157,000	162,000
I-695: Leeds Ave. to I-95	138,000	155,000	160,000
I-695: US 1 Alt. to Hollins Ferry Road	119,000	148,000	153,000
I-695: Hollins Ferry Road to Nursery Road	109,000	142,000	147,000
I-695: Nursery Road to Maryland Route 170	103,000	135,000	140,000
Maryland Route 295: Maryland Route 46 to I-695	66,000	89,000	89,000
Maryland Route 295: I-695 to Balto. City Line	60,000	91,000	91,000
I-895: Maryland Route 295 to Y-SPLIT	43,100	47,500	47,500

* Alternate 2 - Mainline Widening

Truck volumes on this portion of the Beltway, particularly between I-95 and Maryland Route 295, are high. The long grade along the northbound roadway between I-95 and U.S. Route 40 requires an additional lane to facilitate truck movement through this segment. Trucks are restricted from the two left lanes on northbound I-695 between I-95 and U.S. Route 40.

b. Level of Service

A traffic analysis was performed for both mainline and intersection traffic conditions. The results of the mainline analyses are summarized in Table III-7.

Levels of Service (LOS) were calculated using the 1985 Highway Capacity Manual for the mainline and the SHA "Critical Lane Method" for the intersections. Level of Service 'A' is considered to represent the best possible traffic conditions and Level of Service 'F' breakdown or "traffic jam" conditions (see the Glossary for a complete description).

A review of the traffic analysis along the mainline portions of I-695 indicates the following:

- I-695 northbound currently experiences a general deterioration of Level of Service¹ on all segments during the evening peak, with many segments experiencing LOS 'E' or 'F' and worse, indicating severe congestion and delay.
- I-695 southbound segments currently operate at the levels of service during the morning peak period similar to those experienced during the northbound evening peak.
- From U.S. 40 to U.S. 1, many segments operate at LOS 'E' or 'F'.
- From U.S. 1 to Maryland Route 295, most segments operate at LOS 'D'.
- Most of the ramps along I-695 northbound have operational deficiencies, although the only deficient ramp in the southbound direction is the ramp from I-695 to I-95.
- Traffic weaving areas within all of the interchanges experience LOS 'E' and 'F' along both northbound and southbound I-695.

¹ The quality of traffic flow along a roadway segment or through an intersection is measured in terms of Level of Service (LOS), ranging from 'A' best to 'F' worst. (Refer to Appendix D, pages D-3 and D-4 for full description)

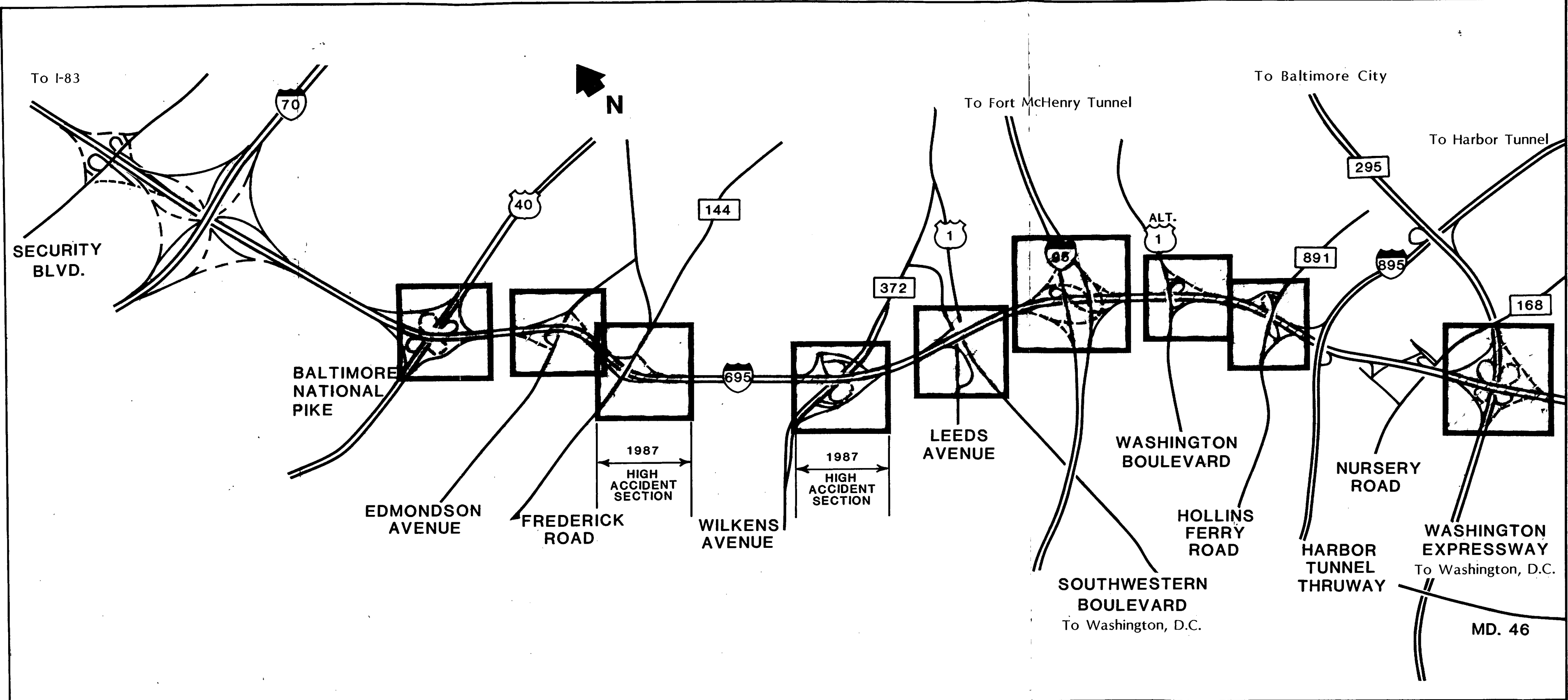
TABLE III-7

I-695/MARYLAND ROUTE 295 MAINLINE LEVEL OF SERVICE ¹								
LOCATION	1989 Existing		ALT. 1 NO-BUILD 2015		ALT. 2 BUILD 2015			
	AM	PM	AM	PM	Interchange			
	NB/SB	NB/SB	SB	NB	Option 1			
	AM	PM	AM	PM	AM	PM	AM	PM
	NB/SB	NB/SB	SB	NB	SB	NB	NB/SB	NB/SB
I-695: US 40 to N. of Edmondson Ave.	C/D	D/D	F	E	D	D	C/D	C/C
I-695: N. of Edmondson Ave. to Edmondson Ave.	C/F	F/F	D	D	D	C	C/D	D/D
I-695: Edmondson Ave. to Frederick Road	C/D	F/D	D	E	D	D	C/D	E/C
I-695: Frederick Road to Wilkens Ave.	C/F	F/F	F	F	E	F	C/D	E/C
I-695: Wilkens Ave. to Leeds Ave.	C/F	F/F	F	F	E	E	C/D	F/C
I-695: Leeds Ave. to U.S. 1 Alt./I-95	C/C	F/C	B	D	B	C	B/C	D/B
I-695: U.S. 1 Alt. to Hollins Ferry Road	D/C	F/C	D	F	D	D	C/D	D/D
I-695: Hollins Ferry Road to Nursery Road	D/D	F/F	E	E	C	D	B/B	B/C
I-695: Nursery Road to Maryland Route 170	C/B	E/D	D	D	E	C	B/B	B/C
Maryland Route 295: Maryland Route 46 to I-695	C/F	F/C	E	E	D	D	-	-
Maryland Route 295: I-695 to Balto. City Line	D/C	C/C	D	D	D	D	-	-

¹ The quality of traffic flow along a roadway segment or through an intersection is measured in terms of level of service (LOS), ranging from 'A' best to 'F' worst.

III-22

109



LEGEND

- INTERCHANGES WITH ACCIDENTS EXCEEDING THE STATEWIDE AVERAGE RATE AND WITH SIGNIFICANT ACCIDENT EXPERIENCE
- INTERCHANGES WITH ACCIDENTS EXCEEDING THE STATEWIDE AVERAGE RATE
- HIGH ACCIDENT INTERCHANGE RAMPS

NOTE: HIGH ACCIDENT DETERMINATION BASED ON YEAR 1987-1989 ACCIDENT DATA

I-695: From I-70 to West of Md. 170 MD. 295: North of Md. 46 To Baltimore City Line		
High Accident Locations		
<i>Maryland State Highway Administration</i>		
SCALE:	DATE:	FIGURE NO.
NONE	APRIL, 1991	III-10

111

The traffic analysis along the mainline of Maryland Route 295 indicates the following:

- o Maryland Route 295 northbound operates at LOS 'F' between the Study Limit (just north of Maryland Route 46/I-195) and the I-695/Maryland Route 295 Interchange during the evening peak period.
- o Maryland Route 295 southbound operates at LOS 'F' between the Study Limit (just north of Maryland Route 46/I-195) and the I-695/Maryland Route 295 Interchange in the morning peak period.
- o Four of the eight ramps at the I-695/Maryland Route 295 Interchange operate at LOS 'F' during peak time periods. Weaving areas at the I-695/Maryland Route 295 Interchange operate at LOS 'E' and 'F'.

3. Accidents and Safety

An analysis of traffic accidents occurring along the study portions of I-695, I-95 and Maryland Route 295 was conducted. Accident information incorporated in the analysis was prepared by the Maryland State Highway Administration, Accident Studies Division. This accident data is for the three-year period beginning January 1, 1987 through December 1, 1989.

I-695 from Maryland Route 170 to I-70 experienced a total of 1,201 accidents during the period. The accidents resulted in a three year average accident rate of 86 accidents per hundred million vehicle miles of travel (86 acc/100 MVM). This rate is significantly higher than the statewide average accident rate of 74 acc/100 MVM of travel for all similar class highways under state maintenance.

In addition to the accident data presented for the interchanges, the I-695/U.S. Route 40 interchange is the only interchange in the Study Area which has a high accident experience. Two locations also met the criteria for High Accident Sections (HAS). They are listed below:

I-695: Wilkens Avenue Area	1987 - 51 Accidents
I-695: Frederick Road Area	1987 - 42 Accidents

A composite of this accident information and that of the high accident interchange ramps (or HAIRS), is shown on Figure III-10. The HAIRS are so designated if they experience three or more accidents in a one-year period, or five or more accidents in a three-year period.

Table III-8 presents accident data for the I-695 interchanges within the Study Area. Interchanges which have three-year totals exceeding the 1989 statewide average rate of 74.9 accidents/100 million vehicle miles (MVM) are denoted by asterisks (*).

112

TABLE III-8 I-695 INTERCHANGE ACCIDENT DATA*
January 1, 1986 to December 31, 1989

I-695 Interchange Location	Accident Study Rate (MVM)	Type of Accident			Total Accidents
		Fatality	Injury	Property Damage Only	
Maryland Route 295	126.9*	0	29	45	74
Hammonds Ferry/ Nursery Road	58.0	1	24	11	36
I-895	88.7	0	19	9	28
Hollins Ferry Road	128.7*	0	19	27	46
Washington Blvd.	155.5*	0	31	21	52
I-95	89.8*	0	43	47	90
Leeds Ave./US 1	119.5*	0	32	31	63
Wilkins Avenue	150.1*	0	49	59	108
Frederick Road	164.6*	0	53	61	114
Edmondson Ave.	100.9*	0	35	45	80
US Route 40	144.9*	0	45	70	115
I-70	47.0	0	41	55	91
Security Boulevard	87.8	0	48	86	134

* This data is presented by interchange and does not include portions of I-695 between the interchanges. Most accidents, however, are a function of the interchange and vehicle operations within the interchange limits.

Accident rates for rear-end collision, sideswipe and other collision accidents for these interchanges, with the exception of the Hammonds Ferry/Nursery Road, I-70 and Security Boulevard interchanges, are significantly higher than the statewide average rate. These high rates are generally associated with the congestion and weaving conditions presently experienced on these sections of I-695, I-95 and Maryland Route 295.

Along I-695, 20.1 percent of the total accidents involved trucks. Since trucks comprised only approximately four to eight percent of the vehicular traffic volumes, this rate is higher than the expected range of values. Along both the northbound and southbound lanes of I-695, accidents are clustered at the interchanges and are indicative of traffic merging and weaving. These are characteristically rear end, fixed object and sideswipe collisions where 22.2 percent involved trucks during the study period. Trucks were involved in 22.3 percent of the property damage only accidents and 19.3 percent of the injury accidents on I-695.

Trucks were involved in 17.9 percent of the total accidents along the I-95 portion, although they comprise only 11.6 percent of the total vehicular traffic volume. In terms of severity, trucks were involved in 21.9 percent of the property damage only accidents and 12.9 percent of the injury accidents along I-95. Of the congestion-related accidents, trucks were involved in 34.1 percent of the sideswipe collisions. The I-95 portion of the Study Area experiences sideswipe and rear-end collisions at a higher rate than the statewide average rate. This may be attributed to the left-hand interchange exits.

Approximately eight percent of the 366 accidents on the Maryland Route 295 portion involved trucks. Only eight percent of the rear-end, fixed object and sideswipe accidents along Maryland Route 295 involved trucks.

Accident rates for the Study Area roadways analyzed are as follows:

	<u>Study Period Accident Rate</u>	<u>Statewide Average</u>
I-695	86/100 MVM	74/100 MVM
I-95	74/100 MVM	71/100 MVM
Maryland Route 295	81/100 MVM	71/100 MVM

D. NATURAL ENVIRONMENT

1. Climate

The I-695/Maryland Route 295 Study Area experiences a relatively humid, temperate climate, moderated by the influence of nearby Chesapeake Bay. Weather patterns move primarily from west to east, producing a continental type climate with well defined seasons. Average monthly high and low temperatures and precipitation for the Baltimore Metropolitan Area, provided by the U.S. Weather Service, are as follows:

TABLE III-9 - BALTIMORE METROPOLITAN AREA
MONTHLY AVERAGE TEMPERATURE AND RAINFALL DATA¹

<u>Month</u>	<u>High (°F)</u>	<u>Low (°F)</u>	<u>Precipitation</u>
January	41	24	3.00"
February	44	26	2.98
March	53	33	3.72
April	65	43	3.35
May	74	53	3.44
June	83	62	3.76
July	87	67	3.89
August	86	66	4.62
September	79	59	3.46
October	68	46	3.11
November	56	37	3.11
December	45	28	3.40
Annual Average	65°F	45°F	3.49"

Minimum temperatures occur in late January or early February, with maximum temperatures occurring from mid-July to late August. The growing season, the number of days from the last spring frost to the first fall frost, averages approximately 200 days.

2. Geological

a. Topography and Geology

The Study Area is situated in two of Maryland's physiographic provinces: the Piedmont Plateau and the Atlantic Coastal Plain. Elevations range from approximately 100 feet to 200 feet above sea level. The Piedmont Plateau is characterized by a rolling to hilly upland topography, underlain in the Study Area by Cambrian period bedrock of amphibolite, gneiss and schist. Underlying rocks in the Coastal Plain are obscured by a thick, unconsolidated marine sediment. This has been eroded in places, exposing a thin sedimentary layer. Bedrock is generally covered by less than 40 feet of residual soil overburden, except where capped by remnants of the Cretaceous period Patuxent Formation.

¹ U.S. Weather Service, Baltimore-Washington International Airport, 1990 data.

North of Wilkens Avenue, I-695 lies within the Piedmont Plateau, with ground surface elevations ranging from approximately 220 to 500 feet. In the vicinity of U.S. Route 40 and Frederick Road, I-695 crosses remnants of the Coastal Plain's Patuxent Formation deposits consisting of interbedded unconsolidated sediments. These thin deposits, separated from the continuous Coastal Plain deposits by erosion, are distinct from the surrounding residual soils which are derived from the underlying bedrock.

South of Wilkens Avenue, I-695, as well as Maryland Route 295 and I-895, cross into the Coastal Plain, with ground surface elevations gradually dropping to nearly sea level. The Coastal Plain's characteristic deposits of unconsolidated sediments increase in thickness to the southeast, overlaying the crystalline bedrock. The terrain is gently rolling on the upper elevations to nearly level in the lowlands. Cretaceous period sands and clays of the Patapsco, Arundel, and Patuxent Formations underlie most of I-695 between Wilkens Avenue and the Patapsco River and Maryland Route 295 north of the Patapsco River. South of the Patapsco River, Pleistocene Terrace deposits of sand and gravel overlay the Cretaceous period sediments along the remaining I-695 portion of the Study Area and much of the Maryland Route 295 and I-895 study alignments. The remainder of Maryland Route 295 and I-895 in the Study Area is underlain by Cretaceous period sediments of the Potomac Group, consisting primarily of sands and gravels along Maryland Route 295 and clays and silts along I-895.

Recent alluvial deposits cover the bottoms of stream and river valleys. These include very soft tidal marsh deposits in areas along the Patapsco River, with depths up to 40 feet. I-695, I-895 and Maryland Route 295 also cross alluvial deposits in several small stream valleys and additional extensive marsh deposits along the Patapsco River.

Some low lying areas, predominantly valley bottoms and tidal marshes, have large deposits of fill materials.

b. Soils

Soils underlying the study alignments of I-695, I-895 and Maryland Route 295 have been differentiated into four major groups. The Beltsville-Chillum-Sassafras association underlies I-695 in the vicinity of U.S. Route 40 and also near Frederick Road. This association, consisting of deep, well-drained soils with silty to clayey loam subsoils, generally occurs on gentle slopes and is derived from the interbedded sands, gravels, clays and silts of the Patuxent Formation. These soils are generally well suited to road building activities, although soils of the Beltsville Series occasionally have a shallow, perched water table which causes problems with soil stability, grading and frost resistance.

114

Most of the I-695 alignment north of Wilkens Avenue is constructed on soils of the Legore-Aldino-Neshaminy Association, formed on upland areas underlain by residual soils and their parent amphibolite bedrock. These soils are characteristically deep and well-drained with silty clay loam subsoils and occur on level to steeply sloping ground. The soils of this association are moderately well suited to road building, although there are limitations due to frost action in all the soils and shallow bedrock (less than 10 feet deep) underlying the Neshaminy series.

East of Wilkens Avenue and north of the Patapsco River, soils are classified as the loamy and clayey land-Lenoir-Beltsville association. These soils form on gentle to steep slopes underlain by upland deposits of Coastal Plain sediments. They are typically poorly to moderately well drained, consisting of sandy to clayey loam over clayey to silty loam subsoil. These soils present many difficulties for road construction due to poor stability of the plastic soils, poor drainage, frost action and seasonal high ground water.

Soils in the I-95 portion of the Study Area belong to the loamy and clayey land-Lenoir-Beltsville association, Sassafras association, Lenoir loam soils, with some Mattapex-Urban, Joppa Urban, and Fort Mott soils. The dominant soils are loamy and clayey land with 5 to 15 percent slopes. These soils have a mantle of various kinds of material underlain by clay deposits, are generally highly erodible, and have poor stability, especially where they have been previously graded or disturbed. Banks and fills of this material have been known to collapse, causing severe damage to property and people. The soils are moderately well-drained and have slow permeability. Soils of this type on steeper slopes have severe limitations for highway and street construction due to subsoil shrinkage, instability and slope.

The Anne Arundel County portion of the Study Area is composed of soils of the Sassafras-Croom-Chillum association, consisting of deep, well drained soils on gentle to steep slopes underlain by upland Coastal Plain deposits. These soils are generally well suited to road construction with minor limitations due to frost action.

c. Mineral Resources

The mineral resource of primary importance in the Study Area is sand and gravel. Several sand and gravel pits are still operating in the general vicinity of the proposed improvements and there are many abandoned and reclaimed sites in the Study Area. Sand and gravel is removed from the Pleistocene Terrace deposits south of the Patapsco River and from the Cretaceous period deposits of the Potomac Group. Deposits of iron ore and brick clay near the Study Area were of importance in the past but are no longer being mined.

3. Water Resources and 100-Year Floodplain

a. Surface Water and Groundwater

The alignments of I-695, I-895 and Maryland Route 295 in the Study Area cross several streams and estuaries, the largest of which is the Patapsco River. The alignments do not cross any of the watersheds for the Baltimore area water supply. The proposed improvements to I-895 and Maryland Route 295 will cross considerable areas of tidal marsh along the Patapsco River, which are important as wildlife habitats.

Surface Water

The major waterbody in the Study Area is the Patapsco River and its tributaries. The Patapsco River flows easterly from Carroll County to the Baltimore Harbor. The Patapsco River watershed area is approximately 376 square miles, encompassing all of Baltimore City and portions of Anne Arundel, Baltimore, Carroll, and Howard Counties.

The Study Area is situated in the lower section of the main stem of the Patapsco River, above the Baltimore harbor area. The project crosses the Patapsco River and its tributaries (all Class I waters) at the following locations:

- Patapsco River - north of Hammonds Ferry Road
- East Branch of Herbert Run - at Leeds Avenue
- West Branch of Herbert Run - at Wilkens Avenue, Shady Nook Court, Ingleside Avenue and west of Kenwood Avenue
- Unnamed tributary - north of Evelyn Avenue
- Unnamed tributary - east of Cheddington Road

Surface Water Quality

The Study Area lies within the Patapsco River Sub-Basin. Specifically, the East Branch of Herbert Run, a very small urbanized stream, drains the Study Area directly to the Patapsco River. This segment of the Patapsco River, in the vicinity of the project, is classified as a Class 1 water body for water contact recreation and aquatic life.¹ Water quality standards for these streams include limitations on the fecal coliform densities, dissolved oxygen, temperature, pH and turbidity.

1 "Maryland Water Quality Inventory", Office of Environmental Programs, Maryland Department of the Environment, April 15, 1986.

A surface water quality station, located on the East Branch of Herbert Run in Arbutus, indicates that for the 2.47 sq. mi. drainage area, the average discharge at 3.31 cu. ft. per second is 18.20 in./year.¹ The nearest surface water quality station is located on Sawmill Creek in Glen Burnie. For the drainage area of 4.97 sq. mi. of the Patapsco River Basin, the average discharge at 7.04 cu. ft. per second is 19.24 in./year. A September 18, 1985 pH measurement of 6.6 was recorded at this station; data regarding coliform density, turbidity and dissolved oxygen was not collected.

Urban development, industrialization and agriculture are the three major land uses affecting water quality in the Patapsco River Basin. There are five CORE (Basic water quality monitoring program) sampling stations located in the Patapsco River Basin. Existing water quality in the river is reported to range from good in the upper tributaries to poor in the Baltimore Harbor segment.² High levels of nonpoint pollutants have been reported during storm events. Runoff during these periods carries such pollutants as sediments, nutrients from domestic wastes, fecal matter, fertilizers, detergents, toxic road salts, gasoline, oils and heavy metals.

The Coastal Plain portion of the project is located within the Patapsco and Patuxent Formations aquifer recharge area. The Patuxent aquifer, one of the most productive formations in Maryland, is important for industry in the Baltimore area, with yields up to 1,200 gallons per minute. Approximately 85 square miles of recharge area for the Patapsco Formation and 10 square miles of recharge area for the Patuxent Formation are located in the northern part of Anne Arundel County.³ The Patapsco Formation is the prime source of water supply to the Severna Park and Glen Burnie areas of Anne Arundel County. In the vicinity of the project, potable water is supplied by Baltimore City for Baltimore County and by Anne Arundel County for northern Anne Arundel County.

-
- 1 Water Resources Data Maryland and Delaware Water Year 1985 by Robert W. Jones, Robert H. Simmon, and Bernard F. Strain, U.S. Geological Survey Water-Data Report MD-DE-85-1
 - 2 "Maryland Water Quality Inventory", Office of Environmental Programs, Maryland Department of the Environment, April 15, 1986.
 - 3 "Ground Water Supplies in Anne Arundel County", Bulletin 26, Department of Geology, Mines, and Water Resources, State of Maryland, 1962.

The major source of ground water in southern Baltimore and Anne Arundel Counties is precipitation. Shallow aquifers are recharged by direct percolation of precipitation. Deep artesian aquifers are recharged by the downward flow of water through permeables and/or gravel from upland water bearing outcrops within Anne Arundel County.

Groundwater quality within southern Baltimore and Anne Arundel Counties is generally good. Water from the Patuxent and Patapsco Formations have a moderately high iron content and low pH values in some wells. Well depths range from 100 feet to over 600 feet.¹

Within the Study Area, very little of the potable water is provided by pumping from wells. The greatest proportion of water is provided by public water systems which supply water from surface or ground sources located outside of the Study Area by means of the water main network.

A total of 40 water wells were located within the Study Area at the time the water supply reports were prepared (Water Resources Basic Data Reports No. 1, 1966 and No. 8, 1976). Thirty wells were located within the Baltimore County portion of the Study Area and the remaining 10 wells were in Anne Arundel County. The Baltimore County Public Works Department confirmed that some privately owned wells are still in use in the southern part of the county from Catonsville to Lansdowne. It is also probable that some or all of the wells in the Anne Arundel County segment of the Study Area are still in use.

Of the 40 wells within the Study Area, only one was intended for public use and it is located on the UMBC Campus, approximately 2,500 feet southwest of I-695. The remaining wells are privately owned and are used for domestic or commercial water supplies.

Well depths range from 13 to 273 feet. Two very shallow wells in Anne Arundel County obtain water from Pleistocene sand and gravel deposits at depths of less than 15 feet. Four of the wells, also located in Anne Arundel County, pump water from the Cretaceous period Patapsco Formation. The Patapsco Formation, where it outcrops and recharges, provides an unconfined to semi-confined aquifer within the Study Area. Well depths in the Patapsco Formation range from 70 to 230 feet. Several of the deeper wells may obtain water with considerable artesian head.

Twenty-seven of the wells draw water from the Cretaceous period Patuxent Formation, separated from the Patapsco Formation by the Arundel clay. These wells range in depth from 44 to 273 feet. The Patapsco formation is typically a confined aquifer except in the outcrop area, where some wells may not penetrate below any confining clay layers.

1 "Ground Water Supplies in Anne Arundel County", Bulletin 26, Department of Geology, Mines, and Water Resources, State of Maryland, 1962.

120

Seven of the wells were drilled into the Cambrian period crystalline bedrock which underlies the Cretaceous and younger periods sedimentary formations. These wells in bedrock varied in depth from 53 to 250 feet. The bedrock from which these wells obtain water is not considered a confined aquifer because the quality of water flow into the well is controlled by the number and size of water bearing fractures which are intercepted by the well.

b. 100-Year Floodplain

Flooding occurs along most of the Patapsco River and its larger tributaries during the 100-year storm event, as indicated on the Flood Insurance Rate Maps (FIRM) of the Federal Emergency Management Agency (FEMA) for the Patapsco River Basin. The estimated 100-year flood-levels where the project crosses the Patapsco River are:

- I-695 at Hammonds Ferry Road; elevation 23 feet
- Maryland Route 295; elevation 20 feet
- I-895 at the Y-split; elevation 13 to 15 feet

According to FEMA, there is a 100-year floodplain at the northwestern end of the I-695/I-95 interchange, east of the Benson Avenue overpass. Flood elevations and flood hazard factors for this area have not been determined by FEMA. This floodplain is associated with a small stream which is a tributary to the East Branch of Herbert Run, in the Patapsco River watershed. It is outside the I-695/I-95 Study Area.

4. Upland and Wetland Vegetation Systems

Wetlands have been identified using National Wetland Inventory (NWI) maps and field delineation. A wetland field review was held on February 18, 1988 (see meeting memorandum on pages VIII-D22 through VIII-D24) and was attended by representatives of the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and SHA. The wetland delineation for this project was completed using the Army Corps Wetland Delineation Manual prior to the adoption of the new revised Federal Manual.

I-695

From the overpass of I-70N and proceeding along southbound I-695 toward the entrance ramp, the dominant vegetation is mowed grass with scattered wildflowers, including milkweed, Queen Anne's lace and rose pink. There are a few small oak and elm trees. A 1-foot wide ditch with less than an inch of water parallels the shoulder. The soils are disturbed. Since this is not a naturally occurring situation it would not be considered a wetland or Waters of the United States.

South of the entrance ramp from I-70, a concrete lined channel is adjacent to the roadway. Steep slopes, 8-10 feet high, begin approximately 6-8 feet from the edge of the shoulder and drop to the stream. The stream is about 15-20 feet wide. The heavily vegetated banks are dominated by multi-flora rose, with a mixture of grasses and wildflowers, including milkweed, common evening primrose, dogbane, knapweed, ragweed, thoroughwort, foxtail and Queen Anne's lace. Trees include young silver maples, catalpa and elms, and on the upper stream bank, close to the houses, locust, weeping willow and rose of Sharon. This channel is not considered either a wetland or Waters of the United States.

Approximately 500 feet north of the Crosby Road Bridge the concrete lined channel ends and the stream becomes a riverine system, contained at the bottom of the steep slopes. Vegetation on the banks is the same as in the previous section. This stream has no wetland, but would be regulated as Waters of the United States.

After the stream crosses under Crosby Road, there is a small forested wetland next to the stream. This wetland occurs where a stormwater channel, running parallel to Crosby Road, joins the stream. The stormwater channel would not be considered either a wetland or Waters of the United States, since it is caused by stormwater runoff, is not natural, does not have hydric soils, does not appear to be wet for seven consecutive days during the growing season, and has only scattered wetland vegetation along its length. Where the stream meets the stormwater channel, there is a narrow forested non-tidal wetland edge, Wetland 1 (W1 on Figure III-3).

South of the Crosby Road Bridge, the stream veers away from I-695. The stream is 5-20 feet wide with water 1-2 feet deep. Mowed grass covers the stream banks. Once again the stream becomes a riverine system, with sparse wetland vegetation along its length, and would be considered Waters of the United States. Although there are occasional black willows the vegetation is primarily upland, such as pokeweed, rose of Sharon, common evening primrose, smartweed, nightshade, ragweed and Joe Pye weed. Soils have been mapped as Watchung silt loam.

Between U.S. Route 40 and I-95 along I-695, a narrow band of tree vegetation separates the residential area from the I-695 roadway. In the segment of I-695 between I-95 and west of Maryland Route 170, where the adjacent land use is more industrial and commercial oriented, the vegetative band separating the roadway is negligible. (See Table III-10 for Wetland descriptions.)

Between Crosby Road and U.S. Route 40 along I-695, the residential areas are bordered by pines, spruces, black willows, poplars, cherries and black locusts. Occasional mimosas and red maples are also found in this area, as well as young black oaks.

TABLE III-10 - STUDY AREA WETLANDS

<u>WETLAND NUMBER</u>	<u>LOCATION Interchange/Specific Location</u>	<u>CLASSIFICATION¹</u>	<u>DOMINANT VEGETATION</u>	<u>HYDRIC SOILS²</u>	<u>WIDTH⁴ (ft.)</u>
<u>I-695</u>					
W1	I-70 to US 40/Crosby Road	PF01A	Silvermaple, black willow, green ash, false nettle, clearweed, dotted smartweed and jewelweed	Wachtung silt loam	0'
W2	U.S. 40/Ramp A	PEM2C	Cattail, black locust, sumac, mimosa, maple willowoak, pine, ornamental shrubs.	Non-hydric	10'
W3	Edmondson Ave./Arbutus Ave.	PF01A	Black walnut, various oaks, box elder.	Alluvial - medium value	20'
W4	Frederick Rd./Spring Grove State Hospital	PF01A	Sumac, black locust	Non-hydric	20'
W5	Leeds Ave./Ramp E	R20WH	None - stream bed	Non-hydric	20'
W6,7	I-95/Caton Avenue	PEM2A	Grasses, Phragmites reed and black willow	Note 3	W5 30' - W6 30'
W8	I-95/Caton Avenue	PEM2C	Grasses	Note 3	Ave. 75'
W9	U.S. 1 Alt/north of US 1	PSS1A	Sweetgum, sumac, black locust		20'
W10	Patapsco River	PF01C/PSS1C	Silky dogwood and elderberry, box elder (very diverse)	Hatboro - high value	25'

III-34

122

TABLE III-10 - STUDY AREA WETLANDS (continued)

WETLAND NUMBER	LOCATION Interchange/Specific Location	CLASSIFICATION ¹	DOMINANT VEGETATION	HYDRIC SOILS ²	WIDTH ⁴
<u>Maryland Route 295</u>					
W11	Maryland Route 295/north of Nursery Road along SBR	PF01A SS	red maple, elderberry, tearthumb, smartweed	Beltsville - low value	10'
W12	Maryland Route 295/Median and West South of Hammond Ferry Rd.	PF01A	green ash, silver map, box elder	Croom - high value	20' - 35'
W13	Maryland Route 295/east and west South of Hammonds Ferry Rd.	PF01C	green ash, spicebush, red maple, arrowwood	Croom - high value	25'
W14	I-895/Southwest	PF01C	butternut, catalpa, sycamore, black locust, black cherry, box elder, red maple, arrowwood	Codorus - low value	greater than 50'
<u>I-895</u>					
W15	I-895/Y-Split	E1UB4L6 E2EM1PG E10WLG E0WLG	water hemlock, black willow, boxelder, sycamore, phragmites reed	Tidal Marsh	greater than 50'
W16	I-895/Southwest Area Park	E2EM1PG E1UB4LG	sycamore, black willow, phragmites reed	Tidal Marsh	greater than 50'

1 See Appendix B Table B-6 for Wetland Classifications in Study Area.

2 Soil data based on Soil Conservation Service data obtained from Anne Arundel County and Baltimore County Soil Surveys.

3 Not available from Baltimore County Soil Survey because it lies in Baltimore City.

4 Width determined from limited 1" = 100' scale project mapping.

123

The inner loop ramps of the U.S. Route 40 interchange contain a variety of vegetation, including cattails, black locusts, sumacs, mimosas, maples, locusts, willow oaks and pines. Ornamental shrubs, with inclusions of poison ivy and wild grape, are found in the shrub layer along the road edge. Wetland 2 (W2 on Figure III-3) is a non-tidal wetland located in the northwest quadrant of the loop ramp. Along the outer loop, the shrub layer consists of blackberries, raspberries, and poison ivy, with scattered viburnum, dogwood and black cherry. A vine layer of wild grape, honeysuckle, trumpet vine, and Virginia creeper and a shrub layer of wild roses surround large spruce trees.

South of U.S. Route 40 the understory consists of a number of young hickory trees and various types of oaks, primarily black oaks, as well as boxelder, American elm, black locust, and red maple. Scattered large tulip poplars and willow oaks are also found in this area. Just north of the Edmondson Avenue exit the road bank along the outer loop is steep and single family housing is situated adjacent to the fence. There are a number of winged sumac, pine and spruce in this area. The ditch area along the inner loop contains scattered cattails and black willows, with some red maples, catalpas and white oaks. A stream crosses this vicinity in a culvert.

Near the Edmondson Avenue interchange, the vegetation consists of black walnut and various oaks in the canopy layer, with box elders, black locusts and willow oaks in the understory. Some young hickory trees, as well as other vegetation common to this area, are found scattered among grasses and wild flowers along the road edges. Wetland 3 (W3 on Figure III-3), a non-tidal wetland, is located between the 7-Up Plant and Arbutus Avenue along Edmondson Avenue. Just south of the interchange, within the right-of-way, are a number of larger white oaks, southern red oaks and spur cherries; young cherries, American elms, mulberries, and pines border the highway.

Near the Frederick Road crossing are a number of larger oak trees and butternuts, as well as the more common black locusts, and boxelders and an occasional mulberry. The shrub layer consists primarily of blackberries and raspberries, with a few young pines which have been planted along the roadside. The herbaceous layer includes poke weed, Canada thistle, and various grasses and wild flowers. Near the interchange structure, locusts, young American elms, mulberries and scarlet oaks are evident. South of the Frederick Road interchange there are numerous boxelders and American elms of understory size, with some red maples, black locusts and tulip poplars. The stream in this area is an open channel and appears which seems to be somewhat eroded, with some rocks in the bottom and some flowing water. White mulberries and black locusts, with a number of grape vines, are present. The stream parallels the roadway, lined with butternut trees, boxelders, catalpas and various oaks, as well as black locusts. The bank is not as high in this area and the houses are situated close to the roadway. This stream, along southbound I-695, has non-tidal wetland characteristics and is identified as W4 on Figure III-3.

Just north of the Wilkens Avenue interchange, the trees are set further back from the road, and the bank drops below the road rather steeply. There are a number of princess trees, mulberries, small American elms, and black locusts in this area. Where the bank slopes up it is primarily open grass with wildflowers, scattered sumacs and black locusts. Wild flowers in the area include milkweed, yellow loosestrife, Queen Anne's lace, goldenrod, mullein, Canada thistle, dock, crown vetch and wild garlic.

Along the inner loop, near Wilkens Avenue, the under-story-sized trees close to the road include mulberry, young American elm, boxelder, long leaf pine, and willow oak. There are a number of wild grapes and other vines growing on the trees in this area. Drainage from the road is carried in a ditch to the low point between Wilkens Avenue and Frederick Road where it crosses under the Beltway to the south. Larger trees in this area are American elm, boxelder and black locust. There are also some large black oaks, tulip poplars, butternuts and catalpas, as well as an occasional black locust. Willow oaks, pines and scattered sumacs are also evident.

Within the interchange loop ramps, there are a number of pines, oaks, black locusts, and maples, as well as some ornamental shrubs. The stream at Wilkens Avenue crosses under I-695 through a small ditch, under a large culvert, and continues to the southeast. Vegetation along the stream bed, which appears to have been adversely impacted by runoff at this location, includes black willows and scattered sycamores.

The Leeds Avenue exit is bordered by silver maples and boxelders. The stream that borders Leeds Avenue is silted, with little significant vegetation along its banks. This stream is channelized under the Beltway and it is considered a non-tidal wetland (W5 on Figure No. III-3). A number of large mulberry trees border the inner loop near the exit to I-95 North, and there are scattered oaks, including black oaks and white oaks, along the roadway. Just to the north are many dogwoods, spruces, Russian olives, forsythias, black cherries, mulberries, viburnums and willow oaks. A stream crossing in this vicinity is well below the highway in a box culvert.

To the north of the I-695/I-95 interchange a number of trees grow close to the road beside a drainage ditch. Coralberry bushes are evident in the shrub layer, with honey locusts and black oaks in the understory. The drainage ditch is bordered by milkweed and cattails, with short leaf pines, tulip poplars, red maples, young white oaks and southern red oaks at the higher elevations. Also found in the understory and shrub layers are sassafras, American elms, black cherries, catalpas, and poison ivy. A number of wild grapes, along with honeysuckle and Virginia creeper, can also be found in this area. Numerous black willows are present at the stream crossing.

Most of the I-95 portion of the Study Area has been landscaped, although there is some scattered remnant native vegetation. There are few mature trees along the highway corridor, with small black locusts, red maples, black oaks, pin oaks, willow oaks, white and Virginia pines, black cherries, mulberries and trees of heaven being the predominant trees. Multiflora rose, sumac and ornamental plantings such as forsythia, along with some honeysuckle, are found in the scattered shrub layer. The herbaceous layer is largely absent or difficult to identify at this time of year. However, remains of bush clover, goldenrod, Canada thistle, blackeyed susans, Queen Anne's lace, broomsedge and crown vetch were found, along with the grasses bordering the highway.

Three small non-tidal wetland areas are located in the I-95 interchange area. The first wetland is a roadside ditch in the southwest quadrant of the I-95/Caton Avenue interchange, on the inside of the ramp from southbound I-95 to eastbound Caton Avenue (W6 on Figure III-3). This is a small palustrine wetland with emergent and deciduous shrub vegetation, dominated by phragmites reed and black willow. The soil is sandy alluvium. This wetland has few environmental functions, since it has failed to control erosion and provides only temporary nutrient retention.

The second wetland, Wetland 7, is located on the outside of the ramp from eastbound Caton Avenue to southbound I-95, in the southwest quadrant of the interchange. This wetland includes a seep area on the hillside, and a small area adjacent to a partially concrete-lined stream bed at the base of the slope. The dominant vegetation is phragmites reed, cattails and black willow. This wetland, although small, has a medium value, since it provides for short-term sediment and nutrient retention, and dissipation of some erosive forces of highway stormwater runoff.

The third wetland, Wetland 8, is located on the inside of the ramp from I-95 north to Caton Avenue east. This wetland is dominated by grasses and sedges, with mottled soils. Values are similar to Wetland 7.

Along the inner loop of I-695, south of Washington Boulevard, scattered vegetation along the sloping road banks consists of sumac and black locust, with some young oaks and pines. There are a few cattails and willow oaks in the roadside ditch. In and around the inner loop ramp of the I-695/Washington Boulevard interchange plantings consist of a number of short and long leaf pines, young American elms, black locusts, various grasses and wild flowers, and smaller trees such as mulberry and black cherry. The shrub layer has a number of winged sumac. A stream crosses a low area in the center of the loop ramp in the southeast quadrant. This stream shows some evidence of siltation, although there is flowing water that appears to be of fairly good quality.

Along the outer loop, a non-tidal wetland (W9 on Figure III-3) parallels the roadway from approximately the confluence of the on-ramps with I-695 to the structure crossing the Beltway. Between this interchange and the exit to I-95 North is a rather broad area, set back from the road some distance, with grasses and wildflowers. Trees bordering this area are similar to those found in other areas, with honey and black locusts dominating. Boxelders and black willows are found in a few lower areas. In some locations, yellow poplars and spruces have been planted. In the shrub and understory layer are a few mulberry trees and maples. This area is bordered by a chain link fence. A stream, primarily channelized in a culvert and a ditch, flows under I-695 in this area.

The inner loop of the interchange contains young sweet gums and sumacs, with some scattered black locusts and a few small black willows. Along the inner loop of the Washington Boulevard interchange, cattails and willows are found in the ditch.

Along the roadway between Washington Boulevard and the B&O/CSX Railroad crossing are black cherries, pines, sumacs and American elms, with cattails scattered in an area of black willows in the lower elevations. Along the inner loop near the B&O/CSX Railroad crossing are some oaks, as well as black locusts. All of these trees are relatively young.

North of the Hollins Ferry Road interchange, the area of the loop ramp from I-695 to Hollins Ferry Road contains a number of black willows, as well as a variety of the other trees. At the location of the stream crossing there are some cattails. West of this area, near the railroad crossing, vegetation includes short leaf pine, black locust, black cherry and mulberry, along with vines such as Virginia creeper, honeysuckle, crown vetch and poison ivy.

Near the Hollins Ferry interchange the trees are primarily white mulberry, black cherry and maple, with an understory and shrub layer of dogwoods, roses, and various vines.

The Patapsco River crossing of I-695 has been cleared of trees and shrubs within approximately 30 feet of the structure and roadway. The herbaceous layer consists of common hop, grasses and assorted wild flowers, with scattered white mulberry in the shrub layer. The forested area adjacent to the river crossing is typical of riverine floodplains. This area is a palustrine forested, seasonally flooded non-tidal wetland (W10 on Figure III-3) with broad leaved deciduous vegetation, dominated by ashleaf maple (boxelder). Black willows and silver maples are found in the understory. On the southwest side of the crossing are similar wetlands. Another small non-tidal wetland (W10), with emergent non-persistent vegetation, was found in the area just northwest of Hammonds Ferry Road, approximately 35 feet west of I-695. Although rather small, it has a considerable diversity of species. Plants in the shrub layer include silky dogwood and elderberry. Numerous sumacs, sycamores, boxelders and silver maples in the Patapsco River crossing area are mature trees. Vegetation near the Maryland Route 295 interchange is mostly of understory size, with black willows and black locusts dominating and some scattered red maples.

128

The I-695/Maryland Route 295 cloverleaf interchange has mown grasses, with no other vegetation in the four inner loop areas. Vegetation consists primarily of mulberry and boxelder along the outer ramps. Roadside edges are dominated by grasses and wildflowers. Approximately ten feet from the road edge are young honey locusts, boxelders and catalpas. Sumac and poison ivy are found in the shrub layer.

Maryland Route 295

Along Maryland Route 295, north of Winterson Road, scattered black cherries and maples are evident in the median, grading into a fully forested area. Occasional black cherries, black locusts, and sumacs are seen in the disturbed areas, as well as a heavy shrub layer with roses and blackberries.

To the south of the Hammonds Ferry crossing are two stream valley crossings, larger than those previously mentioned, with a canopy of tall mature oaks, primarily black oaks and white oaks. Sassafras, mulberry, and boxelder are found in the understory. The stream valley floor is a typical non-tidal wetland (W12 on Figures III-3 and III-4), with vegetation, such as jewelweed, in the herb layer. Large sycamore trees are present in the floodplain, with some large hickory trees and tulip poplars along the banks. This stream crosses beneath the highway, and although there appears to have been some impact from runoff and sedimentation as a result of highway usage, it still has a fairly natural and broad floodplain. This stream is probably the most important in the Study Area, other than the Patapsco River crossing, in terms of its value and natural habitat. Wetland 12, a non-tidal wetland along the southbound roadway, may have been impacted by the recent construction. Another non-tidal wetland is along the northbound roadway (W13 on Figures III-3 and III-4).

South of the stream crossing, the vegetation is similar to other parts of the Study Area with boxelder, pine, sweet cherry, and red maple. The understory and shrub layer is dense, with bittersweet blackberries, raspberries, sumac, and wild roses and poison ivy. Occasional willow oak and princess trees are found in this area. The property adjacent to the west side of the roadway has many old cars on it. A stream here is rather small, with very little flow. Wetland 11 (W11 on Figures III-3 and III-4) is located along the southbound roadway near the ramp to the interchange at W. Nursery Road. The floodplain is fairly natural, opening out into pasture land. The trees in this area are mostly boxelder and tulip poplar. The floodplain has typical vegetation with jewelweed, jack-in-the-pulpit, honeysuckles and wild roses. Along the highway corridor in this area is more natural woodland with oaks and tulip poplar in the canopy, red maple in the understory, and some black cherry. In the lower areas are occasional black locust. Greenbrier and wild grape are common in this area.

Along Maryland Route 295 north of I-695 there are generally smaller sized trees (mostly mulberry and boxelder), with scattered sumac, catalpa, American elm, in the understory. Black locust, short leaf pine, and black cherry are also evident. Poison ivy, elderberry, and various vines and brambles such as roses, blackberries and raspberries are also found along the edges. The median has understory-sized trees similar to those on the highway edges.

On the southeast side of the Maryland Route 295 crossing of the Patapsco River is another extensive non-tidal wetland (W14 on Figures III-3, III-4). This wetland is a Type 39 fresh marsh, dominated by common reed (phragmites). The National Wetlands Inventory classifies it as a palustrine, seasonally flooded wetland with narrow-leafed, non-persistent emergent vegetation. It is bordered by forested areas similar to those previously described. The northeast side of the crossing is a palustrine forested wetland with trees typical of the rest of the site.

The Maryland Route 295 crossing of the Patapsco River is constructed on fill over tidal and non-tidal wetlands, and bridges the river itself. The edges of the roadway are lined with typical grasses and wildflowers, while the banks and adjacent areas are covered with ashleaf maple, silver maple, and other trees and shrubs, most of which are bottom land hardwoods. These areas are classified on the National Wetlands Inventory maps as palustrine forested, seasonally tidal, temporarily tidal, or temporarily non-tidal wetlands, with broad-leaved deciduous vegetation. A small wetland (W14) on the southwest side of the crossing and an extensive wetland on the northwest side border the river and the forested areas next to the highway. Although these are not mapped on the State Wetland maps, they should be Classified as Type 34 fresh tidal wetlands, dominated by cattails. The NWI classifies them as palustrine wetlands with non-persistent and narrow-leafed emergent vegetation. Considerable diversity exists in these wetlands. They are bordered by a scrub/shrub hardwood swamp with buttonbush, silky dogwood, red maple, and black willow. The shrub layer is dominated by bittersweet vine as well as common poison ivy.

North of the Harbor Tunnel Thruway, vegetation along the road edges consists of understory-sized trees, primarily black locusts, black cherries, short leaf pines, catalpas and mulberries. The shrub layer is similar to that described previously. Occasional scattered red maples are also found in the area. At the higher elevations to the north there are numerous oaks, as well as red maples and other species commonly found in this area. Highway edges are scattered primarily with catalpa, sumac and locust. There are some scattered black oaks and scarlet oaks in the higher elevations. Ornamental shrubbery, such as barberry and various viburnums, is planted in the median, with some southern red oaks, black oaks, and white oaks in certain areas.

I-895 - Harbor Tunnel Thruway

130

On I-895, near the Maryland Route 295 interchange, road edges are bordered by understory-size trees common to the rest of the area, such as butternut and catalpa, with a number of large sycamores, black locusts and black cherries. The shrub layer contains viburnums and other ornamental species, as well as raspberries and poison ivy. There are also numerous pines and a few oak trees scattered in this area. Near the Y-split of I-895 the vegetation is tidal marsh, dominated by phragmites, with scattered water hemlock, characteristic of tidal wetlands (W15 on Figures III-3 and III-4). There are also some scattered trees, primarily black locust. Trees along the river include weeping willow, black cherry, black locust, boxelder and princess tree. The tidal wetlands identified in the previous section are environmentally sensitive; however, this area would not be disturbed by the Selected Action.

The Southwest Area Park appears to be a fill area with little vegetation and a minimal amount of phragmite reed along the edge (W16 on Figures III-3 and III-4). At the Y-split, most of the vegetation is understory-size black locust. The bank along this area is rather steep down to the river and is situated fairly close to the highway. Sycamores, black cherries and black willows are found in this area.

The locations of these wetlands are shown on Figures III-3 and III-4 and II-8 through II-22.

5. Terrestrial and Aquatic Habitat

The Patapsco River and its adjacent wetlands and floodplains provide important habitat for fish and wildlife. However, those areas directly adjacent to the existing highway do not have as great a value, due to human intrusion, as more remote areas.

The Patapsco River, bottom land hardwoods, upland forest, emergent wetlands, and shoal waters provide habitats for both resident and migratory bird species. During the spring and fall diving ducks use the river for resting and feeding during their migration. These birds remain in this area or continue their migration, depending on the availability of local food resources and weather conditions. Resident puddle ducks reside in the high marsh area and/or bottom lands, where they nest and rear their young close to the open water and vegetated wetlands that provide their food and cover. Raptors (birds of prey) utilize the woodland/highway edge for hunting small rodents. The forest provides limited nesting, resting, and breeding habitat. Wading birds utilize the areas of shallow open water, mud flats, and tidal and non-tidal wetlands primarily for feeding and resting areas. Various species of herons feed on small fish and crustaceans. Resident and migratory passerine birds (primarily songbirds) utilize the shrub and forested areas throughout the year.

Only those common mammals which have become used to human activity would be expected in the Study Area. Since the majority of mammals found in the eastern United States are non-migratory, these species are considered resident. Small rodents and cottontail rabbits would be expected to dominate the open areas, raccoon, opossum, and squirrels the woods, and muskrat and otter the shoreline and wetlands. Mammals residing in one habitat would, on occasion, be expected to be observed moving through other habitats.

There is little specific data regarding reptile and amphibian species in the Study Area. Fisheries data for the Patapsco River indicated that alewife, blueback herring and white perch spawn in this area; white American eel, round bullhead, white catfish, and yellow perch are residents. A number of other less well know species may also be found in the area.

6. Prime Farmland

A review of the Soil Conservation Service (SCS) Soils Surveys for Anne Arundel and Baltimore Counties indicates that areas of prime farmland soils are located in the I-695/I-95 vicinity, the Hollins Ferry Road interchange area along the I-695 inner loop, and the Maryland Route 295/I-895 interchange. None of these areas are currently being farmed.

The SCS has determined that due to the nature of the project and current land use in the area, there is no prime farmland present in the Study Area (see letter in Section VIII, pages VIII-D28 and VIII-D29).

7. Woodlands

There is a minimal amount of woodland in the Study Area. The primary woodlands area is located in the southwest quadrant of the Maryland Route 295/I-895 interchange, which is part of the Patapsco Valley State Park. This area would not be disturbed by the Selected Action.

8. Rare, Threatened and Endangered Species

A search of available information by the Natural Heritage Program of the Maryland Department of Natural Resources and the Annapolis Office of the U.S. Fish and Wildlife Service, U.S. Department of the Interior, indicates that there are no records of threatened or endangered plant or animal species at or in the vicinity of the project site. Field reconnaissance performed during this study did not reveal any such species. (See letters in Section VIII, page VIII-D17).

132

9. Parklands

The Study Area contains several parks maintained by the State of Maryland, Baltimore County or Anne Arundel County. These parks are indicated on Figures III-3 and 4. The two largest parks are described below. Local park facilities are summarized in Table III-4.

The 27-mile long **Patapsco Valley State Park** contains 11,347 acres and averages 1/2 a mile in width. Except for segments which flow through a few cities and towns, the Patapsco River is bordered primarily by State, County or City parkland or other open space land. The entire Patapsco-Back River watershed drainage area encompasses 673 square miles. Water quality of the river is influenced by construction site run-off, industrial discharges, sanitary sewer overflows, and failing septic systems. The park consists of six sections. Section I, the Seven Ponds Area, is in the Study Area.

The Seven Ponds Area, between the Beltway and Belle Grove Road, consists of 70 acres of man-made ponds. Once a gravel excavation pit, the pond now supports fish such as bullhead, sunfish, catfish and pickerel. Proposed recreational facilities include nature interpretation, community recreation, a fishing lake and walk-in picnicking.

Proposed recreational facilities in the Halethorpe Farm Ponds Area, west of the Beltway, consists of fishing, boating, nature interpretation and walk-in picnicking.

The **Southwest Area Park** is a unique project in Baltimore County which will maximize the use of land by converting a 230-acre public landfill into viable park land. In 1984 the first phase of development, which included entrance roadways and parking, tot play area and tennis courts, was completed. Future plans call for biking and hiking trails, water access to the Patapsco River and a nature pavilion to highlight natural features and demonstrate uses for methane gas. Entrances are located at Georgia Avenue and Patapsco Avenue. This park was acquired in 1968 using funds from the U.S. Department of Housing and Urban Development.

10. Existing Sensitive Natural Areas

The Patapsco River passes under all roadway segments of the project. The river originates in the Liberty Reservoir, located north of the Patapsco Valley State Park, and travels in a primarily southeasterly direction to the Study Area. The Patapsco River then empties into the Middle Branch. The Patapsco River is environmentally sensitive and is protected by the Chesapeake Bay Critical Areas plan.

In 1984, the Maryland Legislature passed S.B. 664, which established a Chesapeake Bay Critical Areas Commission. This bill established a State policy of resource protection for the Bay and its shorelines. It requires local governments to develop programs

for the critical areas within their boundaries. Critical Areas are defined as all lands and waters within 1,000 feet of the Bay or its tidal tributaries. As of June 1, 1984, for any proposal to subdivide or rezone land within the critical area, the local jurisdiction must consider its impact on water quality, fish, wildlife, and plant habitat prior to approving any applications. The local government must determine that proposed projects in the critical area minimize adverse impacts on these resources.

E. AIR QUALITY

The I-695/Maryland Route 295 project is within a regional airshed shared with Baltimore City, and Carroll, Harford, and Howard Counties. The entire region has been designated as a non-attainment area for ozone. Portions of the area have also been designated as non-attainment for carbon monoxide. Transportation control measures have been instituted as part of the State Implementation Plan (SIP). The project will be included in the Draft 1992-1996 TIP which will be analyzed for conformity with the state implementation plan. The Draft 1992-1996 TIP is expected to be adopted in September 1991.

A detailed microscale air quality analysis to determine the carbon monoxide (CO) impact of the proposed project has been performed, and is described in Section IV-D. Detailed information on the air quality analysis is presented in the I-695/Maryland Route 295/I-895 - Air Analysis Quality report. This report is available for review at the Maryland State Highway Administration, Project Planning Division, 707 North Calvert Street, Baltimore, Maryland.

F. NOISE

Detailed information on the noise analysis study is presented in the I-695/Maryland Route 295/I-895 - Noise Analysis Report. This report is available for review at the Maryland State Highway Administration, Project Planning Division, 707 North Calvert Street, Baltimore, Maryland.

1. Description of Noise Sensitive Areas

The 28 noise-sensitive areas (labeled A thru Z on Figure IV-3) for which ambient noise levels were determined are presented in Table III-11. Ambient noise levels were sampled at 44 selected locations during peak and off-peak traffic conditions. Of the 44 sites selected for ambient measurements, 40 measurements were taken at residences that represent a potential worst case (most impacted) location within their respective communities. Two ambient measurements were taken in parks; one in Patapsco Valley State Park and one in Overlook Park. Measurements were also taken at the Maiden Choice Center and Overlook Elementary School. Noise impacts occur when the Federal Highway Administration noise abatement criteria are approached or exceeded or when the predicted traffic noise levels substantially exceed the ambient noise levels.

134

TABLE III-11 - I-695/Maryland Route 295/I-895 AMBIENT NOISE LEVELS
(page 1 of 3)

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS (see Figure IV-3)			DISTANCE FROM CENTERLINE	AMBIENT LEQ NOISE MEASUREMENTS (dBA) *		
				AM PEAK	OFF PEAK	PM PEAK
<u>I-695</u>						
A	19	Residence in Westview 6008 Moorehead Road	160'	- ¹	71	70
A	27	Residence in Westview 6409 Craigmont Road	560'	-	71	-
B	20	Residence in Westview 1101/1103 Starway Court	215'	64	67	-
B	28	Residence in Westview 1337 Dillon Heights Road	270'	-	73	-
C	2	Residence in Dunmore Ridge 712 Kent Avenue	190'	-	68	68
C	21	Residence in Edmondson Ridge 612 Stoney Lane	200'	-	69	68
D	1	Residence in Catonsville Heights 603 Maryland Avenue	190'	67	68	-
D	3	Apartment on Fern Valley Court 703 Fern Place	160'	65	67	-
E	4	Residence in Dunmore Estates 115 Arbutus Avenue	200'	-	62	63
E	5	Residence in Dunmore Estates 22 Arbutus Avenue	160'	-	65	64
F	6	Residence in Catonsville 15 Arbutus Avenue	200'	65	66	-
G	7	Residence in Catonsville 12 Glencoe Avenue	235'	68	68	-
H	9	Residence in Paradise 230 Oglethorpe Road	210'	-	65	64
H	10	Kenwood Gardens Condominium 1 Summit Hill Court	370'	-	59	60
H	18	Residence in Paradise 321 Kenwood Road	240'	-	68	68
HH	29	Residence in Arbutus 4855 Carmella Drive	180'	71	70	-
HH	30	Maiden Choice Center	180'	75	73	-

NOTES * AM Peak 7:30 - 9:30 AM
Off-Peak 9:30 - 3:30 PM
PM Peak 3:30 - 6:00 PM

¹ All sites were measured during both a "peak" and "off-peak" traffic condition on I-695 except A-27 and B-28. "-" denotes that the site was not monitored during that peak which would have been adjacent to the off-peak direction of travel.
Note: Sites A27, B28, HH29, HH30, II31 and II32 were monitored in 1991.

TABLE III-11 - I-695/Maryland Route 295/I-895 AMBIENT NOISE LEVELS
(page 2 of 3)

135

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS (see Figure IV-3)				DISTANCE FROM CENTERLINE	AMBIENT LEQ NOISE MEASUREMENTS (dBA) *		
					AM PEAK	OFF PEAK	PM PEAK
<u>I-695</u>							
I	8	Residence on Kenwood Ave. 313 Kenwood Avenue		140'	70	71	- ¹
I	11	Residence on Kenwood Ave. 326/328 Kenwood Avenue		220'	-	68	64
II	31	Residence in Arbutus 1013 Regina Drive		210'	75	69	-
II	32	Residence in Arbutus 1218 Greystone Road		100'	75	75	-
J	12	Residence in Halethorpe 5030 Arbutus Avenue		200'	65	62	-
J	13	Residence in Halethorpe 5001 Benson Avenue		170'	63	62	-
J	22	Residence in Halethorpe 1600 Pasteur Road		955'	66	66	-
J	23	Residence in Halethorpe 5231 Dewitt Road		790'	64	62	-
K	17	Residence on Monumental Ave. 2238 Monumental Ave.		335'	66	67	-
L	16	Residence in Raynor Heights 822 Fairview Avenue		310'	62	61	59
M	15	Residence on Nursery Road 800 Nursery Road		180'	63	63	-
N	14	Residence on Evelyn Avenue 703 Evelyn Avenue		260'	64	62	-
O	6	Residence in Crestwood 322 Cheddington Road		205'	- ²	- ²	- ²
P	24	Residence at 5929 Linthicum Lane		190'	-	69	-
Z	25	Overlook Elementary School ³ Interior/Exterior		250'	-/68	49/-	-/68
Z	26	Overlook Park		390'	-	58	59

NOTES * AM Peak 7:30 - 9:30 AM
Off-Peak 9:30 - 3:30 PM
PM Peak 3:30 - 6:00 PM

- 1 All sites were measured during both a "peak" and "off-peak" traffic condition on I-695. "-" denotes that the site was not monitored during that peak which would have been adjacent to the off-peak direction of travel.
- 2 Noise abatement has been constructed since ambient measurements were monitored.
- 3 Interior ambient measurements monitored because school is not air-conditioned.

136

TABLE III-11 - I-695/Maryland Route 295/I-895 AMBIENT NOISE LEVELS
(page 3 of 3)

AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS (see Figure IV-3)	DISTANCE FROM CENTERLINE	AMBIENT LEQ NOISE MEASUREMENTS (dBA) *		
		AM PEAK	OFF PEAK	PM PEAK
<u>Maryland Route 295</u>				
Q 8 Residence on W. Nursery Road Southside W. Nursery Road	250'	- ¹	58	59
R 9 Residence on W. Nursery Road (vacant) Northside W. Nursery Road	320'	57	58	-
S 1 Residence in North Linthicum 506 Louise Avenue	210'	-	66	65
S 2 Residence in North Linthicum 513 Heath Avenue	170'	-	63	63
T 3 Residence in Ridgeway Manor 2 Eleanore Avenue	255'	-	61	61
U 7 Patapsco State Park	310'	62	60	-
V 4 Residence in Lansdowne 2943 Freeway	230'	64	63	-
V 5 Residence in Lansdowne 3123 Freeway	235'	63	61	-
W 5A Residence in Baltimore Highlands	190'	63	61	-
<u>I-895</u>				
X 1 Residence in Baltimore Highlands 2901 Delaware Avenue	360'	-	57	60
X 2 Residence in Baltimore Highlands 3001 Delaware Avenue	290'	-	57	58
Y 3 Residence in Baltimore Highlands 2743 Yarnall Road	180'	-	64	-
Y 4 Residence in Baltimore Highlands 2797 Yarnall Road	225'	-	60	62

NOTES * AM Peak 7:30 - 9:30 AM
Off-Peak 9:30 - 3:30 PM
PM Peak 3:30 - 6:00 PM

1 All sites were measured during both a "peak" and "off-peak" traffic condition on I-695. "-" denotes that the site was not monitored during that peak which would have been adjacent to the off-peak direction of travel.

2. Ambient Noise Levels

The Federal Highway Administration has established, through 23 CFR 771, maximum noise levels for various land uses. These noise levels are presented in terms of A-weighted equivalent sound level, abbreviated as Leq. The Leq is a single number representing a fluctuating sound level accounting for sound energy over a specified time. The Leq units are A-weighted decibels (dBA). A-weighting refers to the sound level measurement that approximates the response of the human ear. All ambient and predicted levels in this section are Leq levels.

Ambient or existing noise in an area is typically made up of a combination of sounds generated from many sources. Generally, these sounds are constant in nature and are representative of the average human and/or mechanical activity in and close to the area. Unusual sounds such as a fire siren or a vehicle with an inadequate muffler will occasionally produce a short-term increase in an area's noise level. Both the average and short-term noise levels are important in describing the noise environment. Residents in the vicinity of this proposed widening project presently experience a combination of sounds generated primarily from highway sources.

All measurements at these sites were made using a Metrosonics Sound Level Analyzer (Type II - ANSI S1. 4-1971) with associated microphone and calibration equipment. Standardized set-up, calibration and measurement procedures were performed in accordance with the FHWA Report, Sound Procedure for Measuring Highway Noise: Final Report (FHWA-DP-45-1R).

Ambient noise levels were measured at 44 receptor sites within the 28 Noise Sensitive Areas identified for this project. The results are presented in Table III-11. An additional ambient noise level was obtained for site number 24 from a Type II noise program project that was recently conducted within the I-695/Maryland 295 Study Area. These measurement sites are mapped on Figure IV-3 and described further in Section IV-F. In accordance with the FHWA noise policy, this is a Type I noise abatement project.

All sites were measured during both "peak" and "off-peak" traffic conditions on I-695 except sites A-27 and B-28. For example, the peak period for sites on the southbound side (outer loop) of I-695 is during the morning peak travel time, from 7:30 a.m. to 9:30 a.m. Sites located on the northbound side (inner loop) were measured during the afternoon peak travel time, between 3:30 p.m. and 6:30 p.m. Each site was also measured during an "off-peak" period between the morning and afternoon rush hours. As the results indicate, the "peak" and "off-peak" ambient noise levels are marginally different. This low variation is a function of higher travel speeds during lower traffic periods, in addition to a slightly higher percentage of trucks that operate during the "off-peak" period.

The State Highway Administration has two types of noise analysis and abatement programs. These are defined by Federal legislation as Type I and Type II programs. The proposed widening of the Beltway was analyzed under the Type I program.

The Type I program addresses noise impacts created by new highway construction or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through traffic lanes. Noise mitigation is considered under this program when noise impacts result from the proposed project. Impacts are defined as a 10 dBA increase over existing noise levels, or exceedance of the FHWA Noise Abatement Criteria (see Tables IV-6, IV-7). Noise mitigation will be further investigated if determined to be both reasonable and feasible.

The State Highway Administration adopted their Type II Noise Abatement Program, in conjunction with Federal legislation, to provide relief from existing noise levels for residential areas and public institutions adjacent to existing major highways.

The SHA Type II (retrofit) noise barrier projects begun during this study have been completed and are noted on Figure IV-3. There are no other locations within the limits of this study which are under consideration for Type II barriers.

G. CULTURAL RESOURCES

1. Historic Sites

An inventory performed by the State Highway Administration, with concurrence from the Maryland Historic Trust (see Section VIII), indicates that three sites in the Study Area are National Register Eligible (NRE). These sites are identified on Figures III-3 and III-4 and in the table below.

TABLE III-12 - STUDY AREA HISTORIC SITES

<u>Maryland Historic Trust Identification Number</u>	<u>Site Name</u>	<u>MHT Level of Significance</u>
AA 89	Sands Road	NRE
AA 111	Summerfield-Benson Home	NRE
BA 4	Old Salem Lutheran Church	NRE

2. Archaeological Sites

The Division of Archaeology of the Maryland Geological Survey has reviewed the site and proposed improvements and indicates that there are no sites which would be impacted by any alternate under consideration (see letter in Section VIII, pages VIII-D12 and VIII-D13).

An archaeological reconnaissance was conducted in the Study Area. Much of the area immediately adjacent to I-695 has been extensively disturbed and did not require an archaeological survey. The reconnaissance consisted of evaluating areas proposed for mainline widening, new interchanges or ramps, and connecting roads.

SECTION IV

ENVIRONMENTAL CONSEQUENCES

IV. ENVIRONMENTAL CONSEQUENCES

A. INTRODUCTION

This section describes the potential environmental effects which will result from the Selected Action for the widening of approximately 9.0 miles of I-695 from I-70 to West of Maryland Route 170, Selected Interchange Improvements at I-70, Hollins Ferry Road and the Maryland Route 295 interchange, and Selected Option 1 along Maryland Route 295 from Maryland Route 46 to the Baltimore City Line, a distance of approximately 4.1 miles.

As previously discussed in this document, the overall size of this project, funding constraints, and varying project needs will result in the staged construction of improvements. While the following discussion addresses specific impacts for a combined "full-length" Build Alternate, the actual incremental impacts during any three-to five-year period would be different because of the staged construction of the Selected Action.

The following elements were reviewed for the Selected Action: social, economic and land use impacts, transportation, topography, geology, soils, farmland, water and coastal resources, wetlands, floodplains, terrestrial habitat, woodlands/reforestation, wildlife, parklands, visual quality, air, noise, historic and archeological.

The Selected Action along I-695 and Maryland Route 295 assumes completion of the widening along the outside of I-695 and in the existing median of Maryland Route 295. In conjunction with this widening, the existing interchanges along I-695 and Maryland Route 295 would be improved by adjustment or reconstruction. The construction or reconstruction of the interchanges along Maryland Route 295 at Maryland Route 46/I-195 and W. Nursery Road were completed after this study began.

B. SOCIAL, ECONOMIC AND LAND USE

1. Social

An analysis of the probable residential displacements caused by the Selected Action has been made by the State Highway Administration. Relocation of individuals displaced by the proposed project would be accomplished in accordance with the Uniform Relocation Assistance and Land Acquisitions Policies Act of 1970 (P.L. 91-446), and Amendments of 1987. A summary of the Relocation Assistance Program for the State of Maryland is presented in Appendix C.

148

The Selected Action would displace one owner-occupied residence. Comparable decent, save and sanitary replacement housing is available within the Study Area for these displaced residents.

As indicated on Table S-1, right-of-way acquisition required for the construction of the Selected Action is approximately 9.6 acres. The right-of-way required for the construction of Interchange Option B at Hollins Ferry Road would be approximately 2 acres. The majority of the required right-of-way consists of narrow strips of land adjacent to the existing right-of-way. Adverse impacts associated with these takings are not anticipated, nor is a large decrease in the tax base expected.

Because I-695 is proposed to be widened adjacent to the existing roadway and Maryland Route 295 to be widened in the median, the Selected Action should have no adverse social impacts. Patterns of pedestrian movement would not be disrupted, and no communities would be divided by the proposed improvements. Residential-business interaction will probably be enhanced due to improvements in vehicular access and safety.

The Selected Action does not represent any real changes in existing road patterns or any significant disruptive socio-economic impacts. At the I-70, Hollins Ferry Road and Maryland Route 295 interchanges the revisions are relatively minor, and would not be expected to disrupt travel patterns or community patterns.

Between I-70 and I-95, where intense residential development is located adjacent to the Beltway, a comparison was prepared of the right-of-way effects of providing retaining walls for the majority of the area versus construction of full outside safety grading. Provision of a retaining wall adjacent to the new shoulder would considerably reduce the extent of right-of-way required with the provision of full safety grading (a flat-graded area provided for the recovery of errant vehicles) adjacent to the shoulder.

The results of this construction of Alternate 2 for the section of I-695 between I-70 and I-95 indicates that with retaining walls, 2.10 acres of private property would be acquired and no displacements would be required.

During final design a modified graded section, will be considered, to reduce cost within the right-of-way. The resulting impacts will not be significant relative to those described for the Selection Action.

A detailed discussion of the combined social, economic and land use impacts is presented in Section IV-B-3.

No adverse effects are anticipated for any community facilities, including police, fire, or hospitals from the construction of this project. The Selected Action would not effect any proposed development or change the population density. Adjacent property values would not be adversely affected by the proposed improvements.

Summary of the Equal Opportunity Program of the 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.

2. Economic

No farms would be displaced by the Selected Action.

Efforts would be made to minimize temporary inconvenience to customers patronizing existing businesses during construction activities. Businesses located in the Edmondson Avenue, Washington Boulevard, Hollins Ferry Road and Nursery Road interchange areas would be affected. The long-term effect of improved access and enhanced safety should be of considerable benefit to the existing businesses.

The economic benefits of the reconstruction of I-695 and Maryland Route 295 should considerably enhance business and development opportunities in this portion of Baltimore and Anne Arundel Counties. Although the reconstruction of I-695 would displace one residence and require the acquisition of private property, no large decrease in the tax base is anticipated as a result of this project.

3. Land Use

As discussed in Section III-B of this document, land use varies considerably throughout the 13.1 miles of the Study Area. For this reason, the social, economic and land use assessment of the Selected Action has been divided as follows:

● I-695 - From I-70 to I-95

Existing land use adjacent to I-695 is primarily residential. Pedestrian circulation patterns are already established and accustomed to existing highway traffic patterns and would not be affected by the proposed lane additions. Likewise, community interaction would not be affected. Residential access would be enhanced due to the improved intersection configuration at the ramp termini of Frederick Road. The proposed Selected Action improvements would not adversely alter access to the existing interchanges.

Very few small open areas remain to be infilled by residential or other development. The proposed widening would not affect the potential for development in these small areas.

● I-695 - From I-95 to West of Maryland Route 170

Existing land use adjacent to I-695 is primarily commercial and industrial in nature.

The character of the existing development is not anticipated to be altered by the Selected Action. Development, however, does not depend on the Beltway widening. There are some very small areas along the Beltway which would be expected to develop irrespective of the proposed widening.

● Maryland Route 295 - From Maryland Route 46/I-95 to the Baltimore Beltway

This portion of the Study Area is rapidly undergoing office, service and industrial development, with residential development adjacent to the Maryland Route 295/I-695 Interchange. The BWI Airport vicinity is developing into an industrial and technological area. With improved access to the W. Nursery Road area, the Maryland Route 295 corridor between Maryland Route 46/I-195 and the Beltway is anticipated to develop in a similar manner.

Selected Option 1, the reconstruction of the Maryland Route 295/Maryland Route 46/I-195 interchange, as well as the construction of the Maryland Route 295/W. Nursery Road interchange, would improve access and increase the capacity of the mainline roadway.

• Maryland Route 295 - From I-695 to the Baltimore City Line

This portion of the Study Area is already developed with medium density residential to the north and a combination of residential and industrial adjacent to the Maryland Route 295/I-695 interchange vicinity. Pedestrian circulation is already established and a pedestrian overpass at Baltimore Highlands is heavily utilized. The improvements proposed would not affect community interaction or access to the communities.

C. TRANSPORTATION

1. Traffic Volumes

The Baltimore Beltway is probably the single most important highway facility in the Baltimore metropolitan area. Combining local trips with longer distance commuter/business trips and interstate trips, a wide range of trip purposes and origins/destinations can be observed on the Beltway. Projected increases in suburb to suburb work trips, coupled with the increasing interstate component of travel (especially the I-70 to I-95 and I-97 to Russell Street connections via I-695), are anticipated to result in more vehicles on the Beltway in the 2015 design year.

Traffic volumes in the Beltway portion of the Study Area ranged from approximately 93,000 to 120,000 vehicles per day (vpd) at the beginning of this study. 1989 information revealed that in the preceding six years, the rate of increase experienced in the industrial area from Maryland Route 295 to I-95 was different than that experienced in the more residential area between I-95 and I-70. Traffic volumes in the industrial portion increased by approximately 10,000 vpd. During the peak period hours, several sections of this portion already exceed the anticipated design year conditions for the mainline. The majority of ramp volumes in this portion, however, are still below the design year projections. The portion between I-95 and I-70 also experienced an increase in traffic volume, with most areas exceeding 30,000 vpd. Fewer sections in this portion are either at or exceed the design year traffic projections. Similar to the industrial portion, ramp volumes still below the design year projections.

This overall increase in traffic volume could be attributed to several factors. Since construction along the Harbor Tunnel Thruway (I-895) has been underway during this period, motorists have been encouraged, by signing and variable message signs, to use the Fort McHenry Tunnel (I-95) or the Francis Scott Key bridge (I-695). The large increase of traffic along I-695 between I-95 and I-70 seems to indicate that a large portion of the detouring traffic probably uses the Ft. McHenry Tunnel route.

146

The Average Daily Traffic (ADT) volumes on I-695 are anticipated to increase over 40 percent from the original base year traffic volumes of nearly 156,000 vehicles per day (vpd) to 171,000 vpd in the year 2015 for the Build condition south of I-70. A 45 percent increase is projected during the same period on I-95 for the Build condition north of I-695. The Maryland Route 295 portion of the project is projected to experience traffic growth on the order of 50 percent between current conditions and volumes anticipated in the year 2015 for the No-Build condition.

Under the Build Condition, traffic volume in the design year is estimated to be high throughout the day, filling the entire roadway to capacity. Because of this consistent capacity specific peaks would not be evident. Although additional capacity would be added to the roadway, due to the very high projections for traffic growth, the added capacity would be utilized for longer periods of the day than under the current conditions. Peak period hours under the Build Alternate would be longer, possibly extending the current two-hour congestion peak period to a four-hour congestion period. For residents living near the facility, the congestion and noise currently experienced would occur for a longer period of time.

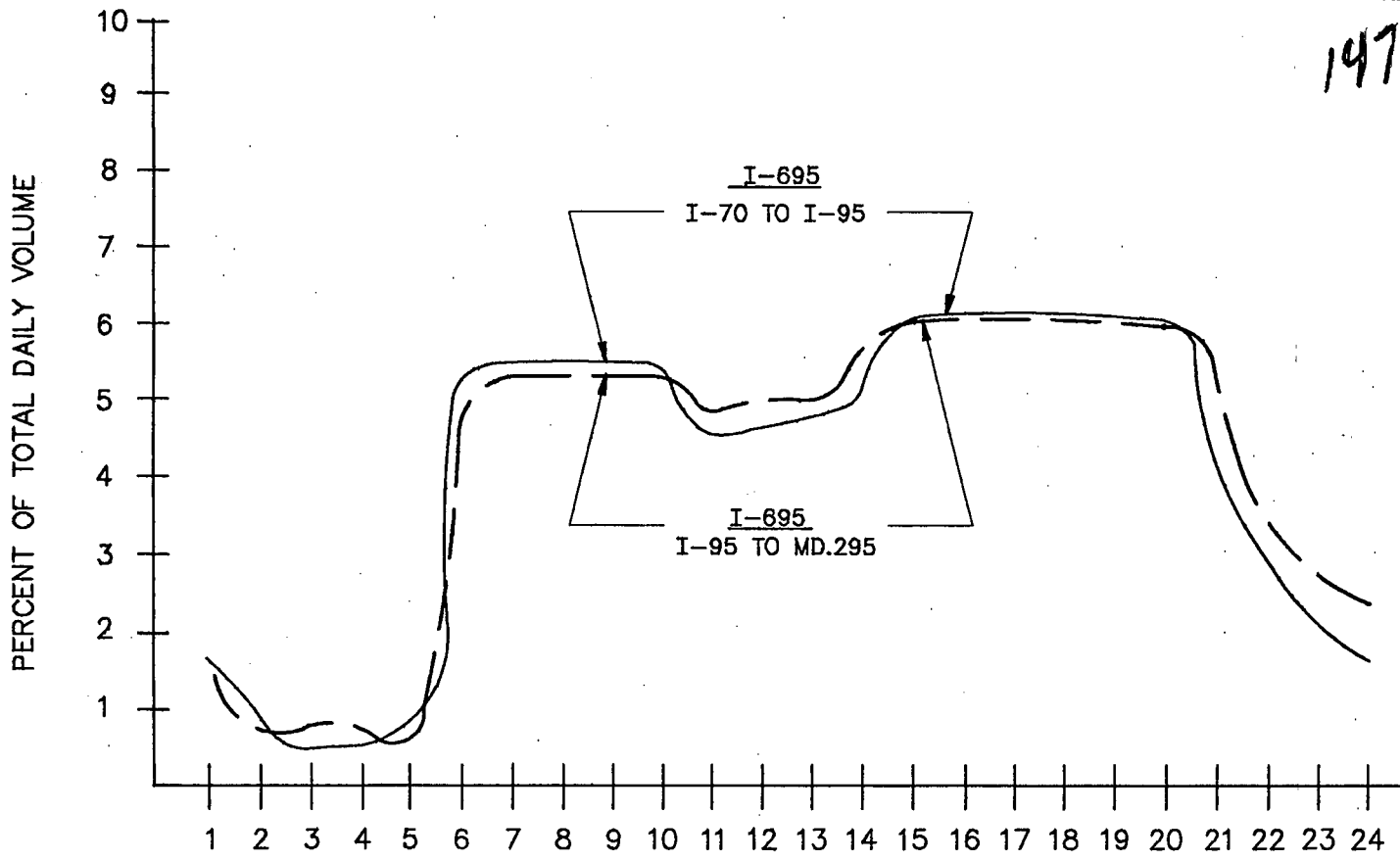
Since traffic volumes on the industrial portion of the Study Area, between Maryland Route 295 and I-95, have already increased by approximately 10,000 vpd, a volume increase in the 25 to 35 percent range is anticipated within the next 25 years. The increase in traffic volumes on the portion of I-695 between I-95 and I-70 has also been very rapid. While other roadways have recently been completed and other facilities are anticipated to be completed (see Section I-D.5), most of those projects terminate at I-95. In order to continue to the north or west, motorists will still be using I-695 between I-95 and I-70.

The lengthening of the peak periods of travel, caused by the projected increases in traffic volumes, is presented for both the No-Build and Build Alternates on Figure IV-1. The diurnal curve data indicates that under the No-Build condition on I-695, peaking characteristics would be absent, while peaking would be evident under the Build condition. The peaking conditions refer to the highest traffic volumes which occur during the 24-hour period. Currently, there is a peak morning two-hour period from 7:00 a.m. to 9:00 a.m. and a peak evening two-hour period from 4:00 p.m. to 6:00 p.m.

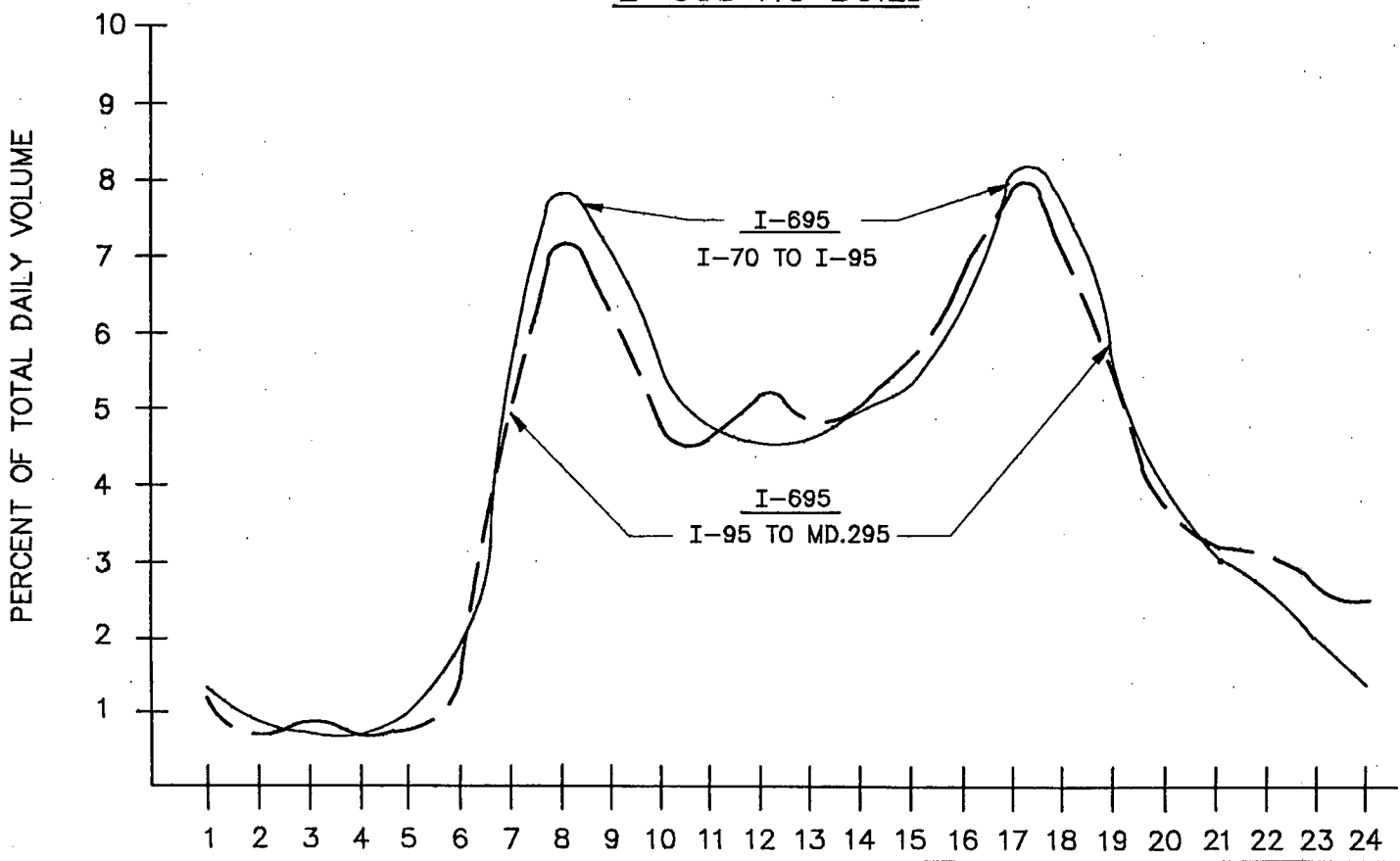
The Maryland Route 295 diurnal curve data indicates a somewhat similar condition for the No-Build and Build conditions, although there would continue to be defined peaks (Figure IV-2).

2. Traffic Operations

Traffic operations for the year 2015 No-Build and Build scenarios have been analyzed for the Selected Action. These operations are presented in Table III-7.



I-695 NO BUILD



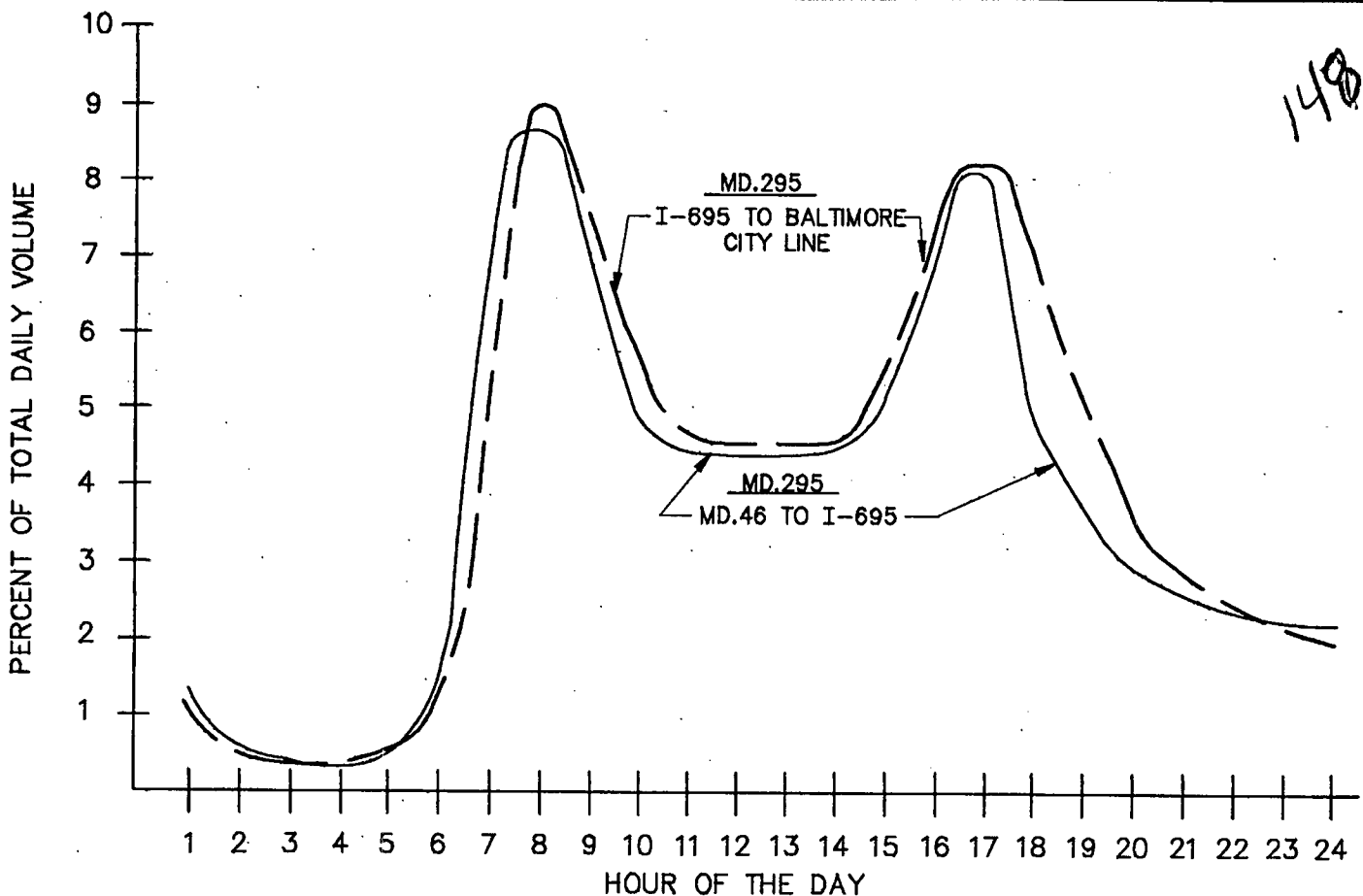
I-695 BUILD

LEGEND

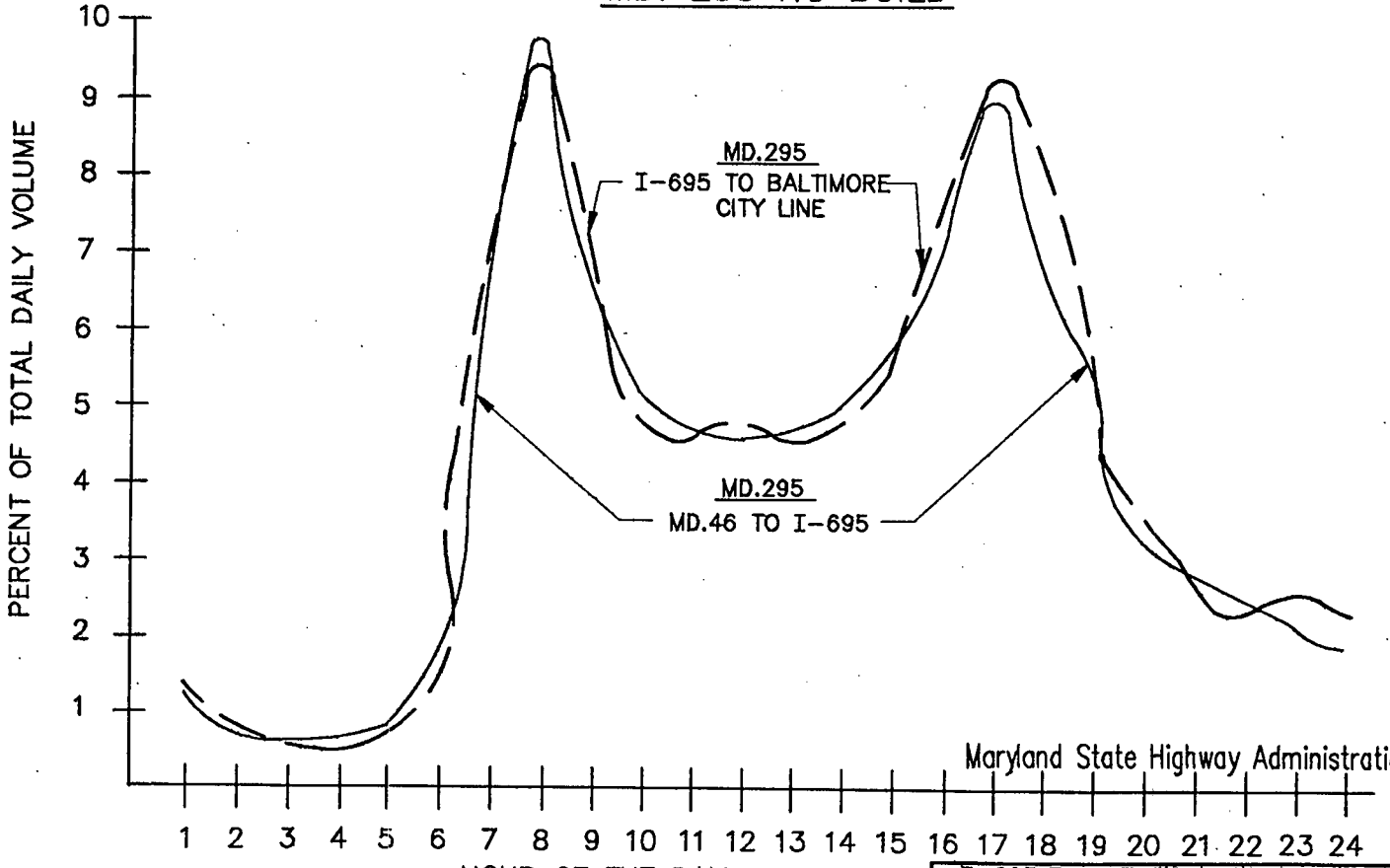
- I-70 TO I-95
- - - I-95 TO MD.295

I-695: From I-70 to West of MD.170 MD.295: From North of MD.46 to the Baltimore City Line		
I-695 YEAR 2015 TRAFFIC FLOW CURVE		
Maryland State Highway Administration		
SCALE: NONE	DATE: APRIL, 1991	FIGURE NO. IV - 1

148



MD. 295 NO BUILD



MD. 295 BUILD

Maryland State Highway Administration

LEGEND

- MD.46 TO I-695
- - - I-695 TO BALTIMORE CITY LINE

I-695: From I-70 to West of MD.170
 MD.295: From North of MD.46 to the Baltimore City Line

MD. 295 YEAR 2015
 TRAFFIC FLOW CURVE

Maryland State Highway Administration

SCALE: NONE	DATE: APRIL, 1991	FIGURE NO. IV - 2
----------------	----------------------	----------------------

The following summarizes traffic operations anticipated in the 2015 design year:

No-Build: Severe levels of traffic congestion and lengthy periods of vehicular delay are predicted for the existing roadway. During a "normal" peak period, traffic conditions are expected to be worse than conditions which exist today on the Wednesday evening before Thanksgiving. As commuter interstate traffic volumes increase on the Beltway, it is likely that local traffic would use the Beltway less frequently than they do today.

Build: The provision of an additional lane in each direction, and the associated interchange improvements, is expected to improve traffic service in comparison to the No-Build. In comparison to today's operating conditions, however, improvements are not expected to be dramatic. In essence, the additional capacity provided by the additional lane will be more than offset by dramatic increases in traffic volumes.

Each of the interchange ramps along I-695 has been evaluated for the Selected Action. Levels of service (LOS) for the majority of the ramps would operate at LOS "C" due to the ramp geometry which limits travel speeds. However, ramp volumes are not excessive. Exceptions to these statements are the interchange ramps located at Maryland Route 295 and I-95. These two interchanges provide for movement of freeway to interstate and interstate to interstate traffic, respectively, and therefore tend to have larger traffic volumes.

Ramps at the Maryland Route 295 interchange, which will carry the largest peak hour traffic volumes in the design year, are Ramp B (from northbound I-695 to northbound Maryland Route 295) and Ramp D (from southbound I-695 to southbound Maryland Route 295). Under the proposed designs, each of these ramps would be two lane ramps, with LOS "D" for Ramp D and LOS "E" for Ramp B during the morning peak hours.

At the I-95 interchange, where Ramp I and J merge into the northbound I-695 roadway, Ramp I would operate at LOS "F" and Ramp J at LOS "D". Ramps diverging from southbound I-695 to I-95, Ramps C and D, will operate at LOS "D" during the peak hours.

Ten at-grade intersections located adjacent to interchange ramps are predicted to operate at LOS "A" to LOS "C", with signalization anticipated at many of these locations in the design year, under either the No-Build or Build condition.

150

3. Accidents

The ongoing development in and around Baltimore and Anne Arundel Counties is expected to increase use of the Beltway. As mentioned in Section III-C, accidents occur in clusters in the interchange areas, particularly on the I-695 portion of the Study Area. These accidents are primarily due to the congestion and weaving conditions presently experienced on this roadway.

Summary

The "No-Build" alternate proposes no action. Under this alternate the present accident patterns would be expected to continue. With the high volumes of traffic using both the I-695, I-95 and Maryland Route 295 Study Area roadways, and projected traffic increases by the year 2015, accidents and congestion would continue to be an everyday occurrence on this highway.

The addition of one lane to the inner and outer loops of I-695 and to the northbound and southbound lanes of Maryland Route 295, proposed under the Selected Action, would increase capacity and allow a smoother flow of traffic, thus decreasing the probability of accidents caused by congestion. These proposed improvements would help to lower the accident rate to less than the statewide average for rear-end accidents and would reduce the rate for sideswipe accidents.

In view of the anticipated large increase in traffic volumes along I-695, it is unrealistic to expect the proposed improvements to be the complete solution to the traffic congestion problem in this area. Accidents and delays would continue to increase as a direct result of increasing traffic volumes and conflicts.

I-695 Selected Action

The addition of one lane to both the northbound and southbound roadways would increase capacity and allow a smoother flow of traffic, thus decreasing the probability of accidents caused by congestion. With the implementation of the Selected Action, the number of rear-end accidents occurring on the I-695 roadway would be anticipated to be reduced by approximately 50 percent and sideswipe accidents would be reduced by approximately 20 percent. The accident rate is expected to be reduced to 58 acc/100 MVM.

Between U.S. Route 40 and south of Frederick Road, the existing 3.5-ft. median shoulder would be replaced with a 10-foot shoulder which would allow a disabled vehicle to move off to the left-hand side of the road. This would improve the safety of the four-lane and five-lane portions of the Beltway.

The accident cost associated with the implementation of this alternate would be approximately \$600,000/100 million vehicle miles (MVM), with a possible reduction to \$400,000/100 MVM if the fatal accident rate remains at today's level.

151

I-695/I-70 and Security Boulevard Interchanges Selected Action

The relocation of Ramp M behind the piers at the I-70 interchange would be expected to result in the reduction of ramp and mainline conflicts for the interchange. The fixed object collisions occurring in the gore and merge areas are expected to decrease with the ramp realignment in these interchange areas.

I-695/Hollins Ferry Road Selected Action

The relocated Ramp F would improve the alignment for Ramp F and thereby the merge condition along northbound I-695 in the Hollins Ferry and U.S. 1 Alt.-Washington Boulevard interchange vicinities. Additional conflicts are anticipated, however, where Ramp A from I-895 joins the relocated Ramp F.

The new four-legged intersection created by the relocation of Ramp F to the south side of Hollins Ferry Road would be expected to experience an increase in angle and left-turn collisions. The junction of the relocated Ramp F and I-895 Ramp A would be expected to have rear-end and sideswipe collisions.

I-695/Maryland Route 295: Hollins Ferry Road to Maryland Route 295

An add-lane from Hollins Ferry Road to Maryland Route 295 would provide another auxiliary lane for traffic entering and leaving the Beltway. This extra lane would alleviate some of the rear-end accidents due to congestion experienced in this area.

Maryland Route 295 Option 1 - Mainline Widening

The addition of one lane per direction would reduce the number of rear-end accidents occurring on this section of the Study Area roadway from 44 acc/100 mvm to 22 acc/100 mvm. The total rate would be reduced from 89 acc/100 mvm to 67 acc/100 mvm. The accident cost associated with the implementation of this alternate would be approximately \$750,000/100 mvm, an estimated savings of approximately \$170,000/100 mvm when compared to the accident cost of the existing highway.

D. NATURAL ENVIRONMENT

1. Effects on Topography, Geology and Soil

The Study Area is situated in two of Maryland's physiographic provinces: the Piedmont Plateau and the Atlantic Coastal Plain. The Piedmont portion, generally the area north of Wilkens Avenue, is characterized by a rolling to hilly upland topography. The Atlantic Coastal Plain is characterized by deposits of unconsolidated sediments, which increase in thickness to the southeast. The excavation and construction proposed as part of the Selected Action should not dramatically alter or affect the area's topographic or geological features. The majority of construction would take place within the existing right-of-way, and by utilizing retaining walls, the local terrain would not be adversely affected.

The Study Area north of Wilkens Avenue is covered by upland soils of the Legore-Aldine-Neshaminy association which are moderately well suited to road building. Between Wilkens Avenue and the Patapsco River soils are classified as loamy and clayey, presenting difficulties for road construction due to the poor stability of plastic soils, poor drainage, frost action and seasonal high ground water. Careful attention to these problems during design will ensure that adequate drainage of the subbase is provided. The Anne Arundel County portion of the Study Area is covered by well-drained soils on gentle to steep slopes, underlain by upland Coastal Plain deposits generally well suited, with minor limitations, to road construction.

2. Effects on Farmland

The Selected Action would not displace any existing farms.

The U.S. Soil Conservation Service (SCS) has determined that due to the nature of the project and the current land use, no prime farmland is present in the Study Area (see letter in Section VIII Page VIII-D28 and D29).

3. Effects on Water Resources

The two principal waterways within the I-695/Maryland Route 295 Study Area are the Patapsco River and Herbert Run. Herbert Run's 7.2 square miles of watershed outfall into the Patapsco River, and is included as part of this river's 365 square mile watershed. Herbert Run crosses I-695 and I-95. The Patapsco River crosses I-695, Maryland Route 295 and I-895 in the Study Area.

Water quality considerations and potential impacts are addressed in this document for two phases of project development. The first phase occurs during construction, when clearing, grubbing and excavation could cause sedimentation of streams. The second phase occurs during operation, when special considerations are directed to reducing the quantity and rate of run-off (storm-water management) and to minimizing the pollutant load carried by these waters (water quality).

Possible effects on water quality in the Study Area could arise from permanent changes in the physical environment. These changes result from the additional pavement constructed along the mainline of the project and adjustments made to the interchange ramps.

Potential impacts associated with storm water management ponds have not been fully assessed for the preliminary engineering stage. Open interchange areas could be utilized to provide storm water management. These stormwater management measures will be fully developed during final design.

Removal of vegetation, alteration of topography, and an increase in the areas of impervious surfaces can increase the velocity of stormwater runoff and stream peak flow, potentially adding to the sediment load discharged into adjacent surface water bodies. To minimize this effect, the removal of existing vegetation would be limited and all construction areas revegetated as quickly as possible. There are four streams crossing the I-695 portion of the project and two streams crossing the Maryland Route 295 portion, none of which would require relocations.

Impacts could result from increased levels of oil and other motor vehicle-related pollutants. These substances, in addition to deicing agents (road salt) used in the winter months, are flushed into nearby surface water bodies during storm conditions. Stormwater runoff can also carry agents used in the construction of permanent structures, including asphalt, cement, aggregates, paint, expansion joint compounds, and crack fillers.

To the extent that runoff velocities are increased and impervious surfaces are added, groundwater infiltration is reduced and the potential impact on groundwater would increase. This could lead to reductions in stream base flow and warming of streams.

On the basis of an analysis of the wells discussed in Section III-D.3, it is not anticipated that the proposed construction would have an adverse effect upon the quantity of water in the wells in the Patapsco and Patuxent formations or in the crystalline bedrock. These wells obtain water from aquifers which transmit ground water from relatively distant and widespread recharge areas. Therefore, the very localized activities of the proposed construction should have very little effect on wells which use those aquifers.

The Pleistocene deposits, Patapsco and Patuxent formations, and several bedrock formations outcrop within the Study Area. The aquifers within these formations receive recharge from precipitation in the areas where they are exposed at ground surface and from ground water moving downward from overlying formations. The individual water bearing strata are most susceptible to chemical contamination where they occur at ground surface and receive recharge. Although it is not known how important the outcrop areas of these formations within the Study Area are with respect to recharge of the aquifers over the general area, appropriate precautions would be taken to prevent motor fuels and lubricants and other potentially contaminating chemicals associated with highway construction from infiltrating into the ground water system.

154

Impacts on surface water quality would be anticipated to be intermittent and localized in nature. No permanent significant adverse effects on any of the surface water bodies in the project area would be expected. The impacts anticipated to occur would coincide with the first hours of precipitation.

State Water Resources Administration regulations .01-.10 Comar 08.05.05 "Storm Water Management", effective July 1, 1984, requires water quality to be addressed in design. These regulations stipulate that the order of preference for storm-water management is as follows:

- a. Infiltration of runoff on site
- b. Flow attenuation by use of open vegetated swales and natural depressions
- c. Stormwater retention structures
- d. Stormwater detention structures

Infiltration controls both the quality and quantity of runoff and is to be utilized wherever soils conditions and topography allow. Control, infiltration and attenuation methods would be designed in accordance with the "Maryland Standards and Specifications for Stormwater Management Infiltration Practices", Water Resources Administration, February, 1984. Retention and detention structures would be designed in accordance with "Soil Conservation Service Standards and Specifications for Ponds" No. 378-1, July, 1981. Since infiltration design applies to the two-year and ten-year frequency storms, retention or detention structures would be used to control the 100-year design storm.

Potential adverse water runoff impacts would be further mitigated by the installation of stormwater management ponds and infiltration ponds. It has been proven that these measures can significantly filter out roadway pollutants as well as control the rate of runoff. In areas where well-drained soils are located in the Study Area, effective infiltration techniques could be used to reduce adverse water runoff impacts.

Sediment control plans, which would be developed by the State Highway Administration during the final design phase and approved by the Maryland Department of the Environment, would be strictly adhered to during the construction phase. These measures include stabilizing all exposed slopes as soon as practical to minimize the area exposed at any time and the appropriate placement and maintenance of sediment traps and other control measures. Because of the developed nature of the project area and the linear nature of the construction projects, the Selected Action would not be expected to have an adverse effect on water resources.

4. Effects on Coastal Resources

Coordination has been undertaken with the Coastal Resources Division (CRD), Tidewater Administration, Maryland Department of Natural Resources (DNR). A representative of Maryland DNR participated in the February 19, 1988 wetlands field review, and coastal resource impacts were discussed. A letter on page VIII-D17 documents Maryland DNR's coordination with this project.

5. Effects on Wetlands

In accordance with Executive Order 11990, Protection of Wetlands, and other State and Federal Regulations, the improvement alternates proposed for I-695/Maryland Route 295 have been developed to avoid and minimize adverse impacts on wetlands. Sixteen wetlands have been identified in the I-695/Maryland Route 295 Study Area (see Table III-10) and were reviewed during a wetland field review on February 18, 1988 with representatives of the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and Maryland DNR (see memorandum in Section VIII). Construction of the Selected Action would require the displacement of approximately 0.065 acres of non-tidal wetlands. Wetland impacts of the Selected Action are presented in Tables S-1 and IV-1.

The wetland delineations for this project were completed using the Army Corps of Engineers wetland delineation manual prior to the adoption of the new Federal Manual. Verbal concurrence was received from Corps representatives that the wetland boundary determinations presented to the agencies at the February 18, 1988 field review would still be accurate under the new Federal Manual.

There are five non-tidal wetlands within the project corridor which would be affected by the proposed construction.

W4 This non-tidal wetland would be directly impacted by the construction of a retaining wall. There would be an impact of approximately 0.009 acres.

W5 Affected by the construction of the Selected Action, this area is an open stream beside Leeds Avenue, just south of I-695. This non-tidal riverine wetland is confined to the stream bed, and construction of a ramp at this location would affect about 0.02 acres of wetlands.

W9 This wetland taking would be approximately 0.0082 acre. This area will be evaluated during final design to determine whether slopes could be modified to avoid encroachment on the existing non-tidal wetland.

W10 The reconstruction of the I-695 bridge crossing the Patapsco River would require pier widening to accommodate the roadway widening. This non-tidal wetland impact would be approximately 0.0075 acres.

156
W12 Located along the southbound Maryland Route 295 roadway, approximately 0.02 acres of this non-tidal wetland would be impacted by the proposed shoulder and outside grading associated with the auxiliary lane proposed between the Beltway and W. Nursery Road.

Avoidance, Minimization, Mitigation

Many wetland impacts have been avoided on this project by Selected Alternatives which do not impact wetlands. The interchange options at US Route 40 and the Maryland Route 295/I-895 interchange which impacted wetlands were not selected. Also, the reduced grading section along the Maryland Route 295 median was selected. The Selected Action avoids 12 of the 16 wetlands identified in the Study Area. The no-build alternate was not selected because it would result in a continued increase of congestion and accidents. The no-build alternate does not meet the need for the project.

Avoiding wetland impacts by shifting the roadway alignment was considered and found to be unreasonable. Shifting the alignment would increase residential impacts as well as increasing the overall impacts of the project. Such a shift would result in an unreasonable increase in the cost of the project. In addition, wetlands W5 and W12 could not be avoided by shifting the alignment.

The Selected Action proposes using retaining walls and I-695 rather than providing safety grading. Although safety grading is desirable, retaining walls are an acceptable alternative due to the right-of-way constraints. The reduced median grading alternate selected for Maryland Route 295 minimizes impacts along this route. These actions have resulted in reduced impacts to wetlands W4, W5, W9 & W10.

Further reduction of the typical section is proposed in some areas. Considering both the existing and future conditions, a shoulder width of less than 10 feet has been proposed where it could be provided safely, where providing a full shoulder was unreasonably costly or where the impacts from a full shoulder was unreasonable to mitigate. Reducing shoulder widths has resulted in further minimizing the impacts to wetlands W9 and W10.

As a result of these efforts, the total impact to wetlands with the Selected Action is less than 0.1 acre.

Based on this minimal acreage of wetlands impacted, SHA does not anticipate a mitigation requirement from the permitting agencies, at this time. However, if this situation should change, mitigation will be further investigated.

Impacts to a number of small stream crossings have been avoided or will be minimal.

Permits from the U.S. Army Corps of Engineers and Maryland DNR would be obtained for all operations within the impacted wetlands during the final design stage of this project.

Wetland Finding

In accordance with Executive Order 11990, efforts were made to avoid and minimize harm to wetlands and still satisfy the proposed project need. As stated above, there are no practicable alternatives that would avoid all wetland impacts. The Selected Action proposes the use of retaining walls, reduction of the safety grading and typical section to minimize harm to wetlands in the study area. Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

6. Effects on Floodplains

Existing floodplains for the 100-year flood have been delineated by FEMA and are shown for the Selected Action in Section II. Although the proposed improvements would increase the area of ground surface paved with impervious material, thereby increasing the rate and volume of runoff, the possible increases would be small in comparison with existing volumes of floodwater passing through the Study Area and would not result in a large increase in floodwater elevations. During final design, the State Highway Administration will prepare existing 100-year storm discharge and floodplain information. In addition, stormwater management practices would be strictly followed to limit increases in the floodwater discharges (see discussion in Section IV-D.6).

At Edmondson Avenue, Leeds Avenue, and the proposed I-895/Maryland Route 295 interchange, the floodplain extends beyond the non-tidal wetland boundaries. An existing culvert at Leeds Avenue would minimize floodplain taking for the Selected Action improvements associated with that interchange. The Selected Action at the other two interchange locations would not affect the floodplain.

For the proposed widening in the median associated with Maryland Route 295, the bridge crossing the Patapsco River would not require widening to accommodate this improvement since this bridge was recently widened as part of a bridge redecking project. Therefore, there would be no floodplain encroachment.

TABLE IV-1 - WETLAND IMPACTS

<u>WETLAND NUMBER</u>	<u>LOCATION INTERCHANGE/SPECIFIC LOCATION</u> Figure Reference (see Appendix A)	<u>CLASSIFICATION¹</u>	<u>WIDTH²</u> (ft.)	<u>R/W IMPACT</u> (acres)
<u>I-695</u>				
W4	Frederick Road II-11	PF01A	20'	0.009
W5 ³	Leeds Ave./Ramp E II-13	R20WH	20'	0.02
W9	US 1 Alt./North of Interchange II-14	PSS1A	20'	0.0082
W10	Patapsco River II-17	PF01C/ PSS1C	25'	0.0075
<u>Md. 295</u>				
W12	Md. 295/Median and West South of Hammonds Ferry Rd. II-20	PF01A	20' - 35'	0.02

¹ See Appendix B Table B-6 for Wetland Classifications notes.

² Width determined from limited 1" = 100' scale project mapping.

³ Wetlands 1, 2, 3, 6, 7, 8, 11, 13, 14, 15, 16 identified in the DEIS are not impacted by the Selected Action.

1588

159

Floodplain encroachment associated with this project has been reviewed. In accordance with the requirements of E.O. 11988, the impacts of the encroachment were evaluated to determine if it were problematic. Although flooding is presently a problem in some portions of the Study Area, no areas of increased encroachment where the considerable probability of the loss of human life, the likelihood of future damage substantial in cost or extent, the disruption of emergency or evacuation routes, or an adverse impact on the "natural and beneficial floodplain values" have been identified.

Adequate design technology is available and will be incorporated in the final design of this project to insure that impacts of flooding are not critical. Since I-695 and Maryland Route 295 are access controlled and most of the Patapsco River floodplain is owned by the Patapsco Valley State Park, the proposed improvements are not expected to generate development which is incompatible with the natural and beneficial values of the Patapsco River floodplain.

7. Effects on Terrestrial Habitat

The Selected Action would not result in adverse impacts to the overall terrestrial ecology of the Study Area. Because the majority of the proposed improvements are along existing I-695 and Maryland Route 295, losses would be minimal.

The wooded areas that would be affected would be limited to strip taking along existing wooded parcels. None of the wooded areas that would be affected are known to be inhabited by wildlife of State-wide importance or to be otherwise notable or unique. Wooded areas of similar age and species composition are abundant throughout Baltimore and Ann Arundel Counties.

Construction of the proposed highway improvements would have a minimal impact on upland vegetative communities, since construction in most cases will be confined to the existing right-of-way. Most of the native vegetation in this area is sparse, immature, and has very little species diversity. Many areas are open, with a few grasses and wild flowers. Where forested areas exist, they are usually dominated by locust, cherry and other species typical of young woodlands. In some areas, existing landscaping materials would be removed by construction.

8. Effects on Woodlands/Reforestation

The Selected Action would not result in acquisition of woodlands requiring reforestation.

160

9. Effects on Wildlife, Threatened or Endangered Species

A review of existing data by the Heritage Program of the Maryland Department of Natural Resources and the U.S. Fish and Wildlife Service had determined that no known population of rare, threatened or endangered (RTE) species occur within the portions of the Study Area where highway improvements could be implemented. These determinations are documented in Section VIII, page VIII-D17 of this document.

Loss of upland and wetland habitat can have an adverse impact on wildlife. The wildlife value of the upland habitat in the corridor is not high, due to the limited species diversity, fragmentation, lack of suitable nest sites, and proximity to existing development and the highway. However, some of the small mammals which would be expected to inhabit the area would be displaced. To the extent that birds preferring this type of edge habitat, such as hawks, owls, blackbirds, mocking birds, sparrows, and robins exist in the project corridor, they would be displaced by the loss of that edge habitat along most of the highway. This would occur particularly in areas where, because of physical limitations, the highway shoulder would abut a retaining wall, rather than having space for a vegetated bank.

The loss of wetland habitat can have much more serious impacts on wildlife populations, since there are generally more species inhabiting these areas, and a limited number of other suitable habitats in the area.

10. Effects on Parklands

Of the twelve parks identified in the Study Area, none would be affected by the Selected Action. For the parklands which are adjacent to the project, such as Patapsco Valley State Park and Overlook Park, construction would take place within the existing right-of-way. Constructive or destructive use of the parkland would not occur. The Maryland Route 295 bridge over the Patapsco River was widened and redecked and would therefore not require additional widening. The I-695 bridge reconstruction would take place within the SHA right-of-way, thereby not impacting the Patapsco Valley State Park.

11. Effects on Sensitive Natural Areas

There are several sensitive natural areas within the project corridor which may be affected by this project. The Patapsco River water quality could be affected by construction activities and stormwater runoff after construction. The river is a spawning area for several anadromous fish. All non-tidal wetlands are considered by Baltimore County, the State of Maryland, the U.S. Corps of Engineers, and the U.S. Fish and Wildlife Service as important for wildlife and water quality and deserving protection. The impacts on these sensitive areas would be minimal.

1/20/1

12. Effects on Visual Quality

Existing I-695 is a six-lane and seven-lane divided highway extending throughout the Study Area. Twelve interchanges currently operate between I-70 and Maryland Route 170. Extensive commercial and residential development already exists along I-695 with access provided from cross streets. Maryland Route 295 is a four-lane divided highway with three existing interchanges and two recently completed interchanges (Maryland Route 46/I-195 and W. Nursery Rd.), within the study limits. While development has not encroached along the portion of the project between Maryland Route 46/I-195 and I-695, this is anticipated to be a high growth corridor for industrial/business parks. Consequently, the visual quality of the project area is largely shaped by the existing highway and adjacent development.

The Selected Action proposes improvements at all of the major interchanges along I-695. While these improvements would alter the visual environment, the facility would be compatible with a developed suburban area.

Most of the changes in the visual quality of the corridor would be minor, with certain exceptions. Where landscaping and green space is totally eliminated along the highway edges, there would be a visual impact.

None of these impacts seem to be adverse, since most of the changes are minor additions and modifications to an existing Interstate highway.

The most noticeable affect on visual quality would be that of the proposed retaining walls. While the retaining walls would appear as jersey barriers in fill areas adjacent to the shoulders as viewed from the Beltway, the view from the residence side could be very different. The retaining walls would range in height from 2-feet to 16-feet, and although additional right-of-way is not required in most areas for their construction, the visual impacts would be adverse. The addition of some of these retaining walls may reduce the amount of sunlight on individual properties.

Along I-695 in the Study Area, there are two areas in which noise barriers will be evaluated during final design. In some areas, this would require that noise barriers be placed on top of retaining walls. While the noise barriers will provide protection from the noise influence of the Beltway, the ramifications of this are that noise barriers placed on retaining walls would intrude on the view from the residential side. The retaining walls, ranging in height from 2-feet to 16-feet would be the base for noise barriers ranging from 9 to 12 feet in height. Shadows would be cast on the residential areas behind the wall/noise barrier for several hours of the day depending on the location of the barrier. The noise barrier would be constructed of the same material as the existing barriers along the Beltway near Frederick Road and Edmondson Avenue.

162

E. AIR QUALITY IMPACTS

1. Findings

An air quality analysis was conducted for the No-Build Alternate and the Build Alternate for 9.0 miles of I-695 and 4.1 miles of Maryland Route 295. Figure IV-3 indicates locations of Air and Noise Sensitive Receptors. Using the MOBILE 3 and CALINE 3 air quality models, one-hour and eight-hour carbon monoxide (CO) concentrations were determined for each of 11 receptors. As summarized below, violations of State or National Ambient Air Quality Standards are not predicted to occur.

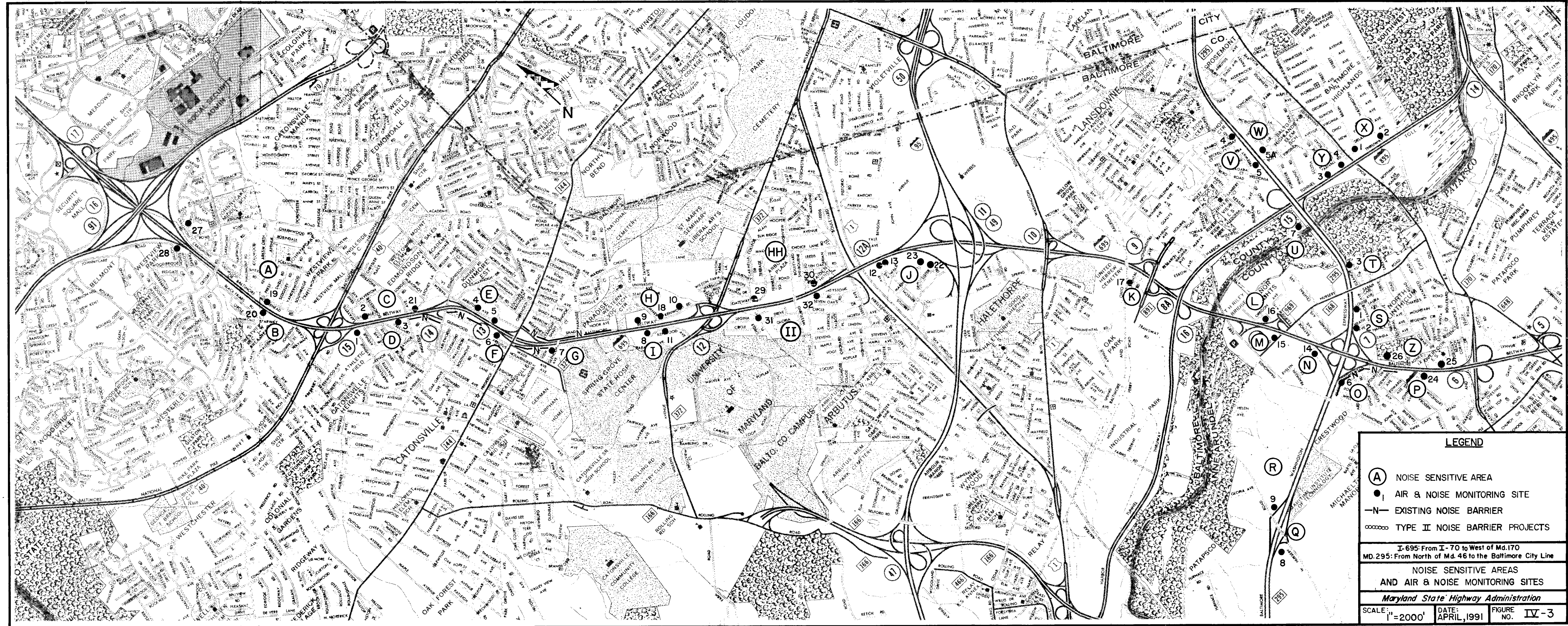
TABLE IV-2 - SUMMARY: CO CONCENTRATIONS

	<u>1-Hour</u>	<u>8-Hour</u>
State and National Ambient Air Quality Standards	35 ppm	9 ppm
Year 1995 Background	2.8 ppm	1.6 ppm
Year 2015 Background	2.4 ppm	1.5 ppm
<u>NO-BUILD</u>		
Year 1995 range*	3.1 to 7.8 ppm	1.8 to 3.1 ppm
Year 2015 range*	3.1 to 23.8 ppm	1.7 to 4.6 ppm
<u>NUMBER OF VIOLATIONS</u>	0	0
<u>BUILD</u>		
Year 1995 range*	3.1 to 10.9 ppm	1.8 to 3.3 ppm
Year 2015 range*	3.1 to 17.4 ppm	1.7 to 5.1 ppm
<u>NUMBER OF VIOLATIONS</u>	0	0

* Includes background CO concentrations

2. Analysis Objectives and Methodology

An air quality analysis was conducted for the No-Build and Build Alternates for the year 1995 (year of project completion) and 2015 (project design year). The objective of the analysis was to compare 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.



LEGEND

- (A) NOISE SENSITIVE AREA
- AIR & NOISE MONITORING SITE
- N- EXISTING NOISE BARRIER
- TYPE II NOISE BARRIER PROJECTS

I-695: From I-70 to West of Md.170
 MD.295: From North of Md.46 to the Baltimore City Line

NOISE SENSITIVE AREAS
 AND AIR & NOISE MONITORING SITES

Maryland State Highway Administration

SCALE: 1" = 2000'	DATE: APRIL, 1991	FIGURE NO. IV-3
-------------------	-------------------	-----------------

164

Complete details of the technical air analysis and findings are included in the "I-695/Maryland Route 295/I-895 Air Quality Analysis Report", copies of which are being circulated to the U.S. Environmental Protection Agency and the Maryland Air Management Administration. This report is available for review at the Maryland State Highway Administration, project Development Division, 707 North Calvert Street, Baltimore, Maryland.

A microscale CO pollutant diffusion simulation analysis, based on free-flow conditions, was conducted. This analysis consisted of calculating 1-hour and 8-hour CO concentrations resulting from automobile emissions at various receptor sites. The receptor sites affected by the Selected Alternate and Options are shown on Figure IV-3 and are described in Table IV-3. The emission factors were calculated using the Environmental Protection Agency (EPA MOBILE 3) computer program. Line Source CO dispersion estimates were calculated using the third generation California Line Source Dispersion Model, CALINE 3. The results of this analysis are shown in Tables IV-4 and IV-5. The analysis indicated that no violations of the 1-hour or 8-hour standards will occur due to implementation of the Build Alternate. Emission levels tend to be slightly higher for the Build Alternate because the Build Alternate has higher traffic volumes.

3. Consistency with State Implementation Plan

Since the National Environmental Policy ACT (NEPA) process for the I-695 project started before the enactment of the Clean Air Act Amendments (CAAA) of 1990 and the project was not in a grandfathered Transportation Improvement Program (TIP), the project will be included in the Draft 1992-1996 TIP which will be analyzed for comformity with the state implementation plan. The Draft 1992-1996 TIP is expected to be adopted in September 1991.

4. 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 requirement 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 10.18.06.03 D) will be taken to minimize the impact on air quality of the area.

The "I-695/Maryland Route 295/I-895 Air Quality Analysis Report" has been circulated to EPA and the Maryland Air Management Administration for comment.

145

TABLE IV-3: AIR RECEPTOR SITES

<u>Air Receptor* Number</u>	<u>Location</u>
I-695-1	603 Maryland Avenue
2	712 Kent Avenue
3	703 Fern Place
5	22 Arbutus Avenue
6	15 Arbutus Avenue
8	313 Kenwood Avenue
9	230 Oglethorpe Road
13	5001 Benson Avenue
14	703 Evelyn Avenue
15	800 Nursery Road
17	2238 Monumental Road
Md. 295-1	506 Louise Avenue
2	513 Heath Avenue
4	2943 Freeway Road
6	322 Cheddington Road
8	1504 W. Nursery Road (S. of Maryland Route 295)
9	W. Nursery Road (N. of Maryland Route 295)

* Air receptor sites Md. 295 - 7 a, b, c and I-895 - 2, 3, 4 were not affected by the Selected Action.

164

TABLE IV-4: ONE-HOUR CO CONCENTRATIONS (1), ppm

I-695/Maryland Route 295

<u>RECEPTOR (2)</u>	<u>NO-BUILD (3)</u>		<u>BUILD (3)</u>		
	<u>1995</u>	<u>2015</u>	<u>1995</u>	<u>2015</u>	
I-695	1	5.5	8.0	6.4	9.7
	2	5.3	7.4	6.7	9.8
	3	6.2	9.8	7.6	12.1
	5	4.7	7.2	7.3	9.5
	6	5.9	6.9	6.0	8.5
	8	6.0	12.3	8.8	12.1
	9	5.7	8.7	6.7	11.0
	13	7.8	10.4	7.5	17.4
	14	5.3	9.6	6.2	8.3
	15	6.3	12.9	7.6	10.8
	17	5.8	7.0	5.2	6.1
Md.295	1	3.8	8.4	5.1	4.4
	3	6.6	23.8	10.9	9.4
	4	4.7	12.3	6.7	5.9
	6	6.6	8.9	4.2	6.3
	8	5.2	6.7	4.3	5.2
	9	7.5	10.4	4.5	6.3

- NOTES:
1. State and National Ambient Air Quality Standards (S/NAAQS) for One-Hour CO are 35 ppm.
 2. See Figure IV-3 for receptor locations.
 3. Includes background CO concentration
- 1995 = 2.8 ppm
2015 = 2.4 ppm

167

TABLE IV-5: EIGHT-HOUR CO CONCENTRATIONS (1), ppm

I-695/Maryland Route 295

<u>RECEPTOR (2)</u>	<u>NO-BUILD (3)</u>		<u>BUILD (3)</u>	
	<u>1995</u>	<u>2015</u>	<u>1995</u>	<u>2015</u>
I-695 1	2.7	3.5	2.9	3.8
2	2.7	3.5	2.9	3.9
3	3.1	4.1	3.3	4.6
5	2.7	3.4	3.1	4.2
6	2.7	3.2	2.7	3.7
8	2.9	4.5	3.3	4.7
9	2.7	3.5	2.8	4.1
13	3.1	4.1	3.0	5.1
14	2.6	3.5	2.8	3.5
15	3.1	4.6	3.3	4.3
17	2.5	2.8	2.4	2.5
Md.295 1	1.8	1.9	1.9	1.8
3	2.2	2.8	2.4	2.4
4	2.1	2.5	2.2	2.2
6	1.8	1.9	2.0	1.9
8	2.2	2.5	2.1	2.4
9	2.5	3.0	2.1	2.5

- NOTES:**
1. State and National Ambient Air Quality Standards (S/NAAQS) for Eight-Hour CO are 9 ppm.
 2. See Figure IV-3 for receptor locations.
 3. Includes background CO concentration
- 1995 = 1.6 ppm
 2015 = 1.5 ppm

168

F. NOISE IMPACT ANALYSIS

1. Noise Abatement Criteria and Land Use Relationships

This noise analysis was completed in accordance with the FHWA Noise Abatement Criteria and 23 CFR, Part 772. The factors that were considered in identifying noise impacts are:

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

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

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

- o Whether a feasible method is available to reduce the noise;
- o Whether the noise mitigation is cost-effective for those receptors that are impacted - approximately \$40,000 per impacted residence;
- o Whether the mitigation is acceptable to a majority of the affected property owners.

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

NOISE IMPACT ANALYSIS JV-25

1169

TABLE IV-6

NOISE ABATEMENT CRITERIA
SPECIFIED IN 23 CFR 772

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

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 \$16 per square foot is assumed for estimated 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.) and the predominant activities carried on within the area.

1070

2. Predicted Noise Levels

The method used to predict the future noise levels produced by the No-Build and Build Alternates was developed by the Federal Highway Administration. The computer model derived from this method, STAMINA 2.0, utilizes an experimentally and statistically determined reference sound level for three classes of vehicles (autos, medium duty trucks, and heavy duty trucks) and applies a series of adjustments to each reference level to arrive at the predicted sound level. The adjustments include (1) traffic flow corrections, taking into account number of vehicles, average vehicle speed, and a specific time period of consideration; and (2) an adjustment for various types of physical barriers that would reduce noise transmissions from source (roadway) to receiver.

As previously stated, one of the criteria for determining whether noise abatement should be considered is when predicted noise levels approach or exceed the FHWA noise abatement criteria. Predicted design year (2015) noise levels do exceed the FHWA 67 dBA noise abatement criteria at 24 of the 28 noise sensitive areas.

3. Impact Analysis and Feasibility of Noise Control

As indicated in Table IV-7, sites A thru N, P, S, T, V, W, and Z have predicted design year noise levels, for the Build Alternate, that exceed FHWA noise abatement criteria. Design Year No-Build noise levels are also predicted to exceed FHWA noise abatement criteria. The improvements proposed in this widening project are predicted to increase future build noise levels 1-2 dBA. This increase is consistent with predictions for similar highway widening projects where 1-2 additional travel lanes were provided per direction.

Noise sensitive areas with predicted noise increases of 10 dBA or more over ambient levels are also considered for noise abatement. Area E, on Arbutus Avenue, has a predicted noise level that is 11-12 dBA greater than its respective ambient level. This site also qualified for noise abatement consideration by having a predicted noise level in excess of 67 dBA.

TABLE IV-7: COMPARISON OF AMBIENT & PREDICTED Leq NOISE LEVELS (page 1 of 5)

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS	DISTANCE FROM CENTERLINE	1986 AMBIENT LEQ NOISE MEASUREMENTS (dBA)	PREDICTED Leq FOR DESIGN YEAR 2015 (dBA)		PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) <u>WITH NOISE BARRIERS</u> SELECTED ACTION
			<u>NO-BUILD</u> (ALT.1)	SELECTED ACTION ✓	
<u>I-695</u>					
A 19 Residence in Westview 6008 Moorehead Road	160'	70	<u>74</u>	<u>74</u>	66
A 27 Residence in Westview 6409 Craigmont Road	560'	71	<u>74</u>	<u>74</u>	66
B 20 Residence in Westview 1101/1103 Starway Court	215'	64	<u>71</u>	<u>71</u>	64
B 28 Residence in Westview 1337 Dillion Heights	270'	73	<u>74</u>	<u>74</u>	66
C 2 Residence in Dunmore Ridge 712 Kent Avenue	190'	68	<u>72</u>	<u>72</u>	65
C 21 Residence in Edmondson Ridge 612 Stoney Lane	200'	68	<u>69</u>	<u>69</u>	62
D 1 Residence in Catonsville Heights 603 Maryland Avenue	190'	67	<u>72</u>	<u>72</u>	65
D 3 Apartment on Fern Valley Court 703 Fern Place	160'	65	<u>74</u>	<u>74</u>	66
E 4 Residence in Dunmore Estates 115 Arbutus Avenue	200'	62	<u>74</u>	<u>74</u>	66
E 5 Residence in Dunmore Estates 22 Arbutus Avenue	160'	64	<u>75</u>	<u>75</u>	66
F 6 Residence in Catonsville 15 Arbutus Avenue	200'	65	<u>71</u>	<u>72</u>	65

68 - Underlined predicted noise levels approach or exceed 67 decibel criteria

Sites A27, B28, HH29, HH30, II31, II32 were monitored in 1991.

171

IV-28

TABLE IV-7: COMPARISON OF AMBIENT & PREDICTED Leq NOISE LEVELS (page 2 of 5)

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS	DISTANCE FROM CENTERLINE	1986 AMBIENT LEQ NOISE MEASUREMENTS (dBA)	PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) WITHOUT NOISE BARRIERS		PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) WITH NOISE BARRIERS SELECTED ACTION
			NO-BUILD (ALT.1)	SELECTED ACTION	
<u>I-695</u>					
G 7 Residence in Catonsville 12 Glencoe Avenue	235'	68	<u>72</u>	<u>72</u>	65
H 9 Residence in Paradise 230 Oglethorpe Road	210'	64	<u>72</u>	<u>73</u>	66
H 10 Kenwood Garden Condominiums 1 Summit Hill Court	370'	59	<u>67</u>	<u>68</u>	61
H 18 Residence in Paradise 321 Kenwood Road	240'	68	<u>69</u>	<u>70</u>	63
HH 29 Residence in Arbutus 4855 Carmella Drive	181'	70	<u>73</u>	<u>75</u>	65
HH 30 Maiden Choice Center	180'	73	<u>74</u>	<u>73</u>	63
I 8 Residence on Kenwood Avenue 313 Kenwood Avenue	140'	70	<u>74</u>	<u>75</u>	66
I 11 Residence on Kenwood Avenue 326/328 Kenwood Avenue	220'	64	<u>72</u>	<u>73</u>	66
II 31 Residence in Arbutus 1013 Regina Drive	210'	69	<u>72</u>	<u>73</u>	65
II 32 Residence in Arbutus 1218 Greystone Road	100'	75	<u>77</u>	<u>79</u>	66
J 12 Residence in Halethorpe 5030 Arbutus Avenue	200'	62	<u>68</u>	<u>69</u>	62
J 13 Residence in Halethorpe Benson Avenue	170'	62	<u>68</u>	<u>69</u>	62
J 22 Residence in Halethorpe	955'	66	66	<u>67</u>	60
J 23 Residence in Halethorpe	790'	62	65	66	59

68 - Underlined predicted noise levels approach or exceed 67 decibel criteria
 Sites A27, B28, HH29, HH30, II31, II32 were monitored in 1991.

IV-29

172

TABLE IV-7: COMPARISON OF AMBIENT & PREDICTED Leq NOISE LEVELS (page 3 of 5)

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS	DISTANCE FROM CENTERLINE	1986 AMBIENT LEQ NOISE MEASUREMENTS (dBA)	PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) WITHOUT NOISE BARRIERS		PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) WITH NOISE BARRIERS
			NO-BUILD (ALT.1)	SELECTED ACTION	
<u>I-695</u>					
K 17 Residence on Monumental Avenue 2238 Monumental Avenue	335'	66	<u>69</u>	<u>70</u>	63
L 16 Residence in Raynor Heights 822 Fairview Avenue	310'	59	66	<u>67</u>	60
M 15 Residence on Nursery Road 800 Nursery Road	180'	63	<u>71</u>	<u>71</u>	64
N 14 Residence on Evelyn Avenue 703 Evelyn Avenue	260'	62	<u>68</u>	<u>68</u>	61
P 24 Residence at 5929 Linthicum Lane	190'	69	<u>72</u>	<u>73</u>	65
Z 25 Overlook Elementary School (Exterior)	170'	68	<u>71</u>	<u>72</u>	65
Z 25 Overlook Elementary School (Interior)	250'	49*	52*	53*	46*
Z 26 Overlook Park	390'	58	64	65	NR

68 - Underlined predicted noise levels approach or exceed 67 decibel criteria

* Interior level with windows open.

NR - Barrier analysis not required, predicted noise levels do not approach or exceed FHWA Noise Abatement Criteria.

173

IV-30

TABLE IV-7: COMPARISON OF AMBIENT & PREDICTED Leq NOISE LEVELS (page 4 of 5)

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS	DISTANCE FROM CENTERLINE	1986 AMBIENT LEQ NOISE MEASUREMENTS (dBA)	PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) <u>WITHOUT NOISE BARRIERS</u>		PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) <u>WITH NOISE BARRIERS</u> SELECTED ACTION
			<u>NO-BUILD</u> (ALT.1)	SELECTED ACTION	
<u>MD. 295</u>					
O 6 Residence in Crestwood 322 Cheddington Road	205'	62	-1	-1	-1
Q 8 Residence on W. Nursery Road Southside, W. Nursery Road	250'	58	64	65	NR
R 9 Residence on W. Nursery Road (vacant) Northside, W. Nursery Road	320'	57	64	65	NR
S 1 Residence in North Linthicum 506 Louise Avenue	210'	65	<u>70</u>	<u>71</u>	64
S 2 Residence in North Linthicum 513 Heath Avenue	170'	63	65	65	58
T 3 Residence in Ridgeway Manor 2 Eleanor Avenue	255'	61	<u>68</u>	<u>68</u>	61
U 7 Patapsco State Park	310'	60	63	64	NR
V 4 Residence in Lansdowne 2943 Freeway	230'	63	<u>68</u>	<u>69</u>	62
V 5 Residence in Lansdowne 3123 Freeway	235'	61	<u>68</u>	<u>69</u>	62
W 5A Residence in Baltimore Highlands	190'	61	<u>68</u>	<u>69</u>	62

- 68 - Underlined predicted noise levels approach or exceed 67 decibel criteria
- NR - Barrier analysis not required, predicted noise levels do not approach or exceed FHWA noise abatement criteria.
- 1 - Noise abatement has been constructed since ambient sites were monitored.

IV-31

h.l.

TABLE IV-7: COMPARISON OF AMBIENT & PREDICTED Leq NOISE LEVELS (page 5 of 5)

NOISE SENSITIVE AREAS, AMBIENT NOISE RECEPTOR NUMBERS AND MEASUREMENT LOCATIONS	DISTANCE FROM CENTERLINE	1986 AMBIENT LEQ NOISE MEASUREMENTS (dBA)	PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) <u>WITHOUT NOISE BARRIERS</u>		PREDICTED Leq FOR DESIGN YEAR 2015 (dBA) <u>WITH NOISE BARRIERS</u> SELECTED ACTION
			<u>NO-BUILD</u> (ALT.1)	SELECTED ACTION	
<u>I-895</u>					
X 1 Residence in Baltimore Highlands 2901 Delaware Avenue	360'	57	59	**	**
X 2 Residence in Baltimore Highlands 3001 Delaware Avenue	290'	57	61	**	**
Y 3 Residence in Baltimore Highlands 2743 Yarnell Road	180'	64	<u>67</u>	**	**
Y 4 Residence in Baltimore Highlands	225'	60	63	**	**

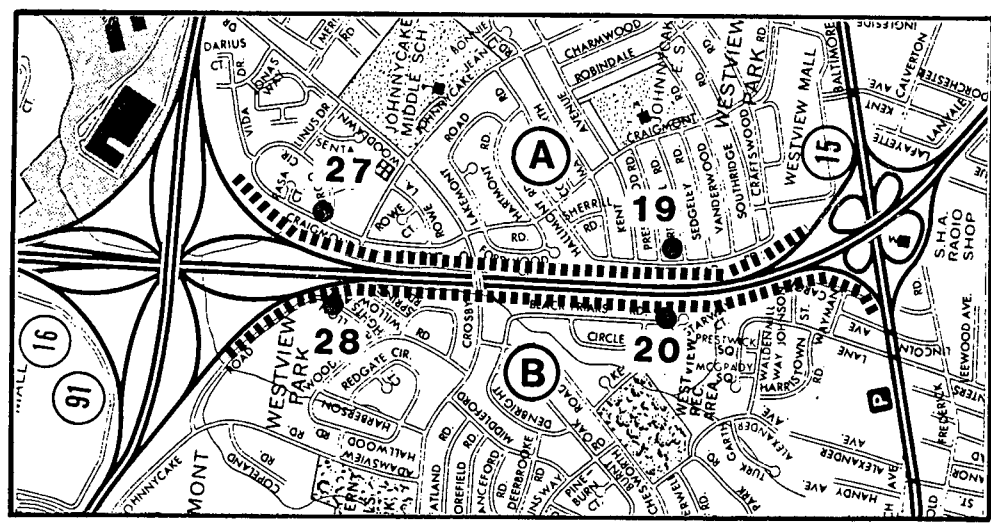
68 - Underlined predicted noise levels approach or exceed 67 decibel criteria
 ** - Selected Action does not affect these areas.

175

IV-32

AREA A

The Westview Park community is located north of US Route 40 along the inner loop of the Baltimore Beltway. Predicted design year (2015) noise levels for the Build Alternate are 3-4 dBA greater than the 1986/1991 ambient noise levels and are the same as the predicted No-Build noise levels. Noise barrier cost is estimated at approximately \$20,600 per residence with 77 residences benefitted (See Noise Abatement Analysis Summary - Table IV-8). Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.

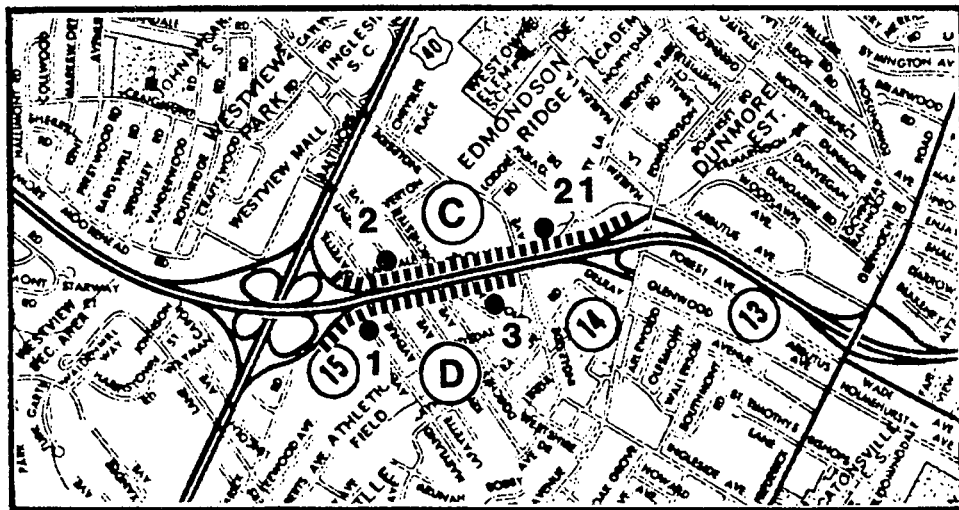


AREA B

Westview, located north of US Route 40 along the outer loop of the Baltimore Beltway, is a community of single-family homes. Predicted design year (2015) noise levels are 1-4 dBA greater than the 1986 ambient noise levels and are the same as the predicted No-Build noise levels. Noise barrier cost is estimated at approximately \$25,600 per residence (See Noise Abatement Analysis Summary - Table IV-8). Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.

• AREA C

Edmondson Ridge is located between US Route 40 and Edmondson Avenue along the inner loop of the Baltimore Beltway. Predicted design year (2015) noise levels are 1-4 dBA greater than the 1986 ambient noise levels and are the same as the predicted No-Build noise level. A noise barrier was considered at this location (See Figure below) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$55,200 per residence.

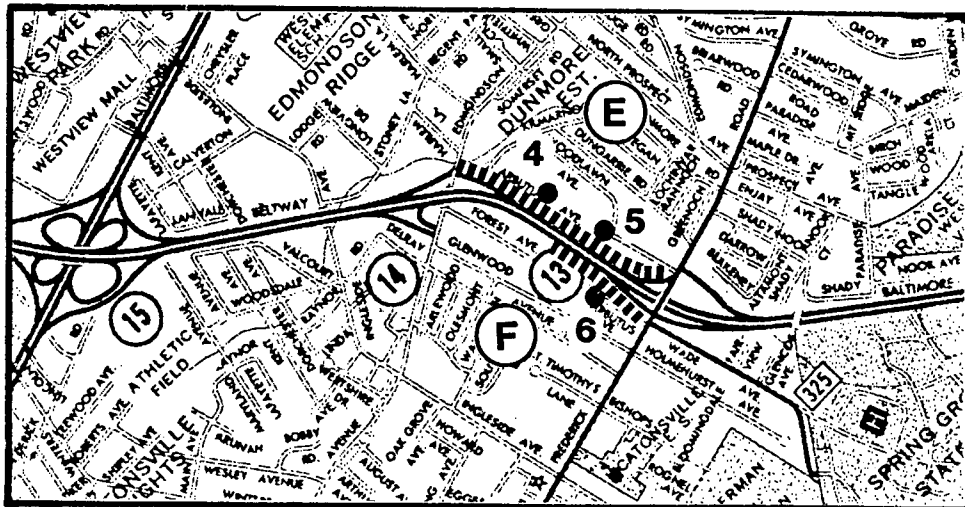


AREA D

Catonsville Heights is located between U.S. Route 40 and Edmondson Avenue along the outer loop of the Beltway. Predicted design year (2015) noise levels are 5-9 dBA greater than the 1986 ambient noise levels and are the same as the predicted No-Build noise level. A barrier would cost approximately \$17,200 per residence with 10 homes and 24 apartments benefitted. Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.

•AREA E

Dunmore Estates is located between Edmondson Avenue and Frederick Road along the inner loop of the Baltimore Beltway. Predicted design year (2015) noise levels are 11-12 dBA greater than the 1986 ambient noise levels and are the same as the predicted No-Build noise levels. Noise barrier cost is estimated at approximately \$29,400 per residence. Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.



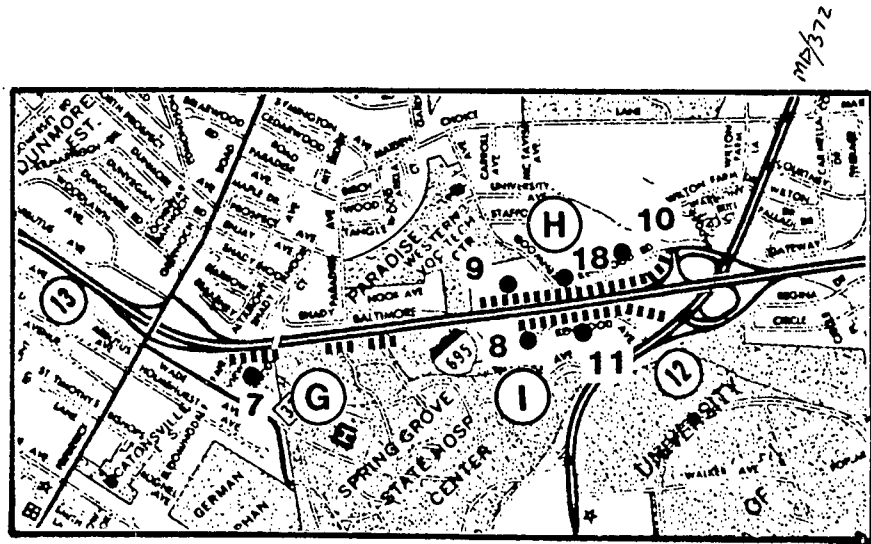
AREA F

This community is located north of Frederick Road along the outer loop of the Baltimore Beltway. Predicted design year (2015) noise levels are 7 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than the predicted No-Build noise level. Noise barrier cost is estimated at approximately \$39,400 per residence. Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.

179

• AREA G

This community is located south of Frederick Road along the outer loop of the Baltimore Beltway. An existing noise barrier protects all but two homes in this community. These two homes, and two residences located within the Spring Grove Hospital Center, represent all of the affected residences within this noise sensitive area. Predicted design year (2015) noise levels are 4 dBA greater than the 1986 ambient noise levels and are the same as the No-Build noise levels. A noise barrier was considered at this location (See Figure below) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$108,000 per residence.

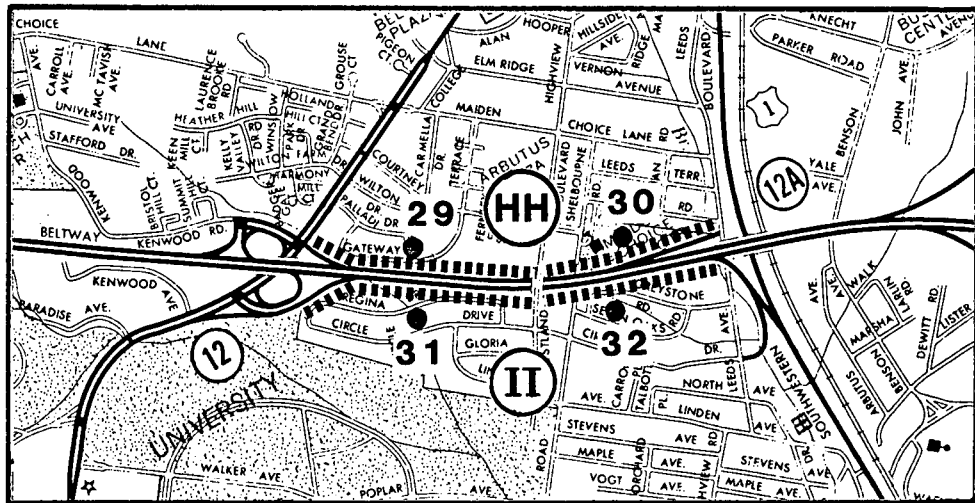


• AREA H

This community of single family and multi-family dwelling units is located north of Wilkens Avenue along the inner loop of the Baltimore Beltway. The community includes the Kenwood Gardens Condominium on Kenwood Avenue and the homes on Oglethorpe Road. Predicted design year (2015) noise levels are 2-9 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than the predicted No-Build noise level. Noise barrier cost is estimated at approximately \$28,400 per residence. For multi-family units barriers will only provide measurable protection for first floor apartments. The upper floors will receive little or no protection. Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of the project.

AREA HH

Located north of the inner loop of the Baltimore Beltway is the Arbutus community. Homes in this area consist primarily of townhouses. Predicted design year (2015) noise levels are as much as 5 dBA greater than the 1991 ambient noise levels, and are approximately the same as the predicted no build noise levels. The noise barrier cost is estimated as approximately \$12,100 per residence with 85 residences benefitted (see Noise Abatement Analysis Summary - Table IV-8). Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of the project.

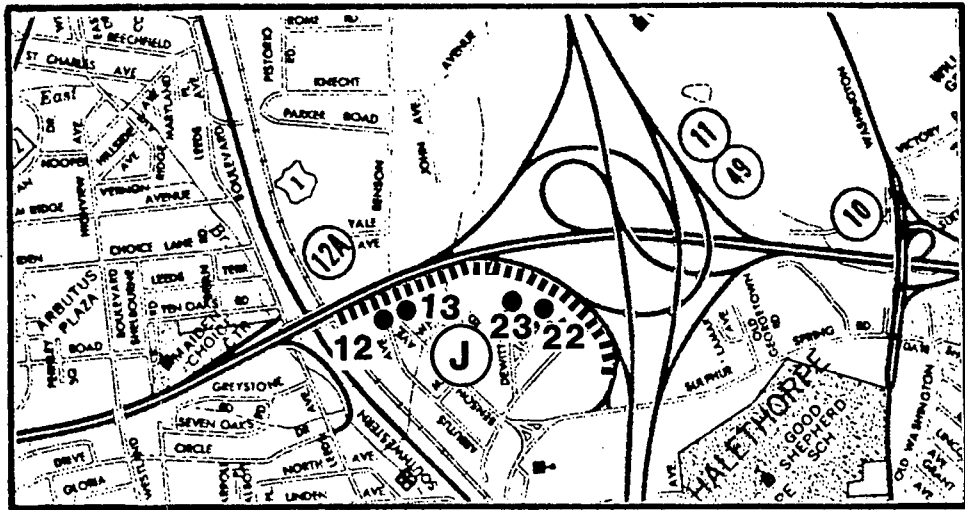


AREA II

Located south of the outer loop of the beltway is the Arbutus community. Homes in the area consist of single family residences, rowhomes, and apartments. Predicted design year (2015) noise levels are 3 to 4 dBA greater than the 1991 ambient noise levels, and are approximately 2 dBA greater than the predicted no build noise levels. The barrier cost is estimated as approximately \$8,100 per residence with 120 residences benefitted (see Noise Abatement Analysis Summary - Table IV-8). Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of the project.

• AREA I

This community is located north of Wilkens Avenue along the outer loop of the Baltimore Beltway. Predicted design year (2015) noise levels are 9 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than the No-Build noise levels. A noise barrier was considered at this location (See Figure on previous page) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$44,000 per residence.

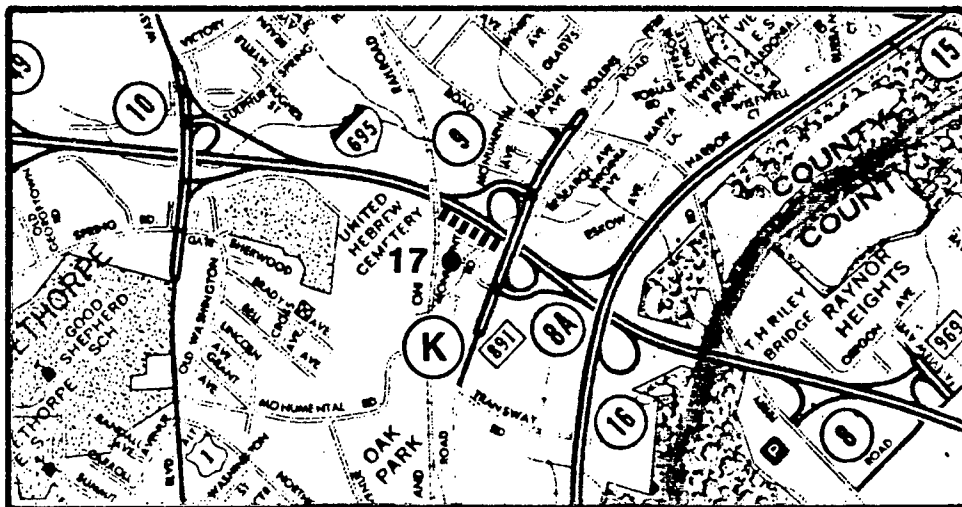


• AREA J

This community is located along the outer loop of the Baltimore Beltway between Southwestern Boulevard and the I-695/I-95 interchange. Predicted design year (2015) noise levels are 1-7 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than the No-Build noise levels. A noise barrier was considered at this location (See Figure above) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$96,300 per residence.

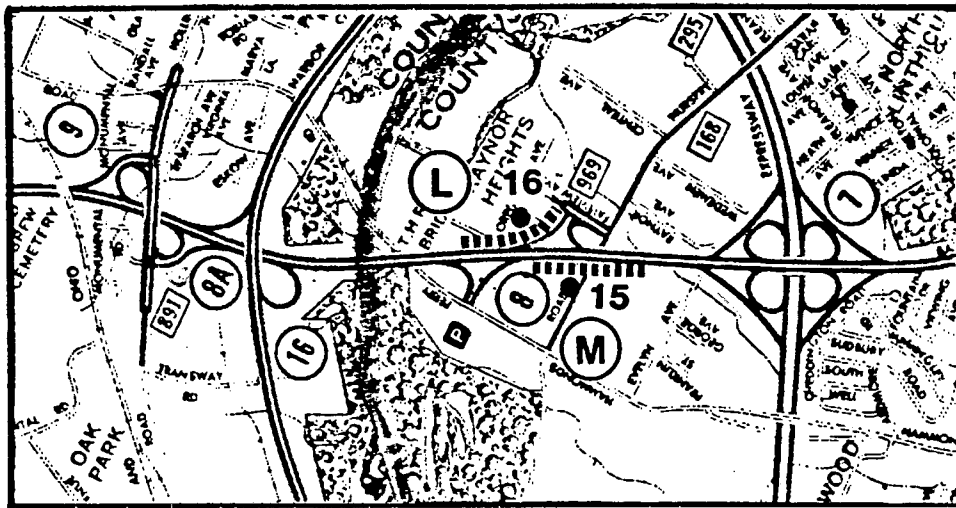
• AREA K

One residence is located along the outer loop of the Baltimore Beltway between the B&O Railroad and Hollins Ferry Road. This is the only residence in a light commercial/industrial area. Predicted design year (2015) noise levels are 4 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than the No-Build noise levels. A noise barrier was considered at this location (See Figure below) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier would only protect one residence at a cost estimated at approximately \$124,800.



• AREA L

Raynor Heights is a community of single family homes located along the inner loop of the Baltimore Beltway, north of the Nursery Road interchange. Predicted design year (2015) noise levels are 8 dBA greater than the 1986 ambient noise levels and equal the FHWA 67 dBA criteria. Noise barrier cost is estimated at approximately \$35,200 per residence. Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.

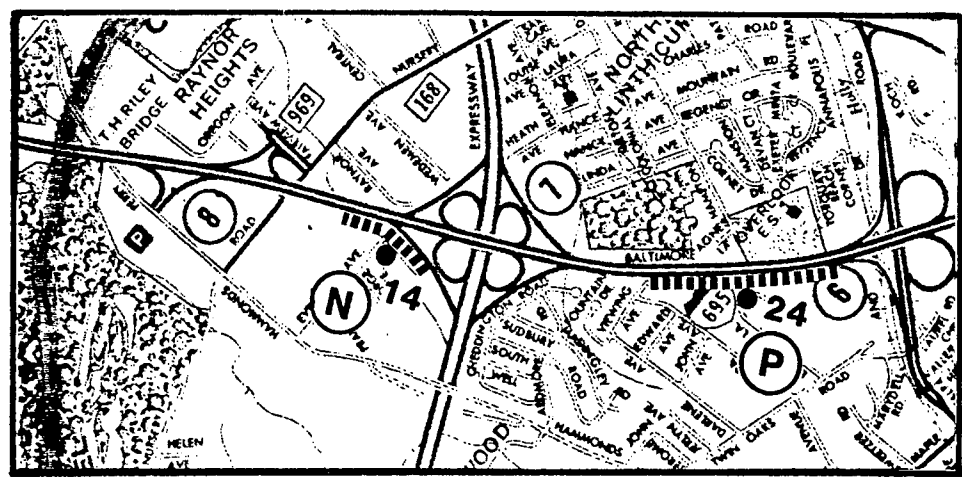


• AREA M

A row of single family homes is located along the outer loop of the Baltimore Beltway at Nursery Road. The homes face Nursery Road and are on the north side of the road. Predicted design year (2015) noise levels are 8 dBA greater than the 1986 ambient noise levels and are the same as the No-Build noise levels. A noise barrier was considered at this location (See Figure above) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$80,000 per residence.

• AREA N

Located along the outer loop of the Baltimore Beltway just north of the I-695/Md. 295 interchange is a community of single-family homes. Predicted design year (2015) noise levels are 6-7 dBA greater than the 1986 ambient noise levels and exceed the FHWA 67 dBA criteria by 1 dBA. A noise barrier was considered at this location (See Figure below) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$61,200.

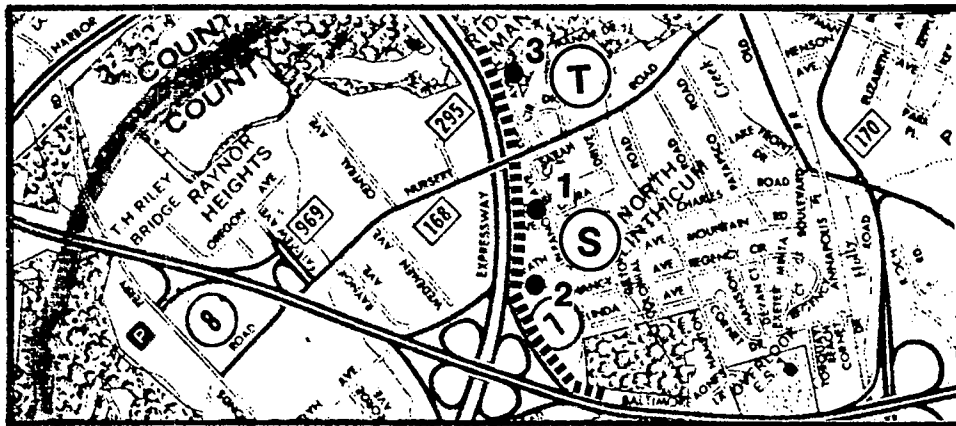


• AREA P

Located along the outer loop of the Baltimore Beltway, just north of the I-695/Md. 170 interchange, is a community of single-family homes. Predicted design year (2015) noise levels are 4-5 dBA greater than the 1985 ambient noise levels and are 1-2 dBA higher than the No-Build noise levels. A noise barrier was considered at this location (See Figure above) and was determined to not be reasonable or feasible because it is not cost effective -noise barrier cost is estimated at approximately \$54,100 per residence.

• AREA S

North Linthicum, a community of single-family homes, is located between the Baltimore Beltway and Nursery Road along the northbound roadway of the Baltimore-Washington Expressway. Predicted design year (2015) noise levels are 5-8 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than the No-Build noise levels. Noise barrier cost is estimated at approximately \$25,200 per residence. Mitigation in this area is reasonable and feasible. This area will be further investigated during final design of this project.



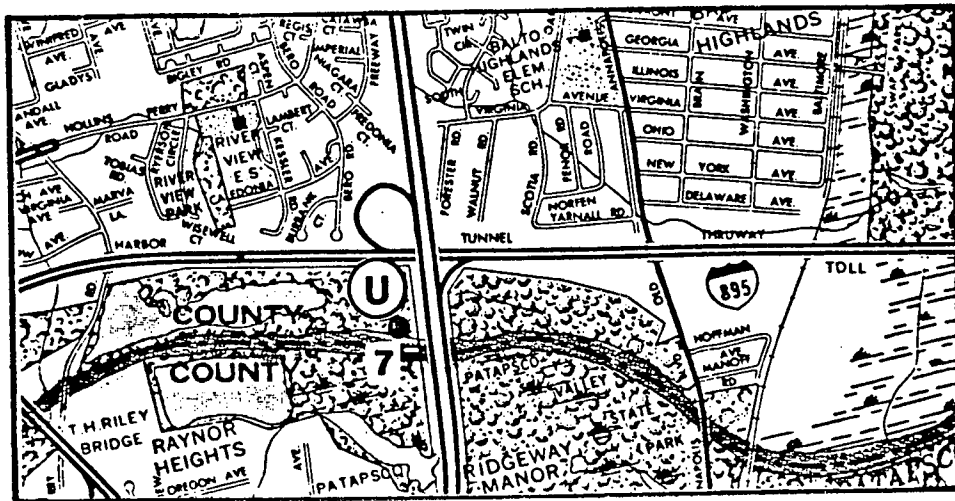
• AREA T

Ridgeway Manor, a community of single-family homes, is located along the northbound roadway of the Baltimore Washington Expressway, between Nursery Road and Patapsco Valley State Park. Predicted design year (2015) noise levels are 7 dBA greater than the 1986 ambient noise levels and are the same as the No-Build noise levels. A noise barrier was considered at this location (See Figure above) and was determined to not be reasonable or feasible because it is not cost effective - noise barrier cost is estimated at approximately \$72,000 per residence.

• AREA U

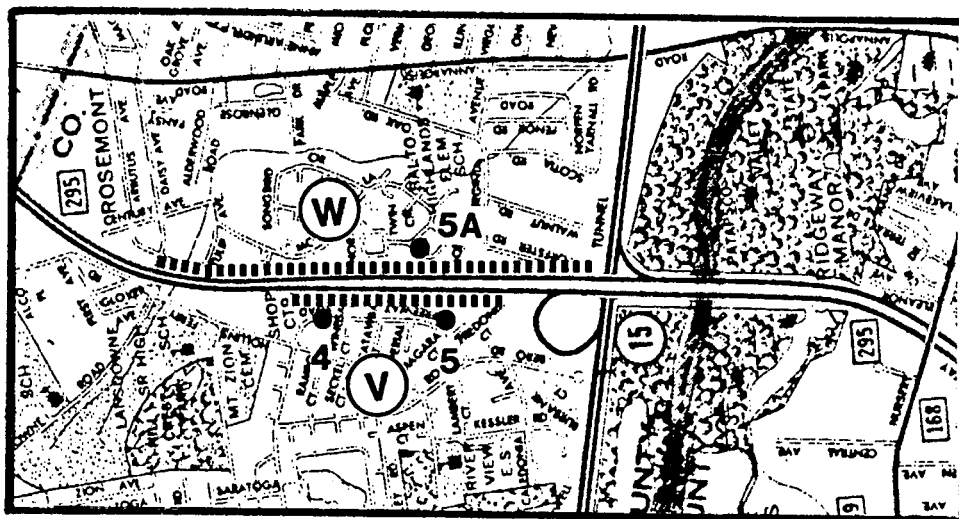
The area of Patapsco Valley State Park represented by Noise Sensitive Area U is a wetland/floodplain area not presently being utilized for recreational purposes (picnic area, playground, sport area, etc.).

The predicted Build Alternate noise levels are 4 dBA higher than the ambient levels for the Selected Action. A noise barrier was not considered reasonable or feasible at this site because the existing uses of this portion of the park are non-recreational.



AREA V

Located between Hollins Ferry Road and the southbound roadway of the Baltimore Washington Expressway is a community of brick townhomes. Predicted design year (2015) noise levels are 6-9 dBA greater than the 1986 ambient noise levels and are 1 dBA higher than No-Build noise levels. Noise barrier cost is estimated at approximately \$7,800 per residence with 88 residences benefitted. Mitigation in this area is reasonable and feasible. This area will be further investigated during the final design of this project.



AREA W

Located between Old Annapolis Road and the northbound roadway of the Baltimore-Washington Expressway is a community of brick townhomes. Predicted design year (2015) noise levels are 1 dBA higher than the No-Build noise levels. Noise barrier cost is estimated at approximately \$19,200 per residence with 57 residences benefitted. Mitigation in this area is reasonable and feasible. This area will be investigated during the final design of this project.

• AREA Z

Located along the inner loop of the Beltway, northwest of the Maryland Route 170 interchange, is the southern portion of the North Linthicum Community. This area contains Overlook Park and Overlook Elementary School and some single-family residences. Predicted noise levels for the park are below FHWA noise criteria. Predicted exterior noise levels at the school would exceed 1988 ambient levels by 4 dBA and are 1 dBA higher than the No-Build noise level. Construction of a noise barrier to protect the school and four homes would be reasonable at a cost of \$35,100 "per residence" (with the school counted as ten residences). This will be investigated further during final design.

However, mitigation of the noise impacts at the school are possible with the addition of a split air conditioning equipment. This mitigation would require a split air conditioning system to address the two large class rooms of the school located in the southwest wing of the school. These classrooms are designated as rooms 201 through 204 and 205 through 207. The air conditioning system which would be most applicable for this location consists of a condensing unit mounted on an exterior concrete pad near the endwall and a floor mounted air-handling unit just inside of the endwall. The total cost of the installation of this system would be between \$65,000 and \$70,000. Air conditioning these two classrooms which will be impacted by future condition, therefore, would provide protection of the entire school and is considered reasonable and feasible. This area will be studied further during final design.

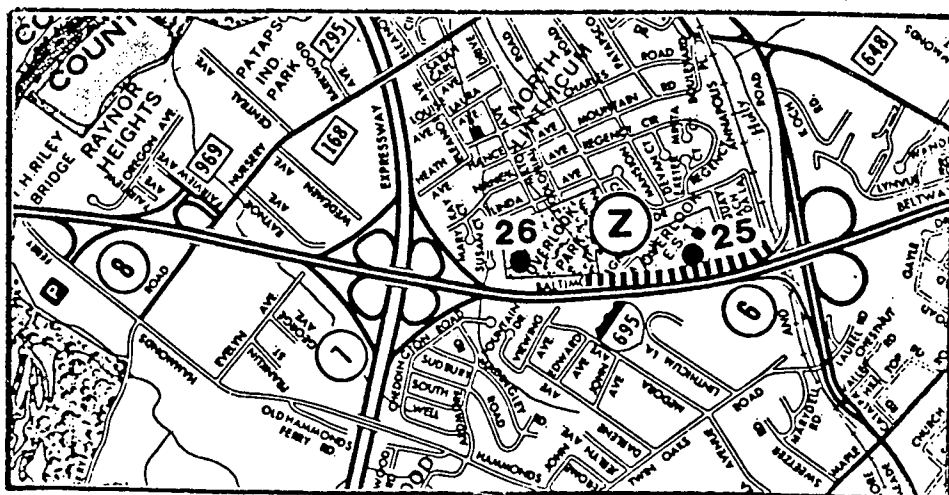


TABLE IV-8 - NOISE ABATEMENT ANALYSIS SUMMARY (page 1 of 3)

Noise Sensitive Area	Residences Benefitted ²	Noise Levels Range (Leq)				Barriers		Cost ¹ (\$ M.)	Cost per residence (\$)
		Ambient	No Build (Design Year)	Build (Design Year)	Build w/ barrier (Design Year)	Length (ft.)	Height (ft.)		
A	77	70-71	74	74	66	6,610	12-15	1.586	20,600
B	66	64-73	71-74	71-74	64-66	7,040	12-15	1.689	25,600
C	15	68-69	69-72	69-72	65	3,450	12-15	0.828	55,200
D	10 (homes) 24 (apts.) ³	65-68	72-74	72-74	65-66	2,030	12-18	0.584	17,200
E	16	62-65	74-75	74-75	66	2,450	12	0.470	29,400
F	6	65-66	71	72	65	1,230	12	0.236	39,400
G	4	68	72	72	65	1,500	12-18	0.432	108,000
H	20 ³	60-68	67-72	68-73	61-66	2,370	12-15	0.568	28,400 ³
HH	85	70-75	73-74	73-75	63-65	4,030	7-26	1.031	12,100
I	9	64-71	72-74	73-75	66	1,650	12-15	0.396	44,000
II	120	69-75	72-77	73-79	65-66	3,820	12-24	0.977	8,100
J	7	62-66	65-68	66-69	59-62	3,510	9-12	0.673	96,300
K	1	66-67	69	70	63	650	9-12	0.124	124,800
L	6	59-62	66	67	63	1,100	9-12	0.211	35,200

1 Cost in millions based on \$16 per square foot

2 Residences benefitted equals an impact of 67 dBA or greater and a 5 dBA reduction in noise

3 Includes first floor units only

IV-46

189

TABLE IV-8 - NOISE ABATEMENT ANALYSIS SUMMARY (page 2 of 3)

Noise Sensitive Area	Residences Benefitted ²	Noise Levels Range (Leq)				Barriers		Cost ¹ (\$ M.)	Cost per residence (\$)
		Ambient	No Build (Design Year)	Build (Design Year)	Build w/ barrier (Design Year)	Length (ft.)	Height (ft.)		
M	3	63	71	71	64	1,000	15	0.240	80,000
N	2	62-64	68	67-68	60-61	850	9	0.122	61,200
O	- ⁴	- ⁴	- ⁴	- ⁴	- ⁴	- ⁴	- ⁴	- ⁴	- ⁴
P	9	69	72	73	65	2,030	15	0.487	54,100
Q	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵
R	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵	- ⁵
S	30	63-66	65-70	65-71	58-64	3,150	15	0.756	25,200
T	4	61	68	68	61	1,200	15	0.288	72,000

- 1 Cost in millions based on \$16 per square foot
- 2 Residences benefitted equals an impact of 67 dBA or greater and a 5 dBA reduction in noise
- 3 Includes first floor units only
- 4 Noise abatement has been constructed since ambient sites were monitored.
- 5 Barrier analysis not required, predicted noise levels do not approach or exceed FHWA noise abatement criteria

IV-47

199

TABLE IV-8 - NOISE ABATEMENT ANALYSIS SUMMARY (page 3 of 3)

Noise Sensitive Area	Residences Benefitted ²	Noise Levels Range (Leq)			Length (ft.)	Barriers		Cost ¹ (\$ M.)	Cost per residence (\$)
		Ambient	No Build (Design Year)	Build (Design Year)		Build w/ barrier (Design Year)	Height (ft.)		
U	5	5	5	5	5	5	5	5	
V	88	61-64	68	69	62	2,850	15	0.684	7,800
W	57	61-63	68	69	62	4,560	15	1.094	19,200
X	5	5	5	5	5	5	5	5	
Y	5	5	5	5	5	5	5	5	
Z (exterior)	14 (4 homes) (1 school)	58-68	64-71	64-72	65	2,050	15	0.492	35,100
Z (interior)	1 school	49	52	53	46	Air Conditioning	0.70	7,000	

- 1 Cost in millions based on \$16 per square foot
- 2 Residences benefitted equals an impact of 67 dBA or greater and a 5 dBA reduction in noise
- 3 Includes first floor units only
- 4 Noise abatement has been constructed since ambient sites were monitored.
- 5 These areas were dropped because Selected Action does not include these areas.

161

4. Other Mitigation Measures

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

Traffic Management Measures

Traffic management measures which could be used include traffic control devices and signing for prohibition of certain vehicles (heavy trucks), time use restrictions for certain types of vehicles, modified speed limits and exclusive lane designations.

It is not possible to prohibit heavy trucks from this type of facility, as it is part of the interstate system.

Alterations of Horizontal and Vertical Alignment

This is not reasonable or feasible since Interstate Route 695 is an existing facility.

Acquisition of Real Property or Property Rights to Establish Buffer Zone

Existing residential development immediately adjacent to existing Interstate Route 695 makes it infeasible to acquire large amounts of adjacent right-of-way for buffer areas.

Berms

The construction of earth berms would encroach on adjacent properties and would require acquisition of additional right-of-way.

5. Summary

Predicted noise levels for the Build Alternate are 1-2 dBA higher than predicted noise levels for the No-Build Alternate at all noise sensitive areas. This indicates that the proposed widening project will not create a perceivable increase in future noise levels.

Using approved cost effectiveness criteria, barrier costs exceed \$40,000 per residence in all areas except A, B, D, E, F, H, HH, II, L, S, V and W. Per resident costs were established by dividing the total cost of the barrier by the number of residences that are impacted (67 dBA or greater) and which would receive a minimum of 5 dBA protection from the barrier under consideration.

Based on the noise analysis study completed to date, the SHA will consider noise abatement measures in the form of barriers at NSAs A, B, D, E, F, H, HH, II, L, S, V, W, and Z during final design. If during final design the height, length, noise reduction, and cost of the noise barrier substantially changes, the abatement measures may not be provided. A final decision on the implementation of abatement measures will be made during the design phase of the project. Noise abatement for NSA Z at the Overlook Elementary School in the form of air conditioning will also be considered during final design.

Should the planned widening be constructed, landscaping and vegetative plantings will be incorporated to screen residential areas as much as possible.

6. Construction Impacts

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

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

Maintenance of construction equipment will be regular and thorough to minimize noise emissions because of inefficiently tuned engines, poorly lubricated moving parts, poor to ineffective muffling systems, etc.

G. CULTURAL RESOURCES

1. Impact on Historic Sites

Three historic sites are located in the Study Area, although none of these sites are presently listed on the National Register. The Maryland Historic Trust (State Historic Preservation Office) has completed their review of this project and determined that they are eligible. The Trust has made the following determination of effects (see letter in Section VIII, page VIII-D7:

Sachs Residence (Figure II-20)	(AA-89)	No Effect
Summerfield-Benson House (Figure II-20)	(AA-111)	No Effect
Old Salem Church	(BA-4)	No Effect
Outside mapping limit - near U.S. Route 40 Interchange along Ingleside Avenue		

The Sachs residence (AA-89) is located along northbound Maryland Route 295 on the south side of W. Nursery Road. The project would not require any right-of-way from the site. In addition, there would be no change in access, visual, audible or atmospheric characteristics of the existing environmental setting.

The Summerfield-Benson House (AA-111) is located along southbound Maryland Route 295 on the north side of W. Nursery Road. The project would not require any right-of-way from the site. In addition, this site would not experience a change in access, visual, audible or atmospheric characteristics of the existing environmental setting.

Old Salem Church (BA-4) is located on Ingleside Avenue in the Study Area but is not on the available mapping. The project would not require any right-of-way from the site, nor would there be any change in access, visual quality and noise characteristics of the existing environmental setting.

2. Impact on Archaeological Sites

The Maryland Geological Survey completed by a Phase I Archaeological Reconnaissance of the areas currently considered for improvements along the I-695/Maryland Route 295 project (see letter Section VIII, page VIII-D12). Their work consisted of background research and field surveys. There are two areas of reported sites in the Study Area:

1. Near Maiden Choice Center at Shelbourne Road (Figure II-13), Site 18BA159 is reported from the records of T.D. Jones who collected prehistoric artifacts from c. 1900-1908. Examination of the area in 1980 by archaeologists from Baltimore County indicated that portions of the site may be intact.
2. At the Patapsco River (Figures II-17, 21) are three large collection areas, again reported by T.D. Jones. Portions of 18BA154 are believed to be intact. Site 18BA90, which lies inside 18BA154 and includes most of the area crossed by I-695, is reported to have been destroyed. There is no recent information on Area #26.

In general, the archaeological potential of the I-695 project is low to moderate, based primarily on extensive prior disturbance of the area by various construction activities. The highest area of potential is at the Patapsco River crossing, but again it is likely that previous construction has caused extensive disturbance. The coordination letter from Maryland Historic Trust concurs that "proposed improvements will have no effect upon significant archaeological resources." Therefore investigation of these sites is not warranted (see Section VIII, page VIII-D16) .

H. RELATIONSHIP BETWEEN SHORT-TERM EFFECTS AND LONG-TERM PRODUCTIVITY AND ENHANCEMENT

The Selected Action would result in improved traffic flow circulation and safety along both the Baltimore Beltway and Maryland Route 295. Long-term environmental effects include the acquisition of parkland, floodplain and wetland acreages. While noise levels would increase marginally with the Selected Action, perceptible differences are not anticipated between the No Build and the Selected Action.

Construction impacts include dust and noise associated with highway construction and potential erosion and siltation. The State Highway Administration would make every reasonable effort to minimize the adverse effects of these short-term impacts.

195

I. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The Selected Action represents the irreversible and irretrievable commitment of land for highway usage. As presented on Table S-1, wetlands would be required to complete the widening of the existing I-695 and Maryland Route 295. These required lands would be essentially and permanently committed to transportation uses.

196

SECTION V

SECTION 4 (F) EVALUATION

V. SECTION 4(f) EVALUATION

A. INTRODUCTION

Section 4(f) of the Department of Transportation Act (49 U.S.C. Section 303), states that utilizing land from a significant publicly-owned public park, recreation area, wildlife refuge, or any significant historic site for a Federally funded transportation project is permissible only if there is no feasible and prudent alternative to the taking and if all possible planning to minimize harm is included as part of the project.

The Selected Action affects one Section 4(f) property, which would be impacted with the mainline widening (see Figure V-1).

B. DESCRIPTION OF SELECTED ACTION

As discussed in Section III of this document, a number of potential Section 4(f) resources are located within the Study Area along I-695, Maryland Route 295 and I-895. These sites are:

- o Maiden Choice Center
- o Patapsco Valley State Park
- o Southwest Area Park
- o Overlook Park

Only the Maiden Choice Center is affected by the Selected Action, as described below.

Selected Action

The Selected Action involves widening along mainline portions of I-695, I-95 and Maryland Route 295 in Anne Arundel and Baltimore Counties (see Section II for detailed descriptions of the proposed improvements). Although three parks exist within the Study Area, no parkland would be required with the Selected Action.

Widening in the vicinity of the Patapsco Valley State Park would occur along I-695. This widening would occur within the existing SHA-owned right-of-way and would not impact the park. Access to the bridge over the Patapsco River for construction could take place from Hammonds Ferry Road.

Since the Selected Action does not propose construction along I-895, which is adjacent to the Southwest Area Park, this park would not be impacted.

Construction proposed under the Selected Action would take place adjacent to the Beltway mainline near Overlook Park. Since all construction would be maintained within the existing SHA-owned right-of-way, there would be no impacts to this park. An easement within the right-of-way would be used for the construction of a retaining wall.

198

The only 4(f) impact resulting from the Selected Action would be to the Maiden Choice Center. This impact results from the construction of two additional lanes and replacement of a retaining wall, requiring a shift in the necessary right-of-way. Six parking spaces and one access point to the parking lot (one of three) would be taken. The mitigation of impacts will require the taking of two additional spaces due to the replacement of the third entrance to the parking lot.

C. DESCRIPTION OF 4(f) RESOURCE (see Figure V-2)

The Maiden Choice Center is located along the inner loop of I-695, immediately west of Leeds Avenue. The property is adjacent to the existing Beltway right-of-way fence and the entrance ramp from Leeds Avenue. The school is a special education facility for retarded, autistic and handicapped students between the ages of 6 and 21, and is owned and operated by the Baltimore County Board of Education. Enrollment during Spring 1991 is 150 students, with a 43 person staff. Total acreage of the school site is 9.3 acres.

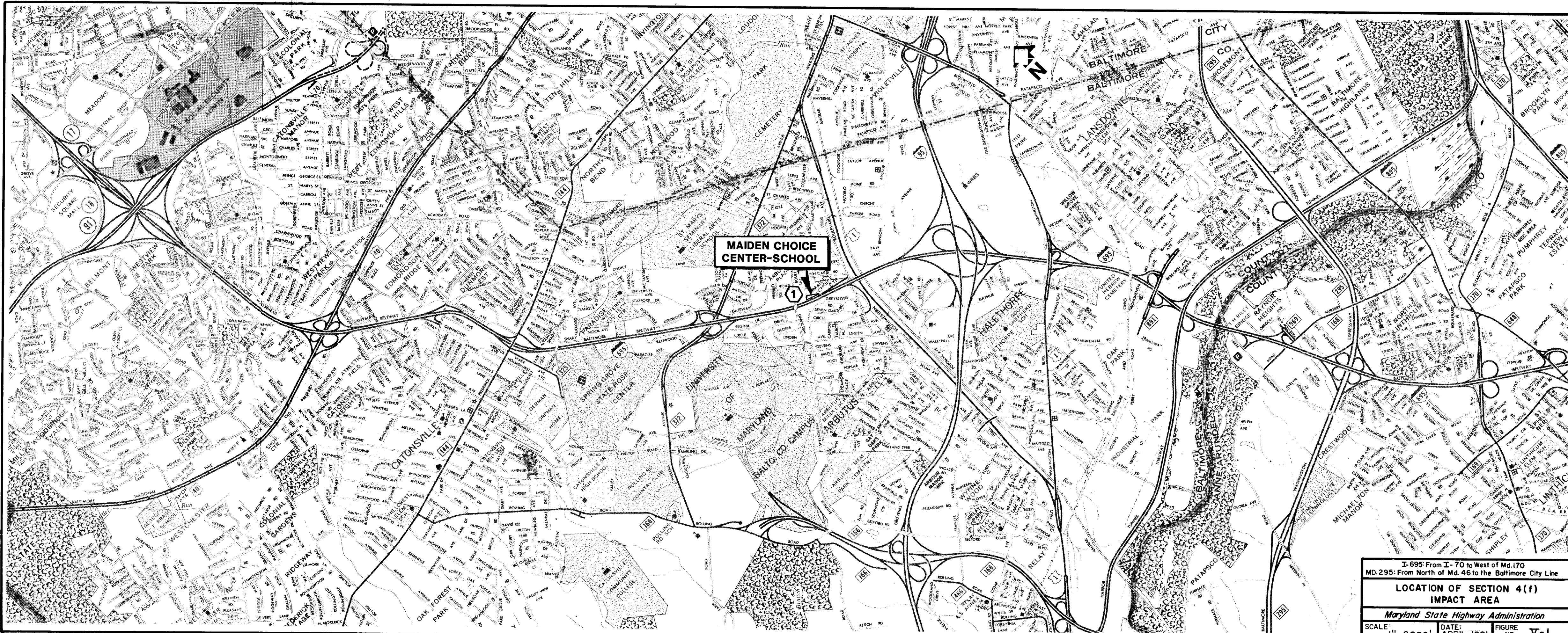
Recreational facilities, located on the school property along the Beltway and the Leeds Avenue ramp, are used by both the school and the Arbutus community. Baltimore County Department of Recreation and Parks also schedules softball and soccer activities on the property. Registration for these programs for 1987 was 179 individuals, attended by 2,104 spectators during the season. A basketball court and a tot play area located next to the parking area are also used by the community.

Access and parking is provided along Shelbourne Avenue, with a pedestrian overpass providing access from the west side of the Beltway. The parking lot in front of the school is fully utilized during each regular school day. For recreational purposes, the community uses that lot and adjacent streets, such as Shelbourne Road and Ten Oaks Road, for parking.

D. IMPACTS OF THE SELECTED ACTION (See Figures V-2,3)

In the Leeds Avenue interchange area, the Selected Action requires the addition of two lanes to accommodate a fully-developed major merge from I-95 along northbound I-695, and adjustment of the entrance ramp from Leeds Avenue for a standard acceleration lane. Thus, the roadway cross-section adjacent to the Maiden Choice Center would be six mainline lanes (three lanes from I-95 and three I-695 lanes), with an acceleration lane tapering from Leeds Avenue.

The existing I-695/I-95 interchange configuration requires the higher ramp volume (Ramp I from southbound I-95) to facilitate the merge into the add-lane developed from Ramp J (from northbound I-95). Currently, this merge condition operates at LOS 'F'. With a projected increase in volume by the 2015 design year, operation under the No-Build Alternate would deteriorate to an even lower LOS 'F'. If no improvements are provided, additional accidents would occur due to increased congestion levels.



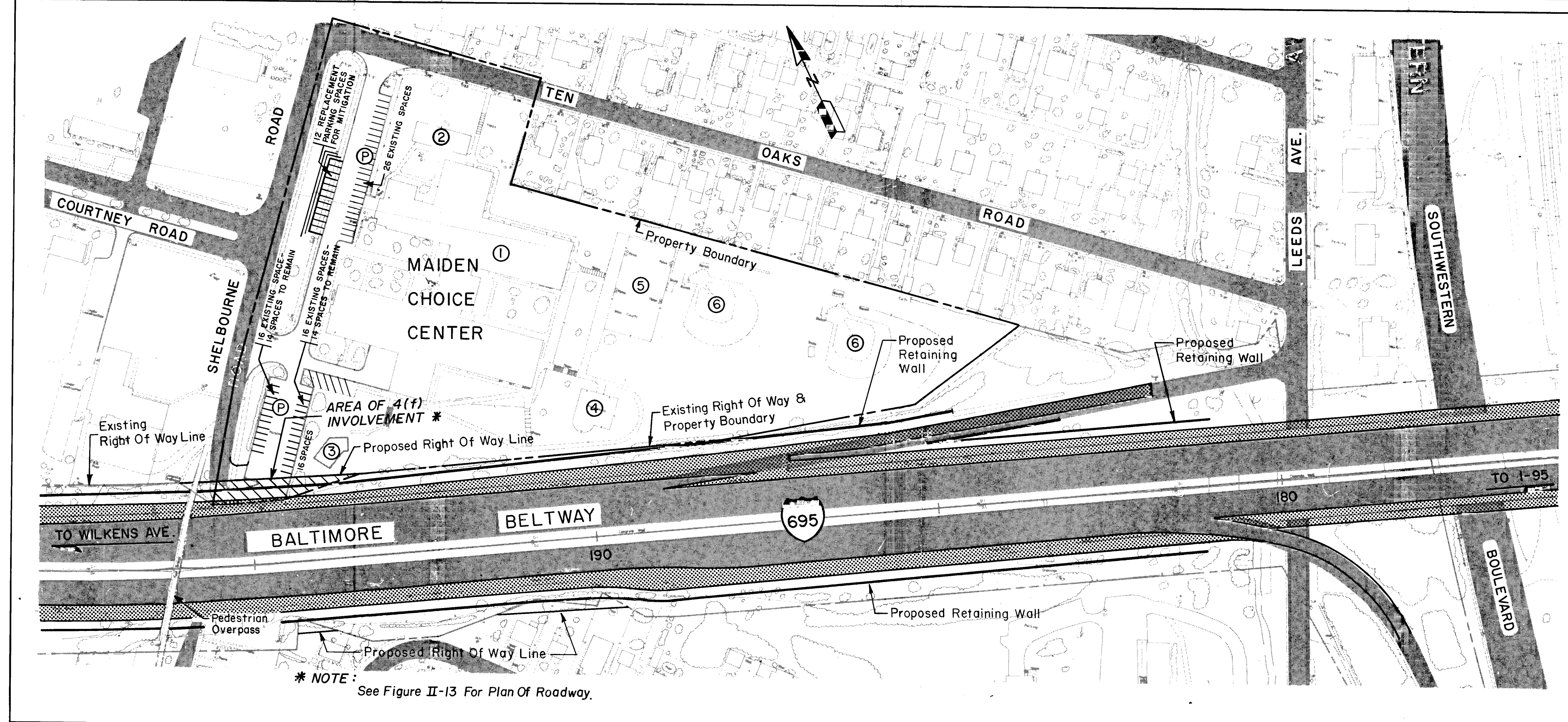
**MAIDEN CHOICE
CENTER-SCHOOL**

I-695: From I-70 to West of Md.170
 MD.295: From North of Md.46 to the Baltimore City Line

**LOCATION OF SECTION 4(f)
IMPACT AREA**

Maryland State Highway Administration

SCALE: 1" = 2000' DATE: APRIL, 1991 FIGURE NO. V-1



- SITE INVENTORY**
- ① 1 Story Brick School
 - ② 1 Story Concrete School
 - ③ Tot Play Area
 - ④ Playground
 - ⑤ Paved Multi-Purpose Courts
 - ⑥ Baseball Fields
 - P Parking Area (58 Spaces)
 - ▨ Proposed Widening

* NOTE:
See Figure II-13 For Plan Of Roadway.

I-695: FROM I-70 TO WEST OF MD. 170
 MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE

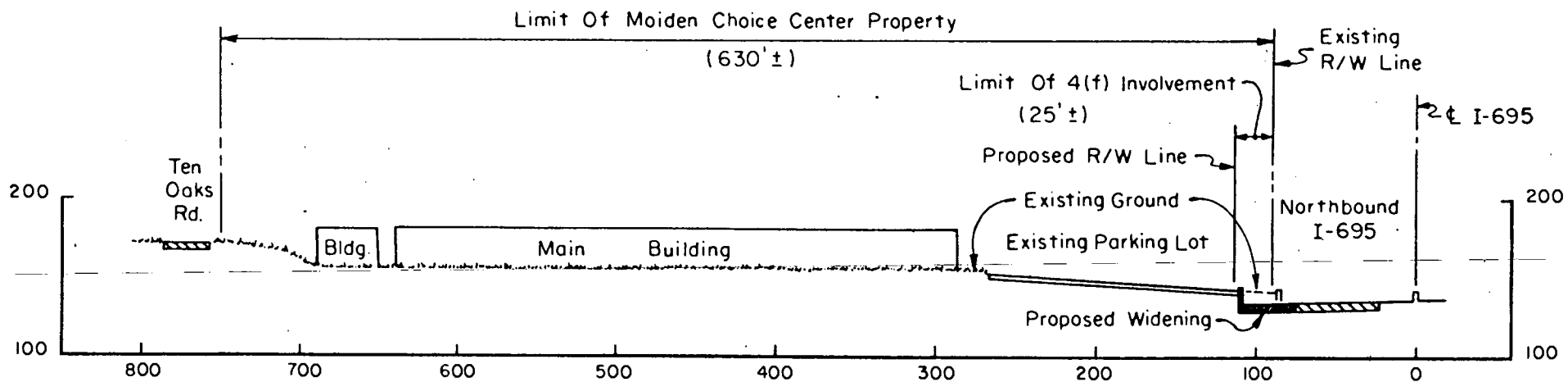
**4 (f) INVOLVEMENT AT
 MAIDEN CHOICE CENTER**

MARYLAND STATE HIGHWAY ADMINISTRATION



DATE: APRIL, 1991

SCALE IN FEET: 0 100 200

FIGURE: V-2



SECTION AT MAIDEN CHOICE CENTER - STA. 194+50 I-695
 ALTERNATE 2
 (LOOKING SOUTH)

-  EXISTING ROADWAY
-  PROPOSED IMPROVEMENTS

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.

I-695: From I-70 to West of Md.170		
MD. 295: From North of Md. 46 to the Baltimore City Line		
CROSS SECTION AT SECTION 4(f) IMPACT SITE		
Maryland State Highway Administration		
SCALE: 1" = 100'	APRIL, 1991	FIGURE NO. V-3

201

202

Along I-695 northbound (inner loop), the evening peak hour is currently the highest volume peak period. I-695 provides 60 percent of the total volume, with the ramps from I-95 providing the remaining 40 percent. In the 2015 design year, this volume will shift to 52 percent on I-695 and 48 percent from the I-95 ramps. This volume shift requires that consideration be given to a modification of the existing interchange configuration, particularly with on-ramp volumes projected to increase to 4,000 vph during the evening peak hour.

Roadway improvements in this area provide a standard outside shoulder. This improvement is necessary because of the four percent volume of truck traffic (approximately 300 vph during the peak hour) and the long three percent grade on I-695. A retaining wall would be placed 14 feet from the outside lane in order to minimize the right-of-way required from the school. If retaining walls were not used, the area beyond the roadway shoulder would be safety graded, requiring an encroachment of at least 25 feet into the parking lot along the adjacent length of the Beltway. The pedestrian overpass would also require additional lengthening if the retaining wall were not in place.

Approximately 0.13 acres of property from Maiden Choice Center will be required for construction of the Selected Action. As indicated on Figure V-2, the taking of this 250 foot long strip would be primarily in the parking area of the property, eliminating one of three access points to the parking lot and six parking spaces. There will be no structures required from this site, nor any acreage taken from playing fields with the proposed highway improvements. The right-of-way fence along the school property will be replaced.

The construction of the widening can be accomplished within the 0.13 acres of proposed right-of-way identified by constructing the retaining wall from the existing roadway shoulder. Access to this area can be obtained from both I-695 and Shelbourne Avenue. No construction easements or temporary use of the property outside this area of 0.13 acre will be required.

Baltimore County Public Schools and the Department of Recreation and Parks indicated, by letter dated March 29, 1988, that the proposed Beltway improvements would have minimal impact on the site.

1. Air Quality Impacts

The results of the air quality analysis are summarized in Table IV-2, and are described in detail in the "I-695/Maryland Route 295/I-895 Air Quality Analysis Report", available at Maryland SHA, 707 N. Calvert Street, Baltimore, Maryland 21202. No violations are anticipated in the affected Section 4(f) properties.

2. Noise Impacts

A noise study was conducted for the segment adjacent to I-695 between Wilkens Avenue and Leeds Avenue during 1991. The analysis of this study showed that the current measured noise level is 74 dBA. The noise level for the Year 2015 for the Build condition without a sound barrier is 73 dBA. This small decrease may be attributed to the retaining wall which will be placed adjacent to the roadway revisions associated with the Selection Action.

The analysis of noise mitigation indicates that a noise barrier would reduce the noise level at this location by 10 dBA to 63 dBA. A noise barrier would benefit the Maiden Choice Center and 85 homes. It would cost approximately \$20,700 per residence. Therefore, noise mitigation in this area is reasonable and feasible and will be further investigated during final design.

E. AVOIDANCE OPTIONS AND THEIR IMPACTS

Due to the increase in ramp volumes, merging with the I-695 mainline volumes, 113 percent during the projected year 2015 AM peak period (to 3,200 vph) and 48 percent during the PM peak (to 4,000 vph), an improvement is necessary to address these changes. With the existing merge condition of LOS 'F', a major change in merge design is required to provide for an improvement in operations (see discussion of traffic in Section III-C.

The first avoidance option to consider is the No-Build. This, however, creates a number of different possibilities for that condition:

- No-Build for entire project
- No-Build between I-95 and U.S. Route 40
- No-Build between I-95 and Wilkens Avenue
- No-Build between I-95 and Wilkens Avenue in the northbound direction

The No-Build for the entire project would not be prudent or feasible because it would not address the purpose and need for the project. The existing traffic conditions would continue to deteriorate causing congestion for longer periods on the Beltway, I-95 and Maryland Route 295 and increased accidents on each of the roadways.

The No-Build between I-95 and U.S. Route 40 would result in maintaining the existing lane configuration for the heaviest travelled portion of the project. This would result in the continuing deterioration of traffic service for the Beltway. The existing merge and diverge conditions on the west side of I-695 and along I-95 would be maintained causing back-ups along southbound I-695 in the AM peak and southbound I-95 in the PM peak extending for longer periods of time. The lack of available capacity would cause continuing and increasing congestion and increased accidents on the Beltway. This partial No-Build condition would not address the purpose and need for the project and would not provide lane continuity or logical termini for the project and therefore would not be prudent or feasible.

The No-Build between I-95 and Wilkens Avenue would result in maintaining the existing lane configuration on the west side of the I-95 interchange. The existing merge and diverge conditions on the west side of I-695 and along I-95 would be maintained causing back-ups along southbound I-695 in the AM peak and southbound I-95 in the PM peak occurring for longer periods of time. Implementation of the No-Build Alternate in the vicinity of the Maiden Choice Center would have eliminated the proposed improvements, particularly the fork design between I-95 and Wilkens Avenue. Thus, the proposed interchange revisions, which would improve the operational capacity of the interchange as well as the roadway facility, would also not be provided. Traffic in the merge area would be extremely congested (very low LOS 'F'), with back-ups on I-95 in both the northbound and southbound directions, resulting in further congestion and accident potential on the ramps impacting the mainline of I-95. Even though the ramp from Leeds Avenue would remain open under the No-Build Alternate, if additional Beltway capacity were not provided, the number of vehicles per lane would increase. This increase could cause serious impedance to emergency vehicles. The ramp from Leeds Avenue is used by the Arbutus Volunteer Fire Department, one of only six stations in Baltimore County with specialized Emergency Medical Equipment. Since their service area is primarily to the north of the station, the ramp from Leeds Avenue provides the primary access to northbound I-695. The discontinuity of providing roadway improvements would cause deterioration in operations on either side of this segment, as well. The lack of increased capacity would not provide Beltway land continuity. This partial No-Build condition would not address the purpose and need of the project and therefore would not be prudent or feasible.

The No-Build between I-95 and Wilkens Avenue in the northbound direction would result in maintaining the existing lane configuration on the west side of I-95 resulting in increased congestion. This congestion would affect the merge and diverge conditions of the ramp from southbound I-95 to northbound I-695, primarily in the PM peak. This congestion would be expected to increase and lengthen and would cause deterioration in operations on either side of this segment, as well. The lack of increased capacity would not provide Beltway lane continuity. This partial No-Build condition would not address the purpose and need of the project and therefore would not be prudent or feasible.

Another avoidance option would be to close the ramp from Leeds Avenue. This ramp closure would reduce the amount of property taken from the school, and with elimination of the outside shoulder, would avoid the school property altogether. This option was considered during early stages of the study and dropped because of the severity of the impact of this ramp closure to the community and the Arbutus Volunteer Fire Department. As stated previously, the Arbutus Fire Department is one of only six in Baltimore County that provides Emergency Medical Service, and in order to provide this service, depends heavily on the ramp from Leeds Avenue to northbound I-695. Development has increased in the northern

portion of the Department's service area, particularly in the Catonsville and Woodlawn areas. Since this northern portion accounts for 60 percent of the Department's emergency calls, use of this ramp has intensified. The Fire Department's effectiveness is based on travel time. Removal of the Leeds Avenue ramp would severely hamper that effectiveness. The alternate route, Maiden Choice Lane, has two signalized intersections and would effectively double travel time to the same place on the Beltway. This avoidance option would not be prudent or feasible due to the major impact on emergency service.

A build alternative could be constructed to provide an adequate number of lanes, and also avoid the Maiden Choice Center. This would require shifting the roadway approximately 30 feet to the west and would involve reconstruction of the existing eight lanes and construction of an additional four lanes in this section (approximately 2,550-feet of the Beltway).

Construction of this avoidance alternative (shifting the roadway 30 feet) is limited by a restricted right-of-way (see Figure V-4). This restriction constricts the construction area, allowing for construction/reconstruction of two lanes at a time, resulting in phased construction. Each phase of construction decreases the efficiency, and therefore increases the cost. The constricted area would also require the use of smaller construction equipment, thereby increasing the number of workers, the construction time and the overall cost.

Since all lanes must remain open during peak traffic periods, additional construction phases may be required in order to maintain traffic. Other impacts would occur as a result of this option such as the displacement of two homes, the acquisition of approximately 0.26 acres of residential property, and additional air, noise, and visual disturbance to residences during construction.

This avoidance alternative would not be prudent or feasible because the constricted construction area would result in an increase in driving up the overall cost and construction time, thus causing lengthier intrusions on residences. Overall, this option, when compared to the proposal for outside widening of the roadway, would result in a decrease in traffic service during construction because all lanes would be disturbed.

F. MITIGATION

The impacts of the Selected Action would be minimized by the provision of replacement parking on the school property (See Figure V-2). Replacement parking could be provided on a portion of the school property which is adjacent to the lot located directly in front of the school. The parking spaces would be placed within an area adjacent to the existing grassed area next to the parking lot. The eight parking spaces which will be taken as a result of right-of-way acquisition for Beltway widening and the driveway relocation will be replaced in addition to the spaces relocated within the lot.

206

Placement of perpendicular parking spaces at this location precludes the existing parallel parking along the existing curb of the lot. In addition, the access currently provided nearest the Beltway would be replaced near that location.

This mitigation has been coordinated with and is acceptable to the Baltimore County Public Schools.

A new retaining wall and noise barrier, approximately 11 feet in height, would replace the existing retaining wall along I-695. There would be minimal aesthetic change from the existing condition with the revised location.

G. SUMMARY

There are no feasible and prudent alternatives to the use of land from the 4(f) property. All practicable measures to minimize harm will be included in the proposed project.

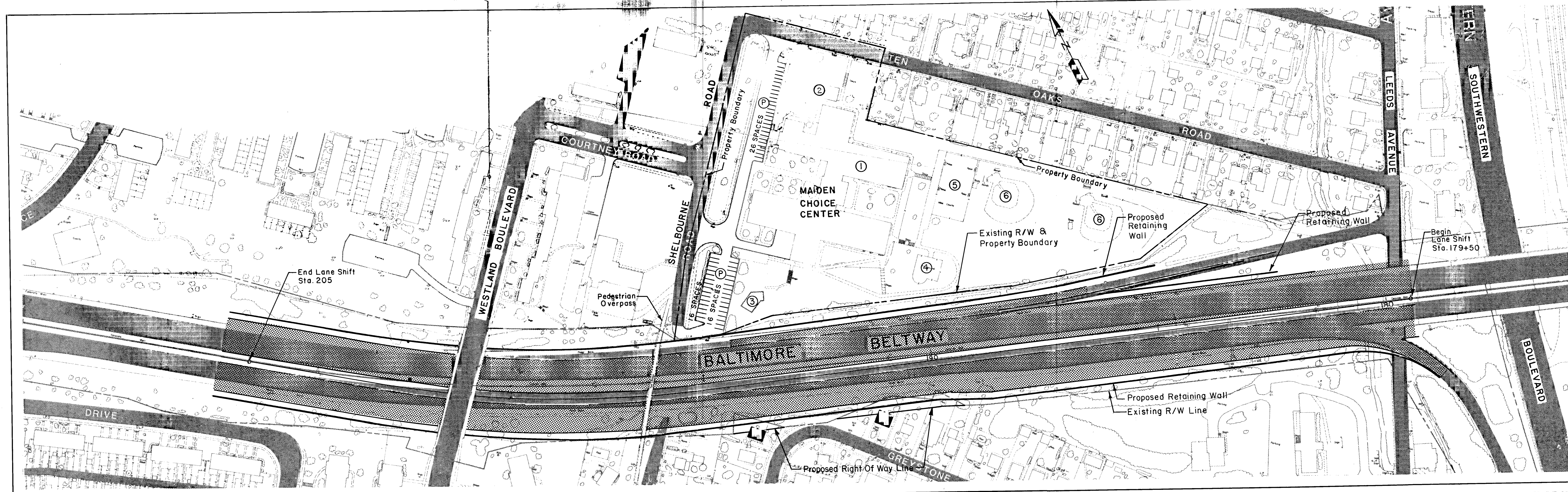
The investigation of mitigation has shown that there is acceptable replacement due to the loss of access and parking spaces from the school site. Through coordination with the Baltimore County Public Schools this issue has been resolved.

H. COORDINATION

The agencies responsible for this Section 4(f) resource have been contacted and coordination has taken place to verify their understanding of the project impacts. Letters are included in Section VIII, and are summarized below.

	<u>Agency/ Letter date</u>	<u>Comments</u>
1.	Baltimore County Public Schools/ March 29, 1988	Public School System and Department of Recreation and Parks agreement that Beltway improvements would have minimal impact on site.
2.	Baltimore County Public Schools/ January 15, 1991	Revised concept of replacement sites adjacent to lower parking lot with access from Shelbourne Avenue. For consideration by RK&K and Baltimore County Department of Traffic Engineering.
3.	Baltimore County Public Schools/ March 5, 1991	Revised concept accepted by the Baltimore County Public Schools providing parking space replacement adjacent to the northern parking lot.

- ① 1 Story Brick School
- ② 1 Story Concrete School
- ③ Tot Play Area
- ④ Playground
- ⑤ Paved Multi-Purpose Courts
- ⑥ Baseball Fields
- P Parking Area (58 Spaces)
- ▨ Proposed Roadway Realignment
- ⌊ Residences Displaced



I-695: FROM I-70 TO WEST OF MD. 170
 MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE

4(f) AVOIDANCE AT MAIDEN CHOICE CENTER

MARYLAND STATE HIGHWAY ADMINISTRATION

DATE: APRIL, 1991

SCALE IN FEET: 0 100 200

FIGURE: V-4

SECTION VI

LIST OF PREPARERS

209

VI. LIST OF PREPARERS

This Final Environmental Impact Statement was prepared by the Maryland Department of Transportation, State Highway Administration, the Federal Highway Administration and Rummel, Klepper & Kahl. The following persons were responsible for the preparation of this document.

State Highway Administration

- Mr. Louis H. Ege Jr. Deputy Director,
Office of Planning & Project
Engineering
- Ms. Cynthia D. Simpson Deputy Chief, Project Planning
Division
- Mr. Mark D. Duvall Environmental Manager
- Ms. Catherine Rice Project Manager

Federal Highway Administration

- Mr. Herman Rodrigo Planning, Research, Environmental and
Safety Engineer. Specializing in
Environmental and Safety Requirements
and NEPA process requirements. 17
years experience.
- Ms. Kay Batey Environmental Engineer. Specializing
in Environmental Requirements and NEPA
requirements. 4 years experience.
- Mr. Paul Wettlaufer Environmental Engineer.
Specializing in Environmental
requirements. 13 years experience.
- Mr. Andrew Mergenmeier Area Engineer
- Mr. Peter Kleskovic District Engineer

Consultants

- Mr. Henry Bankard Rummel, Klepper & Kahl 18 years
Noise analysis and graphics
- Mr. Joseph Crivello Rummel, Klepper & Kahl 39 years
Highway Design
- Ms. Nancy Kelly Coastal Resources, Inc. 19 years
Natural environment
specialist, wetlands
- Ms. Norine Walker Rummel, Klepper & Kahl 8 years
Transportation Planning
- Mr. David Wallace, PE Rummel, Klepper & Kahl 18 years
Transportation Planning
Management

SECTION VII

DISTRIBUTION LIST

211

VII. DISTRIBUTION LIST

FINAL ENVIRONMENT IMPACT STATEMENT/
SECTION 4 (f) EVALUATION

A. FEDERAL AGENCIES

Mr. Pearlie S. Reed
State Conservationist
Soil Conservation Service
U.S. Department of Agriculture
339 Revell Highway, Suite 301
Annapolis, Maryland 21401

Mr. Jonathan Deason, Director
Office of Environmental Project Review
U.S. Department of the Interior
18th and C Streets, N.W., Room 4239
Washington, D.C. 20240

* Ms. Diana Esher, Acting Chief (3ES41)
Federal Agency Compliance Section
U.S. Environmental Protection Agency
Region III
841 Chestnut Street
Philadelphia, Pennsylvania 19107

Regional Director
National Marine Fisheries Service
Federal Building
14 Elm Street
Gloucester, Massachusetts 19130

* Ms. Margaret A. Krengel
Regional Environmental Officer
Philadelphia Regional Office
U.S. Department of Housing and
Urban Development
Region III
Liberty Square Building
105 South 7th Street
Philadelphia, Pennsylvania 19106-3392

Director
Office of Ecology and Conservation
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
14th Street and Constitution Avenue, N.W., Room 6222
Washington, D.C. 20230

* Provided Written Comments on DEIS included in Section VIII
of this Document.

2/2

* Commander
U.S. Army Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21201
ATTN: NABOP-F

Commander
U.S. Coast Guard, 5th District
431 Crawford Street
Portsmouth, Virginia 23703

Division of NEPA Affairs
U.S. Department of Energy
Room 4G 064
1000 Independence Avenue, S.W.
Washington, D.C. 20230

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

213

B. STATE AGENCIES

Maryland Department of State Planning

Ms. Kathleen Fay
State Depository Distribution Center
Enoch Pratt Free Library
400 Cathedral Street
Baltimore, Maryland 21201

Ms. Mary Abrams, Director
Intergovernmental Clearinghouse
State Clearinghouse
301 West Preston Street
Baltimore, Maryland 21201

* Mr. Stan Wong
Water Resources Administration
Maryland Department of Natural Resources
Tawes Office Building
Annapolis, Maryland 21401

Judge John North
Chesapeake Bay Critical Area Commission
West Garrett Place, Suite 320
275 West Street
Annapolis, Maryland 21401
ATTN: Mr. Ren Serey

Power Plant and Environmental Review
Tidewater Administration
Maryland Department of Natural Resources
Tawes State Office Building C-2
Annapolis, Maryland 21401
Attn: Mr. Elder Ghigiarelli

Ms. JoAnn Watson
Division of Standards and Certification
Maryland Department of the Environment
2500 Broening Highway
Baltimore, Maryland 21224

Mr. Donald E. MacLauchlan
Assistant Secretary
Maryland Forest, Park &
Wildlife Service
Maryland Department of Natural Resources
Tawes Office Building
Annapolis, Maryland 21401
Attn: Mr. James Burtis

214

C. MARYLAND DEPARTMENT OF TRANSPORTATION

Karen Cecil, Deputy Director
Public Affairs
Maryland Department of Transportation

Clyde E. Pyers, Director
Office of Transportation Planning
Maryland Department of Transportation
P.O. Box 8755
BWI Airport, Maryland 21240

Office of General Counsel
Office of the Maryland Secretary
of Transportation
Maryland Department of Transportation
P.O. Box 8755
BWI Airport, Maryland 21240

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

D. COUNTY/LOCAL GOVERNMENT AGENCIES

* Planning Director
Anne Arundel County
Planning and Zoning
P.O. Box 1831
Annapolis, Maryland 21404

Anne Arundel County
Public Works Department
1 Harry S Truman Parkway
Annapolis, Maryland 21401

* P. David Fields
Director of Planning
Baltimore County Office of
Planning and Zoning
301 Washington Avenue
Towson, Maryland 21204

* Gene Neff, Director
Baltimore County Department of Public Works
County Office Building, Room 307
111 W. Chesapeake Avenue
Towson, Maryland 21204

Baltimore County Fire Department
Towson, Maryland 21204

E. COMMUNITY ASSOCIATIONS

Holy Apostles Episcopal Church
Reverend John Rabb
Leeds Avenue
Baltimore, Maryland 21228

Kenwood Gardens Condominium Association
Mr. Thomas C. Gorak, President
3 Summit Hill Court #C-3
Baltimore, Maryland 21228

Kenwood/Paradise Citizens Association
Joe Getzendanner
330 W. Kenwood Avenue
Baltimore, Maryland 21228

Linthicum Hills Homeowners Association
Bart Highfield, President
P.O. Box 25
Linthicum Hills, Maryland 21090

Maiden Choice Civic Association
c/o Mr. Arthur Howe
4912 Gateway Terrace
Baltimore, Maryland 21228

The North Linthicum Improvement Association, Inc.
Mr. Dominick Morea, President
Box #258
Linthicum Heights, Maryland 21090-0258

Shady Nook Citizens Association
Mrs. Gloria Cameron
424 Shady Nook Avenue
Baltimore, Maryland 21228

SECTION VIII

COMMENTS AND COORDINATION

VIII. COMMENTS AND COORDINATION

Introduction

The Draft Environmental Impact Statement (May, 1988) prepared by the Maryland Department of Transportation, was circulated to Federal, State, and local agencies as well as businesses and community associations. A Combined Location/Design Public Hearing was held on June 22, 1988 at the Catonsville Senior High School in Catonsville, Maryland. Approximately 500 citizens were in attendance, with 2 elected officials and 26 citizens providing public testimony.

Written comments and verbal testimony received as a result of these activities were considered in the selection of the Final Build Alternative or "Selected Action".

This Section of the Document has five subsections, outlined below, which include the comments received and responses to them.

	<u>Page</u>
A. Agency Comments Received on the Draft EIS (May 1988) and Responses Thereto Concerning the Selected Action.	VIII-A1
B. Summary of and Responses to Public Hearing Testimony	VIII-B1
C. Summary of and Responses to Public Written Comments	VIII-C1
D. Agency Coordination	VIII-D1
E. Community Association Coordination	VIII-E1

A. AGENCY COMMENTS RECEIVED ON THE DRAFT EIS (MAY, 1988)
AND RESPONSES THERETO CONCERNING THE SELECTED ACTION

The following agencies provided comments on the Draft EIS:

<u>Agency</u>	<u>Date of Letter</u>
Baltimore County Department of Public Works - Bureau of Traffic Engineering	June 8, 1988 and June 13, 1988
US EPA, Region III	June 19, 1988
US Department of Commerce - NOAA/Ecology and Environmental Conservation Office	June 20, 1988 and June 30, 1988
Maryland State Department of Education	June 14, 1988
Maryland Department of Public Safety and Correctional Services (Md. State Police)	June 23, 1988
Regional Planning Council	June 24, 1988
Maryland DNR/Capital Programs Administration	July 6, 1988
Maryland DNR/Water Resources Administration	July 7, 1988 and July 11, 1988
Anne Arundel County Office of Planning and Zoning	July 13, 1988
Maryland Department of State Planning	July 14, 1988
Baltimore County - Director of Public Works	July 19, 1988
US EPA Region III	July 25, 1988
US Department of HUD	July 25, 1988

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS - BUREAU OF TRAFFIC ENGINEERING

TO: Mr. Frank Fisher
Office of Planning and Zoning
401 Bosley Avenue
Towson, Maryland 21204

Date: June 8, 1988

Responses to Baltimore County Department of Public Works -
Bureau of Traffic Engineering
June 8, 1988

RE: PROJECT REVIEW FORM

Project: DEIS/Sec. 4(f) Evaluation - I-695 & MD 295

R & R File Number: 0416-88104 (St. ID #: 880531-0416)

Comments should be returned by: 6/21/88

Check One

- This agency has no comments on this proposal.
- This project is consistent with or contributes to the fulfillment of local comprehensive plans, goals, and objectives.
- This project raises issues concerning compatibility with local plans or intergovernmental problems, and a meeting with the applicant is requested. (Explain below.)
- This project raises issues concerning compatibility with local plans or intergovernmental problems; however, a meeting with the applicant is not requested. (Explain below.)
- This project is generally consistent with local plans, but qualifying comments are necessary. (Explain below.)

For specific comments and responses see June 13, 1988 letter on following pages (pp. VIII-A3 to VIII-A4).

This project is compatible with the Baltimore County Master Plan see page III-14 for further discussion.

Comments The growth area proposed for the 1st District would add increased traffic volumes to the Beltway. Some of this traffic would use the southbound ramp from Belmont Ave. This could necessitate the extension of the Belmont Ave ramp.
The Office of Planning will study this growth area as part of the updated Master Plan due in 1989. This study could address when this ramp extension might be needed.

The Belmont Avenue ramp referenced here is actually Ramp M from Security Boulevard. This improvement has been included into the Selected Action of this FEIS and is described on page II-7.

RETURN TO LOCAL REFERRAL COORDINATOR
NAMED ABOVE

Signature H.M. Gorn
Title Engineer
Agency DPW - Bureau of Traffic Engineering

VIII-A2

2/19

BALTIMORE COUNTY, MARYLAND

INTER-OFFICE CORRESPONDENCE

Paul L. Hudson, Chief
TO...Bureau of Engineering..... Date...June 13, 1988.....

C. Richard Moore, Bureau Chief
FROM...Bureau of Traffic Engineering

SUBJECT...E.I.S. Comments for Beltway-South Widening

The following comments and aerial photographs are offered concerning the E.I.S. for the Beltway-South widening project:

1. Edmondson Avenue:
 - a. Widen southbound exit ramp to three approach lanes for a free right turn lane and double left turn lanes for possible future signalization at Edmondson Avenue.
 - b. Widen Edmondson Avenue to five lanes for a left turn lane into the on-ramps, both inside and outside the Beltway.
 - c. Close Forrest Avenue at Edmondson Avenue and tie into Glenwood Avenue.
2. Frederick Road:
 - a. Widen southbound exit ramp to three approach lanes for a free right turn lane and double left turn lanes for possible future signalization at Frederick Road.
 - b. Because of the fact that Frederick Road is on structure at I-695, it would be difficult to widen to five lanes. It could be restriped, however, for two eastbound lanes to receive the proposed double left turn lanes from the southbound exit ramp.
3. Kenwood Avenue: Clear and grade for sight distance between Kenwood Avenue and the southbound to westbound exit ramp.
4. Hollins Ferry Road - Provide east and westbound left turn lanes on Hollins Ferry Road into the commercial accesses opposite the exit ramps, by cutting back the existing medians.
5. I-70 - Lengthen the ramp from southbound Security Boulevard on the west side of the columns supporting the I-70 overpass, so that the merge lane onto I-695 would be longer and would take place south of I-70.

Responses to Baltimore County Department of Public Works
Bureau of Traffic Engineering
June 13, 1988

- 1a,b This was considered and not selected because existing and future traffic volumes do not indicate a need for these improvements.
- 1c. Closing Forest Avenue has been investigated. The close proximity of the homes along Glenwood Avenue would preclude a connection. The design recommended in the FEIS at Edmondson Avenue does not require closure of Forest Avenue.
- 2a. Signalization of the ramps at Frederick Road is being investigated by SHA District Office. Widening will be considered as part of the signalization study.
- 2b. The Frederick Road bridge over I-695 will be reconstructed as part of the I-695 widening. The new bridge will accommodate two lanes in each direction, a center turn lane and sidewalk on either side.
3. Wilkens Avenue Interchange Option 1 was not selected, therefore grading is not required at this location.
4. Modifications on the west side of the interchange are not included in this project. Reconfiguration on the east side to accommodate relocated Ramp F will require median revisions.
5. This is included in the Selected Action as part of the FEIS.

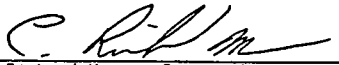
VIII-A3

200

Paul L. Hudson, Chief
Page Two
June 13, 1988

The study limits of the project included the I-70 interchange, however, the construction limits do not. The short southbound Security Boulevard ramp is only part of the problem at the I-70 interchange. The Beltway is only six lanes wide here with narrow shoulders that are not wide enough to accommodate stopped vehicles. The traffic volume at this point is one of the highest on the Beltway. Since the maximum width is limited to only six lanes because of the large columns supporting three levels of ramps, the volume per lane will be even higher after the rest of the beltway is widened to eight lanes. These limitations make it even more important to extend the southbound Security Boulevard ramp because it appears to be the only improvement that can be reasonably made.

6. The DEIS (May 1988) and presentation during the Location/Design Public Hearing did not include the I-70 interchange. Since that time, the limits have been extended to the I-70 interchange. The revisions proposed address the ramp M movement from Security Boulevard only. Widening to four lanes within the existing roadway clearance of 52'-6" will be done by the District in the northbound direction. The proposed improvements in the southbound direction of I-695 will include restriping of I-695 to accommodate four lanes and relocation of ramp M behind the pier carrying I-70 over I-695.


C. Richard Moore, Bureau Chief
Bureau of Traffic Engineering

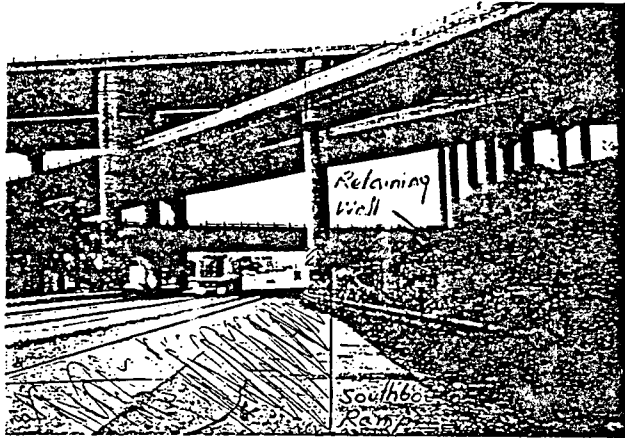
cc: Mr. J. Trenner
Mr. S. Poelman

CRM/GMJ/pm1-b

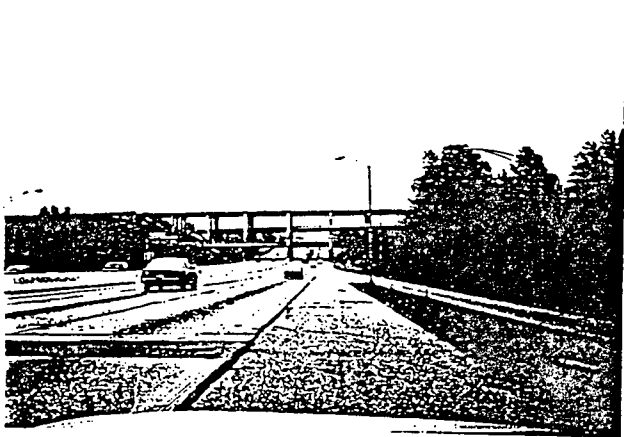
1271

VIII-A4

Baltimore Beltway @ I70 (Outer Loop) 6/21/88



I695 at I70 - Proposed extension of southbound on ramp from Belmont Ave with retaining wall supporting side slope (looking southbound)



The existing southbound on ramp from Belmont Ave ends just before I70 overpass (looking southbound)

VIII-A5

422

Responses to United States Environmental Protection Agency
June 19, 1988



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

JUN 19 1988

Ms. Cynthia D. Simpson, Chief
Environmental Management
State Highway Administration
Project Development Division (Room 310)
707 North Calvert Street
Baltimore, Maryland 21202

Re: I-695 from US Rt. 40 (West) to MD Rt. 170,
including MD Rt. 295 from MD Rt. 46 to the Baltimore
City Line (88-04-591)

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. We are satisfied with the approach, and the assumptions used, for analyzing the air quality impacts of the project. The results of the analysis indicate that the project will not violate the National or State Ambient Air Quality Standards. Therefore, we do not object to this project on the basis of air quality impacts.

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 Larry Budney at 215/597-7336 or 597-0545 respectively.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeffrey M. Alper".

Jeffrey M. Alper, Chief
NEPA Compliance Section

Selected Action, including the I-70 interchange is consistent with these comments.

See page IV-19 to IV-23 for air quality analysis of Selected Action.

223

VIII-A6

PROJECT
DEVELOPMENT

JUL 12 3 51 AM '88



UNITED STATES DEPARTMENT OF COMMERCE
The Chief Scientist
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

Response to United States Department of Commerce - NOAA
June 20, 1988

June 20, 1988

Mr. Louis H. Ege Jr.
Deputy Director
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Ege:

This is in reference to your Draft Environmental Impact Statement for the I-695: Baltimore Beltway, Maryland Route 295: Baltimore, Maryland. Enclosed are comments from the National Oceanic and Atmospheric Administration.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Please note the change in our address:

Director
Department of Commerce
NOAA/CS/EC/Room 6222
14th & Constitution Avenue, N.W.
Washington, D.C. 20230

Sincerely,

David Cottingham

David Cottingham
Ecology and Environmental
Conservation Office

Enclosure

The National Oceanic and Atmospheric Administration comments of June 30, 1988 discussed geodetic control survey monuments in the Study Area. All horizontal and vertical control quadrangles which would potentially be impacted were reviewed. Further coordination would take place during the Final Design stage of this project.



204

VIII-A7



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

Response to United States Department of Commerce - NOAA
June 30, 1988

JUN 30 1988

MEMORANDUM FOR: David Cottingham
Ecology and Environmental Conservation Office
Office of the Chief Scientist

FROM: *for J. Gust Yeager*
Rear Admiral Wesley V. Hull, NOAA
Director, Charting and Geodetic Services

SUBJECT: DEIS 8805.09 - I -695 Baltimore Beltway and
I-295 Baltimore-Washington Parkway, Maryland

The subject statement has been reviewed within the areas of Charting and Geodetic Services' (C&GS) responsibility and expertise and in terms of the impact of the proposed actions on C&GS activities and projects.

A preliminary review of C&GS records has indicated the presence of numerous geodetic control survey monuments in the proposed project area. Three first-order vertical control level lines and numerous horizontal control triangulation stations are located in the vicinity of the proposed project. Attached are four horizontal and one vertical control quadrangles of published data for the proposed project area as identified below:

1. Quadrangle number 390763 (Vertical)
2. Quadrangle number 390763 NE (Horizontal)
3. Quadrangle number 390763 SE (Horizontal)
4. Quadrangle number 390763 SW (Horizontal)
5. Quadrangle number 390763 NW (Horizontal)

These quadrangles should be reviewed for identifying the location and designation of geodetic control monuments that may be affected by the proposed project. If there are any planned activities which will disturb or destroy these monuments, C&GS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation.

C&GS recommends that funding for this project include the cost of any relocation required for C&GS monuments. For further information about these monuments, please contact the National Geodetic Information Branch, N/CG17, Rockwall Bldg., room 20, National Geodetic Survey, NOAA, Rockville, Maryland 20852, telephone 301-443-8631.

Attachments

cc:
N/CG17 - Spencer
N/CG1x25 - Poust
75 Years Stimulating America's Progress * 1913-1988



Review of all monument information available to the Maryland SHA resulted in the identification of approximately 8 monuments which may be affected by the Selected Action. This information, as well as the records of monuments collected by the project team, will be transferred into final design following the project planning study. The exact determination of effect will be made during final design. Effect and relocation of options will be fully investigated.

VIII-1-A8

275

MARYLAND STATE DEPARTMENT OF EDUCATION
200 WEST BALTIMORE STREET
BALTIMORE, MARYLAND 21201
(301) 224-2202

Received on 6/15/88
MSDE School Facilities

DATE: JUNE 14, 1988

TO: Al Abend
FROM: Skipp Sanders
SUBJECT: Attached Proposal

Please review the attached proposal and return your response to me by:

JUNE 21, 1988

Thank you.

SS/jki
Attachment

SKIPP:

ONLY ONE SCHOOL APPEARS
TO BE IMPACTED UPON BY
THIS ROAD CONSTRUCTION -
MAIDEN CHOICE CENTER
(SPECIAL EDUCATION). I
HAVE SPOKE TO BALT. CO.
PUBLIC SCHOOLS & THEY
EXPRESS NO CONCERN
ALTHOUGH THEY WILL LOOSE
ONE OR TWO PARKING
SPACES FROM ONE PARKING
LOT.

AL

Responses to Maryland State Department of Education
June 21, 1988

The school parking spaces and access which would be impacted with the Selected Action, will be mitigated on-site as per letter received from Baltimore County Public Schools on March 5, 1991 (see letter on pages VIII-D33 and VIII-D34).

VIII-A9

2/2/88

MARYLAND STATE POLICE

TO Mr. John J. O'Neill, Dep. Sec., PSCS DATE June 23, 1988

FROM Colonel E. H. Tippet, Superintendent

- For your information
- As requested
- Approve and return
- Note and return
- See me
- Take charge of
- For additional information
- For comment/recommendation
- Give me facts so I can answer
- Prepare reply for my signature

RE: SHA - State Planning MD880531-0416

The Draft Environmental Impact Statement, as it pertains to the State Highway Administration's State Application Identifier: MD880531-0416, has been reviewed. With the projected increases in traffic volume, it is obvious the proposed widening of both Interstate 695 and Maryland Route 295, which include interchange modifications in the designated areas, would enhance future traffic operation and safety.

The proposed changes under Build Alternate 2, mainline widening, with Interchange Options 1, 2, and/or 3, would have the most positive long term effect on safety in both Baltimore and Anne Arundel Counties. The environmental impact in the designated areas would be minimal. Obviously, the improvements will have an adverse effect on Traffic flow during construction and may require the utilization of uniformed troopers beyond our present capacity, due to this Agency's agreement with State Highway Administration to provide assistance in various project zones. Every effort will be made by this Agency to resolve, in a timely fashion, any problem areas that may arise which specifically deal with traffic flow and safety.

EHT: sg

Response to Maryland State Police
June 23, 1988

Construction will have some effect on traffic operations. Maintenance of traffic, however, will be designed to minimize the impact on traffic operation. For example, every effort will be made to maintain the current number of travel lanes.

In addition, staging of construction will be conducted in a coordinated effort such that disturbance to certain areas will be minimized.

227

VIII-A10



Regional Planning Council
 2225 North Charles Street Baltimore, Maryland 21218-5767 (301) 554-5600
 Dennis F. Rasmussen, *Chairman* Guy W. Hager, *Executive Director*

RECEIVED
 JUN 16 1988

June 24, 1988

Ms. Mary F. Abrams, Director
 Maryland State Clearinghouse
 for Intergovernmental Assistance
 Department of State Planning
 301 West Preston Street
 Baltimore, Maryland 21202

Re: Metropolitan Clearinghouse
 Review and Referral Memorandum,
 Project: 0416-88104
 DEIS-Sec. 4(f) Evaluation -
 I-695 & MD 295

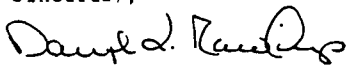
State Clearinghouse #: 880531-0416

Dear Ms. Abrams:

The attached review and referral memorandum is certification that the above referenced project has undergone review and comment by the Regional Planning Council and a recommended action has been determined based on the Council's findings.

Comments on this project were requested from: Anne Arundel and Baltimore counties.

We appreciate your attention to Metropolitan Clearinghouse procedures. If you have any questions, please contact us at 554-5609.

Sincerely,

 Darvl L. Rawlings, Coordinator
 Metropolitan Clearinghouse

Attachment

State of Maryland
 Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County

Regional Planning Council cover letter response
 June 24, 1988

Comments attached with this letter follow on pages VIII-A12 thru VIII-A13.

Staff reviewed submitted DEIS - Section 4(f) Evaluation for I-695/Md. 295 and their comments addressed two areas. These two concerns were the compatibility with local plans and extension of the Study limits to include the I-70 interchange. As stated in the responses next to the comments, the local plan issue is addressed on pages III-13 and 14 of the FEIS documenting compatibility.

The issue relating to the inclusion of the I-70 interchange was considered very seriously. This resulted in development of proposed improvements, and selection for inclusion in the FEIS. These improvements are described on page II-7 of the FEIS.

228

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218

Response to Regional Planning Council
June 24, 1988

RPC Meeting: 06/24/88

ANNE ARUNDEL COUNTY
& BALTIMORE COUNTY

Project: 0416-88104 DEIS/Sec. 4(f) Evaluation - I-695 & MD 295.
The Maryland Department of Transportation has submitted a DEIS/Sec. 4(f) evaluation for I-695 and MD 295. Several options are given for consideration, such as: (1) regular maintenance, no construction; (2) addition of a mainline lane in each direction; and (3) proposed interchange improvements at various sections. Some natural environmental impacts would occur depending upon which interchange option would be chosen.

Referral Source: Department of State Planning

COMMENTS

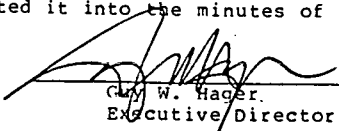
This project raises issues concerning compatibility with local plans or intergovernmental problems; however, a meeting with the applicant is not requested.

The growth area proposed for the 1st District would add increased traffic volumes to the Beltway. Some of this traffic would use the southbound ramp from Belmont Avenue. This could necessitate the extension of the Belmont Ave. ramp. The Baltimore County Office of Planning will study this growth area as part of the updated Master Plan due in 1989. This study could address when this ramp extension might be needed.

Recommendation: Endorsement with Comments.

I HEREBY CERTIFY that at its 279th meeting, which was held on June 24, 1988, the Regional Planning Council concurred in this Review and Referral Memorandum and incorporated it into the minutes of that meeting.

June 24, 1988


Gary W. Hager
Executive Director

1. The project is consistent with local plans. See page III-13, 14 for discussion.
2. The Belmont Avenue ramp referenced here is actually Ramp M from Security Boulevard. The extension of this ramp has been included as the Selected Action in this FEIS. See page II-7 for description of the Selected Action.

279

VIII-A12

RPC Meeting: June 24, 1988

ANNE ARUNDEL &
BALTIMORE COUNTIES

Project: 0416-88104 DEIS/Sec. 4(f) Evaluation - I-695 & MD 295. The Maryland Department of Transportation has submitted a DEIS/Sec. 4(f) evaluation for I-695 & MD 295. Several options are given for consideration, such as: (1) regular maintenance, no construction; (2) addition of a mainline lane in each direction; and (3) proposed interchange improvements at various sections. Some natural environmental impacts would occur depending upon which interchange option would be chosen.

Referral Source: Department of State Planning

COMMENTS

Recommendation:

- 1) Consider extending the projects limits to include improvements to I 70 interchange. Any improvements to this interchange could be phased to be implemented as needed and as funds became available.
- 2) We are not asking for a commitment to improve this interchange at this time. We only request that the project limits of the EIS be extended to include this interchange.

1. Project limits have been extended to include improvements at the I-70 interchange.
2. As noted, FEIS limits have been extended to include this interchange. See description of proposed improvements on page II-7.

23

VIII-A13



Maryland Department of Natural Resources

Capital Programs Administration
2012 Industrial Drive
Annapolis, Maryland 21401

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

Michael J. Nelson
Assistant Secretary
for Capital Programs

Responses to Maryland Department of Natural Resources - Capital Programs Administration
July 6, 1988

RECEIVED
JUL 8 1988
WATERWAY PERMITS DIVISION
WATER RESOURCES ADMINISTRATION

July 6, 1988

MEMORANDUM

TO: M. Q. Taherian, Waterway Permits Division, W.R.A.
FROM: Gene Cheers, ^{A.T.C.} Land Planning Services, C.P.A.
SUBJ: Draft Environmental Impact Statement
I-695 from U.S. 40 (West) to Md. 170 including Md. 295
from Md. 46 to the Baltimore City Line.

The alternatives presented in this Draft EIS vary considerably in their impact on state and local parkland. The comparative impact of the No-build vrs. Basic Mainline Widening (Alternative 2) is minor and I have no problem with widening I-695 and 295 as proposed under Alternative 2. However, coupled with the mainline widening are three Interchange Options (1 thru 3), and it is those variations that may significantly impact state parkland or POS funded local recreational facilities.

Both Interchange Option 1 and 2 (see S-2 in EIS) would require a small area (0.2 acres) from the local Overlook Park. Interchange Option 3 would require 12.7 acres from Patapsco Valley State Park and 2.5 acres from the POS funded local Southwest Area Park. Clearly, Interchange Option 3 would have major impact on existing state and local parkland. It would also result in by far the greatest impact on forest (6.5 acres destroyed), wetland (12.0 acres destroyed), and floodplain (7.8 acres). In order to eliminate or minimize these substantial impacts, I recommend that SHA drop Interchange Option 3 from consideration.

Any conversion of Patapsco Valley State Park land for highway use will require Section 6 (f) land conversion approval by the National Park Service.

1. Interchange options 1 and 2 at the I-695/Md. 295 interchange have been dropped from further consideration so there will be no right-of-way taken from Overlook Park.
2. I-695/Md. 295 Interchange Option 3 has been dropped from consideration due to public and agency comments and recommendations for proposed interchange improvements.
3. Conversion of Patapsco Valley State Parkland for highway use is no longer required since the I-695/Md. 295 Interchange Option 3 has been dropped from consideration.

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

931

VIII-114

M. Q. Taherian
July 6, 1988
Page 2

In addition, the Master Plan for Patapsco Valley State Park includes proposed development in the lower Patapsco area; and, more currently, the Lower Patapsco Greenway Study is being prepared by a consultant for the Department of Natural Resources. Proposals and concepts in these plans should be considered and coordinated with the highway improvements.

cc: Arnold Norden
Tolly Peuleche

GC:sab

Responses to Maryland Department of Natural Resources -
Capital Program Administration - page two
July 6, 1988

4. Coordination with Md. DNR staff regarding the Lower Patapsco Greenway Study indicated that the proposed improvements of the Selected Action will not adversely intrude on the areas of the Lower Patapsco Greenway Study.

237

VIII-A15



PROJECT DEVELOPMENT
 Maryland Department of Natural Resources

Water Resources Administration
 Tawes State Office Building
 Annapolis, Maryland 21401
 Telephone: (301) 974-2265

JUL 11 3 11 PM '88

William Donald Schaefer
 Governor

Torrey C. Brown, M.D.
 Secretary

Catherine P. Stevenson
 Director

Responses to Maryland Department of Natural Resources - Water Resources Administration
 July 7, 1988

July 7, 1988

Mr. Louis H. Ege, Jr.
 Deputy Director
 Project Development Division (Room 310)
 State Highway Administration
 707 North Calvert Street
 Baltimore, MD 21202

Re: WRA No. 86-PP-0433
 SHA No. AW-758-151-072
 DEIS fro I-695 from U. S. 40
 West to MD 170 and MD 295 from
 MD 46 to Baltimore City Line

Dear Mr. Ege:

The above referenced Draft Environmental Impact Statement Section 4(f) Evaluation has received necessary review by this office and other agencies within the Department of Natural Resources. Accordingly, the following is a list of comments and concerns raised by the Department:

1. In accordance with the Water Resources Administration's Rules and Regulations COMAR 08.05.03.01 to 08.05.03.13, the effects of the proposed work on the stream channels and floodplain limits of the Patapsco River, Herbert Run and tributaries should be analyzed and necessary waterway construction permit(s) must be obtained from this office. Any modifications to the existing bridges, culverts and floodplain limits which may require permit(s) must meet the requirements outlined in the aforementioned Rules and Regulations. The necessary hydrologic and hydraulic analyses must be based on ultimate development of the watershed with existing zoning and latest methodologies accepted by the engineering community. The SHA available analysis for I-195 can be utilized in performance of hydrologic and hydraulic analyses of the subject proposed project.
2. In addition to the soil erosion and sediment control plans, necessary measures such as stream diversion during construction and other pertinent procedures outlined in the Maryland Guidelines to Waterway Construction as part of the sequence of construction should be incorporated in the construction plans and specifications.

1. All required permits will be obtained from the appropriate agency and will be in compliance with the appropriate regulations during final design for this project.
2. All required permits will be obtained. The issue of stream diversions required during construction will be considered during final design.

DNR TTY for Deaf: 301-974-3683

233

VIII-A16

Responses to Maryland Department of Natural Resources - Water Resources Administration - page 2
July 7, 1988

Mr. Louis H. Ege, Jr.
July 7, 1988
Page Two

3. p. IV-14 Page 5-8 indicated that .04 acres of wetlands would be to 17 impacted. However, the total on p. IV-17 is 12.29 acres of tidal and non-tidal wetlands. This figure should have been listed early in the document and summary to avoid confusion.
4. p. IV-16 The analysis of wetland #13 suggests that this interchange has several options. Since option #3 apparently impacts the greatest acreage, a different option should be selected.
5. p. IV-22 This page states that up to 21.5 acres of wetlands in the Critical Area could be impacted. The document must be consistent and state clearly all the impacts.

Additional comments, if any, will be forwarded to you in the future. If you should have any questions regarding this matter, please contact me at (301) 974-2265.

Sincerely,



M. Q. Taherian
Project Engineer
Waterway Permits Division

MQT:das

3. Page 5-8 of the DEIS referenced 0.04 acres of wetland which was for the Alternate 2 - Mainline Widening improvements. None of the impacts associated with the interchange options proposed at that time were included in the summary table. The wetland impacts outlined in Table IV-1 include wetlands for all proposed alternates and options. The exact impact depends on the Selected Alternate and option(s) which compose the Selected Action. The total wetland impact for these selected improvements is 0.04 acres (see page IV-13 of this document).
4. As described in Section II of the DEIS (May 1988) and this document, the Options are actually optional improvements to the I-695/Md. 295 interchange. One component of I-695/Md. 295 Interchange Option 3 proposed two additional ramps at the Md. 295/I-895 interchange, one of which would impact Wetland #W13. I-695/Md. 295 Interchange Option 3 was not selected and therefore W13 is not affected.
5. Again, the total wetland impact for the Selected Alternate and Options is 0.04 acres.

254

VIII-A17



Maryland Department of Natural Resources

Water Resources Administration
Tawes State Office Building
Annapolis, Maryland 21401
Telephone: _____

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

James W. Dunmyer
Director

July 11, 1988

Mr. Louis H. Ege, Jr.
Deputy Director
Project Development Division (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

Re: WRA No. 86-PP-0433
SHA No. AW-758-151-072
DEIS 1-695 from U.S. 40 West to MD 170
and MD 295 from MD 47 to Baltimore City
Line

Dear Mr. Ege,

The enclosed memo from the Land Planning Services Division of the Capital Programs Administration lists additional concerns regarding the above-referenced Draft EIS and should be incorporated into your files.

If you have any questions, please call me at (301) 974-2265.

Sincerely,

Helen G. Stein
Waterway Permits Division

HGS

enclosure

Maryland Department of Natural Resources Cover Letter response
July 11, 1988

The Capital Programs Administration comments, dated July 6, 1988, specifically address taking of parkland and associated environmental impacts resulting from the proposed I-695/Md. 295 Interchange Option 3 construction. This option has been dropped from further consideration as a result of this coordination, as well as lack of available funding.

The Selected Action described in Section II - Alternates of this document does not encroach on an parkland within the Study limits.

Coordination with Md. DNR staff regarding the Lower Patapsco Greenway Study indicates that the Selected Action will not encroach on the proposed Greenway.

235

VIII-A18



Responses to Anne Arundel County Office of Planning and Zoning
July 13, 1988

July 13, 1988

ARUNDEL CENTER
P.O. BOX 1831
ANNAPOLIS, MARYLAND 21404

OFFICE OF PLANNING AND ZONING

Mr. Louis H. Ege, Jr., Deputy Director
Project Development Division
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Re: I-695 Draft Environmental
Impact Statement

Dear Mr. Ege,

The need for further improvements to I-695 and Md. 295 are well documented. In view of existing traffic congestion and accident rates, as well as projected growth for the area, we do not believe the "No-Build" option is a reasonable course of action. Although it is clear that any expansion of capacity will be extremely difficult and costly due to the close proximity of developed areas, we feel that safety and capacity improvements are essential to the economic viability of the area and to the comfort and safety of the travelling public. The study area is affected to a great extent by regional and interstate traffic which is independent of local plans and development control. The interchange at I-695 and Md. 295 is a key focal point of regional and interstate traffic. It is also a potential bottleneck and source of network breakdown.

Option 3, utilizing I-895, has several clear advantages for traffic flow, safety, costs and residential impact. It would reduce traffic on I-695 along with the weaving problems related to this significant traffic movement. By creating this alternate route, Option 3 would provide a bypass on occasions when accidents or other delays would cause extreme traffic backups on I-695. Options 1 or 2 would not have this advantage. Option 3 could be built with far less disruption to the maintenance of existing traffic than the other options. This is a critical safety factor to consider. Option 3 should be considered as the preferred plan along with the obvious need for environmental protection and mitigation.

Improvements to the I-695/Maryland Route 295 interchange will be provided by the Selected Action by constructing one additional lane in each direction along both facilities and an additional lane on the southbound I-695 to southbound Maryland Route 295 ramp, as well as the northbound I-695 to northbound Maryland Route 295 ramp.

I-695/Maryland Route 295 Interchange Option 3 was not selected for numerous reasons: it impacted parkland and had other considerable environmental impacts, it did not reduce the traffic volumes or improve the operations at the I-695/Maryland Route 295 interchange.

6/9/88

VIII-A19

Responses to Anne Arundel County Office of Planning and Zoning
page two
July 13, 1988

The widening of Md. 295 would still be needed as evidenced by today's traffic and the intensive development that is now in progress along the Md. 295 corridor. We expect the I-195 project to relieve this congestion temporarily but, not enough to negate the need for capacity improvements. The I-195 project will provide an alternate diversion route for certain I-695 traffic flows similar to the Option 3. The environmental impacts of I-195 were much more difficult to resolve than Option 3 appears to be.

Thank you for the opportunity to review this Draft Environmental Impact Statement. If you have any questions regarding the above comments, you may call me at (301) 280-1474 or 974-6750, ext. 1474.

Sincerely,

Roland Davis
Roland Davis
Sr. Transportation Planner

cc: T. Osborne
K. Krach

RD/mme

The widening of Maryland Route 295 to accommodate three lanes in each direction for the entire section between Maryland Route 46/I-195 and the Baltimore City Line was selected. The traffic projections developed for the design year included an assumption of the completion of I-195 although they were developed prior to the opening of that facility.

937

VIII-A20



MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201-2365

WILLIAM DONALD SCHAEFER
GOVERNOR

July 14, 1988

CONSTANCE LIEDER
SECRETARY

RECEIVED

JUL 20 1988

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

Mr. Neil J. Pedersen
Department of Transportation - SHA
707 N. Calvert Street
Baltimore, Md., 21203-0717

SUBJECT: REVIEW AND RECOMMENDATION

State Application Identification Number: MD880531-0416

Applicant: Department of Transportation - SHA

Description: DEIS/Section 4(F) Evaluation - I-695 from US 40 (West)
to Md. 170 including Md. 295 from Md. 46 to the Baltimore
City Line

Location: Anne Arundel and Baltimore Counties

Approving Authority: DOT

Recommendation: Endorsement Subject to Comments

Dear Mr. Pedersen:

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 16.02.01, 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 subject to comments.

All directly affected State and local public officials were provided notice of the subject. Review comments were requested from the following local jurisdictions and regional and State agencies:

Regional Planning Council, Department of Education, Department of General Services, Department of Agriculture, Department of Public Safety and Correctional Services, Department of Housing and Community Development, including the Md. Historical Trust, Department of Environment, Department of Health and Mental Hygiene, Department of Natural Resources, including the Coastal Zone Resources Division, and the Department of State Planning.

The following specific comments are provided for your consideration:

238

VIII-A21

In accordance with 16 U.S.C. 1456, Section 307(c)(1) and (2) the Department of Natural Resources' Tidewater Administration has determined that the subject is located within the coastal zone and is not inconsistent with the Maryland Coastal Zone Management Program. The Department submitted the enclosed comments noting additional concerns regarding the subject.

Department of Public Safety and Correctional Services indicated that the proposed improvements would enhance future traffic operations and safety.

Department of Education noted that the Maiden Choice Center School would lose one or two parking spaces from the parking lot due to the improvements.

The State Historic Preservation Officer has determined that the subject will not affect known archeological or historic resources. This "determination of no effect" evidences that the requirements of Section 106 of the National Historic Preservation Act and the federal Advisory Council on Historic Preservation's regulations (36 CFR Part 800) have been met for the subject. This letter is evidence of compliance with federal and State historic preservation review requirements.

Regional Planning Council noted that the proposed project raises issues concerning compatibility with local plans or intergovernmental problems; however, a meeting with the applicant is not requested. The growth area proposed for the 1st District would add increased traffic volumes to the Beltway. Some of this traffic would use the southbound ramp from Belmont Avenue that could necessitate the extension of the Belmot Avenue ramp. The Baltimore County Office of Planning will study this growth area as part of the updated Master Plan due in 1989. This study could address when this ramp extension might be needed.

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 federal approving authority. A copy of this statement should also be submitted to the State Clearinghouse. Additionally, you are required to place the State Application Identification (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.

Maryland Department of State Planning
July 14, 1988

1. Maryland DNR indicated concern about wetland impacts which were not clearly identified in the DEIS. This has been clarified in the FEIS, as described in page IV-13. The Selected Action requires the taking/encroachment of 0.04 acres of wetlands. See actual letter dated July 7, 1988 on pages VIII-A16 and VIII-A17.
2. See letter dated June 23, 1988 on page VIII-A-10.
3. Coordination with Baltimore County Public Schools and Baltimore County Department of Public Works - Bureau of Traffic Engineering, resulted in resolution of impacts associated with Maiden Choice Center as described in Section V - Section 4(f) Evaluation. See actual letters dated January 15 and March 5, 1991 on pages VIII-D31 through VIII-D34.
4. See letter dated July 9, 1986, on page VIII-D7 which states the "No effect determination" by SHPO.
5. See letter dated June 24, 1988, on pages VIII-A11 thru VIII-A13.
6. Comments noted.
7. These responses are valid until July 14, 1991, and are thereby in accordance with this requirement.

739

VIII-A22

We appreciate your attention to the intergovernmental review process and look forward to continued cooperation.

Sincerely,

Mary J. Abrams
Mary J. Abrams, Director
Maryland State Clearinghouse
for Intergovernmental Assistance

MJA:SB:mk

Attachments

cc: Bruce Gilmore - DNR
Sheiala Moskow - DHCD
Mac Voelcker - MDE
Daryl Rawlings - RPC (88104)
Eric Walbeck - DGS
James Duffy - DAGR
Betsy Barnard - DHMH
Skipp Sanders - MSDE
John O'Neill - DPSCS

VIII-A23

JMP

Director
Maryland State Clearinghouse
for Intergovernmental Assistance
301 West Preston Street
Baltimore, Maryland 21201-2365

Date:

MD STATE PLANNING
RECEIVED

JUL 14 1988

SEARCHED	INDEXED
SERIALIZED	FILED

SUBJECT: REVIEW COMMENT AND RECOMMENDATION

State Application Identifier: MD880531-0416

Applicant: MDOT - SHA

Description: DEIS/Section 4(f) Evaluation - I-695 from US 40 (West) to Md. 170 including Md. 295 from Md. 46 to the Baltimore City Line

Responses must be returned to the State Clearinghouse on or before June 28, 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).
- 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 attachments - copies of correspondence

(Additional comments may be placed on the back or on separate sheets of paper)

Signature: Virginia Tauber

Name: Virginia Tauber 7/11/88

Organization: DNR/Water Resources Admin.

Address: Annapolis, MD 21401

Response to Maryland Department of Natural Resources -
Water Resources Administration - Maryland State Clearinghouse
July 14, 1988

WRA letter comments of July 7, 1988 address permitting requirements and wetlands inconsistencies within the DEIS. These comments have been addressed in the FEIS as described in the responses to the letter on pages VIII-A16 and VIII-A17.

241

VIII-A24

Date: June 21, 1988

Director
Maryland State Clearinghouse
For Intergovernmental Assistance
301 West Preston Street
Baltimore, Maryland 21201-2365

DEPT. OF STATE PLANNING
RECEIVED

JUN 22 1988

SEARCHED	INDEXED
SERIALIZED	FILED

Maryland State Department of Education - Maryland State Clearinghouse
June 22, 1988

SUBJECT: REVIEW COMMENT AND RECOMMENDATION

State Application Identifier: M0880531-0416

Applicant: MDOT - SHA

Description: DEIS/Section 4(f) Evaluation - I-695 from US 40 (West) to Md. 170 including Md. 295 from Md. 46 to the Baltimore City Line

Responses must be returned to the State Clearinghouse on or before June 28, 1988.

Based on a review of the notification information provided, we have determined that:

Check One:

XXXX 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).

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: PLEASE SEE ATTACHED COMMENTS

(Additional comments may be placed on the back or on separate sheets of paper)

Signature: A. Skipp Sanders (js)

Name: A. Skipp Sanders, Ed.D.

Organization: MD STATE DEPT. OF EDUCATION

Address: 200 West Baltimore Street
Baltimore, MD 21201 2525

Accompanying letter/comment to this cover letter is on page VIII-A9. This letter/comment identifies impacts to the Maiden Choice Center and the attached comments describe the mitigation which has been agreed to by letters from Baltimore County Public Schools. These letters can be found on pages VIII-D31 through VIII-D34.

VIII-A25

248

Director
Maryland State Clearinghouse
for Intergovernmental Assistance
301 West Preston Street
Baltimore, Maryland 21201-2365

Date: June 28, 1988

Maryland Department of Public Safety and Correctional Services -
Maryland State Clearinghouse
June 28, 1988

DEPT. OF STA
RECE.

JUN 29

SUBJECT: REVIEW COMMENT AND RECOMMENDATION

State Application Identifier: MD880531-0416

Applicant: MDOT - SHA

Description: DEIS/Section 4(f) Evaluation - I-695 from US 40 (West) to Md. 170
including Md. 295 from Md. 46 to the Baltimore City Line

Responses must be returned to the State Clearinghouse on or before June 28, 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).
- _____ 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 comments.

(Additional comments may be placed on the back or on separate sheets of paper)

Signature: John J. O'Neill
Name: John J. O'Neill
Organization: Dept. of Public Safety & Correctional Services
Address: 6776 Reisterstown Rd.
Suite 310
Baltimore, Maryland 21215

Letter dated June 23, 1988 indicates concerns of Maryland State Police regarding the result of construction traffic operations. The comments on page VIII-A10 address these concerns.

VIII-A26

243

FROM: Mr. Frank Fisher.
Office of Planning
and Zoning
401 Bosley Avenue
Towson, Maryland 21204

DATE: June 8, 1988

Administrative Office
June 8, 1988

RPC MEETING: June 24, 1988

Joint RPC/CMHSA Review Cycle
(up to 60 days)

RE: REFERRAL COORDINATOR REVIEW SUMMARY

Project: OEIS/Sec. 4(f) Evaluation - I-695 & MD 295

R & R File Number: O416-88104 (St. ID #: 880531-0416)

Comments should be return by: 6/21/88

This project has been forwarded to the following local departments or agencies (check appropriate blanks and attach comments from the reviewing agencies):

___ Planning
___ Environmental Protection
___ Others (Specify) _____
___ Public Works
___ Human Relations

No Comments Required.

JURISDICTION'S COMMENTS

Check One

- ___ This jurisdiction has no comments on this proposal.
- ___ This project is consistent with or contributes to the fulfillment of local comprehensive plans, goals, and objectives.
- ___ This project raises problems concerning compatibility with local plans, or intergovernmental, environmental, or civil rights issues, and a meeting with the applicant is requested.
- ___ This project raises problems concerning compatibility with local plans, or intergovernmental, environmental, or civil rights issues; however, a meeting with the applicant is not requested.
- ___ This project is generally consistent with local plans, but qualifying comments are necessary (attach comments).

RETURN TO:

Signature: [Handwritten Signature]
Title: Asst. to Administrative Officer
Agency: Administrative Office
Date: _____

Coordinator, Metropolitan Clearinghouse
Regional Planning Council
2225 North Charles Street
Baltimore, Maryland 21218

2044

VIII-A27

Baltimore County
Department of Public Works
Towson, Maryland 21204

Gene L. Neff, P.E.
Director

July 19, 1988



Dennis F. Rasmussen
County Executive

Mr. Louis H. Ege, Jr., Deputy Director
Project Development Division
Room 310
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

RE: Draft Environmental Impact Statement
Contract No. AW 758-151-072N
I-695 from U. S. 40 (West) to MD 170
Including MD 295 from MD 46 to the
Baltimore City Line
PDMS No. 251029

Dear Mr. Ege:

We have reviewed the referenced document and offer the following comments:

1. All existing county utilities which are located within the areas of proposed improvements should be investigated as a project responsibility to determine the effects of intended construction. Consideration should be given to potential problems adjacent to the immediate area of construction which may be generated by the intended improvements.
 - a. Optional improvements to Edmondson Avenue could exacerbate storm water flooding requiring storm drain improvements to be extended upstream.
 - b. Sanitary sewers of various sizes exist in several locations along the right-of-way line of I-695, as well as 6 or 8 crossings of project roadways. Proposed noise barrier walls, retaining walls and other improvements should be investigated to avoid conflicts.
 - c. Water mains of various sizes exist within the project roadways as well as attached to some existing bridges. Proposed improvements should provide relocations necessary to avoid conflicts.

Response to Baltimore County Department of Public Works
July 19, 1988

1. An extensive utility inventory was conducted using existing County and private utility information and costs for relocation and/or revisions were considered. Design of these changes will take place during final design.
 - 1a. The I-695/Edmondson Avenue Option 1 and 2 improvements have been deleted from consideration, therefore, additional changes to storm drain improvements upstream would not be necessary to address the options.
 - 1b,c Utilizing roadway as-built plans and utility information, consideration of utilities was included in design and costs. This information will be transferred into final design.

7/19/88

VIII-A28

Mr. Louis H. Ege, Jr.
Deputy Director - SHA
July 19, 1988
Page two

Response to Baltimore County Department of Public Works
page two
July 19, 1988

2. Improvements to Baltimore County roads will be expected to conform to our proposed ultimate widths for project roads, bridges, retaining wall locations, etc.
3. Traffic control plans affecting County roads should be reviewed and approved by this department.
4. The Edmondson Avenue interchange options should consider:
 - a. Widening the southbound exit ramp to three approach lanes for a free right turn lane and double left turn lanes for possible future signalization at Edmondson Avenue.
 - b. Widening Edmondson Avenue to five lanes for a left turn lane into the on-ramps, both inside and outside the beltway.
 - c. Closing Forrest Avenue at Edmondson Avenue and connecting to Glenwood Avenue.
5. The Frederick Road interchange option should consider:
 - a. Widening the southbound exit ramp to three approach lanes for a free right turn lane and double left turn lanes for possible future signalization at Frederick Road.
 - b. Since Frederick Road is on structure at I-695, it would be difficult to widen to five lanes. It could be restriped, however, for two eastbound lanes to receive the proposed double left turn lanes from the southbound exit ramp.
6. The Wilkens Avenue interchange option should consider:
 - a. Clearing and grading along the north side of Wilkens Avenue to provide horizontal sight distance between Kenwood Avenue (west of I-695) and the proposed southbound I-695 off ramp.
 - b. An alternative to elimination of the left turn movement into Kenwood Avenue (east of I-695) from the northbound I-695 off ramp by providing additional lanes on the off ramp and on Kenwood Avenue. Widen the off ramp to three approach lanes at Kenwood Avenue and to at least two lanes near the point where this ramp separates from I-695. Provide four lanes on Kenwood Avenue at the ramp terminus. (This pro-

2. Ingleside Avenue and Edmondson Avenue are currently crossed by the Beltway. Widening to the Beltway will affect the vertical clearance of these bridges. The current standard of 15'0" is not currently available at Ingleside Avenue. Other proposed construction elements such as roadway widths, retaining walls, etc. will not be affected by the Selected Action.
 3. The coordination will be done during Final Design.
- 4a,b This was considered and not selected because existing and future traffic volumes do not indicate a need for these improvements.
 - 4c. Closing Forest Avenue has been investigated. The close proximity of the homes along Glenwood Avenue would preclude a connection. The design recommended in the FEIS at Edmondson Avenue does not require closure of Forest Avenue.
 - 5a. Signalization of the ramps at Frederick Road is being investigated by SHA District Office. Widening will be considered as part of the signalization study.
 - 5b. The Frederick Road bridge over I-695 will be reconstructed as part of the I-695 widening. The new bridge will accommodate two lanes in each direction, a center turn lane and sidewalk on either side.
 - 6a. Wilkens Avenue Interchange Option 1 was not selected, therefore grading is not required at this location.
 - 6b. Currently, two off-ramps provide access to Wilkens Avenue from I-695. Ramp A serves eastbound Wilkens Avenue and Ramp D serves Kenwood Road and westbound Wilkens Avenue. Coordination with the communities in the area, as well as comments made during the June 1988 Location/Design Public Hearing have resulted in the selection of Alternate 2 at this interchange.

246

VIII-A29

Mr. Louis H. Ege, Jr.
Deputy Director - SHA
July 19, 1988
Page three

Response to Baltimore County Department of Public Works
page three
July 19, 1988

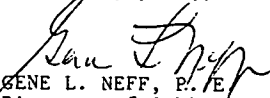
posal should not only accommodate existing traffic conditions, but should also accommodate future traffic signalization as traffic volumes increase).

7. The Hollins Ferry Road interchange option should consider cutting back the existing medians on Hollins Ferry Road in order to provide eastbound and westbound left turn lanes on Hollins Ferry Road into the commercial access roads opposite the intersections of the I-695 ramps.
8. The study limits of the project included the I-70 interchange, however, the construction limits do not. Consideration should be given to lengthen the ramp from southbound Security Boulevard on the west side of the columns supporting the I-70 overpass, so that the merge lane onto I-695 would be longer and would take place south of I-70. The short southbound Security Boulevard ramp is only part of the problem at the I-70 interchange. The Beltway is only six lanes wide here with narrow shoulders that are not wide enough to accommodate stopped vehicles. The traffic volume at this point is one of the highest on the Beltway. Since the maximum width is limited to only six lanes because of the large columns supporting three levels of ramps, the volume per lane will be even higher after the rest of the beltway is widened to eight lanes. These limitations make it even more important to extend the southbound Security Boulevard ramp because it appears to be the only improvement that can be reasonably made.

7. See responses to letter from Bureau of Traffic Engineering, June 13, 1988. Modifications on the west side of the interchange are not included in this project. Reconfiguration on the east side to accommodate relocated Ramp F will require median revisions. The exact intersection configuration will be determined during final design.
8. See responses to letter from Bureau of Traffic Engineering, June 13, 1988. The DEIS (May 1988) and presentation during the Location/Design Public Hearing did not include the I-70 interchange. Since that time, the limits have been extended to the I-70 interchange. The revisions proposed address the ramp M movement from Security Boulevard only. Widening to four lanes within the existing roadway clearance of 52'-6" will be done by the District in the northbound direction. The proposed improvements in the southbound direction of I-695 will include restriping of I-695 to accommodate four lanes and relocation of ramp M behind the pier carrying I-70 over I-695.

We understand that this project is funded for the planning and engineering (final design) phases. We request that you keep us fully informed and submit data and plans for review by our Bureau of Engineering and our Bureau of Traffic Engineering as the project advances.

Very truly yours,


GENE L. NEFF, P. E.
Director of Public Works

GLN:ISP/cjp

cc: C. R. Moore, J. W. Arford, R. A. Childress, P. Y. Rickman,
C. L. Warfield, J. J. Trenner

247

VIII-A30



PROJECT
DEVELOPMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107

JUL 25 1988

Mr. Louis H. Ege, Jr., Deputy Director
Project Development Division (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Re: I-695 from U.S. 40 (West) to MD 170, including
MD 295 from MD 46 to the Baltimore City Line
(88-05-666)

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. We have rated Alternate 1 (No-Build), Alternate 2 (Mainline Widening), Interchange Option 1 and Interchange Option 2 EC-2 on EPA's rating scale, a copy of which is enclosed for your reference. This rating is based upon potential adverse noise impacts to residential communities. Interchange Option 3, however, has been given a separate rating of EO-2. This rating reflects EPA's concern regarding potential impacts to parkland and wetlands, resulting from I-695/Maryland Route 295 Interchange Option 3. The following comments are provided for your consideration in the Final Environmental Impact Statement (FEIS). I-695/MD Route 295 Interchange Option 3:

Option 3 would impact 12.7 acres of the Patapsco Valley State Park, approximately 2.5 acres of the Southwest Area Park and a total of 12 acres of wetlands. The loop ramp of Option 3 would impact a proposed hiking trail along the northern bank of the Patapsco River, while the construction of Ramp Y-1 would impact part of the proposed "Lower Patapsco Greenway." Furthermore, Option 3 would impact approximately 14 acres of environmentally sensitive habitat, as defined by the Chesapeake Bay Critical Areas Act (p. IV-19). In addition to the taking of parkland, wetlands and sensitive areas, increased noise levels and an increase in contaminant laden runoff will affect the enjoyment of proposed recreational activities and the water quality and aquatic life in the Patapsco River.

Responses to U.S. EPA - Region III
July 25, 1988

1. The rating for the Selected Action in EC-2 which is not objectionable to EPA. The EO-2 is not applicable to this project since the I-695/Maryland Route 295 Interchange Option 3 was not selected.
2. I-695/Maryland Route 295 Interchange Option 3 was not selected because of the extensive environmental impacts, the cost of the proposed roadway improvements and the fact that the operations at the I-695/Maryland Route 295 interchange operations would not be measurably improved.

248

VIII-A31

We have based our rating of Option 3 on the aforementioned potential impacts. Note that the elimination of Option 3 would not preclude the selection of Alternate 2, Interchange Options 1 or 2, which do not require right-of-way from the Patapsco Valley State Park (p. V-11).

Page V-1 explains that Option 3 provides improvements to I-895, which is a toll facility and as such is normally ineligible for federal aid funding. EPA appreciates the fact that the Section 4(f) requirements were met nevertheless. The information will now be available as a means of comparing the impacts among the options and to inform federal agencies/the public of proposals being considered by the State Highway Administration, in case some portion of Option 3 is eventually determined eligible by FHWA. Yet federal funding is not the only criteria requiring a proposed project to be included in the NEPA process. Major federal actions significantly affecting the quality of the environment also require documentation under NEPA. Prior to the implementation of Option 3, the U.S. Army Corps of Engineers must issue a Section 404 permit for the filling of wetlands, which could be considered to be a major federal action, thereby requiring full NEPA documentation.

Edmondson Avenue Interchange Options 1 & 2:

Both Options 1 and 2 include an option to relocate the intersection of Arbutus Avenue between Woodlawn Avenue and Edmondson Avenue to a site across from Harlem Lane. This relocation requires crossing 0.2 acres of floodplain and 0.18 acres of wetlands. Unless the FEIS demonstrates the need for this intersection relocation, EPA recommends that it not be implemented, regardless of whether Option 1 or 2 is selected.

Alternate 2: I-695 between U.S. Route 40 and I-95:

The results of the analysis for this section indicates that the acreage of private property and the number of residential displacements required is dependent upon whether retaining walls or full safety grading is utilized. The FEIS should discuss the advantages/disadvantages of the two construction methods and state which method is preferred.

MD Route 295 Options 1 and 2:

The comparison of Maryland 295 Options 1 and 2 on Table S-2 shows that neither option is environmentally superior for all of the comparison factors. For example, Option 2 impacts more properties than Option 1, but Option 1 impacts more wetlands than Option 2. The FEIS should identify the preferred option and give the rationale for its selection.

Responses to U.S. EPA - Region III

Page two

July 25, 1988

3. I-695/Edmondson Avenue Interchange Options 1 or 2 were not selected because of the environmental impacts identified on pages II-17 and 18.
4. As described in Section II of this Document, three alternative grading sections will be considered during the final design process of this project. Retaining walls are included as the preferred method of construction. The other alternatives may be considered during final design under the condition that the design does not result in additional displacements or proximity impacts to residences beyond what is presented in the FEIS. See page II-11 for discussion of grading alternatives.
5. Section II of this Document identifies the Selected Action improvement proposed for the I-695/Maryland 295 interchange. Page II-11 identifies the specific improvements of the Selected Action. Page II-11 describes the proposed improvements between Hollins Ferry Road and Maryland Route 295 along southbound I-695 which will improve the operations at the I-695/Maryland Route 295 interchange. The reasons for which Options 1, 2 and 3 were not selected are outlined on pages II-19 - II-21.

249

Wetlands:

It is EPA policy that impacts to wetlands be avoided whenever possible. Where avoidance is not possible, impacts should be minimized and mitigation measures employed. As discussed previously, impacts to wetlands could be greatly reduced by eliminating Option 3 from consideration.

Page IV-14 states, "Acceptable replacement sites are present and all displaced wetlands would be replaced on a one-for-one basis where deemed necessary." It is not clear what is meant by the fact that wetlands will be replaced "where deemed necessary". It is EPA's policy that all impacted wetlands be replaced on at least a one-to-one basis. In addition, the FEIS should identify the location of potential replacement sites for any impacted areas. EPA is willing to assist in the delineation of wetlands and in the development of a wetland mitigation plan.

Noise:

Area U (Patapsco Valley State Park) is not presently being utilized for recreational purposes and is not governed by the noise abatement criteria for land use category A or B (p. IV-38). Yet just as housing developments proposed prior to the environmental documentation of a project are considered for noise abatement, the recreational uses currently proposed for the park should be taken into account in the evaluation of noise impacts.

Areas A, B, E, F, G, H and I appear to meet the requirements for the Type II Noise Abatement Program given on page III-47. Economic criteria are not given for the Type II program, however, Areas A, B and H appear to meet the cost effective criteria given for a Type I program - "approximately \$40,000 per residence" (p. IV-32). Therefore, the FEIS should provide further information concerning the status of Areas A, B and H.

In addition, we question the logic of disqualifying an area for noise mitigation on the basis of one criteria alone. Note that FHWA regulations of May 5, 1987, "Traffic Noise Analysis for Highway Projects which Add Through Traffic Lanes" support the position that criteria should be weighed and that noise abatement should not be rejected solely on the basis of one criteria. For example, areas C and D meet all of the requirements listed on page IV-32 for a Type I Noise Program, except for a minimum 5 dBA increase of Build over No-Build noise levels in the design year. Yet it is possible that if a highway is only widened one lane at a time, the noise level

Responses to U.S. EPA - Region III

Page three

July 25, 1988

6. I-695/Md. 295 Interchange Option 3 was not selected, therefore these wetland impacts would not occur. Wetland Finding on page IV-14.

7. Sections III and IV of this Document reflect current policy of Md. SHA which address issues cited here with respect to the Study Area and Selected Alternate, as appropriate.

8. Individual areas are described on pages IV-32 through IV-43. These descriptions indicate that in Areas A, B, D, E, F, H, HH, II, L, S, V W, and Z, mitigation is reasonable and feasible and that mitigation will be further investigated during final design of this project.

250

VIII-A33

could increase significantly over time, while never meeting the 5 dBA threshold for each additional lane. Therefore, EPA suggests that the results of further analysis regarding the feasibility of noise barriers for Areas C, D, V, W and Y be included in the FEIS.

Thank you for including EPA in the early coordination and review of this project. Should you have any questions, or if we can be of further assistance, please contact Lynn Rothman at 215/597-7336.

Sincerely,


Jeffrey M. Alper, Chief
NEPA Compliance Section

Enclosure

cc: Mr. Ronald Carmichael, FHWA

VIII-A34

251



U.S. Department of Housing and Urban Development
 Philadelphia Regional Office, Region III
 Liberty Square Building
 105 South Seventh Street
 Philadelphia, Pennsylvania 19106-3392

US Department of Housing and Urban Development
 July 25, 1988

JUL 25 1988

Mr. Louis H. Ege, Jr.
 Deputy Director
 Project Development Division (Room 310)
 Maryland State Highway Administration
 707 North Calvert Street
 Baltimore, MD 21202

PROJECT DEVELOPMENT DIVISION
 Jul 20 1 27 PM '88

Dear Mr. Ege:

We have received the Draft Environmental Impact Statement on proposed changes to I-695 and Maryland Route 295. We have reviewed the document and have no comment on it.

Comments noted. No response required.

Thank you for providing us with this review opportunity.

Very sincerely yours,

Margaret A. Krengel

Margaret A. Krengel
 Regional Environmental Officer

VIII-A35

252

B. SUMMARY OF AND RESPONSES TO PUBLIC VERBAL TESTIMONY

1. Combined Location/Design Public Hearing

A Combined Location/Design Public Hearing for this project was held on June 22, 1988 beginning at 7:30 PM. Mr. Robert Olsen, District Engineer, District #4, State Highway Administration, presided. Representatives of the State Highway Administration's Office of Planning and Preliminary Engineering described the project process and the alternatives and options under consideration and provided an Environmental Overview for the Project. Representatives of the Office of Real Estate explained the Right-of-Way Acquisition Process and Relocation Assistance Program. Persons attending the Public Hearing were provided a copy of the "Combined Location/ Design Public Hearing" brochure, which summarizes features of the alternates. The Draft Environmental Impact Statement (May 1988) was available for review prior to and at the Hearing. Displays were available during the meeting which included 1" = 100' scale maps featuring the Build Alternates and Options; project photographs; charts explaining current and future traffic trends; noise projects and other highway projects; and representatives to describe right-of-way and relocation procedures.

An official transcript was prepared of the Combined Location/Design Public Hearing. The Hearing record contains the remarks of 27 speakers, along with several written statements.

The following summarizes the public testimony received during the Hearing:

1. Senator John Coolahan

Senator Coolahan recognized the changes in the proposed improvements (i.e. reduction in residential takings and elimination of ramp closures) which have occurred through the project planning process. Senator Coolahan warned SHA:

"Don't come back in 8 years asking for more lanes - find another route - possibly Md. 100." Senator Coolahan also remarked that noise barriers are urgently needed in the Study Area.

Response:

Other roadways have recently been completed or are under construction which will provide alternative routes for some movements, however, the Baltimore Beltway will still require the widening described in this Document by the design year. Noise barriers have been constructed along southbound I-695 from Ingleside Avenue to Frederick Road and along northbound and southbound I-695 between Frederick Road and Wilkens Avenue. Other noise abatement projects are currently under construction in final design or under consideration in other portions I-695.

254

2. Delegate Louis Morsberger

Delegate Morsberger advised: "Don't keep widening the Beltway, find another route."

Response:

It is expected that this will be the final widening project along this portion of the Baltimore Beltway. During the project planning study, a concerted effort has been made to minimize the impacts and obtain little if any, additional right-of-way. Due to the proximity of the residential communities along the Beltway, this has not been an easy task.

Other routes for the east-west movement have recently been completed, are under construction or in final design. These include Maryland Route 32, Maryland Route 100, and Interstate 195.

3. Mr. Paul Genovese - 315 Kenwood Avenue

Mr. Genovese supports Alternate 1 and opposes Alternate 2 and I-695/Wilkens Avenue Interchange Option 1.

He stated that noise abatement on Kenwood Avenue, West Kenwood Avenue, and Oglethorpe Avenue should be considered for Type I since these areas do not meet Type II criteria.

Response:

Alternate 2 was selected in the I-695/Wilkens Avenue Interchange. The I-695/Wilkens Avenue Interchange vicinity was analyzed for Type I noise barriers. This area did not qualify for barriers due to limited noise reduction and cost.

4. Ms. Denise Myers - 2953 Freeway

Ms. Myers represents residents on Freeway bordering Maryland Route 295, north of I-895 and south of the City Line who support widening Maryland Route 295. The experience of these residents, however, is that the current construction noise (from the widening and landscaping project along Maryland Route 295 southbound) is intolerable, and the lights used during nighttime construction are intrusive.

She questioned why the wooded area between the homes and the roadway were destroyed.

Ms. Myers questioned the noise analysis and the results which were reported.

The community has concerns about drivers on Maryland Route 295 that approach their houses when their vehicles suffer mechanical difficulties.

Responses:

Heavily travelled roadways, of which Maryland Route 295 is one, demand major maintenance and construction projects to be undertaken during non-peak time periods. Unfortunately, those are time periods when the majority of residences are occupied, and thus a conflict results.

In an effort to improve the aesthetic quality along the Maryland Route 295 roadway, trees and shrubbery in some areas were thinned out.

The ambient noise data which was gathered as part of this study are documented in Section III of both the Draft Environmental Impact Statement and this document. The analysis of existing and future conditions is based on current technology. A detailed noise report is available from the Maryland State Highway Administration.

The right-of-way of through highway along Maryland Route 295 and I-695 should be fenced in its entirety. If there are breaks in the fence from accident occurrences or vandalism, this should be reported to the SHA District 5 office for Anne Arundel County and District 4 office for Baltimore County, in order for them to be repaired.

5. Mr. Joseph E. Hopkins, Jr. - 1015 Grove Hill Road

Mr. Hopkins supports Alternate 1. He says that too much money is spent on development of new highways and altering existing ones. Mr. Hopkins is concerned about pollution from the traffic and the environmental impact to the Study Area.

He suggested that HOV lanes be introduced, more park-n-ride areas should be provided and Light Rail Systems developed instead of spending money on the proposed highway improvements.

Responses:

During the project planning process for the I-695/Maryland Route 295 project, the study team has been conscious of the trade-off between roadway capacity improvement, environmental impact and cost. The investigation, development and analysis of alternatives and options for the study and the public participation and agency comments have resulted in decisions the team agrees will provide the greatest traffic capacity and safety improvement with the least amount of environmental impact and cost.

254

Findings of environmental analysis for this project are documented in the Draft Environmental Impact Statement as well as this document. A separate Air Quality Report and Noise Analysis Report are available at the Maryland State Highway Administration.

During 1988, the Maryland Department of Transportation initiated the Statewide Commuter Assistance Study to determine the feasibility of multi-modal transportation improvements such as light rail transit, commuter rail, express bus service, High Occupancy Vehicle (HOV) lanes and highway improvements. This study addressed future travel demands in 24 major corridors throughout the state. The goal of this study was to determine how best to move people along the most heavily travelled corridors in the State. The final phase of this study, completed in 1990, examined the addition of one HOV lane in each direction to the existing Beltway. The result of this analysis indicates that an HOV lane would not attract a large number of users and would, therefore, increase congestion on the remaining lanes. Therefore, HOV lanes were not recommended for further consideration.

6. Mr. Gerald Hinderer - 6612 Kilmarnoch Drive

Mr. Hinderer believes that most residents along the Beltway between I-95 and U.S. Route 40 are opposed to further widening and would favor Alternate 1. He also believes that other highway projects currently being constructed or studied will relieve traffic congestion.

Mr. Hinderer mentioned that many projects have inconvenienced residents by the construction noise, pollution, and safety hazards.

He suggested that SHA build an outer Beltway further west instead of tearing up neighborhoods. Mr. Hinderer said that "Future projections of Beltway traffic and safety increases can be as erroneous as all of your past wrong projections." Mr. Hinderer commented that neighborhoods do not need additional construction pollution resulting from Beltway construction which usually takes 5 to 10 years and they don't need pollution from two more lanes of traffic.

He requested that Baltimore County and State legislators change the Baltimore County Master Plan and substitute Alternate 1 for proposed improvements to the Beltway between U.S. Route 40 and I-95.

He suggested that there are other ways to improve traffic flow and decrease accidents.

Responses:

Early in this project it was determined that I-695 passed through a sensitive residential area. Efforts were made to reduce overall impacts by staying within the right-of-way as much as possible.

Other projects which have been recently completed (I-195), are under construction (I-97 and Maryland Route 32) or are in final design (Maryland Route 100) will temporarily reduce the east-west demand on the Beltway. Those facilities were considered in the development of the projected year 2015 traffic volumes and additional capacity would still be required on the Beltway.

Construction will not be done during peak hours and will be in accordance with local noise ordinances.

An outer Beltway, a portion of which was known as Metropolitan Boulevard, was previously considered but deleted for political reasons. The Baltimore County Master Plan 1989-2000, adopted February 5, 1990, has identified roadway facilities which will be addressed to provide motorists with acceptable traffic service. The widening along the Beltway in the Study Area is included in the Master Plan.

During 1988, the Maryland Department of Transportation initiated the Statewide Commuter Assistance Study to determine the feasibility of multi-modal transportation improvements such as light rail transit, commuter rail, express bus service, High Occupancy Vehicle (HOV) lanes and highway improvements. This study addressed future travel demands in 24 travel corridors throughout the state. The goal of this study was to determine how best to move people along the most heavily travelled corridors in the State.

The Baltimore Beltway was identified as Corridor 1 for this study. In the initial phase of this study, light rail transit, other guideway transit and Commuter rail were determined not to be appropriate because they do not meet the needs of the type of traffic using the corridor. The Report states that "the many trips occurring within the Beltway Corridor are very dispersed as to origin and destination, and many involve only short segments with the circumferential corridor itself. Future travel projections indicate continuation of this pattern, a pattern extremely difficult to serve effectively with a fixed guideway system."¹

1 Maryland Statewide Commuter Assistance Study, Maryland Department of Transportation, July, 1990.

258

The final phase of this study, completed in 1990, examined the addition of one HOV lane in each direction to the existing Beltway. The result of this analysis indicates that an HOV lane would not attract a large number of users and would, therefore, increase congestion on the remaining lanes. Therefore, HOV lanes were not recommended for further consideration.

- 7. Mr. Richard Snader, President Arbutus Volunteer Fire Department - 5200 Southwestern Boulevard

Mr. Snader is concerned about the geometrics of the Wilkens Avenue loop ramp which result in a high number of traffic accidents. He supported the relationship with the SHA and the Fire Department(s) so that responses can be planned with construction maintenance of traffic.

Responses:

Wilkens Avenue loop ramp B has a restricted geometry which has caused this ramp to be rated as a high accident interchange ramp in the past. Within the past year, the SHA District Office has placed chevrons and a large warning sign at the ramp to warn drivers to use caution in approaching the sharp curve.

- 8. Mr. James Judge, Baltimore County Fire Department

Mr. Judge represents the Baltimore County western district from Greenspring Avenue to the Anne Arundel County Line. He noted the roll-over problem resulting from the geometrics with trucks at ramps at US Route 40, Edmondson Avenue, Wilkens Avenue. The Fire Department supports the I-695/Wilkens Avenue Interchange Option 1 for the relocation of the southbound loop ramp.

Responses:

This option was not selected because the proposed ramp would have a high potential for rear-end accidents. This type of accident is more common for the diamond-type ramp proposed. The steep descending grade would have required vehicles to decelerate while travelling downgrade in order to stop safely. This would have further increased the likelihood of rear-end accidents.

At the I-695/Wilkens Avenue Interchange several studies, in addition to Option 1, were investigated. Due to cost considerations, however, none of the optional configurations were selected.

9. Mr. Richard Siebenaler - 1207 Leeds Terrace

In general, Mr. Siebenaler supports improvements on I-695 and Maryland Route 295 and also suggests the need for an additional lane between U.S. Route 40 and Maryland Route 140.

Mr. Siebenaler suggested that SHA Study extending I-70 into Downtown Baltimore.

A specific area of concern is weaving along I-695 northbound between I-95 and Wilkens Avenue and from Wilkens Avenue along I-695 southbound to I-95.

Responses:

The Selected Action would result in at least four lanes in each direction from Maryland Route 295 to Maryland Route 140 except at I-95(s) and I-795.

A study extending I-70 into Baltimore City to connect with I-95 was undertaken in the early 1970s. Environmental legislation enacted during the study resulted in the identification of critical environmental impacts which would have resulted from the construction of the highway. There is no possibility of resurrecting that study with the current environmental legislation and processes.

The proposed improvements for the area between Wilkens Avenue and I-95 has been designed to provide a major fork in each direction. This design, described in Section II of this document should improve the overall operation on this portion of the Beltway.

10. Ms. Berchie Manley - Vice President, of the Southwest Coalition

Ms. Manley supports light rail for the north/south route. She mentioned the need for an outer Beltway and the need to encourage car pooling.

Ms. Manley questioned whether the project could be constructed in phases addressing the I-95 interchange and ramps at certain interchanges that require revisions. In terms of phasing, however, she does not support widening the Beltway first and then providing interchange improvements at a later time.

She said that the SHA should consider extending truck restrictions along the entire Beltway.

The Lansdowne Improvement Association requests noise barriers if any improvements are made in their area.

260

Responses:

Portions of the 30-mile north/south route of the Central Light Rail Line are currently under construction with others in design.

An outer Beltway, a portion of which was known as Metropolitan Boulevard, was previously considered but deleted for political reasons.

The construction would be staged. The highest priority for this Study Area is the portion between Wilkens Avenue and I-95. The two interchange options selected could not be constructed subsequent to the widening along the mainline; each would be constructed as part of the mainline widening.

Truck restrictions are provided on this portion of the Baltimore Beltway due to the length of the grade on the mainline. The State Highway Administration has restricted trucks on the Beltway in selected areas where the steep grades cause operational difficulties. The Administration, however, has a general policy to not restrict trucks in the left-hand or high speed lanes other than in four-lane sections

Noise mitigation has been determined to be reasonable and feasible in noise areas V and W which are adjacent to Md. 295 north of the Harbor Tunnel Thruway (I-895). These mitigation measures will be further investigated in final design.

- 11. Mr. Sam Guida - 18 University Avenue

Mr. Sam Guida pointed out that with the proposed I-695/Wilkens Avenue Interchange Option 1 by eliminating left turning traffic at Kenwood Road, additional traffic must use Maiden Choice Lane.

He also agreed with previous speakers regarding inability of widening the Beltway to solve the traffic problems.

Responses:

Interchange Option 1 was not selected.

- 12. Mr. Keith Gallagher - 206 Shadynook Court

Mr. Gallagher supports HOV lanes. He said that enforcement of truck restrictions on the northbound Beltway is needed in this section.

Mr. Gallagher had concerns about the consideration for time of day of construction. Mr. Gallagher had a question about the method of construction in the vicinity of existing or proposed noise barriers.

261

Responses:

Results of the Maryland Statewide Commuter Assistance Study show that an extra lane and maybe HOV considered later.

Construction will be done off-peak and conform with noise regulations.

The specific question regarding method of construction along Shadynook Court was answered by SHA staff at the meeting.

13. Mr. Arthur Howe - 4912 Gateway Terrace

Mr. Howe expressed concern about the height of the retaining walls with noise barriers.

Responses:

The noise barriers along the northbound Beltway in the Gateway Terrace vicinity would be placed on top of the retaining walls located to accommodate the proposed widening. These walls would be approximately 15 feet in height atop the high retaining wall.

14. Mr. Frank Baird - 1204 Greystone Road

Mr. Baird commented on noise abatement. He also had concerns about the erosion problems resulting from poor maintenance on County or State owned properties adjacent to residential properties.

Responses:

Noise mitigation was determined to be reasonable and feasible for noise Area II. These measures will be investigated during final design.

Maintenance concerns should be brought to the attention of the District Engineer.

15. Mrs. Dorothy McCrory - 1 Bristol Hill Court

Mrs. McCrory is concerned about the increase of traffic on Wilkens Avenue when the left turn at Kenwood Road at I-695/Wilkens Avenue interchange is eliminated with Interchange Option 1.

Responses:

Interchange Option 1 was not selected at this location.

2/16/2

While testimony was being taken at the microphones in the school auditorium, additional private testimony was being taken in the gymnasium. The following summarizes the testimony taken in the gymnasium.

16. Mr. William F. Lacky - 114 Forest Avenue

Mr. Lacky expressed concern about the interchange options at Edmondson Avenue and access from Forest Avenue to Edmondson Avenue and supported I-695/Edmondson Avenue Interchange Option 1.

Responses:

Alternate 2 was selected at Edmondson Avenue.

17. Mr. Bruce Van Newkirk - 217 South Paradise Avenue

Mr. Van Newkirk would prefer to not have the noise barriers in the Shady Nook area moved closer to residences as required by widening along the northbound roadway with Alternate 2.

Responses:

Preliminary design provided during the project planning process indicates the need to shift the existing noise barrier to accommodate the widening.

18. Mr. Charles Gillian - 608 Woodsdale Road

Mr. Gillian said that a noise barrier is needed.

Responses:

The Type II noise barrier has been constructed between Ingleside Avenue and Frederick Road which includes protection of Woodsdale Road.

19. Ms. Frances Leitch - 5914 Moorehead Road

Mr. Leitch said that a noise barrier is needed (Westview Park).

Responses:

A noise barrier at this location has been found to be reasonable and feasible. It will be considered during final design.

263

20. Mr. Philip Lazercaten - 121 Water Street
(Raynor Associates Limited Partnership)

Mr. Lazercaten supports the I-695/Maryland Route 295 Interchange Options 2 and 3.

Responses:

Alternate 2 was selected in the I-695/Maryland Route 295 Interchange vicinity.

21. Ms. Joan Dodson - 280 Blakeney Road

Ms. Dodson questioned whether the existing noise barriers will be moved back to accommodate the widening?

Responses:

A portion of the existing noise barrier in the Shady Nook Court and Shady Nook Avenue vicinity would be relocated to provide for the Selected Action. Since ramp F in the Frederick Road interchange would be relocated closer to the Beltway, however, the noise barrier along the existing ramp paralleling Blakeney Road will not be disturbed.

22. Mr. Stanley Vitkoski - 4855 Carmella Drive

Mr. Vitkoski asked where the noise barriers are that were promised when the Beltway was built. He also questioned why I-70 was not extended to I-95.

Responses:

A noise barrier between Wilkens Avenue and Leeds Avenue has been found to be reasonable and feasible and will be considered during final design.

A study extending I-70 into Baltimore City to connect with I-95 was undertaken in the early 1970s. Environmental legislation enacted during the study resulted in the identification of critical environmental impacts which would have resulted from the construction of the highway. There is no possibility of resurrecting that study with the current environmental legislation and processes.

23. Mr. Mitchell Raines - 4918 Gateway Terrace

Mr. Raines opposes widening of I-695 and Maryland Route 295. His major concerns are about value of homes and noise resulting from the widening.

264

Responses:

A noise barrier between Wilkens Avenue and Leeds Avenue has been found to be reasonable and feasible and will be considered during final design.

- 24. Ms. Mary Topa - 464 Susan Court (Co-President Linthicum Hills Association)

Ms. Topa prefers Alternate 1. If Alternate 1 is not selected, the second choice at the I-695/Maryland Route 295 Interchange would be Interchange Option 3.

The Linthicum Hills community needs noise barriers and fencing around the community and would like to have a landscape buffer around community.

Responses:

Alternate 2 was selected at the I-695/Maryland Route 295 interchange. Existing open space between the Beltway and the neighborhood will not be disturbed and therefore will remain as a landscaping buffer.

As documented in Section IV of the DEIS, a noise barrier was considered in the North Linthicum vicinity and was determined to be unreasonable because the Build Alternate noise level is less than 5 dBA greater than the No Build Alternate in the design year and is less than 10 dBA greater than the ambient noise level.

- 25. Mr. Kingsley Smith - 115 Arbutus Avenue

Mr. Smith said that although his community does not qualify for noise barriers, being opposite to barriers will cause noise deflection. He, therefore, would like some protection.

Responses:

A study was conducted to evaluate impacts resulting from the construction of a noise barrier and retaining wall system on the opposite side of I-695 from the Arbutus Avenue area. Comparison of the 24-hour noise measurements both "before" and "after" the barrier was constructed showed a 1.3-1.4 dBA increase over the "before" condition. Traffic volumes have also increased which resulted in approximately one-half (0.7 dBA) of the total noise increase noted. Therefore, it may be inferred that less than 1 dBA may be attributable to reflection. In terms of perception, a change in noise level of 2-3 dBA is just detectable by the average person. Based on the results as shown, reflected noise from the barrier opposite Arbutus Avenue is not within the perceptible range of human response.

265

26. Mr. Henry Helwick - 5922 Moorehead Road

Mr. Helwick stated that if property is taken from backyards and retaining walls are constructed, noise barriers should also be required.

Responses:

A noise barrier at this location has been found to be reasonable and feasible. It will be considered during final design.

27. Mr. Edward Fisher - 466 Susan Court

Mr. Fisher supports Alternate 1. If Alternate 1 is not selected, the second preference is Alternate 2, with no interchange options, and the third preference is Alternate 2, with the I-695/Md. Rte. 295 interchange Option 3.

Mr. Fisher suggested that there should be fair and strong consideration for noise barriers.

Responses:

Alternate 2 was selected in the I-695/Maryland Route 295 Interchange.

As documented in Section IV of the DEIS, a noise barrier was considered in the North Linthicum vicinity and was determined to be unreasonable because the Build Alternate noise level is less than 5 dBA greater than the No Build Alternate in the design year and is less than 10 dBA greater than the ambient noise level.

28. Mr. Joe Getzendanner - 330 West Kenwood Avenue

Mr. Getzendanner questioned whether there is a priority list for project phasing.

Responses:

The construction for Beltway widening would be staged. This highest priority for this Project is the portion between Wilkens Avenue and I-95.

266

C. SUMMARY OF AND RESPONSES TO PUBLIC WRITTEN COMMENTS

<u>Letter From</u>	<u>Date of Letter</u>
--------------------	-----------------------

1. Business Comments

Ms. A. J. Zissler, Executive Director Greater BWI Commuter Assistance Center Suite E 100 793 Elkridge Landing Road Linthicum, Maryland 21090	June 15, 1988
--	---------------

Mr. Richard B. Schmitt Supplies Unlimited Inc. 2320 Monumental Road Baltimore, Maryland 21227	August 1, 1988
--	----------------

2. Community Association Comments

The North Linthicum Improvement Association, Inc. Box #258 Linthicum Heights, Maryland 21090-0258 Mr. Dominick Morea, President	June 22, 1988
---	---------------

Crestwood Community 100 form letters	July 5, 1988
---	--------------

The Linthicum Hills Homeowners Assoc. Barry Scheitlin and Mary Topa Co-Presidents	July 10, 1988
---	---------------

Kenwood Gardens Condominium Association Mr. Thomas C. Gorak, President 3 Summit Hill Court, #C-3 Baltimore, Maryland 21228	July 20, 1988
---	---------------

Maiden Choice Community 125 form letters	July 22, 1988
---	---------------

Maiden Choice Civic Association Mr. Arthur Howe a petition of 200 homeowners in Maiden Choice Area and form letters from 127 residents	July 28, 1988
--	---------------

3. General Public Comments

Mr. J. Homer Weidemeyer 7602 Windsor Mill Road Baltimore, Maryland 21207	June 2, 1988
--	--------------

Mr. James Gary 720 Kent Avenue Catonsville, Maryland 21228	June 9, 1988
--	--------------

267

Mr. & Mrs. Donald Maisel 1139 Linden Avenue Baltimore, Maryland 21227	June 11, 1988
Mr. Joseph S. Clark 5512 Bluecoat Lane Columbia, Maryland 21045	June 13, 1988
Ms. Carolyn A. Keefe 5931 Linthicum Lane Linthicum, Maryland 21090	June 13, 1988
Ms. Martha Boyd 41 Badgergate Ct. Baltimore, Maryland 21228	June 14, 1988
Ms. Mary B. Clark 9 Carroll Road Baltimore, Maryland 21228	June 14, 1988
Mr. Charles J. Lindner 5724 Calverton Street Baltimore, Maryland 21228	June 14, 1988
Mr. Pfaff 520 Kent Avenue Catonsville, Maryland 21228	June 14, 1988
Ms. Reginia J. Stanhope 4 Winds - Box 53 Lyme Road Lyme, New Hampshire 03768	June 15, 1988
Mr. & Mrs. Edward J. Bedford 2 Kenwood Avenue Baltimore, Maryland 21228	June 16, 1988
Mr. Robert G. Dill 17 University Avenue Catonsville, Maryland 21228	June 19, 1988
Mr. Kenneth R. Fair 5941 Linthicum Lane Linthicum, Maryland 21090	June 20, 1988
Ms. Jane L. Dinkel 2 Dungarrie Road Catonsville, Maryland 21228	June 22, 1988
Mr. William K. Lawrence 101 Arbutus Avenue Catonsville, Maryland 21228	June 22, 1988

268

Ms. Nancy J. Miller June 22, 1988
53 Winslow Park Drive
Baltimore, Maryland 21228

Mr. & Mrs. Rick Siebenaler June 22, 1988
1207 Leeds Terrace
Arbutus, Maryland 21227

Mr. Jacob B. Davis June 23, 1988
5934 Linthicum Lane
Linthicum, Maryland 21090

Mr. & Mrs. Scott Zimmerman June 23, 1988
4848 Carmella Drive
Arbutus, Maryland 21227

Ms. Evelyn Blackwell June 24, 1988
14 Badger Gate Court
Baltimore, Maryland 21228

Ms. Agnes M. Lam June 27, 1988
3035 Freeway
Baltimore, Maryland 21227

Mr. Robert Reuter June 28, 1988
P.O. Box 1514
Baltimore, Maryland 21203

Stanley and Mary Topa June 29, 1988
464 Susan Court
Linthicum, Maryland 21090

Ms. Olive L. Edson June 30, 1988
Ms. Barbara Jean Edson
514 Kent Avenue
Catonsville, Maryland 21228

Ms. Connie Freeman June 30, 1988
9 Pomona, North #7
Pikesville, Maryland 21208

Mr. Robert W. Bassett July 2, 1988
4105 Hollins Ferry Road
Baltimore, Maryland 21227

Mr. E. Henry Hinrichs, D.D.S. July 5, 1989
7703 Bellona Avenue
Ruxton, Maryland 21204

N. Myers July 5, 1988
2945 Freeway
Baltimore, Maryland 21227

269

Nancy Pirtle-Connelly
5018 Gateway Terrace
Baltimore, Maryland 21227

July 13, 1988

Mr. Thomas P. Feulner, Jr.
4908 Gateway Terrace
Baltimore, Maryland 21227

July 15, 1988

Ms. Donna Machin
123 Forest Avenue
Baltimore, Maryland 21228

July 18, 1988

Mr. Thomas J. Connelly and
Nancy E. Pirtle-Connelly
5018 Gateway Terrace
Baltimore, Maryland 21227

July 27, 1988

Mr. James W. Mohler
7 Somerset Road
Baltimore, Maryland 21228

August 2, 1988

GREATER BWI COMMUTER ASSISTANCE CENTER

RECEIVED

#690
JUN 17 1988

June 15, 1988

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

Mr. Neil J. Pedersen
Director
Office of Planning and Preliminary Engineering
State Highway Administration
P. O. Box 717
Baltimore, MD 21203-0717

SUBJ: Public Hearing/Baltimore Beltway and
Baltimore/Washington Expressway (MD Route 46)

Contract Number: AW 758-151-072
PDMS Number: 251029

Dear Neil:

Our staff has reviewed the key data and major findings of the project planning study to develop improvements to both I-695 (Baltimore Beltway) and the Baltimore/Washington Expressway to Route 46. We wish to submit these written comments related to the public hearing to be held on June 22nd in Catonsville.

The Greater BWI Commuter Assistance Center, a transportation management association, supports the build alternate #2 because this construction will help relieve traffic growth impacting the BWI area and will improve highway safety.

At a meeting held in Annapolis last January, our membership collaboratively compiled a list of both short-term and long-term transportation-related problems and solutions, focusing on the greater BWI area and extending south to Fort Meade and Route 32. Consensus of the group (attachment) was that the major commute corridor from Route 795 to the BWI area including the Baltimore Beltway and Route 295 was the top priority short-term transportation problem that needs to be addressed.

The group views capital improvements necessary to help relieve growing traffic along this corridor. Our association also supports and implements traffic mitigation efforts to help manage demand along this major commute route such as encouraging variable work hours and ridesharing.

Page 2
State Highway Administration

For your project staff's information, the Center has been documenting feedback from commuters and trends for the past three years. Employees travelling along this corridor from Baltimore, Frederick and Carroll Counties as well as from Pennsylvania during peak hour have revealed a perception that commute time for employees is growing longer and frustration due to traffic is increasing.

Interviews with employees regarding residential location indicate a movement toward outlying counties in northern Maryland and Pennsylvania where new housing is more affordable. This has become a factor affecting commute time.

In selected cases, our staff is hearing from some employees who now commute through Baltimore City to get to the BWI area, in order to avoid using the Beltway.

Our staff has provided Cathy Pecora information pertaining to employment, land use and development trends in the BWI employment area. If any additional information from the Center's database is useful for this project, we would be glad to provide this information.

We understand the project is funded for the planning and engineering phases. We support funding for right-of-way acquisition and construction.

Sincerely,

A. J. Zissler
Executive Director

Enclosures

cc: Ed Meehan

270

GREATER BWI COMMUTER ASSISTANCE CENTER, INC.
CAC ATTENDANCE LIST
JANUARY 28, 1988
ANNAPOLIS, MD

Anne Arundel County, Thomas Osborne, Planning and Zoning Officer
Annapolis Fine Homes & Investments, Inc., Norman Lutkefedder,
President/Broker
Cardinal Industries, Robert Guirlinger, Location General Manager
Deloitte Haskins & Sells, Tom Kelley, Manager, Tax Department
Dickinson-Heffner, Inc., Samuel Heffner, President
First National Bank, Steve Levin, Branch Manager
Ford Aerospace, Joseph Wilson, Industrial Relations Manager
Gateway International Partnership, Vernon Kalkman, Vice President
International Hotel, Norman Barrack, General Manager
Lancelotta/Hunt Partnership, Tom Shaw, Partner
Loyola Federal Savings and Loan Association, Charles Schmitt,
Senior Vice President
Manekin Corporation, Ellen Davey, Industrial and Commercial Real
Estate
Marriott/Host International, Michael Olivera, General Manager
McCormick Properties, John Lansinger, Marketing and Development
Manager
McCormick Properties, Robin Maisel, Marketing Representative
McDonald's Corporation, Tina Adamides, Personnel Department
MIE Development, Steve Hartman, Vice President
Mass Transit Administration, Ken Goon, Director of Planning
National Security Agency, Catherine Smith, Chief, Commuter
Transportation Center
National Security Agency, Ronald Smith, Chief, Office of
Facilities and Engineering
State Aviation Administration, Jay Hierholzer, Associate
Administrator, Marketing and Development

The KMS Group, Robert Strott, Vice President
The Parkway Companies, Werner Minshall, Chief Development Officer
Trans-Union, Rick Hearn, Operations Manager
Westinghouse Electric Corporation, Joseph Dollard, Deputy
Manager, Manufacturing Operations Manager
Westinghouse Electric Corporation, Ronald Rattell, Director,
Capital Resources
Westinghouse Electric Corporation, Fritz Wheeler, Manager of
Capital Resources Planning and Administration

VIII-C6

271



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

July 8, 1988

Ms. A. J. Zissler, Executive Director
Greater BWI Commuter Assistance Center
Suite E100
793 Elkridge Landing Road
Linthicum, Maryland 21090

Dear Ms. Zissler:

Thank you for your June 15th letter in support of the proposed widening of the Baltimore Beltway.

We understand the importance of providing adequate service to the BWI area and can appreciate the frustration associated with the current congestion on the Beltway. However, given the extensive size and cost of this project, I am sure you can appreciate that it cannot be done as a short-term improvement. It would be seven to ten years before construction would begin.

Thank you again for your support. If you have any questions, please call Ms. Catherine Pecora at 333-1191.

Very truly yours,

Neil J. Pedersen

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

NJP:ss

cc: Mr. Louis H. Ege, Jr.
✓Ms. Catherine Pecora
Mr. Edward Meehan

My telephone number is (301) 333-1110

Teletypewriter for Impaired 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

VIII-C7

278

PROJECT
DEVELOPMENT
DIVISION

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

AUG 9 11 42 AM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

Richard B. Schmitt

NAME Supplies Unlimited Inc. DATE 8-1-88

PLEASE PRINT ADDRESS 2320 Monumental Rd

CITY/TOWN Baltimore STATE Md ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

Please be advised we (Supplies Unlimited, C. E. R.,
Union Square Partnership) are the owners of the
property in question at I-695/Hollins Ferry Rd. option 1.
We own a total of 5.3 Acres in this
location, of which 2.3 Acres are above the flood zone.

We (Supplies Unlimited Inc) are in need of
added Warehouse space for storage.
Over 18 months ago we hired an
Engineering Company to do site plans for our expansion.
We have also put together cost for construction and
Arch. design work for a new building.

We have been informed the only place
we are able to build is on the 2.3 Acres which
the State Highway Administration wants to take.

This location is vital to the success of our
company. We need to have answers right away.
We have been informed funding has not been approved
for this project, and that it may be 10 years away. We
can not wait 10 years for answers. Please help.

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.

The Hollins Ferry Road Interchange Option which has been selected will not require acquisition from Supplies Unlimited, Inc. Construction funding of the entire Beltway widening project will be phased due to the high cost of the project.

273

VTTT-08



NORTH LINTHICUM IMPROVEMENT ASSOCIATION, INC.
Box No. 258
LINTHICUM HEIGHTS, MARYLAND 21090-0258

22 June 1988

State Highway Administration
Office of Planning and Preliminary Engineering
Contract No Aw 758-151-072
P.O. Box 717
Baltimore Md 21203

Dear Sirs:

As I was not able to attend the June 22nd meeting due to a prior commitment the following concerns are raised by the citizens of North Linthicum Improvement Association.

We request a sound barrier be installed along the Baltimore Washington Parkway (route 295 northbound) from the Beltway to the Harbor Tunnel Road exit.

Additionally, we request a noise study be done at Overlook Elementary School for the purpose of a sound barrier from Route 170 to the Route 295 exit. If the noise study indicates a sound barrier is necessary at Overlook Elementary an for some physical reason a barrier cannot be constructed at this location, we request funds be set aside to air condition the School.

We are aware that it is necessary to expand these roads due to the increased traffic flow projected for the future years, but we also believe that the tranquility of our community should not suffer as our community dates back before the existence of both the Beltway and the Baltimore Washington Parkway.

Thank You

Dominick D. Morea
Dominick D. Morea
President

CC: Overlook Elementary School
Anne Arundel County Executive
Theodore Sophocleus - 1st District County Councilman
Senator Michael Wagner - 32nd District
House of Delegates 32nd District: Pat Scannello
Tyrus Athey
George Schmincke



Maryland Department of Transportation
State Highway Administration

July 19, 1988

Mr. Dominick D. Morea, President
North Linthicum Improvement Association, Inc.
Box No. 258
Linthicum Heights, Maryland 21090-0258

Dear Mr. Morea:

I am writing in response to your June 22nd letter requesting noise barriers for the North Linthicum area. We are currently evaluating reasonability of constructing noise barriers as part of the proposed widening of the beltway. We will also be making recommendations regarding the possibility of constructing barriers as part of our retrofit noise barrier program.

The results of our initial evaluation, as stated in the Draft Environmental Impact Statement, indicated that the portion of your neighborhood along MD 295 does not qualify for noise barriers under our policy. There are two reasons why this area does not qualify. First, the proposed widening will not measurably increase the noise level here; therefore, barriers are not eligible for construction as part of the widening. In addition, while your neighborhood has been in existence prior to the construction of the parkway and the beltway, the majority of homes which are close to the highway and can be protected by a barrier were constructed after the Baltimore/Washington Parkway opened to traffic in 1951.

Regarding your request to evaluate a noise barrier at the Overlook Elementary School, we will develop such an evaluation as part of the Final Environmental Impact Statement. If noise barriers prove to be unreasonable, we will consider other forms of mitigation. I will be in touch with you when the results of this study are available.

My telephone number is (301) 333-1110

Teletypewriter for Impaired 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

Cathy 18.

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

VIII-C9

MLC

Mr. Dominick D. Morea

Page 2

In the meantime, if you have any questions or comments, please contact me or the project manager, Ms. Catherine Pecora. Ms. Pecora's telephone number is 333-1191.

Very truly yours,

Neil J. Pedersen

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

NJP:vw

cc: Overlook Elementary School
Mr. James Lighthizer
Councilman Theodore Sophocleus
Senator Michael Wagner
Delegate Patrick Scannello
Delegate Tyrus Athey
Delegate George Schmincke
Mr. Hal Rassofo
Ms. Catherine Pecora

VIII-C10

275

CONTRACT NO. AW 758-151-072
PDMS NO. 251029

July 5, 1988

Gentlemen:

Regarding your Project Planning Study, specifically the proposed options at Maryland Route 295 and 695, it is my sincere belief OPTION 3 is the best alternative to alleviate the increasing traffic volume and subsequent problems at this interchange.

The utilization of an existing section of 859 to divert traffic from 695 is by far the best choice for many reasons.

One reason is cost: Fifty-seven million versus 87.2 and 88.7 million dollars for Options One and Two respectively.

Land acquisition for OPTION 3 would utilize unused landfill and non-accessible wetlands that would be minimally affected by bridge-pier construction. Option One would seriously affect buildings and property along the 695 and 295 interchange, especially six or seven houses along Cheddington Road which, because of the percentage of land taken, would be rendered useless as homes.

Construction noise problems of OPTION 3 would be non-existent compared to Options One and Two because there are no homes or businesses in the immediate area of the construction.

The impact on existing traffic patterns during construction is also a consideration. Currently the old Harbor Tunnel Thruway (895) is being used minimally since the opening of the new Port McHenry Tunnel and construction there would affect a very low percentage of traffic compared to the other options.

In summation, I strongly urge you to consider OPTION 3 as the only feasible option to the 695 and 295 interchange problem.

Sincerely,

Mr + Mrs. Arthur W. Sabo, Jr
427 Madingley Rd. Linthicum
CRESTWOOD Community

This form letter was submitted by persons listed on pages VIII-C12 - VIII-C14. The response made to the Linthicum Hills Homeowners Association, dated August 8, 1988 is on page VIII-C16.

VIII-C11

270

VIII-C12

MM	FIRST	MI	LAST	ADDRESS	CITY	STATE	ZIP
1	Mrs.		Kevin Anselmi	422 Sudbury Road	Linthicum,	MD	21090
2	Mr. & Mrs.	W.	Russell Beaumont	309 Ardmore Road	Linthicum,	MD	21090
3	Mr. & Mrs.		John Bell	No Return Address	Linthicum,	MD	21090
4	Mrs.	A.	Kathleen Bock	311 Cheddington Road	Linthicum,	MD	21090
5	Mr.		Henry Booker	228 Cheddington Road	Linthicum,	MD	21090
6	Mr.	J.	William Brennan	508 Madingly Road	Linthicum,	MD	21090
7	Mr.	J.	Edward Callahan	410 Sudbury Road	Linthicum,	MD	21090
8	Mr.	L.	Edward Cammer	512 Southwell Road	Linthicum,	MD	21090
9	Mr.	J.	John Carr	305 Cheddington Road	Linthicum,	MD	21090
10	Mr.	L.	Edward Carworner	512 Southwell Road	Linthicum,	MD	21090
11	Mr. & Mrs.	P.	Elwood Cassell	No Return Address	Linthicum,	MD	21090
12	Ms.	R.	Anne Church	No Return Address	Linthicum,	MD	21090
13	Mr.		Jerry Colley	No Return Address	Linthicum,	MD	21090
14	Mr. & Mrs.		Gary Cooper	No Return Address	Linthicum,	MD	21090
15	Ms.		Rose Marie Cowan	No Return Address	Linthicum,	MD	21090
16	Mr.	J.	Charles Dixon	430 Sudbury Road	Linthicum,	MD	21090
17	Ms.	M.	Patricia Dolley	315 Ardmore Road	Linthicum,	MD	21090
18	Mr. & Mrs.	J.	Donald Egan	505 Seedbury Road	Linthicum,	MD	21090
19	Mr.	D.	Charles Farmer	204 Cheddington Road	Linthicum,	MD	21090
20	Mr.	B.	Edward Fisher	217 Cheddington Road	Linthicum,	MD	21090
21	Mr. & Mrs.	D.	Dennis Ford	423 Madingly Road	Linthicum,	MD	21090
22	Mr. & Mrs.	A.	Ted Funkhouser	422 Madingly Road	Linthicum,	MD	21090
23	Mr. & Mrs.	M.	James Garrison	425 Sudbury Road	Linthicum,	MD	21090
24	Mr.	G.	James Gillegre	304 Sudbury Road	Linthicum,	MD	21090
25	Mr.		Edward Gilligan	No Return Address	Linthicum,	MD	21090
26	Mr.	R.	Milton Grahl, Sr.	No Return Address	Linthicum,	MD	21090
27	Mr.	A.	Robert Greco	520 Cheddington Road	Linthicum,	MD	21090
28	Mr. & Mrs.		Robert Gregg	420 Madingly Road	Linthicum,	MD	21090
29	Mr. & Mrs.	W.	Jesse Harper	318 Cheddington Road	Linthicum,	MD	21090
30	Ms.	V.	Theresa Hergan	437 Sudbury Road	Linthicum,	MD	21090
31	Ms.	M.	Mildred Hobbs	501 Southwell Road	Linthicum,	MD	21090
32	Mr.	E.	George Hopkins	428 Sudbury Road	Linthicum,	MD	21090
33	Mr.	T.	Luther Hosier, Jr.	518 Cheddington Road	Linthicum,	MD	21090
34	Mr. & Mrs.	S.	Bernard Hyatt	510 Madingly Road	Linthicum,	MD	21090
35	Ms.	M.	Dorothy Jacobs	No Return Address	Linthicum,	MD	21090
36	Mr.	R.	George Johnson	429 Sudbury Road	Linthicum,	MD	21090
37	Mr.	P.	James Kelleher	506 Madingly Road	Linthicum,	MD	21090
38	Mrs.		Susan Kraupa	313 Cheddington Road	Linthicum,	MD	21090
39	Mr.		Ronald Laurette	No Return Address	Linthicum,	MD	21090

277

40 Mrs.	Elizabeth	D.	Lewis	No Return Address	Linthicum,	MD	21090
41 Mr. & Mrs.	Otis		Long	201 Cheddington Road	Linthicum,	MD	21090
42 Mr.	Lany		Lorber	No Return Address	Linthicum,	MD	21090
43 Mrs.	Gloria	M.	Manuel	No Return Address	Linthicum,	MD	21090
44 Mr.	John	T.	Marashkey	320 Cheddington Road	Linthicum,	MD	21090
45 Mr.	Len	E.	Martin	No Return Address	Linthicum,	MD	21090
46 Mr. & Mrs.	Harold	R.	Matanin	513 Sudbury Road	Linthicum,	MD	21090
47 Mr.	Anthony	C.	Matuszewski	417 Sudbury Road	Linthicum,	MD	21090
48 Mr.	John	W.	McCarthy	No Return Address	Linthicum,	MD	21090
49 Mr.	D.		McGarrity	No Return Address	Linthicum,	MD	21090
50 Ms.	Louise	G.	McGhan	No Return Address	Linthicum,	MD	21090
51 Mr.	Richard	E.	Menikheim	505 Madingly Road	Linthicum,	MD	21090
52 Mr. & Mrs.	Charles	M.	Miller	312 Cheddington Road	Linthicum,	MD	21090
53 Ms.	Ruth		Mims	307 Sudley Road	Linthicum,	MD	21090
54 Mr.	Charles	E.	Miskimon	515 Sudbury Road	Linthicum,	MD	21090
55 Mr. & Mrs.	Rick		Mitchell	428 Madingly Road	Linthicum,	MD	21090
56 Ms.	Naomi	E.	Moore	No Return Address	Linthicum,	MD	21090
57 Ms.	Eunice	A.	Morris	No Return Address	Linthicum,	MD	21090
58 Mr. & Mrs.	Edward	J.	Myers	429 Madingly Road	Linthicum,	MD	21090
59 Mrs.	Catherine		Neubauer	No Return Address	Linthicum,	MD	21090
60 Mr. & Mrs.	John	J.	O'Connor	504 Sudbury Road	Linthicum,	MD	21090
61 Mr.	John	J.	Palmer, Sr.	No Return Address	Linthicum,	MD	21090
62 Mrs.	Myrtle	D.	Pease	204 Ardmore Road	Linthicum,	MD	21090
63 Mr.	P.	J.	Perry	503 Southwell Road	Linthicum,	MD	21090
64 Mr.	Alan		Pettit	509 Cheddington Road	Linthicum,	MD	21090
65 Mr.	Allen	H.	Porter	509 Madingly Road	Linthicum,	MD	21090
66 Mr.	R.	T.	Powell	425 Madingly Road	Linthicum,	MD	21090
67 Mr. & Mrs.	Carl		Reichelt	511 Sudbury Road	Linthicum,	MD	21090
68 Mr.	Donald	H.	Reusch	No Return Address	Linthicum,	MD	21090
69 Mr.	Joseph	B.	Ross, Sr.	420 Sudbury Road	Linthicum,	MD	21090
70 Mr. & Mrs.	Terry		Sachs	522 Cheddington Road	Linthicum,	MD	21090
71 Mr.	Joseph	B.	Scherer	412 Sudbury Road	Linthicum,	MD	21090
72 Mr. & Mrs.	Warren	R.	Schreiner	316 Cheddington Road	Linthicum,	MD	21090
73 Mr. & Mrs.	Nicholas		Scochin	315 Ardmore Road	Linthicum,	MD	21090
74 Mr. & Mrs.	Charles		Serio	No Return Address	Linthicum,	MD	21090
75 Mrs.	Martha	L.	Shaber	No Return Address	Linthicum,	MD	21090
76 Mr. & Mrs.	Vernon	L.	Shaffer	218 Cheddington Road	Linthicum,	MD	21090
77 Mr.	Thomas	M.	Shamer	502 Southwell Road	Linthicum,	MD	21090
78 Mr. & Mrs.	George	R.	Shipley	219 Chettington Road	Linthicum,	MD	21090
79 Mr. & Mrs.	Robert	F.	Shryock	512 Cheddington Road	Linthicum,	MD	21090

VIII-C13

278

80 Mr. & Mrs.	Aleck		Slifko	220 Cheddington Road	Linthicum,	MD	21090
81 Mr.	David	R.	Smith	216 Cheddington Road	Linthicum,	MD	21090
82 Ms.	Doris	E.	Snyder	No Return Address	Linthicum,	MD	21090
83 Mr.	Edward	A.	Stepp	No Return Address	Linthicum,	MD	21090
84 Mr. & Mrs.	Edmund		Stewart	210 Cheddington Road	Linthicum,	MD	21090
85 Ms.	Deborah	D.	Stone	512 Madingly Road	Linthicum,	MD	21090
86 Mrs.	P.	M.	Vaise	322 Ardmore Road	Linthicum,	MD	21090
87 Ms.	Patricia	M.	Valley	315 Ardmore Road	Linthicum,	MD	21090
88 Ms.	Mary	E.	Varner	225 Madingly Road	Linthicum,	MD	21090
89 Mr.	Joe		Vladich	432 Madingly Road	Linthicum,	MD	21090
90 Mr. & Mrs.	Clement	L.	Vraisch	437 Madingly Road	Linthicum,	MD	21090
91 Mr.	P.	B.	Walsh	504 Madingly Road	Linthicum,	MD	21090
92 Mr.	John	E.	Walter	No Return Address	Linthicum,	MD	21090
93 Mr.	Jerry		Warner	No Return Address	Linthicum,	MD	21090
94 Mr. & Mrs.	William		Webb	504 Southwell Road	Linthicum,	MD	21090
95 Mr. & Mrs.	Ronald		Weiland	No Return Address	Linthicum,	MD	21090
96 Ms.	Laura	A.	West	317 Ardmore Road	Linthicum,	MD	21090
97 Ms.	Gloria	H.	Wharry	No Return Address	Linthicum,	MD	21090
98 Mr.	Vincent		Yannuzzi	507 Sudbury Road	Linthicum,	MD	21090
99 Mr.	Donald	L.	Zybstra	No Return Address	Linthicum,	MD	21090

July 10, 1988

Maryland Department of Transportation
State Highway Administration
Office of Planning and
Preliminary Engineering
Box 717
Baltimore, Maryland 21203

To Whom This May Concern:

We, the Executive Board of Linthicum Hills Homeowners Association, located at the 695/295 Intersections, are writing concerning our community's positions about the proposed expansion alternatives to the 695/295 beltways. Our positions are as follows:

- 1) We prefer Alternate One - No Build as our first choice.
- 2) Alternate Two - Option Three is our second choice because this utilizes I-895 and will eliminate quite a bit of the 695/295 traffic projected through the year 2015. Also, I-895 appears to have ample room for expansion which does not interfere with personal properties.

In addition, we have the following requests:

- We request a Sound Barrier be constructed around our community because the noise level is significantly high and the increased traffic volume predicted in the future will make the noise level even worse. When we purchased our homes in 1985 the beltway was as it is today. If the planned increase in lanes (50-60 feet closer to our homes) comes about, we should be eligible for sound barriers because of the change over when we purchased our homes.
- If we do not get Sound Barriers, please consider constructing a fence around our community for safety reasons. We have many small children and fear that pedestrians might wander into our community from the beltways and cause problems which otherwise could be prevented if a fence were put up. We have already had many instances when pedestrians have disturbed homeowners in the middle of the night and at all hours for use of their telephone, etc. because of break-downs on the beltway.

(continued)

Page Two

- If the proposed expansions (particularly Alternate Two - Options Two or Three) become in effect, please only cut down trees that are absolutely necessary. These trees around our community act as a natural sound barrier and also hide the appearance of the beltway. We need these trees to remain.
- We would also like to request that your Landscape Architect give particular attention to our community when planning the highway expansion. We would appreciate any additional trees, foliage, etc. that can be planted around our community to act as a natural sound barrier and assist in keeping the noise levels down.

Sincerely submitted:

Barry Scheitlin
Barry Scheitlin - Co-President LHHOA

Mary Toppa
Mary Toppa - Co-President - LHHOA

Nancy Kelleher
Nancy Kelleher - Treasurer - LHHOA

Anna Sellman
Anna Sellman - Secretary - LHHOA

cc: Neil J. Pedersen
Edward Meehan
Catherine Pecora
Robert Olsen
David W. Wallace, PE.

VIII - C15

288



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 8, 1988

Linthicum Hills Homeowners
Association Executive Board
c/o Mr. Barry Scheitlin and
Ms. Mary Topa
P.O. Box 25
Linthicum, Maryland 21090

Dear Mr. Scheitlin and Ms. Topa:

Thank you for your July 10th comments on behalf of the
Linthicum Hills Homeowners Association.

We are aware of your concern about the impacts of the I-695/
MD 295 interchange proposals and can understand your preference
for the no-build alternate or Alternate 2-Option 3 at I-895. We
will be considering your preferences as we put together a recom-
mendation over the next few months.

The possibility of providing sound barriers for your neigh-
borhood has been investigated. There are a number of criteria
that must be met for an area to qualify for noise barriers under
the Maryland State Highway Administration's noise policy. The
change in noise level as a result of the project is one criterion.
We do not use the change in noise level that has occurred since
the houses were constructed because this is the result of a gen-
eral increase in traffic, not a result of State Highway Adminis-
tration improvements. The other criteria we consider are:

- whether the Federal Highway Administration noise abatement
critarion of 57 dBA is exceeded
- whether noise abatement is feasible
- whether noise abatement can be provided for approximately
\$40,000 per residence
- whether a majority of the affected residences were there
before the highway

My telephone number is (301) 333-1110

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5052 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

Mr. Scheitlin and Ms. Topa
Page Two

In the case of this project, the proposed improvements do
not create a significant increase in noise level. In addition,
the cost for providing a noise barrier is greater than \$40,000
per house and your neighborhood was not there before the highway.
Therefore, your community does not qualify for the construction
of noise barriers.

We will be installing a fence around your community as part
of the proposed improvements. In addition, landscaping will be
investigated during the final design stage of the project. An
effort will be made to provide additional landscaping for neigh-
borhoods such as yours that will not be receiving noise barriers.
Mr. Charles Adams, Chief of the Bureau of Landscape Architecture,
will receive a copy of this letter to make him aware of your
concern.

Every effort will be made to limit the amount of trees im-
pacted by the project. However, there are times when space is
needed that is beyond the actual roadway area. I do not antici-
pate that this would be required in your area, but a final
determination will not be made until final design of the project.
Once this project has been designed, Mr. Frank Rosensweig, the
project engineer, will be able to provide you with up-to-date
information regarding this issue. Mr. Rosensweig's telephone
number is 333-1269.

In the meantime, if you have any further questions, please
feel free to call Ms. Catherine Pecora at 333-1191.

Very truly yours,

Neil J. Pedersen

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

NJP:tn

- cc: Mr. Edward H. Meehan
- Mr. Charles Adams
- ✓ Mr. Frank Rosensweig
- Ms. Catherine Pecora

281

Kenwood Gardens Condominiums
July 20, 1988

Ms. Catherine Pecora
Project Manager
Project Development Division
State Highway Administration
707 North Calvert Street.
Baltimore, Maryland 21202

PROJECT
DEVELOPMENT
DIVISION
JUL 20 1 23 PM '88

Re: Reconstruction Improvements Along I-695 and
Maryland Route 695

Dear Ms. Pecora:

This letter summarizes the position of the Board of Directors of Kenwood Gardens Condominium Association with respect to the proposals to improve the beltway. Our comments are directed towards the changes reflected on Plate 5, Wilkens Avenue - Option 1. In addition, we offer comments with respect to widening the beltway.

The Association opposes the elimination of that portion of Ramp D which allows a left turn onto Kenwood Road. The reasons for this opposition are as follows. First, the elimination of this ramp will obviously make it very difficult to enter our property from the beltway. Rather than an approach of a few hundred yards, our members would be required to drive up Wilkens Avenue to Maiden Choice Lane, turn left to Kenwood Road, and continue back to the entrance. This circle covers several miles.

Second, it is clear from your presentation that this proposal is not safety related. In response to our questions, you indicated that no "accident" studies had been conducted at this intersection. Given this fact, we find it difficult to understand the necessity for removing this ramp.

Third, and related, Kenwood Road is apparently to remain "two way." Thus, traffic entering the beltway from Wilkens Avenue must still turn left in front of the oncoming traffic from Kenwood Road. This presents a far greater problem in terms of access to the beltway than does the left turn ramp, which is far less heavily used and which is not confusing to traffic entering the beltway. As long as Kenwood Road is to remain "two way," there is no reason to eliminate the left turn ramp. As an alternate, we would suggest that a signal light may

be an effective and far less drastic means of accomplishing your purposes.

Fourth, it has come to our attention that the left turn ramp is necessary for access to the vocational school. It is our understanding that the school busses will have a difficult time if the ramp is eliminated.

For these reasons, we urge you not to include the I-695/Wilkens Avenue - Option 1 in your final recommendations. There is no demonstrated need for the elimination of the ramp, and its elimination seriously affects our property.

Additionally, if the widening of the beltway does result in the elimination of the hill which has served as our sound barrier, we urge you to recommend that adequate sound barriers be constructed. While our community may not technically qualify under current guidelines, we urge you to consider the following factors. We currently have the natural sound barrier provided by the hill. If the changes proposed affect that barrier, it would seem only fair for the state to replace that barrier. In other words, we do qualify under the first criterion, because our community existed before the "widening" of the beltway.

Please place these comments in the official record of these proceedings. Of course, if there are any questions, please do not hesitate to contact us.

Finally, thank you for taking the time to address our association's meeting. Your presentation was appreciated.

Most sincerely,

Thomas C. Gorak
Thomas C. Gorak
President,
Kenwood Gardens Condominium
Association

3 Summit Hill Ct. C-3
Balt MD 21228

VIII-C17

287



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 9, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (west) to MD 170
including MD 295 from MD 46 to
the Baltimore City Line
PDMS No. 251029

Mr. Thomas C. Gorak, President
Kenwood Gardens Condominium Association
3 Summit Hill Court, # C-3
Baltimore, Maryland 21228

Dear Mr. Gorak:

Thank you for the opportunity to speak to your association and for your July 20th comments regarding the proposed widening of the Beltway.

I understand the objections of your association to Interchange Option 1 at Wilkens Avenue and Kenwood Road. You have raised some good points that will be considered as we form our recommendation.

With regards to the construction of noise barriers in your neighborhood, there are a number of criteria that have been evaluated in addition to whether your homes were constructed before the highway. We have looked at the amount of additional noise that would be generated by the proposed widening as compared to if the widening were not done. It has been found that the addition of a single lane does not substantially increase noise levels. Also, the cost to protect this area is greater than \$40,000 per residence protected, which we do not consider to be cost-effective.

For these three reasons, we will not be recommending the construction of noise barriers as part of the widening project.

My telephone number is (301) _____

Teletypewriter for Impaired 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

Page 2

Mr. Thomas C. Gorak

Your comments will be included in the Final Environmental Impact Statement. This document will be available next year. I have verified your name on our mailing list so that you will be notified when it is available. In the meantime, feel free to call me at 333-1191 if I can be of any further assistance.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP/vw

VIII-C18

283

**STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS**

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME William F Hall DATE 7/22/88

PLEASE PRINT ADDRESS 4846 CARMELLA DRIVE

CITY/TOWN Belt STATE Md ZIP CODE 21222

I/We wish to comment or inquire about the following aspects of this project:

Don't support to new construction on
I-695 between I-95 + Wellman ave

I Vote Alternative 1 N.C. BUID Alternative

Favor Sound Barrier Only

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.

This form was submitted by persons listed on pages VIII-C20 through VIII-C23. A formal response was not provided.

VIII-C19

7884

VIII - C29

MM	FIRST	MI	LAST	ADDRESS	CITY	STATE	ZIP
1	Mr. and Mrs. Eugene	T.	Ambrose	902 Palladi Drive	Baltimore,	MD	21227
2	Mr. and Mrs. Richard		Armstrong	929 Wilton Drive	Baltimore,	MD	21227
3	Mr. and Mrs. Robert	L.	Asna	490 Gateway Terrace	Baltimore,	MD	21227
4	Ms. Elizabeth		Aune	943 Palladi Drive	Baltimore,	MD	21227
5	Mrs. Elizabeth		Baker	922 Wilton Drive	Baltimore,	MD	21227
6	Mr. Kenny		Baker	924 Palladi Drive	Baltimore,	MD	21227
7	Ms. Helen	E.	Balzer	916 Courtney Road	Baltimore,	MD	21227
8	Mr. and Mrs. William	E.	Barrett	4839 Carmella Drive	Baltimore,	MD	21227
9	Mr. Timothy	M.	Bauer	5002 Gateway Terrace	Baltimore,	MD	21227
10	Ms. Kimberly		Baugher	902 Palladi Drive	Baltimore,	MD	21227
11	Ms. Alice	M.	Becker	5011 Gateway Terrace	Baltimore,	MD	21227
12	Mr. M.		Bender	933 Wilton Drive	Baltimore,	MD	21227
13	Mrs. Marie		Brooks	4821 Carmella Drive	Baltimore,	MD	21227
14	Mr. Carl	T.	Brushweiler	912 Palladi Drive	Baltimore,	MD	21227
15	Mr. Austin	L.	Byrd, Jr.	1 Summit Hill Court	Baltimore,	MD	21228
16	Mr. and Mrs. Gerald		Byrnes	909 Wilton Drive	Baltimore,	MD	21227
17	Ms. E.	E.	Calder	937 Palladi Drive	Baltimore,	MD	21227
18	Mr. William	T.	Clampitt, Jr.	901 Palladi Drive	Baltimore,	MD	21227
19	Ms. Catherine	L.	Clark	5010 Gateway Terrace	Baltimore,	MD	21227
20	Mr. T.	M.	Cleary, Jr.	907 Palladi Drive	Baltimore,	MD	21227
21	Mr. Brian		Combs	4828 Carmella Drive	Baltimore,	MD	21227
22	Mr. and Mrs. Robert		Connor	4932 Gateway Terrace	Baltimore,	MD	21227
23	Mrs. Anthony	B.	Cooper	920 Wilton Drive	Baltimore,	MD	21227
24	Mr. Joseph	K.	Corbett, Jr.	906 Courtney Road	Baltimore,	MD	21227
25	Ms. Meredith		Crum	927 Wilton Drive	Baltimore,	MD	21227
26	Ms. Catherine	C.	Cugle	5001 Gateway Terrace	Baltimore,	MD	21227
27	Mr. S.		Davis	921 Palladi Drive	Baltimore,	MD	21227
28	Mr. and Mrs. George	L.	Dickel	4926 Gateway Terrace	Baltimore,	MD	21227
29	Mr. Howard	B.	Dickerson	4928 Gateway Terrace	Baltimore,	MD	21227
30	Mr. Arthur	D.	Dotterweich	918 Courtney Road	Baltimore,	MD	21227
31	Ms. Dorothy	E.	Dowell	916 Palladi Drive	Baltimore,	MD	21227
32	Mr. James	E.	Downs	908 Wilton Drive	Baltimore,	MD	21227
33	Mr. Joesph	D.	Dualle	5000 Gateway Terrace	Baltimore,	MD	21227
34	Mr. Timothy	J.	Durkin	926 Wilton Drive	Baltimore,	MD	21227
35	Mr. and Mrs. Theodore	F.	Duvall	904 Courtney Road	Baltimore,	MD	21227
36	Mrs. John	R.	Edelen	5009 Wilkens Avenue	Baltimore,	MD	21228
37	Ms. Thelma		Everett	911 Palladia Drive	Baltimore,	MD	21227
38	Mr. W.	G.	Fehrmann, Jr.	918 Wilton Drive	Baltimore,	MD	21227
39	Ms. Elizabeth	B.	Feulner	4908 Gateway Terrace	Baltimore,	MD	21227

285

40	Ms.	Margaret		Feurer	5017 Wilkens Avenue	Baltimore,	MD	21227
41	Ms.	E.	G.	Flickinger	931 Palladi Drive	Baltimore,	MD	21227
42	Ms.	Lillian		Frate	4901 Wilkens Avenue	Baltimore,	MD	21227
43	Ms.	Connie		Freeman	9 Pomona, North #7	Pikesville,	MD	21208
44	Ms.	Dorothy		Gagne	4924 Gateway Terrace	Baltimore,	MD	21227
45	Ms.	Rene		Gagne	4924 Gateway Terrace	Baltimore,	MD	21227
46	Mrs.	Elizabeth	D.	Gauss	4907 Wilkens Avenue	Baltimore,	MD	21228
47	Ms.	Mary		Glaeser	4914 Gateway Terrace	Baltimore,	MD	21227
48	Mr. and Mrs.	Keene		Gooding	920 Palladi Drive	Baltimore,	MD	21227
49	Mr. and Mrs.	Charles		Gordon	4916 Gateway Terrace	Baltimore,	MD	21227
50	Ms.	Lisa	M.	Green	4824 Carmella Drive	Baltimore,	MD	21227
51	Mr. and Mrs.	Harry		Griese	4920 Gateway Terrace	Baltimore,	MD	21227
52	Mr. and Mrs.	John	L.	Haller	914 Wilton Drive	Baltimore,	MD	21227
53		Joint Venture		Hamburg	600 West Hamburg Street	Baltimore,	MD	21230
54	Mr. and Mrs.	John		Happel, Sr.	4854 Carmello Drive	Baltimore,	MD	21227
55	Ms.	Mary		Harden	907 Wilton Drive	Baltimore,	MD	21227
56	Ms.	Evelyn		Helm	5004 Gateway Terrace	Baltimore,	MD	21227
57	Mrs.	Charles	W.	Higgs	4913 Wilkens Avenue	Baltimore,	MD	21227
58	Ms.	Robin		Hill	5016 Gateway Terrace	Baltimore,	MD	21227
59	Mr.	Allen	R.	Hines	4917 Wilkens Avenue	Baltimore,	MD	21228
60	Mr.	Arthur	W.	Howe	4912 Gateway Terrace	Baltimore,	MD	21227
61	Mr.	Philip		Howe	923 Wilton Drive	Baltimore,	MD	21227
62	Mr.	Howard		Jackson	50 Wade Avenue	Baltimore,	MD	21228
63	Mr.	Ralph	N.	Jefferson	4841 Carmella Drive	Baltimore,	MD	21227
64	Ms.	Anita	R.	Juppi	900 Palladi Drive	Baltimore,	MD	21227
65	Mr.	Mark	M.	Kelehan	4850 Carmella Drive	Baltimore,	MD	21227
66	Ms.	Barbara		Klein	927 Palladi Drive	Baltimore,	MD	21227
67	Mr.	David	M.	Kline, Sr.	4811 Carmella Drive	Baltimore,	MD	21227
68	Mr.	Arthur	K.	Knowles	5012 Gateway Terrace	Baltimore,	MD	21227
69	Mr.	Otto	W.	L.	934 Wilton Drive	Baltimore,	MD	21227
70	Mr.	Charles	F.	Leonard, Sr.	924 Wilton Drive	Baltimore,	MD	21227
71	Mr.	W.	E.	Lilley	4805 Wilkens Avenue	Baltimore,	MD	21228
72	Mr. and Mrs.	Dean	C.	Magalis	4819 Carmella Drive	Baltimore,	MD	21227
73	Ms	Donna		Malinofsky	904 Palladi Drive	Baltimore,	MD	21227
74	Ms.	Dora		Marsiglia	921 Wilton Drive	Baltimore,	MD	21227
75	Ms.	Dora		Marsiglia	921 Wilton Drive	Baltimore,	MD	21227
76	Mr. and Mrs.	Sylvester	G.	Mattingly	4803 Carmella Drive	Baltimore,	MD	21227
77	Mrs.	Charles		McKenzie	4835 Carmella Drive	Baltimore,	MD	21227
78	Mr.	Edward	L.	Meister, III	4842 Carmella Drive	Baltimore,	MD	21227
79	Mr.	Claude	A.	Melton	5001 Wilkens Avenue	Baltimore,	MD	21228

80	Mr. and Mrs.	Julian		Middleton	5013 Wilkens Avenue	Baltimore,	MD	21228
81	Mr.	Francis	X.	Milesky, Jr.	950 Palladi Drive	Baltimore,	MD	21227
82	Mr.	William	H.	Mix, Jr.	920 Courtney Road	Baltimore,	MD	21227
83	Mr.	James	W.	Mohler	7 Somerset Road	Baltimore,	MD	21228
84	Miss	Edna		Olter	942 Pallidi Drive	Baltimore,	MD	21227
85	Mr.	Robert	R.	Pace	4824 Carmella Drive	Baltimore,	MD	21227
86	Ms.	Joyce		Phelps	4934 Gateway Terrace	Baltimore,	MD	21227
87	Ms.	Maria	R.	Phillips	909 Palladi Drive	Baltimore,	MD	21227
88	Ms.	Norma	L.	Pulley	939 Palladi Drive	Baltimore,	MD	21227
89	Ms.	Elinor		Qydings	5005 Gateway Terrace	Baltimore,	MD	21227
90	Mr. and Mrs.	Mitchell		Rainess	4918 Gateway Terrace	Baltimore,	MD	21227
91	Mr. and Mrs.	Daniel		Reichert	5015 Wilkens Avenue	Baltimore,	MD	21227
92	Mr. and Mrs.	Frank	V.	Scaccio	4904 Gateway Terrace	Baltimore,	MD	21227
93	Ms.	Catherine		Schmidt	4915 Wilkens Avenue	Baltimore,	MD	21228
94	Ms.	Mardella		Schmigel	933 Palladi Drive	Baltimore,	MD	21227
95	Mr.	Richard	B.	Schmitt	2320 Monumental Road	Baltimore,	MD	21227
96	Mr.	Richard		Schmoeller	941 Palladi Drive	Baltimore,	MD	21227
97	Mr. and Mrs.	Lawrence	A.	Schultz	4808 Carmella Drive	Baltimore,	MD	21227
98	Ms.	Anna	M.	Schwartzman	4817 Carmella Drive	Baltimore,	MD	21227
99	Mr.	Joseph		Serio	944 Palladi Drive	Baltimore,	MD	21227
100	Mr. and Mrs.	D.		Sesplankis	5014 Gateway Terrace	Baltimore,	MD	21227
101	Mr.	Donald		Sickle	4851 Carmella Drive	Baltimore,	MD	21227
102	Ms.	Mary	L.	Sipi	4802 Carmella Drive	Baltimore,	MD	21227
103	Mr.	Richard	L.	Smit	910 Courtney Road	Baltimore,	MD	21227
104	Mr. and Mrs.	Raymond	F.	Stilling	4906 Gateway Terrace	Baltimore,	MD	21227
105	Mr. and Mrs.	R.	J.	Stryjewski, Jr.	4800 Carmella Drive	Baltimore,	MD	21227
106	Mr. and Mrs.	Stanley		Stupi	4843 Carmella Drive	Baltimore,	MD	21227
107	Mr. and Mrs.	Theodore		Stupi	4843 Carmella Drive	Baltimore,	MD	21227
108	Mrs.	Nadine		Thompson	4853 Carmella Drive	Baltimore,	MD	21227
109	Ms.	Diane		Thompson	4806 Carmella Drive	Baltimore,	MD	21227
110	Mr.	Edgar	A.	Trust	925 Wilton Drive	Baltimore,	MD	21227
111	Mr.	David		Tryte	483 Carmella Drive	Baltimore,	MD	21227
112	Mr. and Mrs.	Stanley		Vitkoski	4855 Carmella Drive	Baltimore,	MD	21227
113	Mr.	Joe		Vladich	432 Madingly Road	Linthicum,	MD	21090
114	Mr.	George	R.	Wagner	913 Palladi Drive	Baltimore,	MD	21227
115	Mr.	M.	L.	Wagner, Sr.	903 Palladi Drive	Baltimore,	MD	21227
116	Mr.	Henry		Warner	4910 Gateway Terrace	Baltimore,	MD	21227
117	Mr. and Mrs.	Joseph		Webster	4902 Gateway Terrace	Baltimore,	MD	21227
118	Mr. and Mrs.	James		Weinreich	5003 Gateway Terrace	Baltimore,	MD	21227
119	Ms.	May		Welker	5008 Gateway Terrace	Baltimore,	MD	21227
120	Mr.	Robert	J.	Whipps	918 Palladi Drive	Baltimore,	MD	21227

287

121 Ms.	Patricia	C.	Wilford	914 Palladi Drive	Baltimore,	MD	21227
122 Mr.	Wayne	M.	Wilson	922 Courtney Road	Baltimore,	MD	21227
123 Ms.	Jacqueline	M.	Wyatt	5023 Wilkens Avenue	Baltimore,	MD	21228
124 Mr.	Robert		ZuWallack	9340 Palladi Drive	Baltimore,	MD	21227

VIII-C23

288

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY. *Section 695 - I-95 & Wilkes are not shown*

July 28, 1988

Ms. Catherine Pecora
Project Manager
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Ms. Pecora,

The petition attached is a listing of over 200 homes in the Maiden Choice area, District 12 of Baltimore County, protesting the Maryland Highway Administrations proposal under alternate Plan 2, to add two additional lanes on I-695 to I-70 making I-695 six lanes wide in this area.

The Maiden Choice Community favors Alternate Plan 1 NO-BUILD alternate with the construction of a sound barrier only.

Very Truly Yours,

Arthur Howe
Arthur Howe
Maiden Choice Civic Ass.
301-247-0190

AH/wh

NAME	ADDRESS	PHONE	SIGNATURE
Wendy Happel	4854 Carmella Dr.	242-9370	<i>Wendy Happel</i>
Arthur Howe	4912 GATEWAY Terr.	247-0190	<i>Arthur Howe</i>
EUZABETH B. FEUNER	4908 GATEWAY	242-2370	<i>Euzabeth B. Feuner</i>
Mr + Mrs Rene Gyger	4934 Gateway Terr.	242-9369	<i>Rene Gyger</i>
Mr + Mrs. Rughbald	4906 Gateway Terr.	242-5355	<i>Mr + Mrs. Rughbald</i>
Mary A. Raines	4914 Gateway Terr.	242-7294	<i>Mary A. Raines</i>
Alia M Becker	5011 Gateway Terr.	247-0144	<i>Alia Becker</i>
Dolores WARNER	4910 Gateway Terr.	242-3634	<i>Dolores Warner</i>
Mr + Mrs C. Boston	4916 Gateway Terr.	242-7312	<i>Catherine Boston</i>
Mr. + Mrs. Raines	4918 Gateway Terr.	247-4530	<i>Mr. + Mrs. B. Raines</i>
Mr + Mrs. S. Verleski	4855 Carmella Dr.	242-0791	<i>Gertrude Verleski</i>
Mrs + Mrs R. Connor	4932 Gateway Terr.	247-1688	<i>Robert Connor & Laura Connor</i>
Mr + Mrs J. Taylor	4922 Gateway	—	—
Mr. + Mrs. Harry J. Druci Jr.	4920 Gateway Terr.	242-6492	<i>Mary J. Druci</i>
Mr + Mrs. Scott Thompson	4853 Carmella Dr.	242-9372	<i>Nelson Thompson</i>
Mr. + Mrs. Lee L. Diehl	4926 Gateway Terr.	242-7576	<i>Jean Diehl</i>
MR + MRS FRANK V. SCALLO	4904 Gateway Terr.	242-7634	<i>Frank V. Scallo</i>
Mr + Mrs. Robert Ciona	4900 Gateway Terr.	242-3089	<i>Audrey Ciona</i>
Mr + Mrs James Weinreich	5003 Gateway Terr.	242-2688	<i>Rose James Weinreich</i>
Catherine C. Cugle, P.A.C.	5001 Gateway Terrace	247-4274	<i>Catherine C. Cugle P.A.C.</i>
Robin Hill	5016 Gateway Terrace	247-0490	<i>Robin Hill</i>
Mr + Mrs. P. Szepanski	5014 Gateway Terr.	242-7076	—
Arthur H. Knowles	5012 Gateway Terr.	242-2257	<i>Arthur H. Knowles</i>
Mary Welter	5008 Gateway	247-0327	—
Evelyn Helin	5004 Gateway Terrace	247-8443	<i>Evelyn Helin</i>

209

VIII-24

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY.

with sound 145 E Williams

NAME	ADDRESS	PHONE	SIGNATURE
Claude J. Flanery	938 Palladi	242-2552	Claude Flanery
Mrs. Ethel B. Butler	6940 Palladi Dr.	242-1788	Mrs. Ethel Butler
Margaret M. Whipple	936 Palladi Dr.	242-4299	Margaret M. Whipple
Albert A. Zantirski	5007 Hating Lane	242-3029	Albert A. Zantirski
DOROTHY E. DOWELL	916 PALLADI DRIVE	UNLISTED	Dorothy E. Dowell
John T. M. Clarys Jr	907 PALLADI DRIVE	242-4849	John T. M. Clarys Jr
Joyce Lewis	944 Palladi Dr	242-1514	J. Seico
Edna Otter	942 " "	" "	" "
MR & MRS N. S. Sutt	946 PALLOSA DR	247-3517	MR & MRS N. S. Sutt
Mr. & Mrs. Topolnicki	932 Palladi Dr.	242-7255	Mr. & Mrs. Topolnicki
MR + MRS D. WHIPPS	928 PALLADI	242-1269	D. Whipps
Mr & Mrs. Hooding	920 Palladi Dr.	247-4277	Mr & Mrs. Hooding
Wm Whipps	918 PALLADI DR.	242-3188	William Whipps
Virginia Brushweier	917 Palladi Dr.	247-0517	Virginia Brushweier
Mr. & Mrs. H. S. Savelle	910 Palladi Dr.	247-0536	Elyabeth Savelle
M. O. Radecki	909 Palladi Dr.	242-3666	Mary out O. Radecki
Mr & Mrs. C. G. G. G.	902 Palladi Dr.	536-0436	Frederic C. G. G.
Kendrick A. Sutt	" "	" "	Kendrick A. Sutt
Francis X. Prichard	950 Palladi Drive	242-2813	Francis X. Prichard
Richard Schmoller	941 Palladi Dr.	247-4634	Richard Schmoller
David M. Kivey	945 Palladi Dr.	242-5460	David M. K.
Elizabeth Calder	937 Palladi Dr.	242-1308	" "
Janella Schmigel	933 Palladi	" "	" "
Gladys F. Heringer	931 Palladi Dr	247-1157	" "

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY.

NAME	ADDRESS	PHONE	SIGNATURE
Linda E. G. G.	929 PALLADI DR.	242-5746	Linda E. G. G.
Pandra Anderson	925 Palladi Dr	242-7104	Pandra Anderson
Mr. H. H.	921 PALLADI DR	242-4249	STEVEN DAVIS
Burd C. Stief	919 PALLADI DR	" "	Burd C. Stief
Rabitz G. Wallat	930 PALLADI DR	242-9316	Rabitz G. Wallat
George R. W.	913 Palladi	242-0989	Geo. Wagner
Thelma Everett	911 Palladi Dr.	242-8844	" "
Jean K. K.	927 Palladi	" "	" "
Kerry Baker	924 Palladi	Unlisted	Kerry J. Baker
Donna Malenofsky	904 Palladi Dr.	242-7464	Donna Malenofsky
Ellen Clamper	901 Palladi Dr.	242-4831	Ellen C. Clamper
Wack Kingmore	948 Palladi Dr.	242-9353	Wack Kingmore
Robin Martin	947 Palladi Dr.	" "	Robin L. Martin
Mrs Norma Guller	939 Palladi Dr	247-2577	Norma Guller
Mrs. Betty Johnson	934 Palladi	242-8248	Betty Johnson
Charles J. Johnson	934 PALLADI	242-8248	Charles J. Johnson
John Sutte	926 PALLADI	247-0111	John Sutte
Mrs. Elizabeth Anne	913 Palladi Dr.	242-0199	" "
Mrs. Virginia Wagner	903 Palladi Dr.	242-4672	" "
William Clamper	901 Palladi Dr.	242-4632	William Clamper

990

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY.

NAME	ADDRESS	PHONE	SIGNATURE
Jessie Davis	4818 Carmella Dr.	242-2439	Jessie Davis
Jack Davis	4818 Carmella Dr.	242-2439	Jack Davis
Richard L Jordan	4823 CARMEL DR	242-1273	Richard L Jordan
Mrs Fritz	4825 Carmella Dr	242-2298	
Linda Pace	4824 Carmella Dr.	242-6111	Linda K. Pace
Lephen Bertitta	4845 Carmella Dr	242-5514	Steve Zetter
Kevin Henning	4845 Carmella Dr.	242-5514	Kerri Schumery
Levon & Singler	4831 Carmella Dr	247-5848	Kim Dehn
Tom Dehn	4822 Carmella Dr.	242-5889	
Berriga Family	4816 Carmella Dr.	242-1244	
Mary Johnson	4801 Carmella Dr.	242-2698	
Blair Cornub	4828 Carmella Dr	536-0533	Blair Cornub
G. Anne Barrett	4839 Carmella Dr	242-6664	G. Anne Barrett
George Linnhart	4839 Carmella Dr	242-6664	
F. PARRIETT	" " "	" "	
Robert Nicko	4837 " "	" "	Elysha Nicko
Robert Stages	4847 Carmella Dr	242-7309	Ted Stages
Mr Stages	4843 Carmella Dr	242-3517	Stacy Stages
J. Smutell	4832 Carmella Dr.	242-9278	
Mary Spi	4162 Carmella	247-4255	Mary Spi
Low Socuma	4844 Carmella Dr.	247-3657	

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY. 1675 Northland between I95 + Wilton Ave

NAME	ADDRESS	PHONE	SIGNATURE
Q W Howe	923 Wilton Dr.	247-0190	Q W Howe
J. K. Heun	905 Wilton Dr.	247-9516	J. K. Heun
M. Byrnes	909 Wilton Dr	242-2846	Harold Byrnes
J. Marriott	917 Wilton Dr	242-3998	Chris Marriott
J. Hart	919 Wilton Dr.	242-8533	Michelle Hart
Mrs Richard Armstrong	929 Wilton Dr.	242-3640	Paulyn Armstrong
	935 Wilton Dr.	242-6814	
J. Robery	938 Wilton Dr	247-0253	Mari Karas
M. Karas			
T. Durbin	926 Wilton Dr.	247-9577	T. Durbin
Carol Durbin	926 Wilton Dr.	247-9577	Carol Durbin
Maree Bender	933 Wilton Dr	---	Maree Bender
Karen Neville	912 Wilton Dr	---	Karen Neville
Barbara Bush	904 Wilton Dr.	242-7000	Barbara Bush
Don Kubri	912 Wilton	---	
W. J. [Signature]	918 Wilton Dr	242-7378	
Mrs. Baker	922 Wilton Dr.	242-4537	
Mrs. Haller	914 Wilton Dr	242-0582	Pac Haller
Edgar & Tracy	925 WILTON DR	242-1985	
Arthur Copper	920 WILTON DR	242-3486	
Chris Lucking	942 WILTON DR	242-8199	
Mrs K. Hart	915 Wilton Dr.	---	K. Hart
L. B. Weston	915 Wilton Dr.	---	
J. [Signature]	911 WILTON DR	242-0129	

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY.

Northland I 95 to Wilkins ave

NAME	ADDRESS	PHONE	SIGNATURE
Mr. & Mrs. Joseph ^{NEWIER} NEBWER Hebert	4902 Shiloh, Tenn	242-7183	Joseph Hebert
Mr. & Mrs. H. B. Dickerson	4938 Shiloh, Tenn	242-9677	Country Dickerson
Mr. & Mrs. Tom Bauer	5002 Gateway, Tenn	247-5858	Tom M. Bauer
Mr. & Mrs. Tom Connolly	5018 Gateway, Tenn	242-8030	Honey Ruth Connolly
Esther L. Clark	5010 Gateway, Tenn		
Joseph D. Dune	5000 Gateway, Tenn	242-5829	Joseph D. Dune
Elmer Springs	5005 Gateway, Tenn	242-4890	
James Phelps	4934 Gateway, Tenn	242-5305	
E. Klonowski	5002 Gateway, Tenn	242-5523	
D. Joseph Plank	5013 Gateway, Tenn	242-7076	
James Miller	5009 Gateway, Tenn	247-0555	
M. Harden	907 Wilton Dr	242-5016	
L. F. Leonard Sr.	924 Wilton Dr	242-1752	L. F. Leonard Sr.
Mary Lou Moore	937 Wilton Dr	28	
M. C. Cunn	927 Wilton Dr		
J. D. Dore	908 Wilton Dr		
H. Hardel	906 Wilton Dr	247-2263	
Jacqueline M. Wynn	5023 Wilkins Ave	242-4860	Jacqueline M. Wynn
Lillian Pratt	4901 Wilkins Ave	242-8590	Lillian Pratt
Claude Melton	5001 Wilkins Ave	247-2249	

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY.

NAME	ADDRESS	PHONE	SIGNATURE
Theodore F. Dornall	904 Courtney Rd		
Joseph K. Corbett	906 Courtney Rd	242-4647	
Jane R. Corbett	906 Courtney Rd	242-4647	
[Signature]	910 Courtney Rd	247-2594	
Albert Varkas	914 Courtney Rd	242-5590	
Helin Balzer	916 Courtney Rd	242-6883	
William P. Dottenwich	918 Courtney Rd	242-6110 242-2126	
Williams Miss	920 Courtney Rd	242-6848	
Frances L. Miss	920 Courtney Rd	242-6848	
Charles Dunham	920 Courtney Rd	242-6848	
Della Dunham	920 Courtney Rd	242-6848	
Hayes M. Nelson	922 Courtney Rd	247-1241	
Jay Clary	913 Courtney Rd	242-5884	
Bob Clary	913 Courtney Rd	242-5884	
Bob Hoffstedder	915 Courtney Rd	242-0557	
Kathy Hoffstedder	915 Courtney Rd	242-0557	
Thomas Spivey	911 Courtney Rd		
Miriam Wynn	907 Courtney Rd	242-0531	
Kimberly L. Carroll	921 Courtney Rd	242-9030	

PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY.

NAME	ADDRESS	PHONE	SIGNATURE
Jim Longfellow	4824 Carmella Dr.	242-7000	Jim M. Longfellow
4833 Carmella Dr.	242-3385	Jim Longfellow	
Mr & Mrs Dickle	4847 CARMELLA DR	247-0417	W L Dickle
4851 Carmella Dr	242-6537	Sonia Dickle	
4827 Carmella Dr.	242-4389	Rosmaria Dickle	
4819 Carmella Dr.	242-2532	Rose C. Magali	
4819 Carmella Dr.	242-2532	Anastasia Magali	
4817 Carmella Dr.	242-5719	John Magali	
4809 Carmella Dr.	242-6074	Ken Hood	
4803 Carmella Dr.	---	Catherine Mittingly	
4826 Carmella Dr	---	---	
4842 CARMELLA DR	292 3014	Edo & Helen	
4848 Carmella Dr	247-2397	Scott Zimmerman	
4808 CARMELLA DR	242-2939	Larry Schultz, Sr.	
4808 CARMELLA DR	242-2939	Mary Schultz	
4804 Carmella Dr	242-3468	Symon Strojowski	
4800 Carmella Dr	242-5197	---	
4805 Carmella Dr.	242-8755	---	
4841 Carmella Dr	242-2538	Alph. M. Hoff	
4806 Carmella Dr.	247-0082	Raymond	
4815 Carmella Dr	247 0941	Maw Brooks	
4821 Carmella Dr	---	---	
4828 Carmella DR	---	---	
4826 Carmella Dr	---	Marianne Martyn	

VIII-C28

(29)

... PETITION IN FAVOR OF ALTERNATE #1 WITH CONSTRUCTION OF SOUND BARRIER ONLY. 2-695 Northbound between 1954 Wilkins a

NAME	ADDRESS	PHONE	SIGNATURE
Pat Edelen	5009 Wilkins	247-1446	Pat Edelen
Mrs Sophia Edelen	5009 Wilkins Ave	247-1446	Sophia Edelen
George E. Walton	5011 Wilkins Ave	242-4691	George E. Walton
Ellen M. Waltra	5011 Wilkins Ave	242-4691	Ellen M. Waltra
Mary Waltra	5013 Wilkins Ave	242-6532	Mary Waltra
Daniel Waltra	5015 Wilkins	242-3275	Daniel Waltra
Margaret Fenn	5017 Wilkins St	242-1471	---
Gohar Jawad	5025 Wilkins St	247-3367	Allen R. Thines
Allen Thines	4917 Wilkins	242-7389	Allen R. Thines
Harry Schmitt	4915 Wilkins	242-7256	Harry Schmitt
Dolores Higgs	4913 Wilkins Ave	242-4759	Dolores Higgs
George Higgs	4911 Wilkins	247-2055	George Higgs
Bette Baus	4907 Wilkins	242-1743	Bette Baus
Angela Sama	4803 Wilkins Ave	---	---
Daniel Baus	4801 Wilkins Ave.	242-1977	Daniel Baus
Eleanor Beck	5021 Wilkins Ave	242-0599	Eleanor Beck
Kim Baumiller	4905 Wilkins Ave	247-0210	Kim Baumiller
Raymond E. Lind	4811 WILKENS AVE	242-3525	Raymond E. Lind
J. H. Summers	4807 Wilkins Ave	242 3279	---
George Phillips	5019 Wilkins Ave	---	---
Patrick C. Carter	5007 Wilkins	247-3311	Pat A. Carter

(32)

293

J. Homer Weidemeyer
7602 Windsor Mill Rd
Balto. Md. 21207
301-655-0127

6/2/88

RE: 1-695

Md Dept of Transportation
State Highway Adm.
P.O. Box 717
Balto. Md. 21203-0717

Dear Sirs; I received your notice concerning
the proposed widening of 1-695 + 295
and a hearing on June 23/88.

I will not be able to attend this
hearing and since I own various
properties in both Balto Co. & Anne
Arundel Co, I would appreciate your
advising me as to which property or
properties of mine that will be affected.

Yours truly,
J. Homer Weidemeyer

RECEIVED

JUN 8 1988
OFFICE OF REAL ESTATE
RIGHT OF WAY DISTRICT #2

AW 758-151-012
MD 695

P.D.M.S. 251029



Maryland Department of Transportation
State Highway Administration

Pecora

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 2, 1988

Mr. J. Homer Weidemeyer
7602 Windsor Mill Road
Baltimore, Maryland 21207

Dear Mr. Weidemeyer:

I am writing in response to your June 2nd requests for
information regarding the impact of the proposed widening of the
Baltimore Beltway.

The project we are studying extends from just north of US 40 to
MD 170. The project does not extend as far north as Windsor Mill
Road so there would be no impacts to your property. Your letter
refers to more than one property you own. If there are other
properties you are concerned about that are along the beltway in the
project area please let me know so that I may investigate them.

You can call me at 333-1191 if I can be of further assistnace.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired 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

hdb

VIII-029

PROJECT DEVELOPMENT
 STATE HIGHWAY ADMINISTRATION
 QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
 PDMS No. 251029

I-695 from U.S. Route 40 (West) to Md. Rte. 170
 including Md. Rte. 295 from Md. Rte. 46 to
 the Baltimore City Line
 Location/Design Public Hearing
 Catonsville Senior High School
 June 22, 1988

NAME JAMES GARY DATE 6-9-88
 ADDRESS 720 Kent Ave
 CITY/TOWN Catonsville STATE MD. ZIP CODE 21228

PLEASE PRINT

I/We wish to comment or inquire about the following aspects of this project:

Would you please advise me as to what exactly a retaining wall is & the purpose of same. Will this wall cut out the high noise level we have in our area. My area is between Ingham Ave and Route 40 on the side where Old Salem Church or Westview Park.
I Thank you for your cooperation.

James Gary

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

August 2, 1988

Mr. James Gary
 720 Kent Avenue
 Catonsville, Maryland 21228

Dear Mr. Gary:

I am writing in response to your June 9th letter about the proposed widening of the Beltway (I-695) from US 40 to MD 170.

A retaining wall has been proposed as part of this project in order to eliminate right-of-way impacts in your area. This is a concrete wall that will start on the ground, at street level with Lanvale Street, and will go up to meet the Beltway. This wall "retains" dirt behind it and will hold the widened beltway in place. A sketch of this is attached. This wall does not act as a noise barrier.

A noise barrier is being evaluated separately. There is a possibility that your area could qualify for noise barriers as part of this project but the final decision has not been made. This decision will be published in the Final Environment Impact Statement next year. Since you are on our mailing list you will receive a notice when this becomes available.

If I can be of any assistance in the meantime you can call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
 Deputy Director
 Project Development Division

by: Catherine Pecora
 Catherine Pecora
 Project Manager

LHE:CP:ss
 Attachment

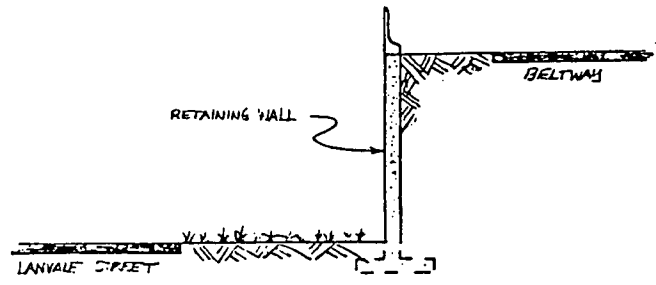
My telephone number is (301) 333-1191

Teletypewriter for Impaired Hearing or Speech
 303-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free
 707 North Calvert St., Baltimore, Maryland 21203-0717

295

VIII

VIII-C31



RETAINING
WALL
NOT TO SCALE

2/10

PROJECT
DEVELOPMENT
DIVISION

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Mr. & Mrs. Donald Maisel DATE June 11, 1988

PLEASE PRINT ADDRESS 1139 Linden Ave.

CITY/TOWN Baltimore, STATE Maryland ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:
Since we will be out of town on June 22, 1988, we wish to make the following comments.

Since this project is going to be rammed down the taxpayers throats anyway and that we will more or less have to face higher gasoline, property, etc. taxes, we do not know why bother having hearings and wasting more money on this.

Secondly, since this project will go through anyway regardless of how the taxpayers feel, why are sound barriers still being put up at great expense when they will only have to be torn down when this project is started?

We sincerely feel that the POLITICIANS in Annapolis are trying their best to make Maryland the number one highest taxed state in the nation instead of 2nd or third.

Donald H. Maisel

PS. THE STATE CANT KEEP WHAT WE HAVE NOW IN DECENT REPAIRS. IT IS FULL OF POT HOLES, RUTS + BUMPS + POORLY MAINTAINED

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

August 8, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (west) to MD 170
including MD 295 from MD 46 to
the Baltimore City Line
PDMS No. 251029

Mr. and Mrs. Donald Maisel
1139 Linden Avenue
Baltimore, Maryland 21227

Dear Mr. and Mrs. Maisel:

I am writing in response to your June 11th comments regarding the proposed widening of the Baltimore Beltway.

The public hearing for this project was held to get input from the public about the potential impact of the project. Comments received from the public are evaluated and considered in recommending a location and design for the project.

The sound barrier at Shady Nook Avenue would have to be relocated as part of the proposed widening. The cost of relocating this barrier is small compared to the cost of the widening itself. Therefore, we felt that the cost was justified given the fact that the widening may not be done for 5 to 10 years from now. Sound barriers to be built in the future will be compatible with the proposed widening wherever possible.

Your comments also raised your concern for the maintenance of the existing roads. This has become an increasingly important item throughout the state and the nation. In the future, we will be concentrating less on constructing new highways and more on rehabilitating existing highways. This will mean more projects to resurface and reconstruct, as well as widen to increase capacity where it is possible.

My telephone number is (301) _____

Teletypewriter for Impaired 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

102

VIII-C32

Page 2


Mr. and Mrs. Maisel

Thank you for your comments. If I can answer any further questions please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By:


Catherine Pecora
Project Manager

LHE:CP:vw

VIII - C33

198

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT
DATE

JUN 17 11 10 AM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME JOSEPH S. CLARK DATE 6-13-88

PLEASE PRINT ADDRESS 5512 BLUECOAT LA

CITY/TOWN COLUMBIA STATE Md ZIP CODE 21045

If we wish to comment or inquire about the following aspects of this project:

IS ROUTE 166 E.A. TO AIRPORT IT STOP
AT ROUTE 1 NB&SB

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-C34



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

July 14, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (West) to
MD 170 including MD 295 from
MD 46 to the Baltimore City Line
PDMS No. 251029

Mr. Joseph S. Clark
5512 Bluecoat Lane
Columbia, Maryland 21045

Dear Mr. Clark:

I am writing in response to your June 13th inquiry regarding MD 166. I am assuming that your question refers to the new construction currently underway to extend MD 166 from US 1 to MD 295. This roadway will allow a continuous connection between I-95 and the BWI Airport to be designated as I-195. The new road will connect MD 166 east of US 1 to MD 46 west of MD 295.

I hope this information is helpful. I have also added your name to the mailing list for project planning study of I-695 from US 40 to MD 170 as you requested. If I can be of further assistance please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: Catherine Pecora
Catherine Pecora, Project Manager

LHE:CP:ss

My telephone number is (301) _____

Teletypewriter for Impaired 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

2069

5931 Linthicum Lane
Linthicum, Maryland 21090
June 13, 1988

PROJECT
DEVELOPMENT
DIVISION
JUN 16 2 03 PM '88

Mr. Neil J. Pedersen, Director
Office of Planning and Preliminary Engineering
State Highway Administration
Post Office Box 717
Baltimore, Maryland 21203-0717

Dear Mr. Pedersen:

Please accept this written statement in lieu of an oral presentation at the hearing scheduled for June 22, 1988, regarding the proposal to widen Interstate Route 695 from U.S. Route 40 to Maryland Route 170 and Maryland Route 29S from Maryland Route 46 to the Baltimore City Line.

I have a principal interest in this project, as my property directly abuts Interstate Route 695 and lies within the boundaries of the proposed construction. Furthermore, I have lived at this residence since 1976. Therefore, my comments should be weighted accordingly.

After a review of the recent information that has been provided on this project, as well as previous information that I have received from the State Highway Administration in regard to other projects that have had an impact on my community, I would like to point out the following:

- (1) Since 1976 and according to your documents, Route 695 now carries approximately 30% more traffic.
- (2) Since 1976, considerable federal monies were received by the State of Maryland to address and promote mass transportation (i.e., ride-sharing, vanpooling, increased bus service) as opposed to single-car commutes.
- (3) Since 1976, the Key Bridge has provided a more attractive alternative to east-bound traffic than the Harbor Tunnel had provided. This has resulted in a considerable increase in truck traffic on that portion of Route 695 lying behind my residence.
- (4) Since 1976, the Baltimore-Washington International Airport (BWI) has experienced a tremendous growth spurt which consequently resulted in increased traffic both in the air and on surrounding roadways--many of which include residential streets running through Linthicum.

RECEIVED

4684
JUN 16 1988

DIRECTOR OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

(5) Since 1976, the Airport Square Technological Park in Linthicum has grown at least ten-fold, and construction continues--again causing a considerable increase in traffic around and through Linthicum.

(6) Since 1976, the State of Maryland initiated and implemented the I-97 project to address the current and projected increases in traffic along the existing Route 3 which feeds into Route 695 in the Linthicum area.

(7) Since 1976, the State of Maryland began construction of a new interchange at Route 29S and Route 695. Once again, a multi-million dollar project to address increased traffic in an area that lies less than 1 mile from my home.

(8) Since 1976, the State of Maryland has announced plans to run a light-rail system through Linthicum, which will travel to Baltimore and then to Hunt Valley. This rail system will cross over various residential streets in Linthicum (i.e., Maple Road, Twin Oaks Road, Route 170) thereby causing delays and potential hazardous situations for residents who travel these roadways regularly.

(9) Now, the State of Maryland is announcing plans to widen Route 695, which will generate more traffic in back of our homes and cause an even greater negative effect on the Linthicum community.

Would you not agree that the Linthicum area has had to give up more than its fair share of land, tranquility, safety, and peaceful residential lifestyle to make way for the transportation needs of the rest of the State?

Why then are steps not taken immediately to ensure that the remainder of the community is at least protected from the harmful effects of air pollution and noise, NOISE, NOISE, that is generated from this increased traffic?

Here are some facts for you to consider:
Since the initial hearings on the I-97 project, residents of our community were told, and provided in writing, that the State of Maryland would take measures to ensure our environmental protection from the increases in the traffic in the form of noise walls. We were told that all areas of Linthicum abutting Route 695 would have noise barriers constructed. The Linthicum Lane and Medora Road residents were told that these areas, while they did not come under the I-97 project, were already included in the Type II Noise Abatement Project and scheduled for advertisement of noise barrier construction in Fiscal Year 1986.

However, when Fiscal Year 1988 began (in July 1987) the residents of the Linthicum Lane and Medora Road area inquired

300

VIII- 035

Page 3

as to the status of the Type II project. We were informed that the State of Maryland has instituted a new "Noise Abatement Policy," and the Linthicum Lane area "does not qualify for a noise barrier." "However, as part of the design phase for the barrier project at the Baltimore-Washington Parkway/Interstate Route 695 interchange, we (the State Highway Administration) will study the possibility of additional landscape planting in your area to visually screen the highway from the residents. If funds are available and the planting is found to be feasible, the landscaping will be included in the barrier project."

When was the public hearing conducted to discuss this new Noise Abatement Policy? What factors now constitute qualification for noise walls? What happened to the money that was budgeted for our noise walls?

If the "new" policy requires that the homes be in existence before the roadway to constitute noise barrier protection, such a requirement is ludicrous--especially when that roadway turns from a 2-lane roadway, to a 3-lane roadway, and then to a 4-lane roadway, and possibly 5 lanes. What should be considered is the increase in traffic over a particular time period and the projected increases.

I, personally, have had to contend with noise, fumes, trespassing, dirt and debris, plant erosion, and more over the past 10 years. In return, I have been given promises that the State has reneged on. In fact, other people in our community decided to construct new homes after we were told that noise barriers were going to be constructed. So, don't have your representatives tell us that we knew the beltway was there when we bought or built our homes. The beltway was there, yes, but there was 30% less traffic, there was no I-97 feeding more cars and trucks onto 695, there was no Key Bridge attracting more trucks, the growth of BWI and the construction of the technological park were still thoughts in someone's mind.

THE BOTTOM LINE IS THIS...DON'T ASK US (THE RESIDENTS) OF COMMUNITIES BORDERING THE BELTWAY TO LISTEN TO YOUR PROPOSALS, PROMISES, OR ENVIRONMENTAL IMPACT STUDIES... NOT UNTIL YOU DO SOMETHING IMMEDIATELY TO PROTECT OUR COMMUNITIES FROM THE NOISE AND PROBLEMS ASSOCIATED WITH THE INCREASED TRAFFIC ON ROUTE 695. ONCE THE COMMUNITIES ARE PROTECTED, THEN THE STATE OF MARYLAND SHOULD LOOK AT WAYS TO PROVIDE BETTER MEANS OF COMMUTING FOR ITS GENERAL PUBLIC.

Sincerely,

Carolyn A. Keefe



Maryland Department of Transportation
State Highway Administration

CP

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

July 8, 1988

Ms. Carolyn A. Keefe
5931 Linthicum Lane
Linthicum, Maryland 21090

Dear Ms. Keefe:

Thank you for your June 13th letter expressing your concern about the proposed widening of the Baltimore Beltway.

We have proposed this project in response to the transportation needs of Baltimore and Anne Arundel Counties. Although a number of other transportation alternatives are being investigated throughout these counties, there is still a need to provide additional highway capacity along this section of the beltway.

The study of this proposed widening has included an evaluation of noise impacts. Decisions regarding the provision of noise barriers are made in accordance with our policy as a way to insure consistency throughout the state. Due to the limited financing available for noise barrier projects, we construct barriers for those areas which meet our impact criteria and can be cost-effectively protected. Although Maryland has the largest noise barrier program in the Country, we have to turn down many areas for noise barriers.

If you have any questions regarding this information, Ms. Catherine Pecora, the project manager, is also available to assist you. Ms. Pecora's phone number is 333-1191.

Very truly yours,

Neil J. Pedersen

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

NJP:ss

cc: Mr. Louis H. Ege, Jr.
✓ Ms. Catherine Pecora

My telephone number is (301) 333-1110

Teletypewriter for Impaired 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

301

VIII-C36

PROJECT DEVELOPMENT DIVISION
STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

JUN 17 11 10 AM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Martha Boyd DATE 6/14/88

PLEASE PRINT ADDRESS 41 Badgerbark Ct.

CITY/TOWN Balt STATE Md. ZIP CODE 21228

I/We wish to comment or inquire about the following aspects of this project:

concerning the limit of study just beyond Route 40.
Why stop there? Where 70 feeds off 695, the lanes are
reduced and is a cause of many traffic backups. (Social Security employees)
This problem will still exist if the lanes remain the
same. Will they be altered somewhat?
The traffic load to the Social Security buildings should
be included in this mega project. Keep the 4 lanes
between 40 & 70 and add an extra off ramp instead.
So, why stop at Route 40, you're missing
an obvious problem

Martha Boyd

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.

Response to comments by Martha Boyd

In response to comments generated at the Combined Location/Design Public Hearing and those made by Baltimore County and Team members, the limits of the study were extended to north of I-70 interchange. As a result of further study, the Selected Action will include a repaving and restriping to provide four lanes in each direction through the I-70 interchange.

302

PROJECT DEVELOPMENT
 STATE HIGHWAY ADMINISTRATION
 QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
 PDMS No. 251029
 I-695 from U.S. Route 40 (West) to Md. Rte. 170
 including Md. Rte. 295 from Md. Rte. 46 to
 the Baltimore City Line
 Location/Design Public Hearing
 Catonsville Senior High School
 June 22, 1988

NAME Mary B. Clark DATE 6-14-88
 ADDRESS 9 Carroll Rd.
 CITY/TOWN BALTO STATE MD ZIP CODE 21228

PLEASE PRINT

If we wish to comment or inquire about the following aspects of this project:

While the State & Sub Division are constantly adding on to 695 & other various highway - they very seldom assume any responsibility to the neighboring houses and occupants to safeguard their health and safety - The area at Wilkens Ave. has been plagued by noise & fumes above acceptable levels for the past 15 years without any abatement (barrier, etc) by the government, except in those areas where pressure groups led by politicians were successful.
This proposal can only result in the above conditions increasing multi-fold.

Please add my/our name(s) to the Mailing List. * STANLEY T. CLARK

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-338



Maryland Department of Transportation
 State Highway Administration

Pecora
 Richard H. Trainor
 Secretary
 Hal Kassoff
 Administrator

August 17, 1988

RE: Contract No. AW 758-151-072 N
 Interstate Route 695 from
 US 40 (West) to MD 170 including
 MD 295 from MD 46 to the
 Baltimore City Line
 PDMS No. 251029

Ms. Mary B. Clark
 9 Carroll Road
 Baltimore, Maryland 21228

Dear Ms. Clark:

I am writing in response to your June 14th comments regarding the proposed widening of I-695.

As you have noted there are a number of impacts that occur when highways and residential areas are next to each other.

Noise quality can be improved to some degree by the construction of noise barriers. Due to the limited financing available for noise barrier projects, we construct barriers for those areas which meet our impact criteria and can be cost-effectively protected. Although Maryland has the largest noise barrier program in the country, we have to turn down many areas for noise barriers.

Thank you for expressing your concern. I have verified your name and address on the mailing list for this project so that you will be notified when a final decision is reached. If I can answer any questions in the meantime, please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
 Deputy Director
 Project Development Division

by: Catherine Pecora
 Catherine Pecora
 Project Manager

LHE:CP:ss

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

303

PROJECT DEVELOPMENT DIVISION
STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

JUN 17 11 10 AM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME CHARLES J. LINDNER DATE 14 JUNE 88

PLEASE PRINT ADDRESS 5724 CALVERTON ST.

CITY/TOWN BALTIMORE STATE MD ZIP CODE 21228

I/We wish to comment or inquire about the following aspects of this project:

VIII-C39

sir:

This letter should probably be sent to a different state office, but I am not sure where so I will complain to you. I am very concerned about the shortsighted general state attitude which is we need population growth to make Maryland a big time state. For example the argument for building the new stadiums is to get continuing development growth which I believe is leading to a catastrophic problem. We will destroy our greatest unique assets; the mountains the bay and the ocean. Travel to ocean city and observe the traffic congestion, go to the bay and observe the boat congestion, travel to the mountains out Rt 70 and observe the housing development spreading. I realize the power of the development industry but we better get someone to look beyond next year's profit sheet and out into the future. I see trees, parks and open spaces being replaced by homes, shopping centers and roads. "disgusting isnt it"

Thank You
Mr. Lindner

(please forward to appropriate state office)



MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201-2365

WILLIAM DONALD SCHAEFER
GOVERNOR

CONSTANCE LIEDER
SECRETARY

August 17, 1988

Mr. Charles J. Lindner
5724 Calverton Street
Baltimore, Maryland 21228

Dear Mr. Lindner:

Thank you for your concern for our environment. If all Maryland's citizens shared your concern, this State would be a better place in which to live.

The Department of State Planning strives to maintain a balance between State growth and preservation of our natural resources. We do have guidelines which require that a percentage of our open space, forests and parklands remain in its natural state. We realize that sometimes it appears that no one is concerned about our natural resources; it seems that our only goal is to attract people, industry and money.

Our Department is as concerned as you are about preservation of our natural resources. It is our goal to insure that the abundance of natural resources are still available for the enjoyment of many generations in the future.

Sincerely,

Roland E. English, III
Director, Office of State
Comprehensive Planning

REE:VT:mv

cc: Catherine Pecora ✓

TELEPHONE: 301-225-4550
TTY for Deaf: 301-383-7555
OFFICE OF COMPREHENSIVE POLICY PLANNING

304



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 10, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (west) to MD 170
including MD 295 from
MD 46 to the Baltimore City Line
PDMS No. 251029

Mr. Charles J. Lindner
5724 Calverton Street
Baltimore, Maryland 21228

Dear Mr. Lindner:

Thank you for your June 14th comments regarding the impact of growth plans in Maryland. Your comments could be addressed by the Department of State Planning. I will forward a copy of your letter to Mr. Roland English the Director of the Office of Comprehensive State Planning, at Room 1101, 301 West Preston Street, Baltimore, Maryland 21201. He can be reached at 225-4550. If I can assist you in any other matters I can be reached at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: 

Catherine Pecora
Project Manager

LHE:CP:vw

cc: Mr. Roland English (w/incoming)

My telephone number is (301) _____

Teletypewriter for Impaired 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

305

**STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS**

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

PROJECT DEVELOPMENT
DIVISION
JUN 17 11 31 AM '88

NAME PFAFF DATE 6-14-88

PLEASE PRINT ADDRESS 520 KENT AVENUE, CATONSVILLE HEIGHTS

CITY/TOWN CATONSVILLE STATE MO ZIP CODE 21228

I/We wish to comment or inquire about the following aspects of this project:

CREATING A SHOULDER OF 5' AT THE FOOT OF KENT AVENUE BETWEEN
ROUTE 40 AND EOMONDSON AVENUE (EXITS 15 TO 14) WOULD NOT BE OBJECTIONABLE

PROVIDING THAT ON TOP OF THE RETAINING WALL, THERE WAS ALSO PLACED
A SOUND BARRIER WALL, TO BE DONE AT THE SAME TIME. I WOULD LIKE TO
HEAR ABOUT YOUR PROPOSALS FOR SOUND BARRIERS IN THIS AREA.

IN ADDITION, I WOULD LIKE TO HEAR YOUR OPINIONS ON THE BENEFITS
OF WIDENING THE BELTWAY IN ANY WAY. IT SEEMS TO ME, THAT NO MATTER
HOW WIDE THE BELTWAY BECOMES, IT WILL NOT BE ENOUGH. AS SOON AS THE
TRAFFIC 'FLOW' IMPROVES, MORE PEOPLE WILL START USING IT. THE
RESULTS WILL BE THE SAME CONGESTED CONOITION AS EXISTS TODAY.

RAPID TRANSIT, MORE EXTENSIVE METRO SYSTEM AND GOOD, FREE PARKING
AREAS AT THE TERMINALS SEEM TO BE A MORE SENSIBLE APPROACH TO THE
PROBLEM OF MOVING PEOPLE.

I WOULD REALLY APPRECIATE SOME RESEARCH BEING DONE AND HEARING
YOUR IDEAS ON MY OPINION.

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**

Carry

Richard H. Trainor
Secretary
Hal Kassoif
Administrator

August 22, 1988

Mr. Pfaff
520 Kent Avenue
Catonsville, Maryland 21228

Dear Mr. Pfaff:

I am writing in response to your June 14th comments about the proposed widening of the Baltimore Beltway in your area.

Noise abatement has been investigated as part of the Draft Environmental Impact Statement that was prepared for the project. Eligibility for noise barriers is being evaluated based on our Administration's noise policy. Your area has been identified as possibly being eligible under our Type II, retrofit, noise abatement program. We will be looking at this in more detail and our final decision will be published in the Final Environmental Impact Statement (FEIS) next year. If barriers were to be constructed they would be placed on top of the proposed retaining walls as you have suggested. You will be notified when the FEIS is available.

The widening of this section of the beltway has been proposed to provide some relief for the severe congestion and the accidents that are currently being experienced and will continue to worsen. While it is true that traffic volumes will be higher when the road is widened, it is also true that volumes will increase without the widening. Additional traffic on the Beltway would result in a "rush hour" lasting three to four hours if the road were not widened.

Your final point, suggesting other modes of transportation such as rapid transit or park-and-ride lots, is being investigated. As part of the legislation passed to fund the light rail system from Hunt Valley to Glen Burnie, the Maryland Department of Transportation was directed to conduct a study to assess the appropriateness of various modes of transportation in twenty-four travel corridors throughout the state. The Baltimore Beltway is one of the corridors being investigated. The results of this study will be available in October and will be considered before a final decision is reached for the proposed widening. The State Highway Administration representative for this study is Mr. Ray Weber, he is available at 333-1127 if you would like to acquire any additional information.

My telephone number is (301) 333-1191

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5082 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

308

VIII-C41

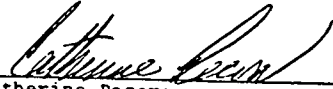
Mr. Pfaff
August 19, 1988
Page 2

Thank you for your comments. If I can answer any other questions please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by:


Catherine Pecora
Project Manager

LHE:CP:ss

cc: Mr. Ray Weber
Ms. Cynthia Simpson
Mr. Charles Adams

VIII-CA2

307

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS JUN 20 2 21 PM '88

PROJECT
DEVELOPMENT
DIVISION

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 2, 1988

Ms. Regina J. Stanhope
4 Winds - Box 53 Lyme Road
Lyme, New Hampshire 03768

Dear Ms. Stanhope:

I am writing in response to your June 15th request for more information about the proposed widening of the Baltimore Beltway in the area of Ingleside Avenue.

I was unable to precisely locate your property on our tax maps, although I do have a general idea where it is located.

Therefore, I have attached copies of the proposed alternates that are more detailed than the brochures you received earlier. This map shows that the proposed widening would require the widening of the bridge carrying the Beltway over Ingleside Avenue. This would allow for an additional lane in each direction. The roadway widening here would be done within the State Highway Administration's right-of-way so that no land would be required from adjacent properties.

If you have any additional questions feel free to call me toll free at 1-800-548-5026 or at my private line, (301) 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: *Catherine Pecora*
Catherine Pecora
Project Manager

LHE:CP:ss
Attachment

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

3008

NAME Regina J. Stanhope DATE 6/15/88

ADDRESS 4 Winds - Box 53 LYME Rd

CITY/TOWN LYME STATE N.H ZIP CODE 03768

I/We wish to comment or inquire about the following aspects of this project:

SINCE I am APPROXIMATELY 500 mi. FROM BALTO. and
am NOT too sure about the PROJECT. Would
you please advise what EFFECT this Project
will have on lots 39 & 40 Block 24, CATONSVILLE
HEIGHTS - Ingleside Ave - Land Records of Balto
Co. - Plat Book WPC #6 - Folio 178. ?

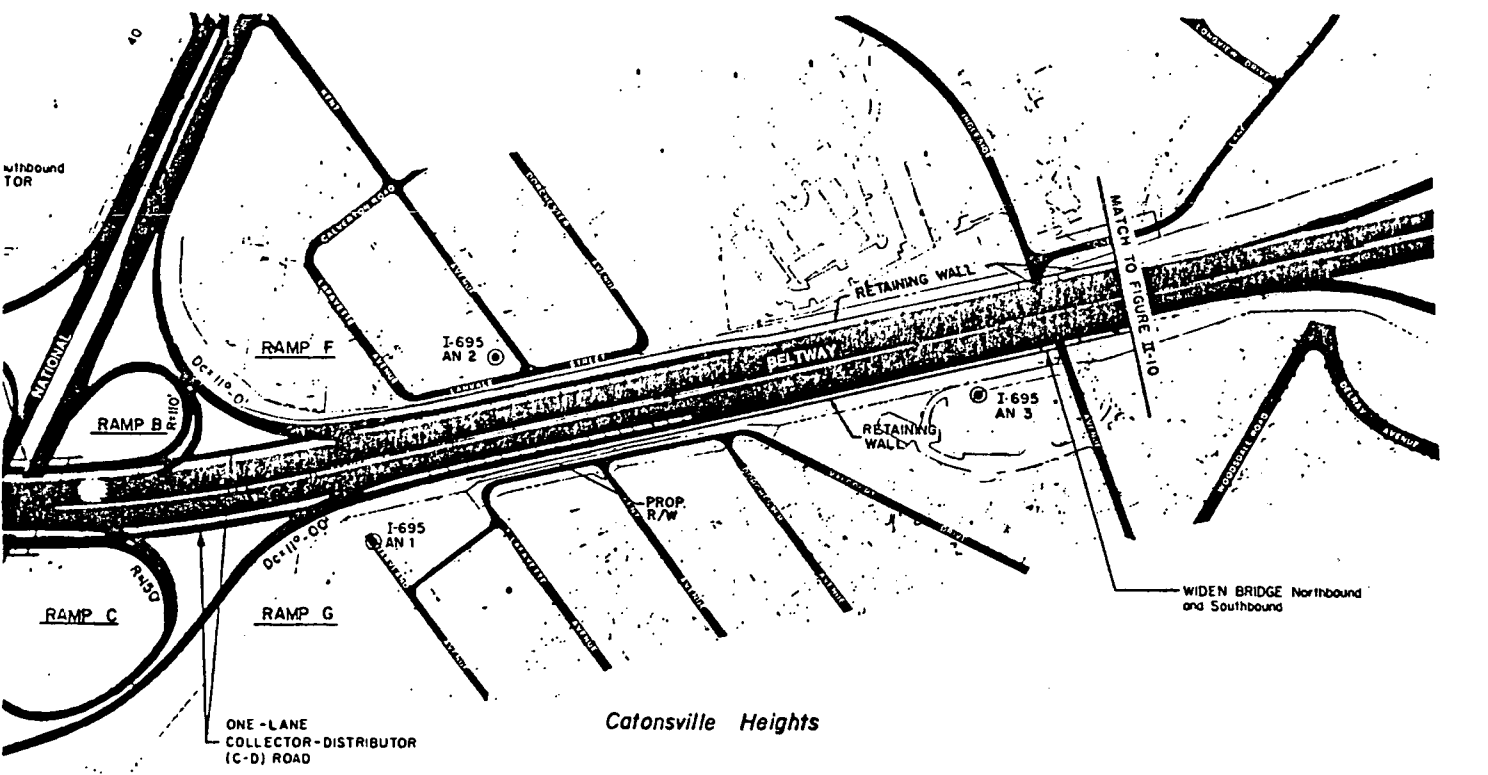
Thank you for your kind attention to this
Request. -

Regina H. Stanhope
(Regina H. Stanhope)

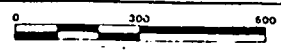
Please add my/our name(s) to the Mailing List.*

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.



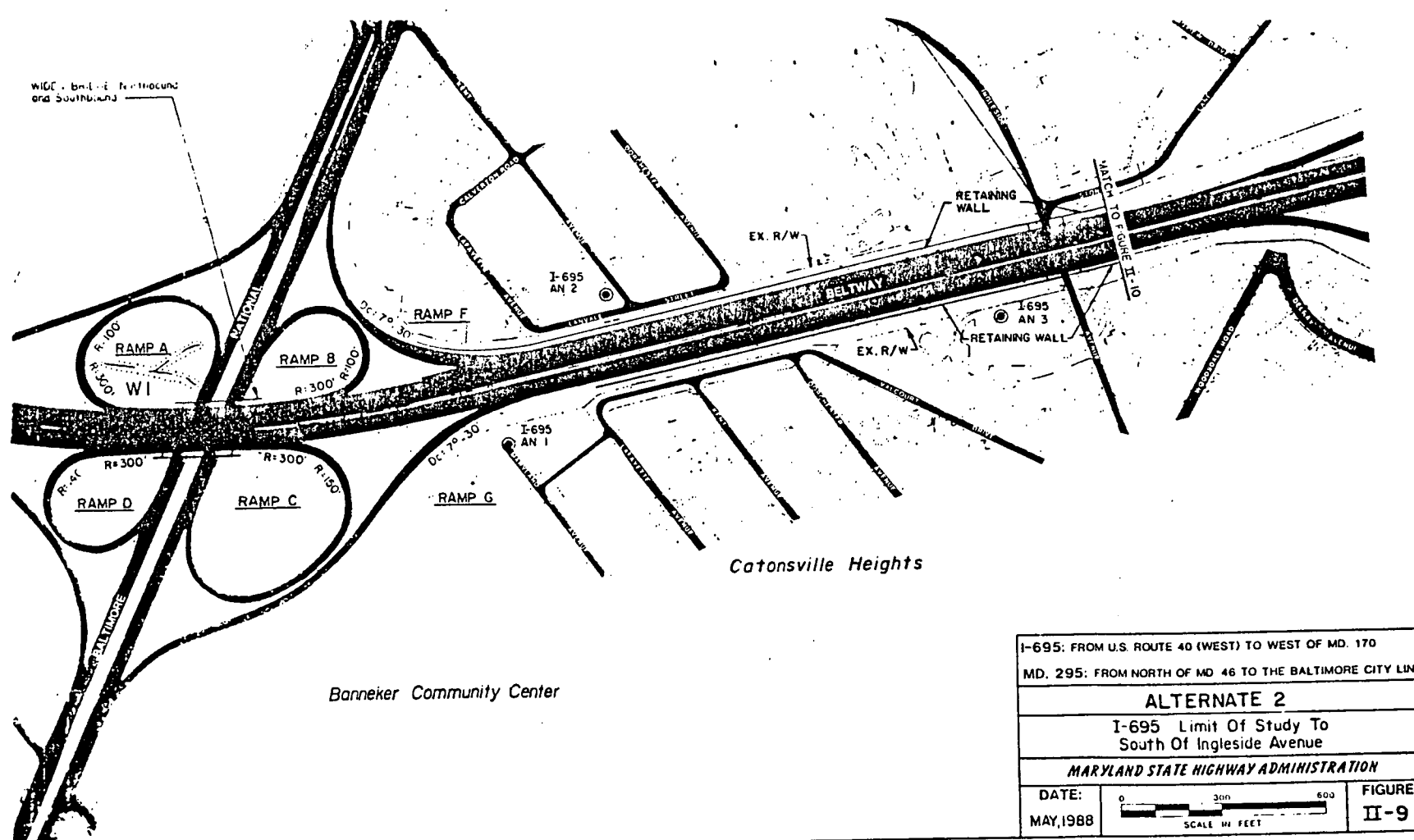
I-695: FROM U.S. ROUTE 40 (WEST) TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
I-695/US RTE. 40 INTERCHANGE-OPTION I	
I-695 Limit Of Study To South Of Ingleside Avenue	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: MAY, 1988	FIGURE TT-1A



309

VIII-C44

WIDE BRIDGE RETHROUND
and Southland



I-695: FROM U.S. ROUTE 40 (WEST) TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD 46 TO THE BALTIMORE CITY LINE	
ALTERNATE 2	
I-695 Limit Of Study To South Of Ingleside Avenue	
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>	
DATE: MAY, 1988	0 300 600 SCALE IN FEET
	FIGURE II-9

VIII 645

310

PROJECT DEVELOPMENT DIVISION
 STATE HIGHWAY ADMINISTRATION
 QUESTIONS AND/OR COMMENTS 2 23 PM '88

CONTRACT NO. AW 758-151-072 N
 PDMS No. 251029
 I-695 from U.S. Route 40 (West) to Md. Rte. 170
 including Md. Rte. 295 from Md. Rte. 46 to
 the Baltimore City Line
 Location/Design Public Hearing
 Catonsville Senior High School
 June 22, 1988

NAME Edward J. Bedford DATE 6/16/88
 PLEASE PRINT Jamesello Bedford
 ADDRESS 2 Kenwood Avenue
 CITY/TOWN Baltimore STATE MD ZIP CODE 21228

//We wish to comment or inquire about the following aspects of this project:

Frederick Road Interchange - Install traffic lights
Edmondson Ave Interchange - Focus Option 1

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-C46



Maryland Department of Transportation
 State Highway Administration

Cathy
 Richard H. Trainor
 Secretary
 Hal Kassoff
 Administrator

July 21, 1988

RE: Contract No. AW 758-151-072
 I-695 from US 40 (West) to
 MD 170 including MD 695 from
 MD 46 to the Baltimore City Line
 PDMS No. 251029

Mr. and Mrs. Edward J. Bedford
 2 Kenwood Avenue
 Baltimore, Maryland 21228

Dear Mr. and Mrs. Bedford:

I am writing in response to your June 16th comments in reference to the alternates being studied for the widening of the Baltimore Beltway in your area.

We have investigated the possibility of signaling the ramps on Frederick Road at the interchange with the beltway. Installing traffic lights here would be possible but would impact the county roads that are close to these ramps. We are working with Baltimore County to develop a system that would be acceptable.

I have noted your preference for option 1 at the Edmondson Avenue Interchange and have also deleted your name from the mailing list as you requested.

Thank you for your comments.

Very truly yours,

Louis H. Ege, Jr.
 Deputy Director
 Project Development Division

By: Catherine Pecora
 Catherine Pecora
 Project Manager

LHE:CP:vw

cc: Mr. Daryle Wiles

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

311

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT
DEVELOPMENT
DIVISION

JUN 22 3 19 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
1-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME ROBERT G. DILL DATE JUNE 19/88

ADDRESS #17 UNIVERSITY AVE

CITY/TOWN CATONSVILLE STATE MD. ZIP CODE 21228

PLEASE
PRINT

I/We wish to comment or inquire about the following aspects of this project:

REGARDING OPTION #1 I 695/WILKINS AVE
I DISAGREE WITH THE ELIMINATION OF THE LEFT TURN
FROM RAMP D TO KENWOOD AVE. THIS ACCESS TURN LANE IS
PRESENTLY SERVING CATONSVILLE KNOWLS AND WESTERN 10 TECH.
I BELIEVE THAT BY DIRECTING ALL TRAFFIC TO WILKINS AVE
EASTBOUND AND THEN MAIDEN CHOICE LANE NB, AN UNDUDE
HARDSHIP WILL BE CREATED ON MAIDEN CHOICE LANE WHICH
IS SWOLLO TO CAPACITY DUE TO ITS NARROW ROAD WIDTH.
ANY VEHICLES ON NB MAIDEN CHOICE LANE WISHING TO ACCESS
KENWOOD AVE WOULD HAVE TO NEGOCIATE A HAZARDOUS LEFT TURN.
(DUE TO A STEEP DECLINE OF THE ROAD) VEHICLES TRAVELING
NB ON MAIDEN CHOICE CANNOT SEE THE LEFT TURN UNTIL THEY
CROSS THE HILL WHICH GIVES VERY LITTLE WARNING. I DON'T THINK
IT WOULD BE IN SAFETY'S BEST INTEREST TO INCREASE THE
PERCENTAGES OF ACCIDENTS. THIS ALSO WOULD INCREASE THE RESPONSE TIMES
OF FIRE EQUIP. FROM THE ARBUS ST. INTO CATONSVILLE KNOWLS SECTION.
(THEY ARE 2ND DUE). THE LEFT TURN ONTO KENWOOD AVE FROM
NB 695 SHOULD REMAIN UNCHANGED AS IT IS PRESENTLY
Robert G. Dill

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. C47



Maryland Department of Transportation
State Highway Administration

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

July 14, 1988

Contract No. AW 758-151-072 N
I-695 from US 40 (West) to
MD 170 including MD 295 from
MD 46 to the Baltimore City Line
PDMS No. 251029

Mr. Robert G. Dill
17 University Avenue
Catonsville, Maryland 21228

Dear Mr. Dill:

Thank you for your comments regarding option 1 at the Wilkens Avenue interchange that is under consideration as part of the proposed widening I-695. We are aware of your concern regarding the diversion of traffic onto Maiden Choice Lane that would result from this option. We will be investigating the impacts of this option before reaching a decision regarding recommended improvements at this location.

I have added your name to the mailing list for this project as you requested. If I can be of any further assistance I can be reached at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired 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

312

PROJECT DEVELOPMENT DIVISION
STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS 2 54 IN '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME KENNETH R. FAIR DATE 6/20/88

PLEASE PRINT ADDRESS 5941 LINTHICUM LANE

CITY/TOWN LINTHICUM STATE MD. ZIP CODE 21090

I/We wish to comment or inquire about the following aspects of this project:

I WOULD LIKE TO BE ON RECORD OF BEING
IN FAVOR OF A SOUND BARRIER WALL BEHIND
MY PROPERTY.

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

August 2, 1988

Mr. Kenneth R. Fair
5941 Linthicum Lane
Linthicum, MD 21090

Dear Mr. Fair,

Thank you for your June 20th comments expressing your interest in having noise barriers constructed for your neighborhood.

Noise impacts along this project and throughout the state have become increasingly important in recent years. In order to address these concerns fairly throughout the state, we evaluate each neighborhood according to a statewide policy. The results of the studies done for the Draft Environmental Impact Statement for the proposed widening indicate that your area does not qualify for noise barriers. We will be reviewing this over the next few months and a final decision will be available next year in the Final Environmental Impact Statement.

I have added your name to the mailing list for this project so that you will be notified when this document is available. If I can answer any questions in the meantime please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:ss

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

313

VIII

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT
DEVELOPMENT
DIVISION

JUN 26 2 22 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Jane L. Dinkel DATE 22 June 88

PLEASE PRINT ADDRESS 2 Dunganrie Road
CITY/TOWN Catonsville STATE MD ZIP CODE 21228-3401

I/We wish to comment or inquire about the following aspects of this project:

Re: I-695/Wilkens Avenue Inteechange option 1:
Ramp D poses a much greater risk for multi-
vehicle accidents than Ramp B. Essentially, Ramp D
permits traffic to flow in all four directions (North,
South, East, and West). Cuerently there are five lanes
of traffic converging at one point on Wilkens Avenue.
The proposed change to prohibit access to Kenwood Rd.
from Ramp D only adds to the congestion at this juncture.
At increased risk for accidents are those vehicles turning
left from Ramp D onto eastbound Wilkens Avenue, and
those vehicles on eastbound Wilkens Avenue turning
left onto Ramp D to the Northbound beltway.
Consideration should be given to this issue before a
final decision is made.

I support the proposed change to Ramp 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

Richard H. Trainor
Secretary
Hal Kasloff
Administrator

July 14, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (West) to
MD 170 including MD 295 from
MD 46 to the Baltimore City Line
PDMS No. 251029

Ms. Jane L. Dinkel
2 Dunganrie Road
Catonsville, Maryland 21228

Dear Ms. Dinkel:

Thank you for your comments regarding option 1 at the Wilkens Avenue interchange that is under consideration as part of the proposed widening I-695. We are aware of your concern regarding the diversion of traffic onto Maiden Choice Lane that would result from this option. We will be investigating the impacts of this option before reaching a decision regarding recommended improvements at this location.

I have added your name to the mailing list for this project as you requested. If I can be of any further assistance I can be reached at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
363-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5082 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

314

VIII649

**STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS**

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988



**Maryland Department of Transportation
State Highway Administration**

Pecora

Richard H. Trainor
Secretary
Hal Kessoff
Administrator

August 5, 1988

Mr. William K. Lawrence
101 Arbutus Avenue
Catonsville, Maryland 21228

Dear Mr. Lawrence:

Thank you for your June 22nd comments regarding the proposed widening of I-695.

Noise impacts along this project and throughout the state have become increasingly important in recent years. In order to address these concerns fairly throughout the state, we evaluate each neighborhood according to a statewide policy. This policy considers a number of items such as:

- whether the Federal Highway Administration Criterion is exceeded
- whether a substantial increase in noise level would result from the highway project
- whether a feasible method is available to reduce the noise
- whether noise mitigation is cost-effective

The result of the studies done for the Draft Environmental Impact Statement for the proposed widening indicate that your area does not qualify for noise barriers for two reasons. The first reason is that the widening will not create a significant increase in noise levels. Rather, the increase will occur over time as the result of a natural increase in traffic. The second reason is that a noise barrier for your neighborhood would cost more than \$40,000/residence which is the maximum we consider to be cost-effective. We will be reviewing the results over the next few months and a final decision will be available next year in the Final Environmental Impact Statement. You will be notified when this document is available.

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

3/3

NAME William K Lawrence DATE 6/22/88

PLEASE PRINT ADDRESS 101 ARBUTUS AVE

CITY/TOWN Catonsville STATE MD ZIP CODE 21228

I/We wish to comment or inquire about the following aspects of this project:

RE: EAST SIDE BETWEEN EDMONDSON AND FROEDLICK

ADDITIONAL LANE WILL DESTROY EXISTING BRUSH & TREES WHICH PRESENTLY SHIELD THE HOMES FROM SOME OF THE NOISE. THOSE SCRUBS & TREES TOOK 23 TO 25 YEARS TO GROW. THE NOISE LEVEL AS IT EXISTS TODAY, IS VERY LOUD. I WANT TO MAKE SURE THAT THE STATE REALIZES THAT WITHOUT THOSE TREES & BRUSH, THE DESIRABLE LEVEL WILL INCREASE. WHY DON'T YOU JUST GO AHEAD AND PUT UP A SOUND BARRIER, IT IS INEVITABLE THAT WITH THE INCREASING TRAFFIC & ENCRoUcHMENT OF THE DELTAway INTO THE COMMUNITY, I.E. EXTRA LANE & DISTURBED ENVIRONMENT, THE NOISE READINGS ARE GOING TO INCREASE.

- Please add my/our name(s) to the Mailing List. * Increase
- Please delete my/our name(s) from the Mailing List. William K Lawrence

*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

VIII-000

Mr. William K. Lawrence

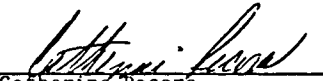
Page 2

If I can answer any questions in the meantime please
call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by:


Catherine Pecora
Project Manager

LHE:CP:ss

VIII-CSI

3119

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT
DEVELOPMENT
DIVISION

JUN 28 2 22 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Nancy J Miller DATE 6-22-88

PLEASE PRINT ADDRESS 53 Winslow Park Dr

CITY/TOWN Baltimore STATE MD ZIP CODE 21228

We wish to comment or inquire about the following aspects of this project:

I-695/ Wilkens Av Interchange Option 1:
Ramp D poses a much greater accident risk than
Ramp B. Essentially, Ramp D permits traffic to flow
in all four directions (North, South, East, and West). Currently
there are 5 lanes of traffic converging at one point
on Wilkens Avenue. The proposed change to prohibit
access to Kenwood Rd from Ramp D only adds to the
congestion at this juncture. At increased risk for
accidents are those vehicles turning left from Ramp D
onto Eastbound Wilkens Avenue, and those vehicles on
eastbound Wilkens Avenue turning left on Ramp D to
the northbound Beltway. Consideration should be
given to this issue before a final decision is
made.

I do support the proposed change to
Ramp 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

CP

Richard H. Trainor
Secretary
Hal Kaesoff
Administrator

July 14, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (West) to
MD 170 including MD 295 from
MD 46 to the Baltimore City Line
PDMS No. 251029

Ms. Nancy J. Miller
53 Winslow Park Drive
Baltimore, Maryland 21228

Dear Ms. Miller:

Thank you for your comments regarding option 1 at the Wilkens Avenue interchange that is under consideration as part of the proposed widening I-695. We are aware of your concern regarding the diversion of traffic onto Maiden Choice Lane that would result from this option. We will be investigating the impacts of this option before reaching a decision regarding recommended improvements at this location.

I have added your name to the mailing list for this project as you requested. If I can be of any further assistance I can be reached at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5082 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

317

VIII

PROJECT
DEVELOPMENT
DIVISION
STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME RICK AND ELIZABETH SIEBENALER DATE 6/22/88

PLEASE PRINT ADDRESS 1207 LEEDS TERRACE

CITY/TOWN ARBUTUS STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

WE FEEL THAT AN IMPROVEMENT IS NEEDED IN BOTH THE NORTH BOUND
& SOUTHBOUND DIRECTIONS OF I-695, AS WELL AS THE MD 295 WORK.

THE OPTIONS PRESENTED APPEAR AS IF THEY WOULD HELP THE TRAFFIC
PROBLEMS, BUT ~~WILL NOT SOLVE THE PROBLEM~~ SPECIFIC COMMENTS:

- WE FEEL THAT AN ADDITIONAL LANE SHOULD BE PROVIDED FROM
MD 40 TO MD 140 (THROUGH I-70 AREA), TO ELIMINATE THIS
3 LANE BOTTLENECK AREA.

- WE FEEL THAT I-70 SHOULD BE EXTENDED TO THE
DOWNTOWN AREA OF BALTIMORE. THIS EXTENSION IS LONG OVERDUE AND
WOULD REDUCE MANY OF THE CURRENT TRAFFIC PROBLEMS FOR THE
STUDY AREA.

- THE REDUCED INCREASED TRAFFIC FLOW PROVIDED BY THE BUILD ALTERNATE
WOULD NOT BE ASSISTED BY THE ~~AND~~ EXTENSION OF THE CATON AVE LANE ON I-95
DOWN ONTO I-695 NORTH. SIMPLY ALLOWING THE 2 CURRENT I-95 TO
I-695 NORTH RAMPS TO HAVE THEIR FLOW CAPABILITY WOULD SUFFICE. THIS
WOULD ALSO GREATLY REDUCE THE TRAFFIC HAZARDS THAT I-695 NORTH
AVTOS MUST WILL INCUR TO EXIT AT WILKENS AVE. THE CURRENT BUILD
OPTION WILL REQUIRE 3 LANE ~~FROM~~ CROSSES TO EXIT AT WILKENS AVE.
THIS SAME CONCERN EXISTS FOR AVTOS ENTER SOUTH I-695 AT WILKENS, WHERE THOSE AVTOS MUST

Please add my/our name(s) to the Mailing List. * STAY ON I-695 PAST THE I-95 EXIT.

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

Plasma

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

July 29, 1988

Mr. and Mrs. Rick Siebenaler
1207 Leeds Terrace
Arbutus, Maryland 21227

Dear Mr. and Mrs. Siebenaler:

I am writing in response to your June 22nd comments regarding the proposed widening of I-695 from US 40 to MD 170.

We are aware of concerns regarding traffic congestion through the I-70 interchange but felt that this could not be included in the current study. One key reason is that we are restricted from providing an additional lane along the beltway here because of the size of I-70 bridges. The cost of expanding these bridges is prohibitive and will probably not be considered until reconstruction is required for structural reasons.

The proposal to extend I-70 into Baltimore City has been examined in the past. Such a connection would provide some relief to this section of the beltway; however, it is not feasible due to impacts to neighborhoods and parks that are located within this corridor.

The design we have proposed at the I-95 interchange will provide through lanes along the northbound beltway for the two I-95 entrance ramps as you have suggested. This will be done by adding a sixth lane to the beltway from I-95 to Wilkens Avenue. This sixth lane will handle three lanes of traffic from the Beltway, one from I-95 northbound and two from I-95 southbound. The additional lane along I-95 southbound from Caton Avenue to the Beltway is necessary to handle the additional traffic that will be using this ramp in the future. It will end as an exit-only at Wilkens Avenue so that traffic coming from I-695 will have to cross two lanes to exit at Wilkens Avenue.

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

gib


Mr. and Mrs. Rick Siebenaler
Page Two

Thank you for your input regarding this project. If I can be of any further assistance, I can be reached at (301) 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by:


Catherine Pecora
Project Manager

LHE/CP/1h

VIII-054

319

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION
JUN 30 3 13 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
1-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME JACOB B. DAVIS DATE 6/23/88

PLEASE PRINT ADDRESS 5924 Linthicum Lane

CITY/TOWN Linthicum STATE MD ZIP CODE 21090

I/We wish to comment or inquire about the following aspects of this project:

I constructed my home in 1968 and since then the noise, caused by increased traffic on I-695, has materially increased. Other sections of the Beltway have been resurfaced with newer material which muffles the traffic noise and noise barriers have been erected in other places. I have been told that the State feels that it is under no obligation to deal with the noise along the section of the Beltway where I live because the Beltway existed when I moved there. I do not accept this as a valid reason on the part of the State to do nothing because, among other reasons, the increase in traffic on the Beltway has caused a substantial increase in noise from that which existed in 1968.

- 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-C55



Maryland Department of Transportation
State Highway Administration

Picora

Richard H. Trainor
Secretary
Hal Kessoff
Administrator

August 5, 1988

Mr. Jacob B. Davis
5934 Linthicum Lane
Linthicum, Maryland 21090

Dear Mr. Davis:

I am writing in response to your June 23rd comments regarding noise barriers along the Beltway in your neighborhood.

The impact of highway noise on residential areas has become an increasingly important concern in recent years. In order to address these concerns fairly throughout the state, we evaluate each neighborhood according to a statewide policy that includes a number of items. In addition to the year the houses were built, we look at whether noise abatement would be cost-effective. Our criterion is \$40,000 per protected residence. A noise barrier in your area would cost significantly more than this.

Although Maryland has the largest noise abatement program in the country, we are still unable to provide barriers for all the requests we receive. If I can provide you with any more information on this issue, please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: Catherine Picora
Catherine Picora
Project Manager

LHE:CP:ss

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

330

PROJECT DEVELOPMENT DIVISION
 STATE HIGHWAY ADMINISTRATION
 QUESTIONS AND/OR COMMENTS '88

CONTRACT NO. AW 758-151-072 N
 PDMS No. 251029
 I-695 from U.S. Route 40 (West) to Md. Rte. 170
 including Md. Rte. 295 from Md. Rte. 46 to
 the Baltimore City Line
 Location/Design Public Hearing
 Catonsville Senior High School
 June 22, 1988

NAME MR. & MRS. SCOTT ZIMMERMAN DATE 6/23/88

PLEASE PRINT ADDRESS 4848 CARMELLA DR

CITY/TOWN ARBUTUS STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

Will Carmella Drive become a
dead-end road? Will Gateway Terrace
be closed?

VIII-556

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

August 2, 1988

Mr. and Mrs. Scott Zimmerman
 4848 Carmella Drive
 Arbutus, Maryland 21227

Dear Mr. and Mrs. Zimmerman:

I am writing in response to your June 23rd inquiry about the impact of the proposed widening of the Beltway on Gateway Terrace and Carmella Drive.

Neither of these roads would be affected by the proposed project. We have proposed building a wall as part of this widening that would allow all the construction to be done within the State Highway Administration right-of-way.

I have added your names to the mailing list for this project. This will enable you to receive notification of which alternate is approved for the project. If I can answer any other questions in the meantime please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
 Deputy Director
 Project Development Division

By: Catherine Pecora
 Catherine Pecora
 Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
 383-7555 Baltimore Metro - 565-0451 O.C. Metro - 1-800-492-5062 Statewide Toll Free
 707 North Calvert St., Baltimore, Maryland 21203-0717

321

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Evelyn Blackwell DATE June 24, 1988

PLEASE PRINT ADDRESS 14 Badger Gate Court

CITY/TOWN Baltimore STATE Maryland ZIP CODE 21228

I/We wish to comment or inquire about the following aspects of this project:

I am in favor of I-695 / Wilkens Ave. - Option 1



Maryland Department of Transportation
State Highway Administration

Richard
Richard H. Trainor
Secretary
Hal Kessoff
Administrator

Ms. Evelyn Blackwell
14 Badger Gate Court
Baltimore, Maryland 21228

Dear Ms. Blackwell:

Thank you for your June 24th comment in favor of Option 1 at the I-695/Wilkens Avenue interchange. Please feel free to contact me at (301) 333-1191 if you have any additional comments.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: *Catherine Petora*
Catherine Petora
Project Manager

LHE/CP/ih

My telephone number is (301) 333-1191

Teletypewriter for Impaired 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

2/29/88

VIII-57

*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

Please add my/our name(s) to the Mailing List.*

Please delete my/our name(s) from the Mailing List.

STATE HIGHWAY ADMINISTRATION
 QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
 PDMS No. 251029
 I-695 from U.S. Route 40 (West) to Md. Rte. 170
 including Md. Rte. 295 from Md. Rte. 46 to
 the Baltimore City Line
 Location/Design Public Hearing
 Catonsville Senior High School
 June 22, 1988

NAME Agnes M. Lam DATE 6/27/88
 ADDRESS 3035 FREEWAY
 CITY/TOWN BALTIMORE STATE MD ZIP CODE 21227

PLEASE
 PRINT

If we wish to comment or inquire about the following aspects of this project:

I would like to know what was discussed
at the meeting on 6-22-88 concerning RT-295.
I was unable to attend the meeting due to the fact
my husband had surgery that day and I was at
the hospital with him. RT 295 runs right behind
my house and I want to know what if any effect
the proposed project will have on my house.
If you need to know the exact location of
my house in reference to RT-295, the walk bridge
connecting Riverview + The Highland Highland
Hpts is directly behind my house.

THANKS

- 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

August 2, 1988

Ms. Agnes M. Lam
 3035 Freeway
 Baltimore, MD 21227

Dear Ms. Lam:

I am writing in response to your June 27th inquiry regarding the proposed widening of MD Route 295.

This project proposes the addition of one lane in each direction to be constructed in the median of the Baltimore Washington Expressway from MD Route 46 to the Baltimore City Line. This includes the section behind your house; however, the widening of the southbound roadway has already been done by our District office. Therefore, the project we are studying now would provide similar widening on the northbound roadway.

This project would not require the purchase of any property along the Expressway because all the work is being done within existing state right-of-way. If I can answer any additional questions please feel free to call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
 Deputy Director
 Project Development Division

by: Catherine Pecora
 Catherine Pecora
 Project Manager

LHE:CP:ss

My telephone number is (301) 333-1191

Teletypewriter for Impaired Hearing or Speech
 303-7555 Baltimore Metro - 585-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free
 707 North Calvert St., Baltimore, Maryland 21203-0717

323

PROJECT DEVELOPMENT DIVISION
STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029

I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988



Maryland Department of Transportation
State Highway Administration

Cathy
Richard H. Trainor
Secretary
Hal Kssoff
Administrator

August 22, 1988

Mr. Robert Reuter
P.O. Box 1514
Baltimore, Maryland 21203

Dear Mr. Reuter:

Thank you for your recent comments expressing your preference for the no-build alternate for the proposed widening of I-695 from US 40 to MD 170.

This project has been proposed to improve the severe accident and congestion problem on this section of the Beltway. In addition, other modes of transportation, are being investigated and will be considered before a final decision is reached for the proposed widening.

As part of the legislation passed to fund the light rail system from Hunt Valley to Glen Burnie, the Maryland Department of Transportation has been asked to conduct a study to assess the appropriateness of various modes of transportation in twenty-four travel corridors throughout the state. The Baltimore Beltway is one of the corridors being investigated. The results of this study will be available in October. The State Highway Administration's representative for this study is Mr. Ray Weber. He is available at 333-1127 if you would like to acquire any additional information.

Thank you for your comments. If I can answer any additional questions please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:ss
cc: Mr. Ray Weber

NAME Robert Reuter DATE 26 June 88
PLEASE PRINT ADDRESS PO Box 1514
CITY/TOWN Baltimore STATE MD ZIP CODE 21203

I/We wish to comment or inquires about the following aspects of this project:

FAA IN FAVOR OF ALTERNATE I THE NO BUILD.

This project Has a COST FAR IN EXCESS OF ITS BENEFIT. These money's would Accomplish more IS used IN support of Public Transit ALTERNATIVES! To Relieve The Highway Load

- 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.

My telephone number is (301) _____

Teletypewriter for Impaired 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

VIII-C59

file

PROJECT
DEVELOPMENT
DIVISION
STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS 3 07 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Stanley & Mary Topa DATE June 29, 1988

PLEASE PRINT ADDRESS 464 Susan Court

CITY/TOWN Linthicum STATE Maryland ZIP CODE 21090

I/We wish to comment or inquire about the following aspects of this project:

We live in a new development called Linthicum Hills which is located between Interstates 695 and 295. We hear loud noise and can feel vibrations in our house because of these two highways.

The following are our comments regarding the Location/Design Plans you have designed which were presented to the general public on Wed. June 22nd:

- We prefer Alternate 1 - the No build Alternate over all the others.
- If you decide Alternate 1 is not feasible, we prefer Option 3 within Alternate 2 which utilizes I-895 (Harbor Tunnel Route) as an alternate route. We feel this will greatly alleviate the traffic volume on Interstates 695 and 295 by utilizing I-895. There is plenty of space to widen this route and no personal properties or private residences will be affected by this widening.

We are greatly concerned about the Beltways coming 50 feet closer to our homes. The noise is already enough to keep us awake at night. The additional traffic volume predicted in the future will make it unbearable for us to hear ourselves think without Sound Barriers erected. PLEASE consider us for Sound Barriers. If not, please thicken the woods around our community by planting shrubs and fast growing trees to hide the looks and sounds of the beltway.

We also request that some kind of fence be erected around our community to keep pedestrians from the beltway away from our homes.

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.

This letter was responded to through the Linthicum Hills Homeowners Association by letter dated August 8, 1988 on page VIII-C16.

325

09J IIIA

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT DEVELOPMENT DIVISION
JUL 6 1 44 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME OLIVE L. + BARBARA JEAN EDSON DATE JUNE 30, 1988

PLEASE PRINT ADDRESS 514 KENT AVENUE
CITY/TOWN CATONSVILLE STATE MD ZIP CODE 21228

We wish to comment or inquire about the following aspects of this project:

We do not agree with your proposals! There should be NO more lanes built. Enough is enough! You should live near the beltway and hear the noises you say don't warrant noise barriers. You certainly have built in the past and not known what you were doing - example: you ended up changing Catonsville ramp only after many accidents (my family member was one of those hurt). Your present idea for Welbers Avenue is not even thought thru properly. Kenwood Avenue closing will really cause havoc on Welbers. Maiden Choice and Kenwood PLEASE CONSIDER SOMETHING ELSE! Light rail is the ONLY way to go. We'll end up like the Los Angeles Freeway. Please don't let this happen! My parents/grandparents had to build their house where it is today (the house we live in) because you people took their original house for the beltway. WE SAY ENOUGH IS ENOUGH! NO BUILD! FIND A SENSIBLE

Please add my/our name(s) to the Mailing List. * ALTERNATIVE
 Please delete my/our name(s) from the Mailing List. PLEASE !!

*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

August 29, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (west) to
MD 170 including MD 295 from
MD 46 to the Baltimore City Line
PDMS No. 251029

Ms. Olive L. Edson
Ms. Barbara Jean Edson
514 Kent Avenue
Catonsville, Maryland 21228

Dear Mss. Edsons:

I am writing in response to your June 30th comments regarding the widening of the Baltimore Beltway that is being studied.

We are aware of the noise levels that exist in your neighborhood and have evaluated the area for noise barrier eligibility in accordance with our Administration's policy. The area is not eligible for noise barriers for two reasons. The first is that the majority of residences close to the highway were built after the highway. These are the apartments off Ingleside Avenue. The second reason noise barriers are not being considered in conjunction with the proposed widening is that the difference between the build and no-build noise levels is not significant; that is, the proposed widening will not cause a significant increase in noise level.

Your concern about the changes to Kenwood Avenue proposed as part of Interchange Option 1 has been raised by a number of people in this area. We will be considering these comments as we make our final decision.

Your final point suggesting that other modes of transportation, such as light rail, be investigated is in the process of being addressed. As part of the legislation passed to fund the light rail system from Hunt Valley to Glen Burnie, the Maryland Department of Transportation has been asked to conduct a study to assess the appropriateness of various modes of transportation in 24 travel corridors throughout the state. The Baltimore Beltway is one of the corridors being investigated.

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5092 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

3/2/88

VIII 1981

Ms. Edson

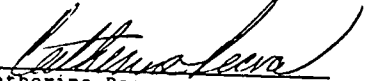
Page 2

Thank you for your comments. If I can be of any further assistance please call me. My phone number is 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By:


Catherine Pecora
Project Manager

LHE:CP:vw

cc: Ms. Cynthia Simpson
Mr. Charles Adams

VIII-662

327

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988



Maryland Department of Transportation
State Highway Administration

Cathy
Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 22, 1988

RE: Contract No. AW 758-151-072 N
I-695 from US 40 (west) to
MD 46 to the Baltimore City Line
PDMS No. 251029

NAME CONNIE FREEMAN DATE 6/31/88
ADDRESS 9 Pomona, North #7
CITY/TOWN PIKESVILLE STATE MD ZIP CODE 21208

Ms. Connie Freeman
9 Pomona, North #7
Pikesville, Maryland 21208

Dear Ms. Freeman:

I am writing in response to your June 30th inquiry regarding the proposed widening of the Baltimore Beltway near Altamont Avenue.

At this time we are not proposing to purchase right-of-way from any properties on Altamont Avenue. I have added your name to the project mailing list so that you will be notified when an alternate has been approved for this project. Since there is no funding for final design, right-of-way acquisition or construction, I will not be able to provide you with any further notification. Please call me at 333-1191 when you want an update on the status of the project.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro - 565-0451 O.C. Metro - 1-800-492-5062 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

328

PLEASE PRINT ADDRESS 9 Pomona, North #7
CITY/TOWN PIKESVILLE STATE MD ZIP CODE 21208

I/We wish to comment or inquire about the following aspects of this project:

*My mother lived on Altamont Ave at Exit 13
and is away alot through the year.
I would like to be kept up to date also,
we travel that area almost daily.
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.

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT
DEVELOPMENT
DIVISION

JUL 7 1 55 PM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

PLEASE
PRINT

NAME Robert W. Bassett DATE 7/2/88
ADDRESS 4105 Hollins Ferry Road
(Lansdowne)
CITY/TOWN Baltimore STATE MD ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

There is my son Bobby who is
a skateboarder and I have a Flier
that says Lansdowne Skate Park in the
Southwest area will be bulldozed
for my sons behalf and all the skateboarders
and Bikers Please do not demolish this Park.
Please inform me when there is any thing
going on about this area.

Thank you
Robert W. Bassett

- 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

Attach
Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 9, 1988

RE: Contract No. AW 758-151--072 N
I-695 from US 40 (west) to MD 170
including MD 295 from MD 46 to
the Baltimore City Line
PDMS No. 251029

Mr. Robert W. Bassett
4105 Hollins Ferry Road
Baltimore, Maryland 21227

Dear Mr. Bassett:

I writing in response to your July 2nd comments regarding the proposed widening of the Baltimore Beltway and MD 295 in your area.

The project we are proposing will not have any impact on the Lansdowne Skate Park. Perhaps this park is being closed by a private project.

I have added your name to the mailing list for the proposed widening study so that you will be notified when we receive approval for a design for the project. Construction is not funded and is not anticipated to start sooner than seven years. If you have any other questions in the meantime please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By: Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:vw

My telephone number is (301) _____

Teletypewriter for Impaired 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

329

VIII-C64

VIII-665

E. HENRY HINRICHS, JR., O.O.S. TELEPHONE 828-8828
7703 BELLONA AVENUE RUXTON, MARYLAND 21204

DEAR SIR,
PLEASE DO NOT SPEND OUR TAX MONEY
TO WIDEN ROUTE 695 BETWEEN MARYLAND
295 (B.W. PARKWAY AND) ROUTE 40. I AM
FOR ALTERNATIVE 1 - NO BUILD.
INSTEAD PLAN ON ALTERNATIVE LIGHT RAIL
TO RUN PARALLEL TO THIS ROUTE.

SINCERELY
E. Henry Hinrichs

PROJECT
DEVELOPMENT
DIVISION
JUL 5 9 11 AM '88



Maryland Department of Transportation
State Highway Administration

Cathy

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

August 18, 1988

E. Henry Hinrichs, DDS
7703 Bellona Avenue
Ruxton, Maryland 21204

Dear Dr. Hinrichs:

Thank you for your recent comments expressing your preference for the no-build alternate for the proposed widening of I-695 from US 40 to MD 170.

This project has been proposed to improve the severe accident and congestion problem on this section of the Beltway. In addition, other modes of transportation, are being investigated and will be considered before a final decision is reached for the proposed widening.

As part of the legislation passed to fund the light rail system from Hunt Valley to Glen Burnie, the Maryland Department of Transportation has been asked to conduct a study to assess the appropriateness of various modes of transportation in twenty-four travel corridors throughout the state. The Baltimore Beltway is one of the corridors being investigated. The results of this study will be available in October. The State Highway Administration's representative for this study is Mr. Ray Weber. He is available at 333-1127 if you would like to acquire any additional information.

Thank you for your comments. If I can answer any additional questions please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by:

Catherine Pecora
Catherine Pecora
Project Manager

LHE:CP:ss
cc: Mr. Ray Weber

333-1191

My telephone number is (301) _____

Teletypewriter for Impaired 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

333

STATE HIGHWAY ADMINISTRATION
 QUESTIONS AND/OR COMMENTS

PROJECT
 DEVELOPMENT
 DIVISION

JUL 13 3 35 PM '88

CONTRACT NO. AW 758-151-072 N
 PDMS No. 251029
 I-695 from U.S. Route 40 (West) to Md. Rte. 170
 including Md. Rte. 295 from Md. Rte. 46 to
 the Baltimore City Line
 Location/Design Public Hearing
 Catonsville Senior High School
 June 22, 1988

NAME N. MYERS DATE 5 JULY 08

PLEASE PRINT ADDRESS 2945 FREEWAY

CITY/TOWN BALTIMORE STATE MARYLAND ZIP CODE 21227

I/We wish to comment or inquire about the following aspects of this project:

*Noisy aspects of this work should not be
 performed after 1000PM at night as it is currently.*

*It makes sleeping impossible. You cannot sit in
 your own living room and carry on a conversation
 due to the noisy. You have cut down the natural
 sound barrier before our home. I think this should*

*be replaced ASAP. either by sound barrier or replace
 the trees which were unnecessary to remove to
 begin with.*

Please add my/our name(s) to the Mailing List. *NMYERS/PL*
 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

August 10, 1988

RE: Contract No. AW 758-151-072 N
 I-695 from US 40 (west) to MD 170
 including MD 295 from MD 46 to
 the Baltimore City Line
 PDMS No. 251029

Mr. N. Myers
 2945 Freeway
 Baltimore, Maryland 21227

Dear Mr. Myers:

I am writing in response to your July 5th comments regarding the proposed widening of MD 295 in your area.

The widening of MD 295 that is currently underway is performed at night because the high traffic volumes make it too dangerous to work for the majority of the day. Noise impacts during construction can not be avoided but are reduced by allowing the contractor to work at night and finish the project as quickly as possible.

Part of the purpose of the widening was to improve the safety of this section of the highway. This included removing some trees within the State Highway Administration right-of-way to allow a clear, safe area for vehicles that are out-of-control. The amount of trees removed were not enough to create a substantial increase in noise although this did reduce the visual buffer that you were used to.

We have evaluated your area for noise barriers as part of the Draft Environmental Impact Statement for the proposed widening. There is a possibility that your area could qualify for noise barriers as part of this project but the final decision has not been made. This decision will be published in the Final Environmental Impact Statement next year. Since you are on our mailing list you will receive a notice when this becomes available.

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
 803-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free
 707 North Calvert St., Baltimore, Maryland 21203-0717

331

VIII-666

Page 2

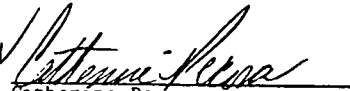
Mr. N. Myers

If I can be of any assistance in the meantime or answer any other questions you can call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

By:


Catherine Pecora
Project Manager

LHE:CP:vw

337

VIII-C67

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME Nancy Pirtle Connelly DATE 7.13.88
ADDRESS 5018 Gateway Terrace
CITY/TOWN Balto. STATE MD ZIP CODE 21227

PLEASE
PRINT

If the beltway must be widened, please leave the trees growing between northbound 695 and my home and neighborhood on Gateway Terrace adjacent to the Wilkens Avenue ramp as untouched as possible. The thirty year old trees are very important to our quality of life as they serve as a noise and pollutant barrier. They will be just as important even with a sound barrier wall placed along the outer edge of the beltway. The sound barrier wall is much needed but so are the trees because they are twice the height of the proposed sound barrier therefore helping to reduce traffic exhaust and noise pollution escaping over the barrier wall.

The trees serve other important purposes for my community as well. They supply many homes with much needed shade during the hot summer months. Our townhouse yards are small and many of my neighbors cannot plant trees in their

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.

backyards as there is not adequate space for tree roots to grow without interfering with water and sewage piping.

In addition, a pleasing visual barrier is formed by the trees helping to conceal the beltway and beltway traffic from our backyards. Having the beltway visually hidden from view, even with a sound barrier, is not only psychologically beneficial, but in my mind, contributes to the value of my home.

Also the trees supply a vast number of different species of birds with shelter and homes. It almost seems that wildlife has only small wooded areas along highways in which to live anymore as most larger woods are being torn down for the construction of new buildings and roads. It would be very nice to preserve what has become over the years a small "bird sanctuary" located beside our houses.

The Palladi homeowners in my neighborhood and I would be very upset to lose the "small forest." Several neighbors have already expressed the very same concerns to me as presented in this letter to you. The trees took so many years to grow that it would be a dreadful error to eliminate them when they contribute to so many positive aspects of our lives. I hope the State Highway Administration agrees the trees are an important asset to save as the community which lives beside them and needs them feels they are.

Sincerely,
Nancy Pirtle Connelly

See response on page VIII-C72.

333

15 July 1988

Mr. Neil J. Pedersen, Director
Office of Planning & Prelim. Engineering
State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202

Re: Contract # AW 758-151-072N
PDMS # 251029
Widening of I-695 from U.S. Rte. 40 to MD Rte. 170

Dear Mr. Pedersen:

As a resident of the 4900 block Gateway Terrace, I attended the recent community meeting your department sponsored at Catonsville S.H.S. on Wednesday, June 22, 1988. I was eager to see what revisions you made to your prior presentation of November 1985. Unfortunately, all I saw was the same old Beltway, only more of it. I felt uncomfortable with the lack of detail your presentation contained as to how much widening would be occurring and how it will affect my neighborhood.

Our neighbors scheduled a meeting that took place yesterday, Thursday, July 14, with Ms. Catherine Pecora. I finally saw understandable drawings that clearly showed what lanes are being planned and the approximate location of the retaining/sound attenuation wall. Why couldn't you have had 1:50 scale maps available at the community meetings?

While I feel more comfortable about the future of my community, I feel I must address some issues discussed in your Draft Environmental Statement. Let me start with air quality. Your Draft Report cites that levels of Carbon Monoxide (CO) are now and will continue to be acceptable. Air Pollution, unfortunately, also comprises ozone, a constituent of photochemical smog, particulate dust, hydrocarbons (HC), and Carbon Dioxide (CO₂). Metropolitan residents are required to have their cars tested for the latter two compounds. By their omission, your report implies that these pollutants are not significant enough in the air we breathe to merit study. I feel otherwise.

Another fallacy in your Draft concerns the Interstate's effect on the immediate property values of those residences closest to the Beltway. To quote your report, "Adjacent property values would not be adversely affected by the proposed improvements." (IV.A.1) While values have appreciated, they have done so at a slower rate than in other non-impacted communities. A widened Beltway would only add to existing disincentives to move into Maiden Choice or other community near the Beltway. It doesn't matter how architectural a retaining wall is designed.

As Ms. Pecora saw at her meeting with the residents along Gateway Terrace, many of my neighbors are elderly and I get the feeling they feel trapped here. The value of their house cannot command the value that a similar unit in a non-impacted area would bring and, as a result, they cannot afford to move.

RECEIVED

JUL 19 1988

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

I wish to extend my thanks to Ms. Pecora for coming yesterday and discuss with us the proposed Beltway widening. The information she presented was clear and understandable. I must grudgingly approve of the plan as presented with the following comments. With I-70 being a perpetual no-build situation, what will happen after the design year 2015 when the five main line lanes become congested as the existing four lanes are now? Do you relocate your proposed retaining wall to the existing wall? How will the remaining green space be cared for or will it?

I plan to follow your proposal as it continue to develop.

Sincerely,



Thomas P. Feulner Jr.
4908 Gateway Terrace
Baltimore, MD 21227

VIII - C69

334



Maryland Department of Transportation
State Highway Administration

August 10, 1988

Pecora

Richard H. Trainor
Secretary
Hal Kessoff
Administrator

Mr. Thomas P. Feulner, Jr.
4908 Gateway Terrace
Baltimore, Maryland 21227

Dear Mr. Feulner:

Thank you for your recent letter regarding the project planning study of the Baltimore Beltway in your area.

I am glad that Ms. Pecora was able to provide clearer details of the project for you and your neighbors at the July 15th meeting. Due to the fact that the work performed by our office is preliminary, we do not develop 1"=50' scale drawings for the entire length of the project. Such detail is often developed for individual community groups that express an interest in more information so that a better understanding of the project can be gained.

With respect to air quality, our report did not intend to imply that pollutants other than carbon monoxide do not merit study. The pollutants you mention are regional in nature and, as such, a meaningful evaluation on a project-by-project basis is not possible. These pollutants are instead included in a regional transportation system air quality analysis conducted by the Maryland Air Management Administration and the Regional Planning Council to demonstrate attainment of the National Ambient Air Quality Standards. The Vehicle Emissions Inspection Program you mention was developed as part of this plan to lower regional pollutant emission levels.

The effect of the proposed widening on property values is a difficult item to quantify due to the fact that attractiveness of a property is subjective and depends on a large number of variables. While a wider highway could make an area less desirable, improved access tends to increase the attractiveness of a neighborhood. In general, since the highway already exists next to this area and we are not significantly changing the access, we feel that property values will not change significantly as a result of the widening.

As you have noted, traffic volumes along the beltway will continue to increase with time. This is, however, the last improvement that we expect could be made to this part of the beltway due to cost and right-of-way limitations.

My telephone number is (301) 333-1110

Teletypewriter for Impaired Hearing or Speech
303-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free
707 North Calvert St., Baltimore, Maryland 21203-0717

Mr. Thomas P. Feulner, Jr.
Page Two

The final question in your letter refers to how the green space between the Beltway and Gateway Terrace will be maintained. As you have noticed, this is a difficult area to groom. Currently it is maintained by spraying to control the weeds. We expect that it will continue to be maintained in the same way once the widening is done.

Thank you for your comments. If we can provide you with any further information, please feel free to call me or Ms. Pecora. Ms. Pecora's telephone number is (301) 333-1191.

Very truly yours,

Neil J. Pedersen

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

NJP:ss

cc: Mr. Louis H. Ege, Jr.
Ms. Cynthia D. Simpson
Ms. Catherine Pecora

335

VIII-C76

RECEIVED

G-130
JUL 27 1988
844
DIRECTOR'S OFFICE OF
PLANNING & PROJECTS ENGINEERING

Machin
123 Forest Avenue
Baltimore, Maryland 21228

18 July 1988

Mr. Hal Kassoﬀ
State Highway Administrator
707 N. Calvert Street
Baltimore, Maryland 21202

Dear Mr. Kassoﬀ:

On 22 June, at the State Highway Administration meeting regarding beltway expansion, my neighbor Barbara Bridge, my husband and I had an opportunity to speak with Mr. Gene Miller. Although we do understand the proposed alternatives for expansion do not include encroachment of our real estate at this time, we are concerned about possible future expansion.

After speaking last week with Steve and Barbara Bridge (125 Forest Avenue), we would like to request further information from the State regarding possible acquisition of our properties. Both families would prefer to stay in this neighborhood, but we are truly concerned if further expansion is proposed in the future our homes will not be able to co-exist with the roadway.

Please advise us if this request is possible, or if you can suggest another solution.

Very sincerely yours,

Donna Machin

dm



Maryland Department of Transportation
State Highway Administration

PROJECT
DEVELOPMENT
DIVISION
AUG 15 9 45 AM '88

Richard H. Trainor
Secretary
Hal Kassoﬀ
Administrator

AUG 12 1988

Ms. Donna Machin
123 Forest Avenue
Baltimore, Maryland 21228

Dear Ms. Machin:

Thank you for your July 18th letter bringing your concern about your proximity to the beltway to my attention. Detailed information regarding the design of the noise barrier that is compatible with the proposed widening will be available at the end of September.

In the meantime, I have asked Mr. Charles Adams, Chief of the Bureau of Landscape Architecture, to contact you. He will be able to discuss the impacts of the noise barrier project and procedures and options that are available for a right-of-way negotiation.

I look forward to hearing your final decision on this issue. If you have any questions, Mr. Adams can be contacted at (301) 321-3521.

Sincerely,
ORIGINAL SIGNED BY:
HAL KASSOFF

Hal Kassoﬀ
Administrator

HK:eh

cc: Mr. Neil J. Pedersen
Mr. Louis H. Ege, Jr.
Mr. Robert Tresselt
Mr. Charles Adams
Mr. Gene Miller
Mr. Wait Kulis

My telephone number is (301) _____

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro - 555-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free
707 North Calvert St., Baltimore Maryland 21202-0717

396

VIII. C71

5018 Gateway Terrace
Baltimore, MD 21227
July 27, 1988

State Highway Administration
Contract No. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to MD Rte. 170
Comments

After attending the last meeting concerning the widening of the beltway in June, we felt disappointed in that the general attitude of the public seemed to be one of acceptance towards the beltway widening project. We decided writing to you would be fruitless as we were one family against the plan. Thus we wrote you a letter asking the state to please not cut down the trees surrounding our house if widening of the beltway occurred as happened in the expansion of 295. However, since that meeting, the community in which we live has decided to protest the present plans of a two lane widening on each side of the beltway. We feel, as most if not all of the community does, that widening of the beltway will not solve the problem of increasing traffic in the years to come and will most certainly jeopardize the community in which we live.

Another alternate route for travel should be investigated and built. Widening of the beltway is a short term solution to an ever increasing need. Traffic will soon increase to such an extent as to negate the extra space provided by two extra lanes.

Because many homes are very close to the beltway, the state has very little space in which to expand the beltway. The noise level is too high now and because we live directly beside the beltway, the noise of trucks passing by can be deafening. Increasing the width of the beltway would definitely increase the density of traffic passing by at a given time thus producing a much higher level of noise that even a sound barrier would probably not be able to decrease to a sensible noise level, not to mention the fact that the noise would be much closer to our house. In addition, because of the density increase of traffic, the pollution level would also increase.

It is certainly a shame to even consider widening the beltway as the community in which we reside is respectable and well cared for. The houses are well built and residents take pride in their homes here. To increase the noise and pollution by moving the beltway closer to our homes would decrease the value of our homes and contribute to the deterioration of the community. We hope the state seriously considers an alternate route as an answer to the growing traffic needs of the public rather than expanding a road that pushes several neighborhoods living beside it to a point of unbearable tension and most likely eventually desertion.

Sincerely,

Thomas J.
Thomas J. Connelly
Thomas J. Connelly
Pittie

Response to Connelly Letter

1. The construction of a new road to handle the traffic demand along the beltway is not considered reasonable. The density of development in the Baltimore area precludes new construction of this magnitude. Such construction would involve the acquisition of a great deal of right-of-way and, along with that, a much greater extent and severity of impact than is currently proposed.
2. The noise analysis conducted in this vicinity indicated that the construction of a noise barrier here is reasonable and feasible. This will be considered during final design of the project.

337

VIII - C72

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

PROJECT
DEVELOPMENT
DIVISION

AUG 9 11 41 AM '88

CONTRACT NO. AW 758-151-072 N
PDMS No. 251029
I-695 from U.S. Route 40 (West) to Md. Rte. 170
including Md. Rte. 295 from Md. Rte. 46 to
the Baltimore City Line
Location/Design Public Hearing
Catonsville Senior High School
June 22, 1988

NAME JAMES W. MOHLER DATE 8-2-88

PLEASE PRINT ADDRESS 7 SOMERSET RD.

CITY/TOWN BALT. STATE MD ZIP CODE 21228

I/We wish to comment or inquire about the following aspects of this project:

*I see no mention of water
retention ponds or underground
holding tanks. Why not?
What happens to the increase flow
of water?*

*Hi: Ron Hickmell
Ken Mathias
Honey Murphy
John Cook*

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.

Response to Mohler Letter

In general, run-off of water from the highway would be collected in either pipes or ditches and allowed areas which are natural outlets for stormwater. Stormwater management ponds may also be used to control runoff. The type and location of drainage facilities will be determined during final design.

338

D. Agency Coordination

Important letters and memoranda of conferences, resulting from coordination efforts are reproduced in this section in chronological order. All remaining letters and memoranda are available for public inspection at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland.

<u>Date</u>	<u>Coordination</u>
April 4, 1986	Meeting with Arbutus Volunteer Fire Department
June 10, 1986	Meeting with Arbutus Volunteer Fire Department
July 9, 1986	Letter from Maryland Historical Trust
August 28, 1986	Letter from Anne Arundel County-Recreation and Parks regarding Overlook Park.
December 2, 1986 and January 16, 1987	Letter to Baltimore County Zoning Commission regarding proposed office park located on the southwest side of the Baltimore Beltway with access via Kenwood Avenue.
January 29, 1987	Letter from Maryland Geological Survey.
March 18, 1987	Letter to Maryland Historical Trust from SHA requesting concurrence of finding.
March 25, 1987	Letter from Maryland Historical Trust regarding archeological resources.
May 26, 1987	Letter from Md. DNR - Maryland Forest, Park and Wildlife Services regarding threatened or endangered species.
June 19, 1987	Letter from USEPA - Region III
October 6, 1987	Letter from USDOJ - Fish and Wildlife Service regarding Federally listed or proposed endangered or threatened species

340

<u>Date</u>	<u>Coordination</u>
December 10, 1987	Letter from Baltimore County Department of Recreation and Parks - Southwest Area Park
January 15, 1988	Letter from Anne Arundel County Department of Recreation and Parks
February 18, 1988	Memorandum of Wetland Field Review
March 23, 1988	Letter from Md. DNR - Capital Programs Administration
March 29, 1988	Letter from Baltimore County Public Schools
April 22, 1988	Letter from USDA - Soil Conservation Service regarding Prime Farmland Soils
July 18, 1988	Letter from U.S. Army Corps of Engineers agreeing to be a cooperating agency.
January 15, 1991	Letter from Baltimore County Public Schools identifying replacement parking sites on the lower parking lot.
March 5, 1991	Letter from Baltimore County Public Schools providing parking space replacement adjacent to the northern parking lot.

MEMORANDUM OF MEETING

Date: April 4, 1986 8:30 AM
 Place: Arbutus Volunteer Fire Department
 Attendance: Baltimore County Fire Department
 Edward Bartenfelter
 Clarence R. Ward

Arbutus V.F.D.
 Joseph H. Grusch
 Edwin F. Preston
 Douglas R. Simpkins
 Richard A Snader
 Stephen M. Watts
 Patrick J. Wheltle

SHA
 John Contestabile

RK&K
 Norine Walker *N.M. Kahl*

Project: I-695: From U.S. Route 40 (West) to West of Md. 170
 Md.295: From north of Md. 46 to the Baltimore
 City Line

RK&K arranged this meeting with the Baltimore County Fire Department in order to explain the widening project ~~to them~~ and to present the proposals of closure of the Leeds Avenue (I-695 Interchange No. 12A) and the Harbor Tunnel Thruway (I-695 Interchange #8A) Interchanges. Specific concerns of the County include the fact that this is one of only 6 stations in the County having Emergency Rescue Equipment. That being the case, their responsibility ranges from the Patapsco River (County line) to I-70. The firefighters have noticed an increase in the number of calls from the areas in Catonsville and Westview where there is on-going development taking place.

The concern of the Arbutus V.F.D. was that as traffic increases on the Beltway, the number of incidences which require their response will increase as well (such as truck fires, collisions). Understanding that High Accident Location Areas are a consideration in highway planning, the Fire Department emphasized that this also affects the number, frequency and location of a portion of these calls requiring adequate access.



RUMMEL • KLEPPER & KAHL *consulting engineers*

342

Other discussion items:

- Baltimore County currently acquiring homes in floodplain (specifically in Leeds Avenue vicinity).
- Harbor Tunnel Thruway ramp closure would increase response time due to traveling south to I-95 in order to access I-895.
- Arbutus Volunteer Fire Department responsibility area ~~is in~~ the flight path of B.W.I. airport.
- Noise impacts of utilizing residential street for emergency access.
- Consider access ramps restricted for emergency use only.

The Baltimore County Fire Department agreed to collect data from the stations affected by the I-695 widening and interchange improvement proposal and to again meet to discuss findings and possible alternatives.

NMW/sms

cc: Mr. John Contestabile
Dep. Chief Edward Bartenfelter



RUMMEL • KLEPPER & KAHL *consulting engineers*

MEMORANDUM OF MEETING

Date: June 10, 1986
 Place: Arbutus Volunteer Fire Department
 Attendance: Baltimore County Fire Department

Clarence R. Ward

Baltimore County Police Department - Precinct 1
 Public Relations

John N. Dittman

Arbutus V.F.D.

Douglas R. Simpkins

SHA

John Contestabile

RK&K

Norine Walker *N.M. Kahl*

Project: I-695: from US Route 40 (West) to West of Md. 170
 Md.295: from north of Md. 46 to the Baltimore City
 Line
 Subject: Baltimore County Fire Department/Leeds Avenue

This meeting was organized to present the findings of statistical research collected by the Baltimore County Fire Department indicating the use of and need for the Leeds Avenue ramps accessing I-695. Chief Ward reviewed the summary of findings and the display which outlined each of the fireboxes in the Service Area of the Arbutus VFD. A copy of "The Baltimore County Fire Service in Retrospect", the 10-year planning document for the County Department, was also presented.

Chief Ward emphasized that the Baltimore County Fire Department would oppose closure of the Leeds Avenue ramp proposed under Alternate 3 of the SHA widening study. The need for access to northbound I-695 via the ramp is increasing with



RUMMEL • KLEPPER & KAHL consulting engineers

344

the increase of development in the upper county reflective in the high rate of Baltimore County Master Plan Approvals. Use of the ramp by Fire and Rescue equipment has increased steadily between 1983 and 1986 while use for medical equipment calls has remained consistent. Chief Ward reminded us that their service is based on travel distance and travel time.

Officer Dittman emphasized that the fire department had a more complex problem than the police department because of the unchanging origination point. He indicated that elimination of the ramps would not be detrimental to the police since they are more flexible due to their changing originations.

Mr. Contestabile indicated that cross-sections are currently being plotted upon which proposed roadway sections can be placed and impacts can be assessed. When that work is completed, another meeting will be held with the Fire Department to discuss those findings. The alternate which considers closing the ramps was developed in order to minimize impacts to the church and school adjacent to the Interchange. Mr. Contestabile explained the 4(f) Environmental constraints.

NMW/sms



345



Maryland Historical Trust

July 9, 1986

Ms. Cynthia Simpson
Environmental Management
Maryland Department of Transportation
State Highway Administration
P.O. Box 717
707 N. Calvert Street
Baltimore, Maryland 21203-0717

PROJECT
DEVELOPMENT
DIVISION
JUL 15 2 30 PM '86

Re: Contract AW 758- -072
1) I-695 from W. of MD 170 to U.S. 40W
2) Baltimore Washington Parkway from MD 46 to City Line

Dear Ms. Simpson:

This is in response to your letter of October 23, 1985 regarding the above-referenced project.

We concur with your evaluations of the following properties and with the boundaries drawn for them on the maps you enclosed.

- AA 89 Sachs Residence - Possibly NR Eligible
- AA 111 Summerfield-Benson Home - Possibly NR Eligible
- BA 4 Old Salem Lutheran Church - Possibly NR Eligible

Since the proposed plans outlined in your letter are restricted to existing right-of-ways and require no taking of land from the three properties we concur in your determination of no effect on historic resources.

We thank you for your cooperation.

Sincerely,

J. Rodney Little
Director State Historic
Preservation Officer

JRL/AHL/bjs

cc: Ms. May C. Robinson
Mr. Harrison B. Wetherill, Jr.
Ms. Linda Collins
Ms. Rita Suffness

VIII- 07



ANNE ARUNDEL COUNTY
ANNAPOLIS, MARYLAND 21404

August 28, 1986

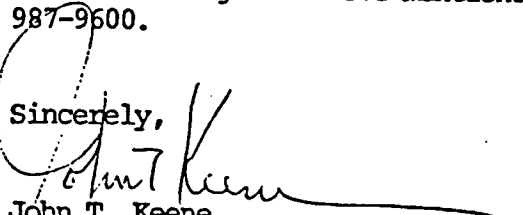
Ms. Noreen Walker
Rummel, Klepper and Kohl
1035 North Calvert Street
Baltimore, Maryland 21202

Dear Ms. Walker:

In response to your recent inquiry, Overlook Park, also known as North Linthicum Recreation Area, is a 19.877 acre property bordering the Baltimore Beltway. It was purchased in 1978 using Program Open Space funds, POS #935-2-76. I have requested that the General Engineering Division of our County's Public Works forward to you a boundary survey of the park under separate cover.

If you have any further questions concerning the above-mentioned park, please contact me by calling 987-9600.

Sincerely,


John T. Keene
Capital Projects Officer
Anne Arundel County
Recreation and Parks

JTK/vif

cc: William A. Rinehart, Parks Administrator

VIII- D8

346
RECEIVED

SEP 2 1986

RUMMEL, KLEPPER & KOHL

347



Maryland Department of Transportation

State Highway Administration

William K. Hellmann
Secretary

Hal Kassoff
Administrator

December 2, 1986

Mr. A. Jablon
Zoning Commissioner
County Office Building
Towson, Maryland 21204

RE: Baltimore County
Item No. 193
Property Owner: The
Fels Company, Inc.
Location: NE/S Paradise
Ave., 861' N. Wilkens
Avenue (Route 732)
Existing Zoning: R.O.
and D.R. 3.5
Proposed Zoning: Spec.
Exception for new
Class "B" office bldg.
in R.O. and commercial
parking in a D.R. 3.5
and Variance

ATT: James Dyer

Dear Mr. Jablon:

This letter is to provide information for the proposed Office Park located on the south west side of the Baltimore Beltway-I-695 with all access to the site by way of Kenwood Avenue.

The State Highway Administration Bureau of Engineering Access Permits has very serious concerns with the close proximity of the proposed relocated I-695 off ramp and needed improvements for commercial access office park from Wilkens Avenue, Maryland Route 372 and Kenwood Avenue.

The distance required by the Bureau of Access Permits between an interstate highway ramp and the next access point is 195' plus an additional 230' of taper. The number of vehicles generated by this development would require enforcement of that requirement.

The weaving conflicts of vehicles which exit northbound I-695 to Wilkens Avenue introduces a safety problem based on number of conflicts that must be addressed.

Current State Highway Administration Stage II Preliminary Engineering proposal replaces the high accident loop ramp from I-695 southbound by a diamond-type ramp directly across from the existing ramp to southbound I-695.

Continued

My telephone number is 301-333-1350

Teletypewriter for Impaired Hearing or Speech

383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Toll Free

P.O. Box 717 / 707 North Calvert St., Baltimore, Maryland 21203 - 0717

VIII- D9.

348

Mr. A. Jablon
Page 2
December 2, 1986

The impact on this proposed intersection would have to be assessed by the developer, in his traffic study.

We strongly recommend that the developer investigate providing access to this site from Paradise Avenue as opposed to Kenwood Avenue. This would have the advantage of eliminating the impact to the proposed interchange at Wilkens Avenue and would provide an entrance with an improvement sight distance over what could be achieved at Kenwood Road.

Very truly yours,



Charles Lee, Chief
Bureau of Engr. Access Permits

by: George Wittman

CL-GW:es

cc: J. Ogle

349



BALTIMORE COUNTY
DEPARTMENT OF TRAFFIC ENGINEERING
TOWSON, MARYLAND 21204
494-3550

STEPHEN E. COLLINS
DIRECTOR

January 16, 1987

Mr. Arnold Jablon
Zoning Commissioner
County Office Building
Towson, Maryland 21204

185-31

Item No. 193	-ZAC-	Meeting of November 25, 1986
Property Owner:		The Fels Company, Inc.
Location:		NE/S Paradise Avenue, 861 feet N Wilkens Avenue
Existing Zoning:		R.O. and D.R. 3.5
Proposed Zoning:		<u>Special Exception</u> for new Class "B" Office Building in R.O. and commercial parking in a D.R. 3.5 and <u>Variance</u> from definition of a Class "B" Office Building limiting the height to "no higher than 35 feet" and <u>Variance</u> to permit a freestanding illuminated sign not to exceed 25 square feet in area in a D.R. 3.5 zone
Area:		11.88 acres
District:		1st Election District

Dear Mr. Jablon:

The proposed office building can be expected to generate approximately 1,725 trips per day as general offices; medical offices would cause a larger number of trips.

All access to this site is by Kenwood Avenue, a small residential road which was not designed for this amount of traffic.

This department received recent notification from the State Highway Administration's consultant that this proposed use would interfere with the plans to construct a new Beltway ramp in conjunction with the Beltway widening. A copy of the State Highway Administration's comments concerning this problem is attached.

Very truly yours,

Gregory M. Jones
Gregory M. Jones
Traffic Engineer III

RECEIVED

JAN 21 1987

GMJ:lt

Attachment

RECEIVED

c.c. Mr. George Wittman, Bureau of Access Permits, State Highway Administration,
707 N. Calvert Street, Baltimore, Maryland 21202

✓ Ms. Norine Walker, RK&K, 1035 N. Calvert Street, Baltimore, Maryland 21202

350



TORREY C. BROWN, M.D.
SECRETARY

KENNETH N. WEAVER
DIRECTOR

JOHN R. GRIFFIN
DEPUTY SECRETARY

MARYLAND GEOLOGICAL SURVEY
EMERY T. CLEAVES
DEPUTY DIRECTOR

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
MARYLAND GEOLOGICAL SURVEY

2300 ST. PAUL STREET
BALTIMORE, MARYLAND 21218

Division of Archeology
(301) 554-5530

29 January 1987

Ms. Cynthia D. Simpson
Environmental Management Section
State Highway Administration
P.O. Box 717/707 North Calvert Street
Baltimore, Maryland 21203-0717

RE: I-695 from U.S. 40 to MD 170;
MD 295 from MD 46 to the City line;
and I-895 from I-695 to the Y-split

Dear Ms. Simpson:

I have reviewed the above-referenced project with regard to archeological resources. Although a portion of the present I-895 interchange was previously surveyed by Curry during a reconnaissance of Maryland 295 (see File Report 113) the majority of the area to be impacted by the proposed project was not surveyed. The attached map shows the work conducted by Curry, noted in orange. A large prehistoric site has been recorded in the area (18BA154) which has yielded artifacts over the entire length of the Patapsco River floodplain from the proposed interchange westward to I-695. The enclosed map shows the boundaries as depicted on Division of Archeology maps (noted in yellow). Although there has not been a field check of the area to determine if the portion of the site within the right-of-way is still intact, (the lower Patapsco River floodplains have been extensively quarried) as long as there has been no major disturbance the area is still considered very sensitive given the potential for undisturbed archeological deposits that may exist.

Additionally, site 18BA89 (noted in green on attached map), near the proposed right-of-way of I-895, also has yielded aboriginal artifacts. This site if still intact, also holds potential for undisturbed buried deposits which may extend further than presently reported boundaries determined by surface collection.

351

For the remainder of the proposed project, it is expected that prehistoric sites may exist along small undisturbed areas of the Patapsco River floodplains as well as several small undisturbed knolls and hilltops extending along the east side of I-895. An M-DOT survey (Transect 7-047) paralleled a portion of the present project to the west which yielded negative results (in green). For the remaining portion, however, the potential remains moderate to high provided there has not been disturbance from prior construction or quarrying.

If you have any additional questions regarding this matter, please do not hesitate to contact me.

Sincerely,



Hettie L. Ballweber
Archeologist

HLB:lw

cc: Jodi Hopkins
||



Maryland Department of Transportation

State Highway Administration

350

William K. Hellmann
Secretary

Hal Kassoff
Administrator

March 18, 1987

RE: Contract No. AW 758-072
Interstate Route 695 from
U.S. Route 40 to Maryland
Route 170, Maryland Route
295 from Maryland Route 46
to the City Line and Interstate
Route 895 from Interstate Route 695
to the Y-Split

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
1517 Ritchie Highway
Arnold, Maryland 21012

Dear Mr. Little:

We have reviewed the improvements proposed for this project along with the attached assessment of archeological potential prepared by the Maryland Geological Survey (MGS), Division of Archeology, on January 29, 1987. In only two areas are improvements being made outside the right-of-way in areas identified as sensitive by the MGS. One area, Area A (Maps A, B) is at the intersection of Hammonds Ferry Road and Interstate Route 695. The other area, Area B, is at the Y-split on the Harbor Tunnel Thruway (Maps A, C).

Area A was identified as collection area #26 from the records of T. D. Jones, who collected artifacts from 1900-1908. The site has not been revisited by the MGS. On examination of the map, the portion of the collection area #26 which will be affected is now under a building and a parking lot. We believe this has destroyed any stratigraphic integrity of this portion of the site (Map B).

Area B is located in the vicinity of the Y-split of the Harbor Tunnel Thruway, Interstate Route 895 (Maps A, C). Dr. Jody Hopkins of the Environmental Management Section visited this area and determined it had been extensively disturbed. The area south and west of the Y-split (Locus I on Map C) has been extensively quarried, and is either wetlands or open water. The area north and west of the Y-split (Locus II on Map C) is in the Patapsco River or adjacent wetlands. The area east of the Y-split (Locus III on Map C) has been extensively graded, and a berm of material has been pushed up around the area. Consequently, it is felt that any archeological site in the vicinity of proposed improvements near the Y-split would have been destroyed.

My telephone number is 333-1177

Teletypewriter for Impaired Hearing or Speech
383-7555 Baltimore Metro — 565-0451 D.C. Metro — 1-800-492-5062 Statewide Toll Free
P.O. Box 717 / 707 North Calvert St., Baltimore, Maryland 21203 - 0717

VIII- D14

353

Mr. J. Rodney Little
March 18, 1987
Page Two

In no other area are improvements being made outside existing rights-of-way in areas identified as of moderate or high archeological potential. We feel therefore, that no more archeological work is needed for this project.

We seek your concurrence in the same by April 3, 1987. Should you have any questions, please call Dr. Jody Hopkins at 333-1183.

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
Attachments (4)
cc: Ms. Cathy Pecora
Mr. Mark Duvall (w/attachments)✓

354



Maryland Historical Trust

March 25, 1987

PROJECT
DEVELOPMENT
DIVISION
MAR 27 1 57 PM '87

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

Re: Contract No. AW 758-072
I-695 from U.S. 40 to MD
Route 170, MD Route 295
from MD Route 46 to the
City Line and I-895 from
I-695 to the Y-split
Baltimore County, Maryland

Dear Mr. Ege:

Thank you for your letter of March 19, 1987, regarding the above referenced project.

This office concurs that the proposed improvements will have no effect upon significant archeological resources. Therefore, archeological investigations are not warranted for this particular project.

Sincerely,

Richard B. Hughes
State Administrator of
Archeology

RBH:BCB:lcb

cc: Mr. Tyler Bastian
Dr. Jody Hopkins
Ms. May C. Robinson
Mr. Paul McKean

355



Department of Natural Resources
MARYLAND FOREST, PARK & WILDLIFE SERVICE
Tawes Office Building
Annapolis, Maryland 21401

TORREY C. BROWN, M.D.
SECRETARY

DO: J.F. & MACI AN CHUAN

May 26, 1987

Norine M. Walker
Project Engineer
Rummel, Klepper and Kahl
1035 N. Calvert Street
Baltimore, MD 21202-3891

RE: SHA Contract No. AW 758-151-072
I-695 North of U.S. Rt. 40 (West)
to West of MD 170; Md. 295 North
of MD 46 to the Baltimore City
Line PDMS No. 251029

Dear Ms. Walker:

Your request for information we may have concerning threatened or endangered species has been reviewed by Glenn D. Therres and Jonathan McKnight.

There are no federally listed threatened or endangered species in the proposed areas. The Heritage Program's data base contains no current record of any rare species or unusual community at either project site.

Sincerely,

James Burtis Jr.
James Burtis, Jr.
Assistant Director

JB:emp

cc: Therres
Boone
Taylor

RECEIVED

MAY 28 1987

RUMMEL, KLEPPER & KAHL

VIII- D17



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107

JUN 19 1

Ms. Cynthia D. Simpson, Chief
Environmental Management
State Highway Administration
Project Development Division (Room 310)
707 North Calvert Street
Baltimore, Maryland 21202

Re: I-695 from US Rt. 40 (West) to MD Rt. 170,
including MD Rt. 295 from MD Rt. 46 to the Baltimore
City Line (88-04-591)

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. We are satisfied with the approach, and the assumptions used, for analyzing the air quality impacts of the project. The results of the analysis indicate that the project will not violate the National or State Ambient Air Quality Standards. Therefore, we do not object to this project on the basis of air quality impacts.

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 Larry Budney at 215/597-7336 or 597-0545 respectively.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeffrey M. Alper".

Jeffrey M. Alper, Chief
NEPA Compliance Section

357



United States Department of the Interior

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

October 6, 1987

Ms. Novine M. Walker
Project Engineer
Rummel, Klepper and Kahl
1035 North Calvert Street
Baltimore, MD 21202-3891

Re: SHA Contract No. AW 758-151-072,
I-695 and Rt. 295

Dear Ms. Walker:

Per your September 28, 1987, conversation with Diane Eckles of my staff, enclosed is the endangered species information relative to preparation of the draft environmental impact statement for the referenced project. Because you have obtained pertinent wetland information for the draft document, we have no additional information to provide you with at this time. We do suggest that the draft environmental document address existing terrestrial and floodplain resources, impacts to these systems and measures available to mitigate those impacts.

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

Should you desire additional information with respect to fish and wildlife resources, please do not hesitate to contact us.

Sincerely yours,


Supervisor
Annapolis Field Office

RECEIVED

OCT 8 1987

Baltimore County
Department of Recreation & Parks
Towson, Maryland 21204
494-3817
494-3058 (Deaf/TDD)

Robert R. Staab
Director

December 10, 1987



Dennis F. Rasmussen
County Executive

Ms. Norine Walker, Project Engineer
Rummel, Klepper & Kahl
1035 N. Calvert Street
Baltimore, Maryland 21202-3891

RE: S.H.A. Contract No. AW758-151-072

Dear Ms. Walker:

This letter will confirm our phone conversation of December 9, 1987 in reference to Alternate 2, Option 3B of the subject contract.

The proposed ramp Y-2 will require approximately 0.5 Acres + of our Southwest Area Park property. While we do not anticipate any development in this area, we must mention that this acquisition was made in 1968 using funds from the Department of Housing and Urban Development. As such, we would have to request permission from H.U.D. to allow any development not for "recreational purposes."

Should you give this option any serious consideration, please be in touch so that we may be contact with H.U.D. for their requirements and conditions.

If we can be of any further assistance, please feel free to contact me at 494-3822.

Sincerely,

Albert R. Svehla, Jr.
Facilities Planner

ARS:ssm

RECEIVED

DEC 14 1987

RUMMEL, KLEPPER & KARL

359



ANNE ARUNDEL COUNTY
ANNAPOLIS, MARYLAND 21401

DEPARTMENT OF RECREATION AND PARKS

January 15, 1988

Ms. Norine M. Walker, Project Engineer
Rummel, Klepper & Kahl
1035 North Calvert Street
Baltimore, Maryland 21202-3891

RE: SHA Contract No. AW-758-151-072
Interchange of I-695 and MD 295

Dear Ms. Walker:

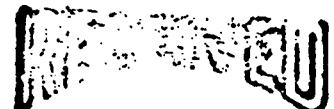
As we discussed on Monday, the Department of Recreation and Parks has studied Alternative 2, Option 2 and Alternative 2, Option 3A in regard to their possible impact on Overlook Park. Of the two options, we believe Option 2 would have a less deleterious effect on the park; since the elevated roadway in Option 3A would increase the noise level and visual intrusion of the roadway to a greater degree than at-grade Option 2. We would ask that additional buffer landscaping be planted in the park to compensate for trees lost due to the road widening, and that they be planted in areas which will not infringe on existing playing fields.

We would also appreciate the opportunity to monitor changes to your plans for possible park impact as this project progresses.

Sincerely,

John T. Keene, Chief
Planning, Construction &
Environmental Programs

JTK/vif
cc: William A. Rinehart, Parks Administrator



JAN 21 1988

360

MEMORANDUM

Date: February 18, 1988

Attendance: Steve Harmans - U.S. Army Corps of Engineers
 Peter Knight - US FWS
 Mark Duvall - SHA Environmental
 Nancy Kelly - Coastal Resources
 Norine Walker - RK&K *N.M. Walker*

Project: I-695: US Route 40 to Md. 170
 Md. 295: Md. 46 to the Baltimore City Line

Subject: Wetland Field Review

The comments and decisions made with respect to the wetlands in the study area, as referenced on Figures III-3 and III-4, are summarized below. The numbering of the wetlands will be revised in the environmental document to reflect the deletions which were made during the Wetland Field Review.

W1 - I-695/U.S. Route 40

No apparent impact with proposed improvements.

W2 - I-695/Edmondson Avenue

While the proposed structure crossing the wetland is an optional realignment of Arbutus Avenue, it would be preferable to discontinue consideration of this option so that the wetland would not be affected.

W3 - I-695/south of Frederick Road

Delineation found, no major conflict or comment.

W4 - I-695/Leeds Avenue

Delineation found, no major conflict or comment.



RUMMEL • KLEPPER & KAHL consulting engineers

361

W5 - I-695/Washington Blvd. (US 1 Alt.)

Concerns regarding toe of slope and possibility of encroachment on wetland.

W6,7 - I-695/Washington Blvd. (US 1 Alt.)

Delete

W8 - I-695/Patapsco River Crossing

It appears as if the area on the west side of Hammonds Ferry Road along the Beltway outer loop has been disturbed by the ongoing EPA flood control project or other utility work. The portion perpendicular to Hammonds Ferry Road appears to have been eliminated. (Bill Kuehn - please investigate possible new utility in this area). Wetlands should be expanded on mapping for inner and outer Beltway loops in Patapsco River Area.

W9 - Md. 295/Median north of Hammonds Ferry Road

Delete

W10 - Md. 295 south of Hammonds Ferry Road SBR

Stream channels. Construction observed near wetland does not seem to affect wetland.

Slopes required with construction of proposed improvements may impact the portion of wetland paralleling the roadway.

Portion shown in median should be revised on mapping to reflect 30-ft. width.

W12 - Md. 295 north of W. Nursery Road

Along SBR - verify that current Nursery Road Interchange construction has taken the wetland into consideration. As part of proposed construction, the existing observed structure may require an extension.

Along NBR - eliminated.



RUMMEL • KLEPPER & KAHL consulting engineers

362

W11 - Maryland 295 south of Hammonds Ferry Road NBR

Delineation found, no major conflict or comment.

W13 - Southeast quadrant of I-895/Md. 295 Interchange

To avoid the significant wetlands adjacent to the river's edge, the design of the loop ramp should be modified to utilize the existing, unpaved access road and avoid the utility between the edge and existing, unpaved access road. (Bill Kuehn - Please investigate the utility and the impact of a proposed loop ramp in this vicinity). The design of the ramp should stipulate that the inner loop vegetation remain.

W14 - Patapsco River crossing along I-895 EBR

The proposed ramp Y-1 is shown on fill and a structure should be investigated for the eastern channel of the Patapsco River.

W15 - Patapsco River crossing along I-895 WBR

The proposed ramp Y-2 is proposed to be on structure and does not appear to encroach on wetlands except for structure supports.

W16 - Patapsco River crossing along I-895 EBR

See W14. Incorporate into W14.

W17,18,19 - I-95/Caton Avenue

These sites are not affected by proposed impacts and therefore were not field reviewed. They will, however, be included in the DEIS as wetlands in the Study Area.

The wetlands table in the DEIS will include acreage taken and affects on wetlands as well as possible locations of replacement wetlands.

NMW/sms
Attachments
cc: Attendees
Ms. Cathy Pecora
Mr. Bill Kuehn



RUMMEL • KLEPPER & KAHL consulting engineers

363



Maryland Department of Natural Resources

Capital Programs Administration
2012 Industrial Drive
Annapolis, Maryland 21401

William Donald Schaefer
Governor

Torrey C. Brown, M.D.
Secretary

Michael J. Nelson
Assistant Secretary
for Capital Programs

March 23, 1988

Ms. Norine Walker
Rummel, Klepper & Kahl
1035 N. Calvert Street
Baltimore, Maryland 21202-3891

Re: I-695 from U.S. 40 to Md. 170
Md. 295 from Md. 46 to the Baltimore City Line

Dear Ms. Walker:

Thank you for coming to Annapolis to discuss these projects with us. I hope that our input was useful. After reviewing the plans that you left, I have the following comments concerning the potential impact of these roadway improvements on public parkland in this area. These comments are in addition to those noted in your January 19, 1988 memorandum of our meeting.

My greatest concern is the direct loss of parkland as a result of expansion of highway rights-of-way into existing state or local parks. Of the build alternatives reviewed for these projects (I-695 Alt. 2, Options 2, 3A, 3B; and Md. 295 Alt. 2, Options 1 and 2), only the I-895 "y" split offered as part of I-695 Alternate 2, Option 3B would require existing parkland. However, that option would require about 17 acres from the Patapsco Valley State Park and an undetermined acreage from the Southwest Area Park which was purchased and developed with funds from Program Open Space. Because of the magnitude of this impact, I recommend that option 3B be dropped from further consideration. If it is carried forward, the Southwest Area Park involvement will require Section 4(f) consideration, and the Patapsco Valley State Park conversion will require Section 6(f) consideration since it is considered federalized.

RECEIVED

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

MAR 25 1988

364

Walker, Norine
March 23, 1988

In response to your request concerning the use of excess land acquired by State Highway Administration for the I-195 improvements as replacement land to offset this conversion, I can only say that it may be acceptable, and that we would certainly be willing to consider it. Obviously, each conversion and land replacement must be considered individually, and in the case of Patapsco Valley State Park, would require approval from the National Park Service.

Another point that should be considered is how these projects merge with our Lower Patapsco Greenway Study. Since the proposed Greenway will extend along the Patapsco River beneath all of these bridge crossings, you should consider potential impacts in the forthcoming environmental documents. If you have additional questions, please do not hesitate to contact me.

Sincerely,



Gene F. Cheers
Chief
Capital Improvements Planning
and Environmental Review

cc: Arnold Norden
Chip Price

365

BALTIMORE COUNTY PUBLIC SCHOOLS

Robert Y. Dubel, Superintendent

Towson, Maryland - 21204

March 29, 1988

Ms. Norine M. Walker, Transportation Engineer
Rummel, Klepper and Kahl
1035 N. Calvert St.
Baltimore, Maryland 21202

Dear Ms. Walker,

In accordance with your request, I am submitting the following information regarding the Maiden Choice Center, Shelbourne and Ten Oaks Road, Baltimore, Maryland 21227.

This site is utilized by the Baltimore County Board of Education as a center for the education of handicapped children, ages 6 thru 21. Current enrollment is 134 students. There are 42 current staff members.

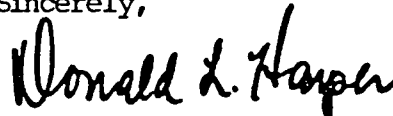
This site is also utilized by the Baltimore County Department of Recreation and Parks for softball and soccer programs. Registration for these programs last year was 179 individuals. The programs were attended by 2,104 spectators.

Anyone wishing to utilize this site or building must obtain a use of facilities permit from the school principal.

The consensus of the Public School System and the Department of Recreation and Parks is that the proposed Beltway improvements would have a minimal impact on this site. The proposed SHA property taking would eliminate several parking spaces and one access to the western parking lot. However, I'm certain this can be resolved as the project develops.

If you need additional information, do not hesitate to contact me.

Sincerely,



Donald L. Harper
Specialist, Department of Grounds

DLH/jkd

CC: Judy Kanigel, Principal
Rolling Road School

Al Svehla
Department of Recreation and Parks

RECEIVED

MAR 30 1988

RUMMEL, KLEPPER & KAHL



United States
Department of
Agriculture

Soil
Conservation
Service

Room 522, 4321 Hartwick Road
College Park, Maryland 20740

366

April 22, 1988

Ms. Norine M. Walker
Project Engineer
Rummel, Klepper & Kahl
1035 N. Calvert Street
Baltimore, MD 21202-3891

Dear Ms. Walker:

Please find enclosed the completed Form AD-1006 for the I-695/MD 295 Highway widening project. No "Prime Farmland" was determined to be present as the definitions for such are written.

Please accept my apology for the delayed response.

Thank you for the thorough information for the project which you included with your request. I am enclosing an additional supply of AD-1006 for your future use. The original AD-1006 with carbons should be submitted along with the background information.

Please let me know if you are in need of any further information.

Sincerely yours,

Carol A. Wettstein

Carol A. Wettstein
State Soil Scientist

Enclosures

[Handwritten signature]

APR 26 1988

RUMMEL, KLEPPER & KAHL



The Soil Conservation Service
is an agency of the
Department of Agriculture

VIII-D28

367

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency) Date Of Land Evaluation Request **February 23, 1988**

Name Of Project **I-695/MD 295** Federal Agency Involved **FHWA**

Proposed Land Use **Highway Widening** County And State **Baltimore and Anne Arundel, MD**

PART II (To be completed by SCS) Date Request Received By SCS **2/26/88**

Does the site contain prime, unique, statewide or local important farmland? Yes No (See remarks)

Major Crop(s) Farmable Land In Govt. Jurisdiction Acres: % Amount Of Farmland As Defined In FPPA Acres: %

Name Of Land Evaluation System Used Name Of Local Site Assessment System Date Land Evaluation Returned By SCS **4/22/88**

PART III (To be completed by Federal Agency) Alternative Site Rating

	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site				

PART IV (To be completed by SCS) Land Evaluation Information

A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				

PART V (To be completed by SCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)

Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points			
1. Area In Nonurban Use				
2. Perimeter In Nonurban Use				
3. Percent Of Site Being Farmed				
4. Protection Provided By State And Local Government				
5. Distance From Urban Builtup Area				
6. Distance To Urban Support Services				
7. Size Of Present Farm Unit Compared To Average				
8. Creation Of Nonfarmable Farmland				
9. Availability Of Farm Support Services				
10. On-Farm Investments				
11. Effects Of Conversion On Farm Support Services				
12. Compatibility With Existing Agricultural Use				
TOTAL SITE ASSESSMENT POINTS	160			

PART VII (To be completed by Federal Agency)

Relative Value Of Farmland (From Part V)	100			
Total Site Assessment (From Part VI above or a local site assessment)	160			
TOTAL POINTS (Total of above 2 lines)	260			

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

Reason For Selection:

Remarks: Lands involved do not meet "Prime Farmland" definition due to current land use/committed to urban development.

368



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

REPLY TO ATTENTION OF:

Planning Division

July 18, 1988

Mr. Louis H. Ege
Deputy Director
Project Development Division
State Highway Administration
Maryland Department of Transportation
707 North Calvert Street, Room 310
Baltimore, Maryland 21203-0717

Dear Mr. Ege:

Reference your letter of April 18, 1988, seeking concurrence of the Baltimore District, Corps of Engineers (Corps), as a cooperating agency for the Environmental Analysis for the widening and interchange improvements along Interstate Route 695.

The District will be pleased to serve as a cooperating agency in the development of the Environmental Analysis for the improvement of Interstate Route 695. The only limiting factors for Corps involvement are manpower and funding constraints.

If you have any other questions on this matter, please call me or my action officer, Mr. Larry Lower, at (301) 962-4905.

Sincerely,

James F. Johnson
Chief, Planning Division

369

BALTIMORE COUNTY PUBLIC SCHOOLS

Robert Y. Dubel, Superintendent

Towson, Maryland - 21204

January 15, 1991

Ms. Norine M. Walker
Rummel, Klepper and Kahl
81 Mosher Street
Baltimore, MD 21217

Dear Ms. Walker;

Thank you for meeting with me on January 3, 1991 to discuss the impact of the proposed improvements for the Baltimore Beltway on the Maiden Choice Center property.

Upon review of the information we discussed, it appears that a minimum of five (5) existing parking spaces and one (1) existing entrance to the parking area would be lost due to the proposed right-of-way needed for the Beltway improvements.

Rather than construct five (5) replacement spaces adjacent to the service drive as we discussed, I would like to consider the proposal shown on the enclosed sketch. This office would prefer not to modify the existing service area for replacement parking spaces.

As part of your review process, I believe you will want to have Baltimore County Traffic Engineering review the proposal.

If you need additional information do not hesitate to contact me.

Thank you for your continued cooperation in this matter.

RECEIVED

JAN 18 1991

RUMMEL, KLEPPER & KAHL

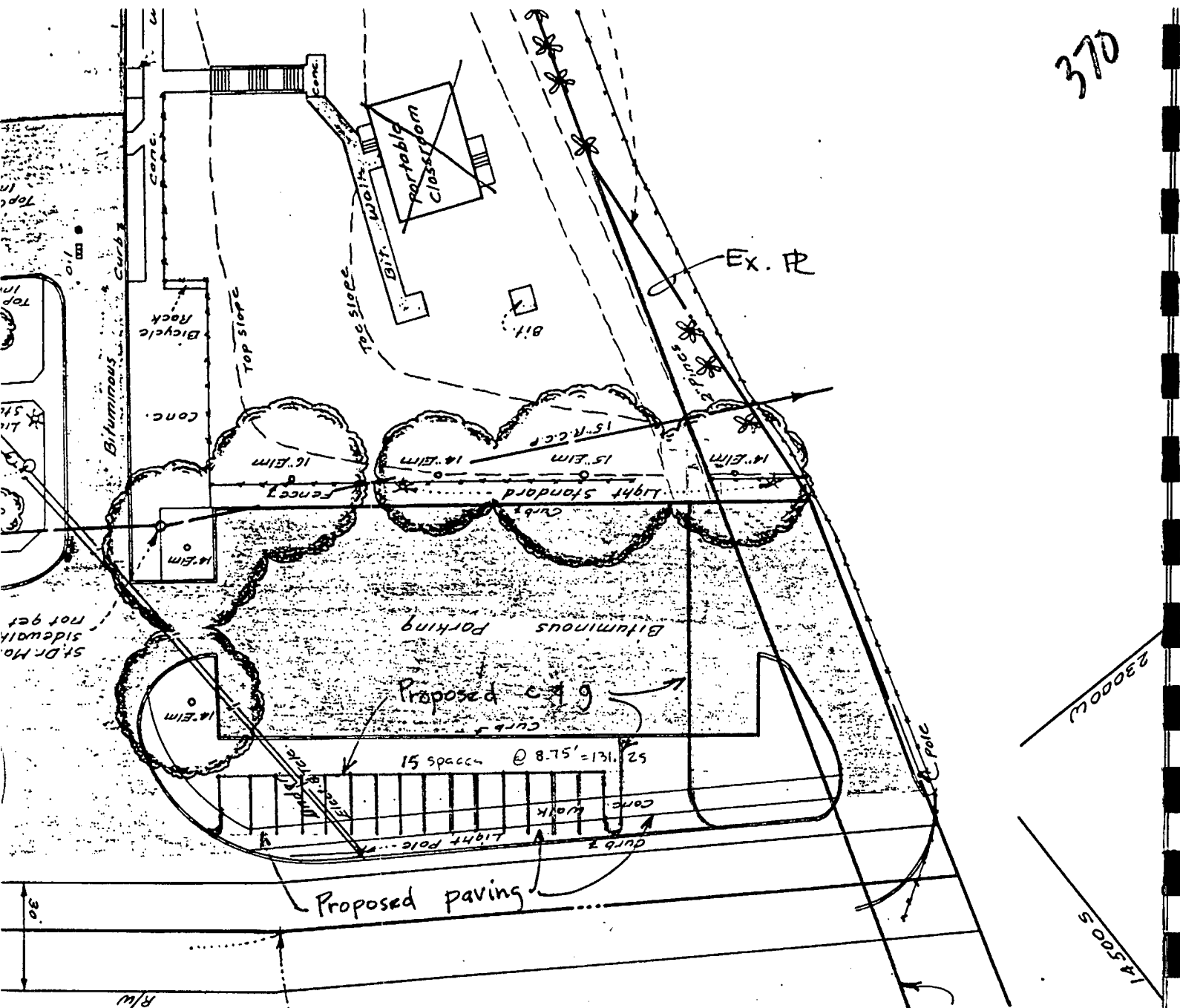
Sincerely,

Donald L. Harper

Donald L. Harper, Specialist
Site Development

sh
enclosure
16L-21

370



S.H.L.

14319.495
22913.440

23000W

14500S

Future R/W
for Beltway

Maiden Choice Center
January 8, 1991 No SCALE

VIII-D32

BALTO. CTY. PUBLIC SCHOOLS CONCEPT

File

file 371

BALTIMORE COUNTY PUBLIC SCHOOLS

Robert Y. Dubel, Superintendent

Towson, Maryland - 21204

March 5, 1991

Ms. Norine Walker
Rummel, Klepper and Kahl
81 E. Mosher Street
Baltimore, Maryland 21217

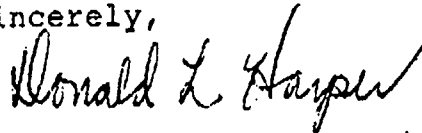
Dear Ms. Walker,

This office has received the revised sketch, dated March 4, 1991, showing the proposed relocation of parking spaces at the Maiden Choice Center.

The proposal has been reviewed and appears acceptable. When the design for the relocated spaces begins, please contact me for review and coordination.

If you need additional information, do not hesitate to call me at 887-3076.

Sincerely,



Donald L. Harper, Specialist
Department of Grounds

DLH/jar

2/2

1 STY CONC. KINDERGARTEN

1 STORY BRICK SCHOOL BLDG.

1 STORY BRICK SCHOOL BLDG.

CONC. S/W

CONC. SIDEWALK

CONC. SIDEWALK

EXISTING BITUMINOUS PARKING LOT

CONC. SIDEWALK

12 STALLS @ 18'x9', 108' TOT. LEN.

42'

EXIST. CONC. SIDEWALK

EXIST. CONC. SIDEWALK

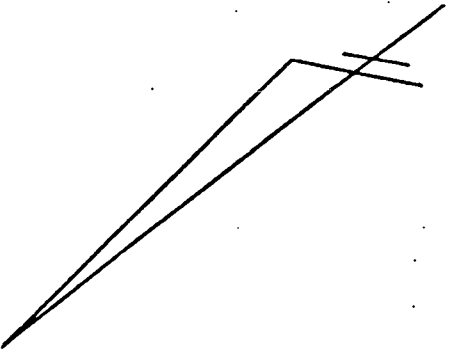
PROPOSED 5' SIDEWALK

PROP. 5' S/W

EXIST. CONC. SIDEWALK

SHELBOURNE AVENUE

TO I-695



MAIDEN CHOICE CENTER
OPTION 7
SCALE: 1" = 40'
MARCH 4, 1991
BY: SRR

373

E. Community Association

Memoranda of meetings held with community groups and elected officials are reproduced in this section in chronological order. All remaining letters and memoranda are available for public inspection at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland.

<u>Date</u>	<u>Coordination</u>
June 9, 1987	Linthicum Hills Community Association Meeting
August 26, 1987	Meeting with Shady Nook Homeowners Association
September 8, 1987	Meeting with Kenwood/Paradise Citizens Homeowners Associates
October 1, 1987	Meeting with Holy Apostles Episcopal Church.
October 22, 1987	Meeting with Legislative Delegation
January 20, 1988	Community Informational Meeting Announcement
February 5, 1988	Community Information Meeting Follow-up Letter
December 11, 1989	Meeting with Regina Drive/Circle Drive Community
May 10, 1990	Meeting with Forest Avenue Community

374

186-68-1

MEMORANDUM OF COMMUNITY MEETING

To: Louis H. Ege, Jr., Deputy Director
Project Development Division

From: Catherine Pecora
Project Manager

Subject: Contract No. AW 758-151-072N
Interstate Route 695 from
U.S. Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the
Baltimore City Line
PDMS No. 251029

Re: Minutes of Linthicum Hill Homeowners Association
Meeting

Date: June 9, 1987

Place: Friendship Church of the Bretheren

Time: 7:30 PM

Attendees:

- | <u>Name</u> | |
|------------------------|---|
| Catherine Pecora | Project Manager |
| Charles Adams | Chief, Bureau of Landscape Architecture |
| Larry Elliott | District Traffic Engineer, District 5 |
| Norine Walker | Rummel, Klepper & Kahl |
| Paul Gordan | 469 Susan Ct. |
| Mary Topa | 464 Susan Ct. |
| Debbie Wisniewski | 454 Susan Ct. |
| Edward Fischer, Jr. | 466 Susan Ct. |
| Daniel Jarman | 455 Susan Ct. |
| Bart Highfield (pres.) | 456 Susan Ct. |
| Barry Scheitlin | 459 Susan Ct. |
| Donna Boyd | 452 Susan Ct. |
| Steve Kelleher | 457 Susan Ct. |
| Delegate Pat Scanello | |

INTRODUCTION

This meeting was held at the request of the Home-owners Association to provide information on the project status and improvements proposed. Ms. Pecora introduced State Highway Administration and consultant representatives and explained the highway development process. The community was advised of the Alternates Public Meeting of November 1985 and the progress on engineering and environmental studies as a result of comments made at, and subsequent to, that meeting. During the next few months, community meetings will be held; publication of the Draft Environmental Impact Statement will be followed by a Location/Design Public Hearing this fall. Comments provided at the public hearing and subsequent to it will be reviewed and a preferred alternate will be selected and described in the Final Environmental Impact Statement.

Currently, this project is funded for planning only. Should funding for engineering, right-of-way, and construction be programmed, construction would not be anticipated prior to the mid-1990s. Considering the size and cost of this project and the improvements proposed, requiring extensive maintenance of traffic, it is expected that the project will be segmented and constructed in phases.

GEOMETRICS

Ms. Walker described the widening project, in general, beginning with an overview of the limits and general widening along the mainline of Interstate Route 695 and Maryland Route 295. The general differences between the minor adjustments required with Option 1 and the interchange modifications of Option 2 were also identified.

With regard to the improvements at the Interchange Route 695/Maryland Route 295 interchange, the following options were described:

- Option 1: Mainline widening and ramp adjustments.
- Option 2: Mainline widening with two-lane collector-distributor road requiring additional right-of-way from the 50-foot easement set aside by the developer in the Linthicum Hills community.
- Option 3A: Mainline widening with directional ramps. Two interchange concepts were discussed. The previous State Highway Administration study, as described below was eliminated due to costs and impacts.

376

Previous SHA Study

Directional ramps provided as right hand take-offs which would require extensive additional right-of-way acquisition in each of the four developed quadrants of the interchange.

Current SHA Study

A four lane (two-lanes per direction) directional ramp provides a take-off and touchdown in the median(s) of Interstate Route 695 and Maryland Route 295. The northbound movement from Glen Burnie will take place in the median from Interstate Route 97 (currently Maryland Route 3) and in order to avoid weaving movements, this option provides the continuation of the northerly movement in the median. The southbound movement takes off in the median of Interstate Route 695 to Interstate Route 97.

Additional right-of-way would be required east of the 50-foot easement in the Linthicum Hills community. This option addresses the high traffic volumes with directional ramps on structures.

Option 3B:

Provision of additional ramps at the Interstate Route 895 Y-Split and at Maryland Route 295 allowing a continuous movement from northbound Interstate Route 97 to proceed northbound on Maryland Route 295. This option will have significant park and wetlands impacts, as well as high costs but will remove traffic from the Interstate Route 695/Maryland Route 295 Interchange.

Noise

Mr. Adams reviewed the current Type II retrofit noise programs and the Type I program which is considered for new construction. Since the Linthicum Hills Community was constructed recently it will not qualify for noise barriers under the Type II program. The preliminary noise analysis indicates that the area will not qualify for Type I noise abatement because the difference between build and no-build noise levels are not significant. There are landscaping treatments which can be provided to improve the aesthetics adjacent to the Beltway where the developer removed some of the vegetation.

Discussion

Items which were discussed include the following:

- 1) A comparison of the Build Alternates regarding tradeoffs between traffic, impacts and costs were discussed.
- 2) The community questioned the use and ownership of the easement provided by the developer. The State Highway Administration explained that since a study had been on-going at the time the development plans were submitted for review by the County, an easement was provided by the developer for use by the State Highway Administration. The Homeowners Association does not own that property.
- 3) Drainage problems were identified at the end of Susan Court which seem to be from the Beltway. Mr. Elliott will discuss this issue with District Engineer Meehan.
- 4) The community is concerned that there is no right-of-way fence along the Beltway or Maryland Route 295 adjacent to their community. With the current Beltway lighting project, they anticipate problems with travelers on Interstate Route 695 and are concerned about the safety of their families. This will also be brought to the attention of Mr. Meehan for installation of a fence.
- 5) The height of the directional fly-over ramps is a concern from an aesthetic standpoint. Mr. Elliott suggested that we examine depressing the interchange similar to the Interstate Route 97 interchange at the Beltway.
- 6) Delegate Scanello requested that the Crestwood community, directly across the Beltway from Linthicum Hills, be notified of proposed improvements and that the State Highway Administration meet with them to discuss plans.

378

As the formal presentation and discussion ended, the group examined the wall maps (1"=100' scale) and the cross-sections which were available. The meeting ended at 9:30 PM.

NMW/sms

cc: Neil J. Pedersen

Bart Highfield, President Linthicum Hills Homeowners Assoc.

Charles Adams

Larry Elliott

379

September 9, 1987

Re: Contract No. AW 758-151
Interstate Route 695
Maryland Route 40 to
Maryland Route 295
Baltimore City Line to
Maryland Route 46
PDMS No. 251029

Ms. Gloria Cameron
Shady Nook Citizens Association
424 Shady Nook Avenue
Baltimore, Maryland 21228

Dear Ms. Cameron:

Thank you for the opportunity to speak to your community group last month. I am enclosing a copy of the minutes of our meeting for your information. If you have any questions regarding anything we discussed, please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by: *Catherine Pecora*
Catherine Pecora
Project Manager

LHE/CP/sms
Attachment
cc: Mr. Charles R. Olsen w/attach.

380

MEMORANDUM OF COMMUNITY MEETING

To: Louis H. Ege, Jr., Deputy Director
Project Development Division

From: Catherine Pecora *Catherine Pecora*
Project Manager

Subject: Contract No. AW 758-151-072N
Interstate Route 695 from
U.S. Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the
Baltimore City Line
PDMS No. 251029

Re: Minutes of Shady Nook Homeowners Association
Meeting

Date: August 26, 1987

Place: Baltimore County Library, Catonsville Branch
Frederick Road

Time: 7:30 PM

Attendees:

- | <u>Name</u> | |
|---|--|
| Neil Pedersen | Director, Office of Planning and Preliminary Engineering |
| Catherine Pecora | Project Manager, Project Development Division |
| Charles Adams | Chief, Bureau of Landscape Architecture |
| Darrel Wiles | Acting Assistant DE for Traffic District 4 |
| Frank Rosensweig | Highway Design |
| Ken McDonald | Highway Design |
| Lorenzo Bryant | Project Development Division |
| Dudley O'Donnell | Rummel, Klepper & Kahl |
| Norine Walker | Rummel, Klepper & Kahl |
| Shady Nook Homeowners Association Members | (see attached list) |

381

INTRODUCTION

This meeting was held at the request of the Home-owners Association to provide information on the project status and improvements proposed. Mr. Pedersen introduced State Highway Administration and consultant representatives and explained the highway development process. The community was reminded of the Alternates Public Meeting of November 1985 and the current status of this project. This Beltway project is one part of a study of the Beltway which extends from east of the Baltimore-Washington Parkway to east of I-95.

Currently, this project is funded for planning only. Should funding for engineering, right-of-way, and construction be programmed, construction would not be anticipated prior to the mid-1990s. It is important that the planning process begin at this time for purposes of prioritizing projects. Considering the size and cost of this project and the improvements proposed, requiring extensive maintenance of traffic, it is expected that the project will be segmented and constructed in phases.

Ms. Pecora indicated that the purpose of the Alternates Meeting was to provide concepts of the proposed widening. She indicated that changes had been made to the alternates since the Alternates Meeting. There are still two basic project concepts, both include widening the Beltway mainline by one lane in each direction. One of the two options has been reduced in scale due to comments made at the Alternates Meeting and comments provided by the local elected officials. Retaining Walls have also been used extensively to protect homes and reduce the right-of-way required.

The Public Hearing has been postponed until Spring, 1988.

GEOMETRICS

Ms. Walker described the proposed widening project, beginning with an overview of the limits and widening along the mainline of Interstate Route 695 and Maryland Route 295. The basic differences between the minor adjustments required with Option 1 and the interchange modifications of Option 2 were also identified.

With regard to the proposed improvements along I-695 between U.S. Rte. 40 and Wilkens Avenue, the following options were described:

382

- Option 1:** Mainline widening and interchange ramp adjustments.
- Option 2:** Mainline widening with the following interchange improvements:
- o A one-lane collector-distributor road in the U.S. 40 interchange area to remove interchange weaving from the mainline.
 - o A mainline lane shift at Edmondson Avenue to improve the sight distance and safety conditions along the median side of the inside curve northbound.
 - o A mainline lane shift at Frederick Road to improve the sight distance and safety conditions along the median side of the inside curve southbound.
 - o Revisions to the interchange configuration at Wilkens Avenue to reduce right-of-way and residential acquisition impacts.

In comparing the alternates presented at the November, 1985, Alternates Meeting and those developed since that time, the biggest significant change is the number of residential acquisitions. The preliminary proposal, for the alternate presented comparable to Option 2, anticipated 32 residential acquisitions whereas, by utilizing retaining walls, there are no residential acquisitions required between U.S. Rte. 40 and I-95. There is one residence and one business required along the entire project, both in the southern end of the project.

Three cross-sections were presented which indicated the existing conditions and, by use of colored overlays, the proposed improvements. While these indicate improvements from the centerline of the Beltway only, they do reflect proposed changes in the Shady Nook community adjacent to the Beltway.

NOISE

Mr. Adams indicated that while this area is fortunate to have barriers, some of those will have to be relocated due to the proposed widening. Construction impacts will be kept to a minimum and the time wherein there is lack of protection will be kept to a minimum. There are landscaping treatments which can be provided to improve the aesthetics facing the community along the retaining wall and/or noise barriers. Coordination with the community, regarding landscaping, will be maintained throughout the design phase of this project.

383

DISCUSSION

Items which were discussed include the following:

- 1) Citizens requested that the Intersection of Frederick Road with the ramps to and from outer loop be signalized because turns are very difficult to make. Mr. Wiles will review, or conduct if necessary, an intersection analysis and follow-up with the results.
- 2) The special provisions for the construction plans will require that noise barriers be shifted prior to construction wherever possible. The goal would be to keep the area "barrierless" for as short a time period as possible.
- 3) The project is not funded for design, construction or right-of-way acquisition. At such time as funding is available it is anticipated that construction would be 90% Federally, 10% State funded. The earliest time frame would be the early 1990's for any portion of the Beltway, although prioritizing along the entire Beltway would be required.
- 4) The level of noise change with the additional lane is anticipated to create is 1-3 decibels over the projected no-build condition. A 3-decibel increase is considered barely detectable by the human ear and, therefore, a significant change in noise level is not anticipated.
- 5) With the addition of a travel lane it is anticipated that the hourly traffic volume will increase 25% and fill that additional lane. The daily volume is anticipated to increase because of the added roadway capacity and continued regional growth.
- 6) Air quality studies are being conducted to identify the increase in quantity of emissions, particularly CO (carbon monoxide).
- 7) Although two additional lanes will not resolve capacity constraints beyond the year 2015, if nothing is done, conditions will continue to breakdown and create safety hazards. Other regional highway improvements are currently under study to shift traffic from Beltway use - i.e.: Md. 100 from Md. 3 to U.S. 29. will be funded for construction in the 1988-1993 CTP.

384

- 8) Shifting improvements to one or the other side of the Beltway to reduce impacts in the Shady Nook Community would require significant cost increases due to the structures along the Beltway.
- 9) The concept of High Occupancy Vehicle (HOV) lanes is successful for long distance, downtown oriented travel. The Beltway, however, serves many local, short trips which are not downtown oriented and tends to be more circumferential which does not lend itself to HOV lanes. Similarly, a fixed guideway system such as a monorail or subway is most successful when used for radial trips as opposed to circumferential trips.
- 10) For properties adjacent to the noise barrier, where the noise barrier would be placed inside the existing right-of-way fence, it is common to allow the property owner to use the property and maintain it. Acquisition of property involves assessment by independent appraisers and is acquired by fee simple. Side yard fencing could be extended at the property owners expense.
- 11) Restriction of trucks to the median lane is not recommended due to the safety of maneuverability. If an automobile were to want to pass a truck travelling in the median lane, he would proceed to the right which would be a non-standard maneuver.
- 12) The special provisions for the roadway construction will require some physical separation between the highway and adjacent residences for as long as possible so that the residences are protected from vehicles.

The construction schedule would be reviewed in the design portion of the project. Consideration of citizens concerns regarding hour of days, season and impact of construction lights will be considered.
- 13) Maintenance of traffic is not anticipated to cause the type of inconveniences during construction as on the I-83 reconstruction. Priorities of construction will be established to minimize inconvenience. The Bureau of Highway Design will be requested to retain ramps providing alternate routes if an interchange ramp must be closed during construction.

385

- 14) Regarding the anti-graffitti paint being applied to the noise barriers, unfortunately the state has limited control of the contractors. Efforts will be made to request the contractor to notify residents prior to the next application (3rd of 3 coats). The urethane paint is not expected to have adverse health impacts. Additional problems should be directed to the State Highway Administration district office so the contractor can be notified of his liability.
- 15) While the Beltway was designed for 60 mph travel speed during the 1950's, the Edmondson Avenue interchange area has sight distance restrictions which do not meet today's standards for current travel speeds.
- 16) The options currently being considered can be revised during the on-going review process.
- 17) Construction would begin at the earliest in 1992-3.

Mr. Pedersen expressed his appreciation at being invited to discuss the project and invited continued dialogue with the Association. He reiterated the fact that there could be changes made to the proposed improvement, based on citizen comments, prior to the Location/Design Public Hearing anticipated in Spring 1988.

NMW/sms

cc: Gloria Cameron, president of Shady Nook Homeowners Assoc.
Charles Adams
Darryl Wiles
Frank Rosensweig

386

Re: Contract No. AW 758-151-
Interstate Route 695
Maryland Route 40 to
Maryland Route 295
Baltimore City Line to
Maryland Route 46
PDMS No. 251029

Mr. Joe Getzendanner
Kenwood/Paradise Citizens Association
330 W. Kenwood Avenue
Baltimore, Maryland 21228

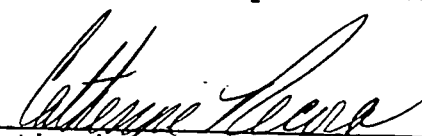
Dear Mr. Getzendanner:

Thank you for the opportunity to speak to your community group earlier this month. I am enclosing a copy of the minutes of our meeting for your information, and the study which has been prepared to address your suggestion of a fly-over ramp for direct access to UMBC from southbound I-695. If you have any questions regarding anything we discussed, please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by:


Catherine Pecora
Project Manager

LHE/CP/sms
Attachment
cc: Mr. Charles R. Olsen w/attach.

387

MEMORANDUM OF COMMUNITY ASSOCIATION MEETING

To: Louis H. Ege, Jr., Deputy Director
Project Development Division

From: Catherine Pecora
Project Manager *Catherine Pecora*

Subject: Contract No. AW 758-151-072N
Interstate Route 695 from
U.S. Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the
Baltimore City Line
PDMS No. 251029

Re: Minutes of Kenwood/Paradise Citizens
Association Meeting

Date: September 8, 1987

Place: University of Maryland, Baltimore County
University Center, Ballroom Lounge

Time: 7:30 PM

Attendees:

Name

Neil Pedersen	Director, Office of Planning and Preliminary Engineering
Catherine Pecora	Project Manager, Project Development Division
Bob Olsen	District Engineer, District 4
Norine Walker	Rummel, Klepper & Kahl
Kenwood/Paradise Citizens Association Members	(see attached list)

388

INTRODUCTION

This meeting was held at the request of the Citizens Association to provide information on the project status and improvements proposed. Mr. Pedersen introduced State Highway Administration and consultant representatives and explained the highway development process. The community was reminded of the Alternates Public Meeting of November 1985 and the current status of this project.

Currently, this project is funded for planning only. Should funding for engineering, right-of-way, and construction be programmed, construction would not be anticipated prior to the mid-1990s. It is important that the planning process begin at this time for purposes of prioritizing projects. Considering the size and cost of this project and the improvements proposed, requiring extensive maintenance of traffic, it is expected that the project will be segmented and constructed in phases.

Ms. Pecora indicated that the purpose of the Alternates Meeting was to provide concepts of the proposed widening. She indicated that changes had been made to the alternates since the Alternates Meeting. There are still two basic project concepts, both include widening the Beltway mainline by one lane in each direction. One of the two options has been reduced in scale due to comments made at the Alternates Meeting and comments provided by the local elected officials. Retaining Walls have also been used extensively to protect homes and reduce the right-of-way required.

The Public Hearing has been postponed until Spring, 1988. A draft Environmental Impact Statement will be available one month prior to the Hearing and those persons on the mailing list will be notified of its availability.

GEOMETRICS

Ms. Walker described the proposed widening project, beginning with an overview of the limits and widening along the mainline of Interstate Route 695 and Maryland Route 295. This Beltway project is one part of a study of the Beltway which extends from east of the Baltimore-Washington Parkway to east of I-95. The basic differences between the minor adjustments required with Option 1 and the interchange modifications of Option 2 were also identified.

389

With regard to the proposed improvements along I-695 between U.S. Rte. 40 and I-95, the following options were described:

Option 1: Mainline widening and interchange ramp adjustments.

Option 2: Mainline widening with the following interchange improvements:

- o A one-lane collector-distributor road in the U.S. 40 interchange area to remove interchange weaving from the mainline.
- o A mainline lane shift at Edmondson Avenue to improve the sight distance and safety conditions along the median side of the inside curve northbound.
- o A mainline lane shift at Frederick Road to improve the sight distance and safety conditions along the median side of the inside curve southbound.
- o Revisions to the interchange configuration at Wilkens Avenue to reduce right-of-way and residential acquisition impacts.

In comparing the alternates presented at the November, 1985, Alternates Meeting and those developed since that time, the biggest significant change is the number of residential acquisitions. The preliminary proposal, for the alternate presented comparable to Option 2, anticipated 32 residential acquisitions whereas, by utilizing retaining walls, there are no residential acquisitions required between U.S. Rte. 40 and I-95. There is one residence and one business required along the entire project, both in the southern end of the project.

A cross-section was presented which indicated the existing conditions and, by use of colored overlays, the proposed improvements. While these indicate improvements from the centerline of the Beltway only, they do reflect proposed changes in the W. Kenwood Avenue community adjacent to the Beltway.

390

DISCUSSION ITEMS

Noise

The most significant issue for citizens along Kenwood Avenue is the noise condition. Mr. Pedersen provided an explanation of the Maryland State Highway Administration noise abatement programs. He explained that the Type I Program is geared towards providing abatement where a substantial increase in noise results from new construction. The Type II Program studies retrofitting noise abatement in areas where a highway was built next to an existing neighborhood.

Noise abatement was not shown as part of the I-695 widening because none has yet been approved for the project. The preliminary noise results indicate that the increase in noise level between the build and no-build alternates is small. Therefore, noise abatement would not be provided under the current policy.

Eligibility under the Type II Program has been investigated separately by the Bureau of Landscape Architecture. An analysis was done to check for the three criteria which are warranted. They are:

1. A noise level of 67 dBA or greater.
2. Construction of the residence prior to the Beltway.
3. A cost of approximately \$40,000/residence or less.

The Kenwood neighborhood qualifies under the first two criteria however not under the third. The cost per residence significantly exceeds \$40,00/residence because of the small number of residences impacted.

Mr. Pedersen explained that this cost criteria is necessary because it results in achieving the most benefit for every dollar of the noise abatement program that is spent. Maryland currently allots one-quarter of Interstate Highway Rehabilitation funds (approximately \$35 million this year) to the program. This is currently the largest program in the country.

391

Outer Beltway

A question was raised regarding an outer roadway as a relief for the Beltway traffic which does not necessarily require the use of that facility. Mr. Pedersen indicated the current studies for Maryland Route 100 from Maryland 3 to I-95 and into Howard County as one project which addresses this issue. The current construction of I-195 from the Baltimore-Washington Expressway (Maryland Route 295) to I-95 will serve traffic oriented to the Baltimore-Washington International Airport and associated employment centers. While an outer Beltway is not feasible in all areas surrounding the Beltway, the State Highway Administration is providing some circumferential service to radial facilities.

Proposed Alternates

The No-Build Alternate continues to be considered as part of this study. The traffic projections for the Beltway, however, indicate that without some type of improvements, significant congestion and increasing safety hazards will be experienced along the Beltway.

As far as the Options for the Build Alternates are concerned, both Option 1 and Option 2 will continue to be considered. Option 1 does not encroach on the W. Kenwood Avenue community as significantly as Option 2. Option 2, however, improves the existing High Accident Interchange loop ramp by replacing it with a diamond-type ramp.

A suggestion was also raised to consider a separate ramp from the Beltway into UMBC. This configuration had been studied. While it would provide relief to the Wilkens Avenue interchange there would be a number of problems associated with it. They are:

1. A large, expensive structure would be required.
2. An adjacent stream would create drainage problems that would be expensive to correct.
3. Traffic volumes would not justify this expense.
4. The ramp alignment would not be constructed with adequate geometrics.

392

Other Improvements

Improvements to Valley Road and other county facilities would be provided by Baltimore County.

The SHA has provided improvements to Rolling Road in specific areas as needed. A significant change to the character of Rolling Road is no longer being considered due to opposition of the residents along that facility.

NMW/sms

cc: Mr. Joe Getzendanner, Kenwood/Paradise Citizens Association

Attendees	Address
Don Schatz	5206 Wilkens Ave.
Delegate Kenneth H. Masters	1809 Edmondson Ave. 21228
Albert J. Karas	338 W. Kenwood Ave. 21228
Robin Getzendanner	332 W. Kenwood Ave. 21228
James G. Winters, Jr.	431 S. Paradise Ave.
George E. Deal, Jr.	435 S. Paradise Ave. 21228
Ed Jaeger	429 S. Paradise Ave. 21228
Harold Klee	427 Paradise 21228
Paul Genovese	315 Kenwood Ave. 21228
Sandy Sautter	315 Kenwood Ave. 21228
Cathy Born	320 Kenwood Ave. 21228
John Cullom	437 S. Paradise Ave. 21228
Joe Getzendanner	330 W. Kenwood Ave.
Leland R. Cooley	320 W. Kenwood Ave. 21228
Senator Coolahan	
Delegate Nancy Murphy	

393

October 15, 1987

Re: Contract No. AW 758-151-
Interstate Route 695
Maryland Route 40 to
Maryland Route 295
Baltimore City Line to
Maryland Route 46
PDMS No. 251029

Rev. John Rabb
Holy Apostles Episcopal Church
Baltimore, Maryland 21228

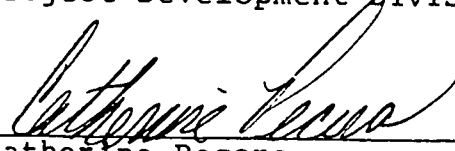
Dear Rev. Rabb:

Thank you for the opportunity to speak to you and Senior Warden Pinkerton last month. I am enclosing a copy of the minutes of our meeting for your information. If you have any questions regarding anything we discussed, please call me at 333-1191.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Project Development Division

by:


Catherine Pecora
Project Manager

LHE/CP/sms
Attachment
cc: Mr. Charles R. Olsen w/attach.
Attendees with attachment

394

MEMORANDUM OF COMMUNITY MEETING

To: Louis H. Ege, Jr., Deputy Director
Project Development Division

From: Catherine Pecora
Project Manager *Catherine Pecora*

Subject: Contract No. AW 758-151-072N
Interstate Route 695 from
U.S. Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the
Baltimore City Line
PDMS No. 251029

Re: Minutes of Meeting with Holy Apostles Episcopal
Church

Date: October 1, 1987

Place: Holy Apostles Episcopal Church
Leeds Avenue

Time: 2:30 PM

Attendees:

<u>Name</u>	
Neil Pedersen	Director, Office of Planning and Preliminary Engineering
Catherine Pecora	Project Manager, Project Development Division
Ralph Manna	Bridge Design
John Logan	Bridge Design
Norine Walker	Rummel, Klepper & Kahl
Reverend John Rabb	Holy Apostles Episcopal Church
Senior Ward John Pinkerton	Holy Apostles Episcopal Church
Delegate Louis Morsberger	
Delagate Nancy Murphy	
Senator John Coolahan	

This meeting was arranged by Delegate Murphy and Reverend Rabb to discuss the impacts of the proposed Beltway widening project on the Holy Apostles Episcopal Church property. Mr. Pedersen made introductory comments emphasizing the fact that since the November 1985 Alternates Public Meeting, more detailed design work has been completed on the project. Significant reductions in impacts have resulted from development of engineering details. Ms. Pecora explained that there are several issues in the area of the Church.

The Project Planning study for widening the Beltway is not currently funded for right-of-way, engineering or construction. The bridge redecking is scheduled to be advertised in the spring of 1988. The noise wall construction is scheduled to be advertised during the winter of 1987-88. The bridge reconstruction and noise barrier construction, therefore, is anticipated to be underway simultaneously beginning during the summer of 1988. A decision regarding how these projects will be coordinated will be available by the end of October.

The completion of the bridge redecking could provide an opportunity to improve the operation of the I-695/I-95 interchange and will be investigated. It will also allow the interchange ramp from I-695 southbound to Southwestern Boulevard to remain open and would be compatible with the proposed widening. This ramp would, however, need to be closed to traffic during the first phase of the bridge reconstruction.

The Maintenance of Traffic plans were reviewed which indicated the following stages:

- Stage I
 - retaining wall constructed
 - outside lane bridge widening
 - ramp reconstruction (closure of ramp for 6-9 months)
 - mainline traffic on Beltway undisturbed
- Stage II
 - reconstruct middle lanes of bridge
 - two lanes of traffic to travel on new part of bridge and two lanes on old part
 - new ramp open for use
- Stage III
 - reconstruct inside lanes of bridge
 - maintain four lanes of Beltway traffic on bridge

391e

The relationship of the noise barrier construction to the proposed widening was discussed next. The noise barriers plans for this area presented at the May 26, 1987 meeting showed some barriers placed in a "temporary" location which would require relocation if the Beltway were widened. This would allow the construction of barriers to proceed before any decision on widening the Beltway was made. The trade-offs between this approach and that of placing the barriers in an ultimate location still need to be resolved prior to advertisement of the Noise Barrier project.

Discussion Items

1. Construction time for the bridge redecking project is 18-24 months. Four mainline lanes would be provided on the Beltway at all times which should alleviate back-ups associated with the construction.
2. The bridge redecking is a "definite" and the widening project is a "maybe". While the bridge and noise barrier projects have been funded for construction, the widening project has not.
3. Neither the redecking nor the Beltway widening project are going to require right-of-way from the Holy Apostles Church property. SHA is optimistic that all construction for the improvements can take place within SHA's Right-of-Way.
4. The retaining wall would be one of the first items to be constructed on the bridge redecking project. While removal of vegetation will be kept to a minimum, landscaping between the proposed retaining wall and the right-of-way fence can be provided by SHA.
5. The major advantage to the community of redecking the bridge is that it maintains the use of the ramp from southbound I-695 to Leeds Avenue and accommodate possible future beltway widening within the existing right-of-way.
6. The drainage concerns associated with the bridge and highway improvements will be addressed by providing a pipe system under the retaining wall with outfall into Herbert Run. Those familiar with the area remarked that it would be helpful if the County would periodically clean out the floodplain.
7. The actual redecking would involve removing a two-inch layer of pavement in some areas of the existing bridge and removing the entire depth of deck in other areas. While some of the sub-structure would be required to be replaced, the columns themselves will not be moved in location.

NMW/sms
cc: Attendees



**Maryland Department of Transportation
State Highway Administration**

1 copy
Richard H. Trainor
Secretary

Hal Kassoff
Administrator

397

MEMORANDUM OF COMMUNITY MEETING

To: Louis H. Ege, Jr., Deputy Director
Project Development Division

From: Catherine Pecora *Catherine Pecora*
Project Manager

Subject: Contract No. AW 758-151-072N
Interstate Route 695 from
U.S. Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the
Baltimore City Line
PDMS No. 251029

Re: Minutes of Delegation Meeting

Date: October 22, 1987

Place: Office of Delegates Masters and Marsberger
Newburg Avenue, Catonsville

Time: 7:30 PM

Attendees:

<u>Name</u>	<u>Office</u>
Hal Kassoff	Administrator
Neil Pedersen	Director of Planning & Preliminary Engineering
Bob Olsen	District Engineer, District 4
Darrel Wiles	Assistant District Engineer - Traffic
Charlie Adams	Chief, Bureau of Landscape Architecture
Catherine Pecora	Project Development Division
Senator John Coolahan	State Senator, District 12
Delegate Louis Marsberger	Maryland House of Delegates, District 12
Delegate Kenneth Masters	Maryland House of Delegates, District 12
Norine Walker	Rummel, Klepper & Kahl

My telephone number is (301) _____

Teletypewriter for Impaired 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

398

Senator Coolahan requested this meeting to discuss the Beltway widening project and the impacts associated with the proposed improvements. Mr. Pedersen suggested a review of the proposed improvements and then a discussion of further community coordination that will be required.

Using a table which summarizes the impacts associated with the alternates presented at the November, 1985 Alternates Public Meeting and the current studies, the proposed improvements were reviewed. Comments relevant to each interchange include the following:

U.S. Route 40 (West)

- o In order to transition from the five-lane northbound section to the three-lane section in the I-70 interchange, consider dropping the fifth mainline lane after the interchange on the median side. This may be done by dropping the median side lane to provide a three-lane section at I-70. This will be examined as part of the project planning study.

Edmondson Avenue

- o The elected officials felt that it was appropriate for the State Highway Administration to purchase properties that have substantial proximity damage. However, they felt that it should be done on a case-by-case basis with the affected property owners involved only.
- o The ramp grade from Edmondson Avenue to northbound I-695 should be examined. This was cited as a difficult ramp merge to negotiate although an auxiliary lane to US Route 40 is provided. This less than desirable situation will be exacerbated should the C-D road option be selected at the US Route 40 interchange. The ramp grade will be refined as part of the project planning study.
- o Investigation of sign placement in island between ramp legs from Edmondson Avenue to I-695 NBR will be handled by SHA's District Traffic Office.
- o Noise barrier studies will require an additional meeting with the community (to be scheduled in November, 1987) along Forest Avenue. Senator Coolahan requested a copy of the letter from the citizens in this area who requested that the barrier be shortened, Mr. Adams will provide this letter to Senator Coolahan's office.

Frederick Road

- o Intersection signalization for current conditions needs to be re-examined. The District Traffic office will investigate whether a signal is warranted under current conditions.
- o The ramp intersections would probably work better in the current offset intersection configuration than in the proposed condition which would provide a single intersection. Mr. Wiles, however, predicted that the intersections will require signalization by the time the project is constructed.
- o Consideration should be made to provide a signal at the Delrey Road intersection with Frederick Road. However, Mr. Wiles expressed concern regarding the distance between this signal and those at the interchange.

Wilkens Avenue

- o Verify that the proposed ramp grade will not compromise safety and provide a worse condition than the high accident interchange ramp which is being replaced in the southbound direction.
- o An auxiliary lane between the Frederick Road on-ramp and the Wilkens Avenue off-ramp will be provided for both alternates.
- o Review the signing for each off-ramp from northbound I-695 at Wilkens Avenue, and the prohibition of the left turn from the ramp to eastbound Wilkens Avenue.

Leeds Avenue

- o The redecking of the bridge and the Type II noise barrier project may be combined. This would delay the construction of the noise barrier, although the retaining wall and noise barrier would be the first things of that contract to be constructed. Mr. Adams will provide Senator Coolahan with a schedule for the construction of this barrier by the end of November.

I-95

- o Improvements are currently proposed that had not been previously presented at the Alternates Meeting. The proposal will improve operations as well as providing additional capacity for the increased traffic projected by the design year.

Hollins Ferry Road

- o Redecking of the structure is anticipated to begin in the Spring of 1988. Mr. Olsen will provide Senator Coolahan with a schedule for this reconstruction.
- o Alternatives to reconstructing the B&O Bridge are being studied.

400

Administrator Kassoff outlined the noise barrier policy and indicated the desire to provide protection where it is justified. He also emphasized the timing of the project and possibility of segmenting due to the budgeting process.

NMW/sms

Attachment

cc: Mr. Pedersen

Mr. Olsen

Mr. Wiles

Mr. Adams

Ms. Pecora

Mr. Walsh

Ms. Walker

I-695: From West of US 40 (West) to Md. 170
 Md. 295: From North of Md. 46 to the Baltimore City Line

October 22, 1987
 Maryland State Highway Administration
 Rummel, Klepper & Kahl

BRIEFING TO BALTIMORE COUNTY DELEGATION

Interchange Location	Proposed Improvements	# Properties Affected				# Improvements Taken			
		Alt. 2	(Option 1)	Alt. 3	(Option 2)	Alt. 2	(Option 1)	Alt. 3	(Option 2)
US Rte. 40 (West)	Alt. 3 - Two-lane C-D Rd. Current Opt. 2 - One lane C-D Rd.	2	(0)	2	(7)	0	(0)	0	(0)
Edmondson Ave., Frederick Rd.	Alt. 2&3: Intersection improvements Current Opt. 2 - Mainline shift to improve sight distance	8	(13)	8	(14)	4	(0)	3	(0)
Wilkins Ave.	Alt. 3: Major interchange reconstruction Current Opt. 2: Replace High Accident ramp	8	(6)	10	(7)	0	(0)	21	(0)
Leeds Ave/US 1Alt/ Southwestern	Alt. 3: Elimination of Access to and from I-695 Current Opt.: Access to I-695 both options	6	(0)	5	(0)	1	(0)	2	(0)
I-95	Alt. 2 & 3: Ramp adjustments Current Opt.: Dualization of ramps and "major fork" (Option 3)	3	(0)	1	(0)	0	(0)	1	(0)
US 1 Alt.	Alt. 2 & 3: Ramp adjustments Current Opt.: Dualization of ramps	4	(0)	5	(0)	0	(0)	0	(0)
Hollins Ferry Rd.	Alt. 2 & 3: Ramp adjustments Current Opt.: Possible ramp relocation	6	(0)	6	(2)	2	(0)	3	(0)
I-895	Alt. 2 & 3: Ramp adjustments Current Opt.: Ramp adjustments	0	(0)	0	(0)	0	(0)	0	(0)
Nursery Road, Md. Route 295	Alt. 3: Collector-Distributor Road Current Opt.: C-D Road and "Flyover" (Option 3) interchange providing direct access in median from Md. 295 to I-97	29	(14)	32	(30)	1	(1)	2	(2)
Md. Route 295	Alt. 2: Median Widening Current Opt.: Two concepts for median grading. One option will allow maintaining "Parkway characteristics". Provide auxiliary lane outside Beltway to Nursery Road	0	(8)	0	(8)	0	(0)	0	(0)
I-895	Alt. 2: Additional ramps considered as alternate to improvements at I-695/Md. 295 Current Opt.: Same as above	13	(6)	-	-	0	(0)	-	-

Alt. 2 & 3 presented at November 1985 Alternates Public Meeting; Options 1, 2 and 3 Current Study Options

VIII-E29

401

402

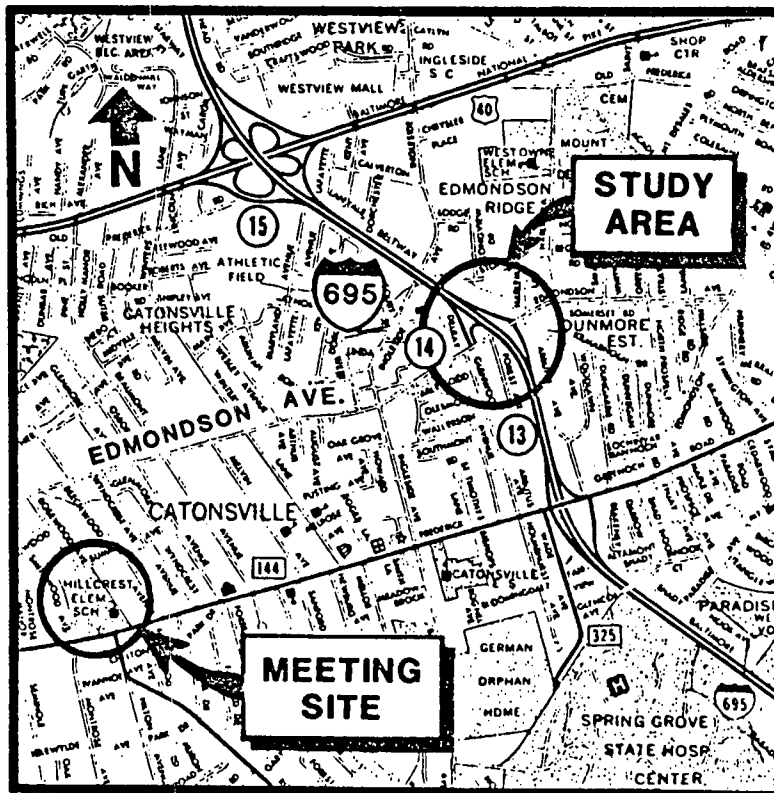
A COMMUNITY INFORMATIONAL MEETING WILL BE CONDUCTED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION

Wednesday, January 20, 1988
7:30 p.m.

Hillcrest Elementary School
1500 Frederick Road
Catonsville, Maryland 21228

At the request of some residents in the area, the State Highway Administration has agreed to consider the merits of closing one or more of the ramps at the interchange of Edmondson Avenue with the Baltimore Beltway.

This informational meeting is being held to provide an opportunity for interested citizens to discuss the issues associated with this proposal. The meeting will consist of a short presentation followed by a comment period. An informational brochure will also be available at the meeting.



If you would like more information or wish to make written comments, please contact Mr. Neil J. Pedersen, Director, Office of Planning and Preliminary Engineering, State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202-0717.



**Maryland Department of Transportation
State Highway Administration**

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

403

February 5, 1988

Dear Resident:

I am writing as a follow-up to the community meeting held on Wednesday, January 20, which addressed the issue of possible ramp closures at the Edmondson Avenue interchange with the Baltimore Beltway.

We raised this issue as a result of interest that had been expressed to us, as well as our own thoughts that the idea had merit. However, before proceeding very far with the proposal, we felt that a community meeting was essential. The meeting was very helpful in identifying the problems and impacts the closure of any ramps in this area would create for local residents and businesses. Based on the input we received from the meeting, we have decided not to pursue the concept of closing ramps at the Interstate Route 695/Edmondson Avenue interchange.

If you have any questions or comments regarding this matter, please address them to Mr. Neil J. Pedersen, Director of the Office of Planning and Preliminary Engineering, 707 North Calvert Street, Baltimore, Maryland 21203.

Thank you for your interest in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Hal Kassoff', written over a horizontal line.

Hal Kassoff
Administrator

HK:db

My telephone number is (301) _____

Teletypewriter for Impaired 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

404

This meeting was arranged to discuss the improvements proposed for the construction of Wilkens Avenue Interchange Option 2. The residents of approximately 50 homes closest to the proposed revised ramps were invited. Ms. Rice briefly introduced the two interchange option concepts (Option 1 relocated ramp F to the northwest quadrant of the interchange). She described the differences in geometry and impacts for the two options as well as for Alternate 2. Approximately twenty persons attended. Half were residents of Gateway Terrace which is located across the beltway from the area being discussed.

The residents of the home which would be closest to the relocated ramp F of the Option 2 improvement, mentioned the following concerns they have regarding this option. They were concerned that vehicles on the ramp coming closer to their house would run off the road and that the retaining wall and guardrail would not prevent this. They also felt that since ramp B would still be a sharp curve, that the accident rate would not improve enough to be worthwhile. They were also concerned because they have seen deer in the wooded area which would be used for the proposed construction of relocated ramps B and F.

They suggested that relocated ramp B of Option 1 be constructed to handle the heavy traffic headed west on Wilkens Avenue (towards Spring Grove and the colleges) and that the existing loop ramp (Ramp B) remain to handle the eastbound traffic. Several people commented on the fact that the existing left turn from the loop ramp creates congestion back onto the Beltway which contributes to the accidents on the ramp. The above suggestion would allow this left turn movement to be a free right turn from relocated ramp B which would be preferred, according to this group.

The citizens present were not in favor of extending the noise barrier beyond the limit discussed with them previously, even though the proposed configuration of relocated ramps B and F with Option 2 would shift these ramps closer to their homes. At the request of this group, the Bureau of Landscape Architecture had agreed not to construct the noise barrier in front of these homes. The citizens present at this meeting still do not want a noise barrier here.

The residents of the Gateway Terrace neighborhood, located along the Beltway innerloop, were present to express their concern about the delay in the construction of the noise barrier. They also pointed out that they expect the wall to be built at the location where the stakes had been placed last year by SHA. These stakes indicate the ultimate location of the retaining wall/noise barrier as shown at the

405

Location/Design Public Hearing. The viewpoint of this neighborhood should be considered when the final noise wall contract is advertised and they should be informed of any changes prior to beginning construction. One resident of this neighborhood was concerned that the retaining wall/noise barrier combination would be so high that it would block sunlight and breezes from these homes.

Both Mr. Howe of Gateway Terrace and Mr. Getzendanner of Kenwood Avenue contacted me by phone to express their objection to not being invited to this meeting.

The meeting adjourned at 8:00 PM. Reporters from the Catonsville Times and television's Channel 2 News arrived at the end of the meeting and interviewed the Project Manager regarding the purpose of the evening's meeting. They had been informed about it from citizens in the vicinity who were upset.

NMW/sms
Attachment

- cc: Mr. Neil Pedersen
- Mr. Charlie Adams
- Senator Nancy Murphy
- Delegate Thomas Newberry
- Delegate Kenneth Masters
- Mr. C. Robert Olsen



**Maryland Department of Transportation
State Highway Administration**

Richard H. Trainor
Secretary
Hal Kassoff
Administrator

406

December 28, 1989

MEMORANDUM OF COMMUNITY MEETING

To: Louis H. Ege, Jr., Deputy Director
Project Planning Division

From: Catherine Rice *CR*
Project Manager

Subject: Contract No. AW 758-151-072N
Interstate Route 695 from
US Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the Baltimore City Line
PDMS No. 251029

Re: Minutes of Regina Drive/Circle Drive Community Meeting

Date: December 11, 1989

Place: Baltimore County Library - Catonsville Branch

Time: 7:00 PM

Attendees:

Catherine Rice	Project Manager
Bob Olsen	District 4 - District Engineer
Jim Wynn	Project Planning
Senator Nancy Murphy	
Delegate Kenneth Masters	
Delegate Thomas Newberry	
Norine Walker	D
	RK&K

My telephone number is (301) _____



**Maryland Department of Transportation
State Highway Administration**

June 1, 1990

407
Richard H. Trainor
Secretary
Hal Kassoff
Administrator

MEMORANDUM

TO: Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Catherine P. Rice
Project Manager
Project Planning Division

SUBJECT: Contract No. AW 785-151-072 N
Interstate Route 695 from
US Route 40 (West) to
Maryland Route 170 including
Maryland Route 295 from
Maryland Route 46 to the Baltimore City Line
PDMS No. 251029

RE: Minutes of Forest Avenue Community Meeting

Date: May 10, 1990

Place: 122 Forest Avenue

Time: 7:00 p.m.

Attendees:

Catherine Rice Project Manager
Norine Walker RK&K

This meeting was arranged to discuss the improvements proposed for the construction of Alternate 2 at the I-695/Edmondson Avenue interchange. We were invited to meet with the residents along Forest Avenue and approximately 16 attended (see sign-in sheet attached).

I briefly described the Alternate 2 proposal with respect to the existing retaining wall and noise barrier. It was explained that because an alternate had not been selected during the noise barrier project design phase, the wall is in a location that would accommodate any of the proposed interchange options that had been studied.

I then explained that the decision has been made by the State Highway Administration to provide only the Alternate 2 improvement. This involves adding a mainline lane in each direction on I-695. A small portion of the recently completed barrier will have to be relocated, this includes the section on the bridge and a short distance along I-695. The majority of the wall will not be relocated.

333-1191

My telephone number is (301) _____

VIII-E 35

408

The members of this community were very concerned that a separate ramp was going to be constructed. Since the recently completed wall allows for it. I am sending a copy of these meeting minutes to the members of the community to document the commitment that a separate ramp will not be constructed over the Edmondson Avenue/Forest Avenue intersection. In addition, I informed those attending that once the location approval for this interchange vicinity has been granted, the community will be informed.

The residents were also very concerned that the widening which is proposed would encroach on the intersection of Forest Avenue with Edmondson Avenue. Although the intersection will not be directly affected, the bridge pier will further reduce the turning site distance. I suggested that a cantilevered pier could be investigated. However, upon checking with the Office of Bridge Development, it was decided that the current bridge is structurally unable to accommodate a cantilever-type of widening. The issue of encroachment on this intersection should be considered during the final bridge design phase and an attempt should be made to minimize the amount of pier that must be built to accommodate the widening.

It was pointed out that the proximity of the bridge will create hardships for the neighborhood during construction because it could be very difficult to access the street. I have discussed this issue with Jim Kelly, the Assistant District Engineer for construction. He agreed that traffic safety would need to be addressed during the preparation of the construction plans and carefully monitored during construction. This will be pursued during final design. The community suggested that a flagman be provided to facilitate travelling through the intersection during construction. This suggestion will be considered.

The group then raised several related issues. They raised the question of why I-70 could not be extended into the city as was originally planned. I explained the history of the I-70 project. Regarding the schedule for the proposed widening I explained the current status and the investigation of staging priorities.

They also wanted to know whether any other widening would be proposed along the beltway. I stated that it is highly unlikely due to the right-of-way constraints that additional widening would ever be done on the Beltway. The residents were very concerned about this possibility. I also discussed the Statewide Commuter Assistance study as an example of alternative solutions that are being investigated rather than highway widening.

409

Finally, two requests were made which are being followed-up on. The first is to have the maintenance improved on the piece of state property at the Forest Avenue intersection. I contacted Allen Ault's office and they will handle this. The other request was to have the noise levels monitored for increases in noise across the beltway from the recently constructed noise barrier. Gene Miller of the Bureau of Landscape Architecture is investigating this.

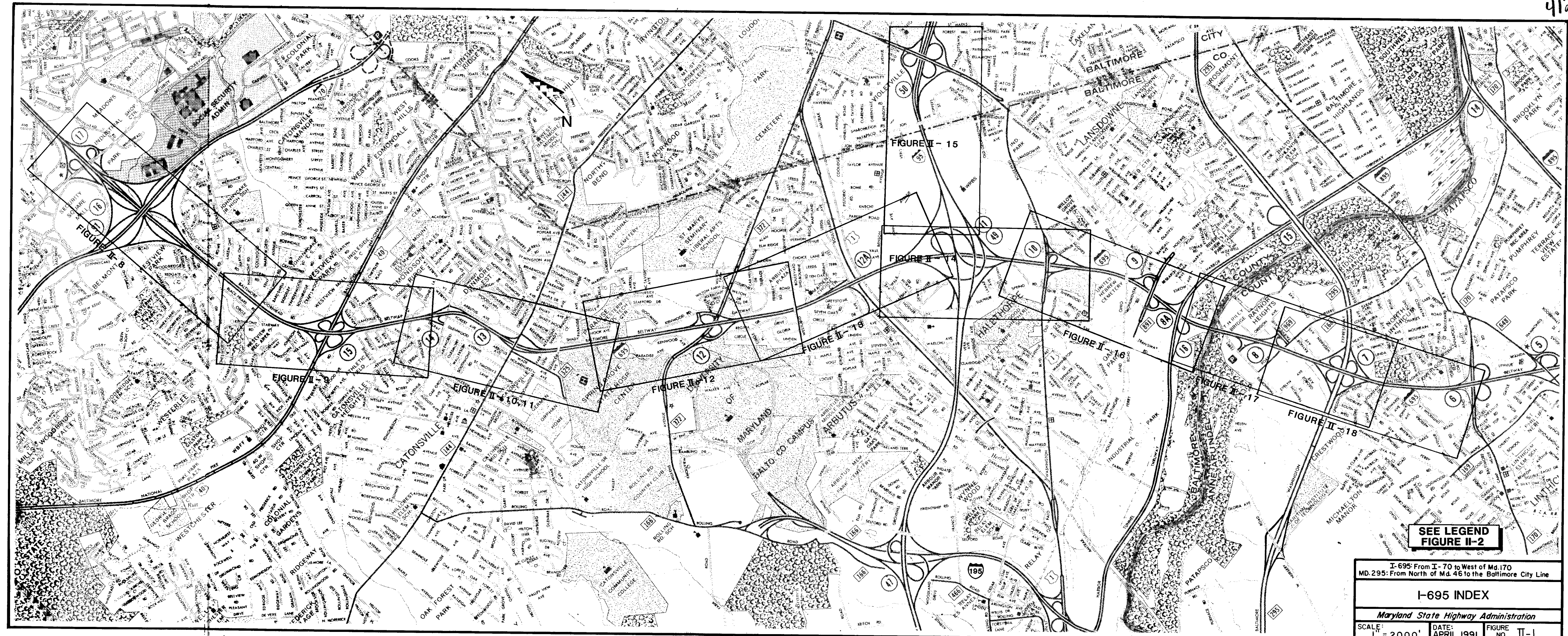
CPR:ds
Attachment

cc: Mr. Jim Kelly
Mr. Allen Ault
Mr. Gene Miller
Ms. Ann Powers (W/Attachment)

SECTION IX
APPENDICES

APPENDIX A
ALTERNATES MAPPING

- II-1 I-695 Index
- II-2 Md. 295 Index and Project Legend
- II-3 Typical Sections I-695
Selected Action Mainline Widening
- II-4 Typical Sections I-695
Selected Action Mainline Widening
- II-5 Typical Sections I-695/Md. 295
Selected Action Mainline Widening
- II-6 Typical Sections Md. 295
Selected Action Mainline Widening
- II-7 Typical Sections Selected Action on I-95
- II-8 Selected Action - I-695: I-70 Interchange
to North of US Route 40
- II-9 Selected Action - I-695:
North of US 40 to South of Ingleside Avenue
- II-10 Selected Action - I-695:
North of Edmondson Ave. to South of
Edmondson Avenue
- II-11 Selected Action - I-695:
North of Frederick Road to South of
Frederick Road
- II-12 Selected Action - I-695:
North of Wilkens Avenue to
South of Wilkens Avenue
- II-13 Selected Action - I-695:
North of Westland Boulevard to South of
Benson Avenue
- II-14 Selected Action - I-695:
North of I-95 to South of Washington Blvd.
- II-15 Selected Action - I-95:
I-695 to Caton Avenue
- II-16 Selected Action - I-695:
North of B&O Railroad to
South of Harbor Tunnel Thruway
- II-17 Selected Action - I-695:
North of Hammonds Ferry Road to
South of Nursery Road
- II-18 Selected Action - I-695:
North of Md. 295 to North of Md. 170
- II-19 Selected Action - Md. 295:
Limit of Study to South of West Nursery Road
- II-20 Selected Action - Md. 295:
South of West Nursery Road to
South of Hammonds Ferry Road
- II-21 Selected Action - Md. 295:
South of I-695 to Patapsco River
- II-22 Selected Action - Md. 295:
South of I-895 to Limit of Study



**SEE LEGEND
FIGURE II-2**














I-695: From I-70 to West of Md. 170
MD. 295: From North of Md. 46 to the Baltimore City Line

I-695 INDEX

Maryland State Highway Administration

SCALE: 1" = 2000'
DATE: APRIL, 1991
FIGURE NO. II-1

LEGEND FOR PLAN EXHIBITS II-8 THRU II-22

-  PROPOSED ROADWAY
-  PROPOSED RIGHT OF WAY (APPROX.)
-  EXISTING RIGHT OF WAY OR PROPERTY LINE
-  100-YEAR FLOODPLAIN BOUNDARY
-  WETLANDS
-  PARK BOUNDARIES
-  BUSINESS TO BE ACQUIRED
-  RESIDENCE TO BE ACQUIRED
-  AIR RECEPTOR/NOISE SENSITIVE AREA
-  EXISTING NOISE BARRIERS
-  HISTORIC DISTRICT BOUNDARY
-  POSSIBLY NATIONAL REGISTER ELIGIBLE
-  MD. HISTORIC TRUST SITE NUMBER

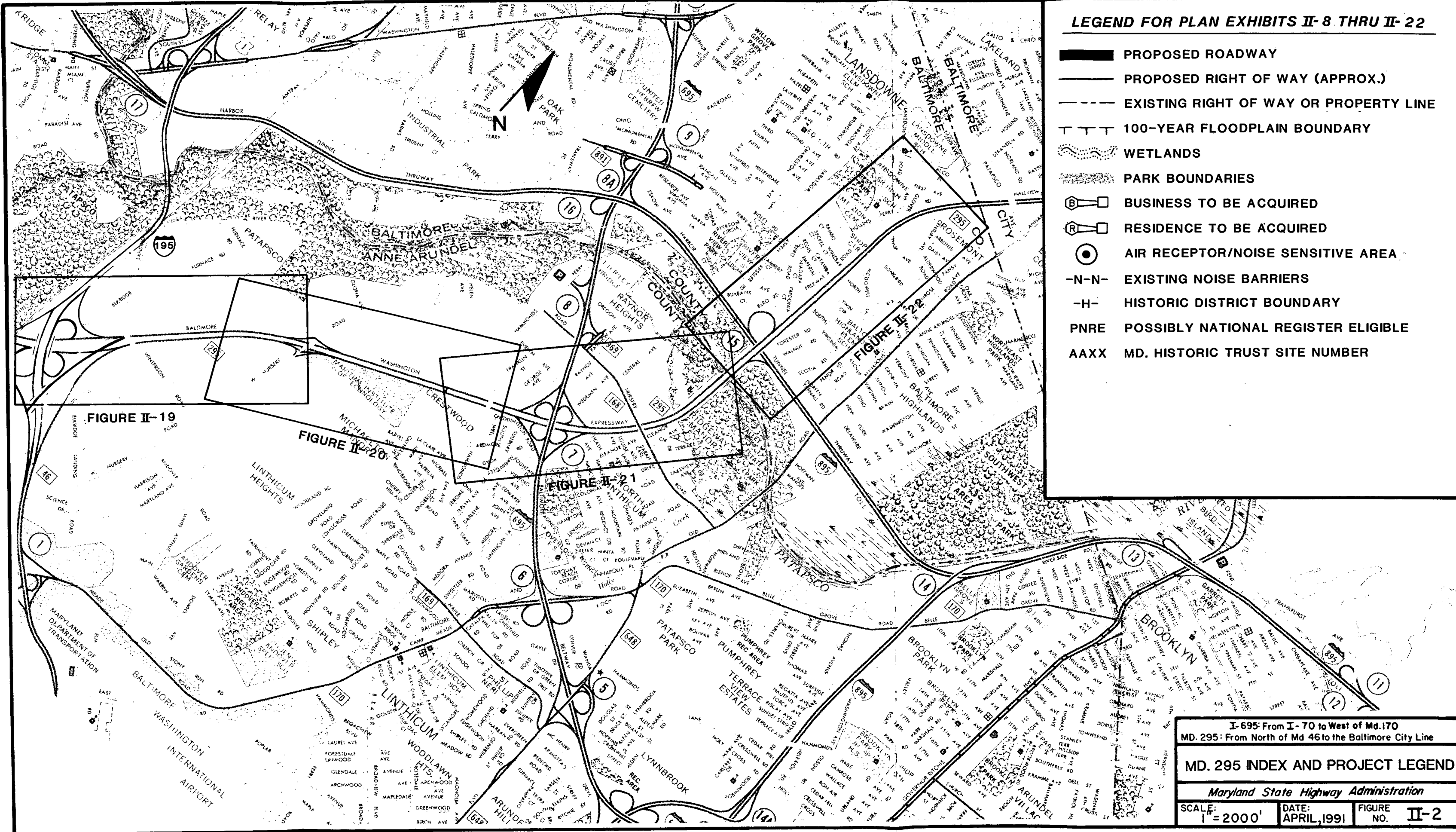


FIGURE II-19

FIGURE II-20

FIGURE II-21

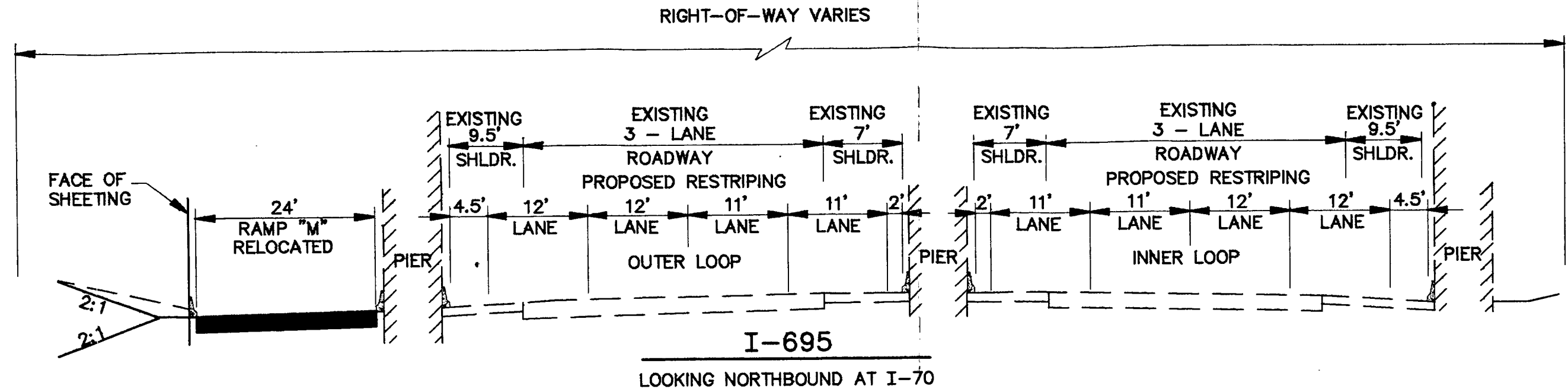
FIGURE II-22

I-695: From I-70 to West of Md.170
 MD. 295: From North of Md 46 to the Baltimore City Line

MD. 295 INDEX AND PROJECT LEGEND

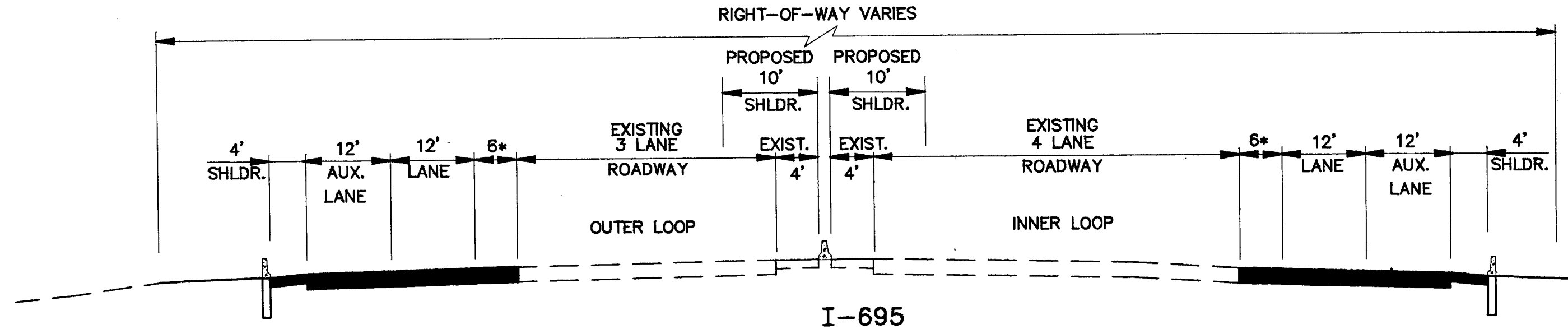
Maryland State Highway Administration

SCALE: 1" = 2000' DATE: APRIL, 1991 FIGURE NO. II-2



I-695
LOOKING NORTHBOUND AT I-70

THE ACTUAL DISTRIBUTION OF THE 6-Ft. USABLE SHOULDER BENEATH I-70 WILL BE DETERMINED DURING FINAL DESIGN



I-695
SELECTED ACTION WITH RETAINING WALL

LOOKING NORTHBOUND BETWEEN U.S. ROUTE 40 AND FREDERICK ROAD

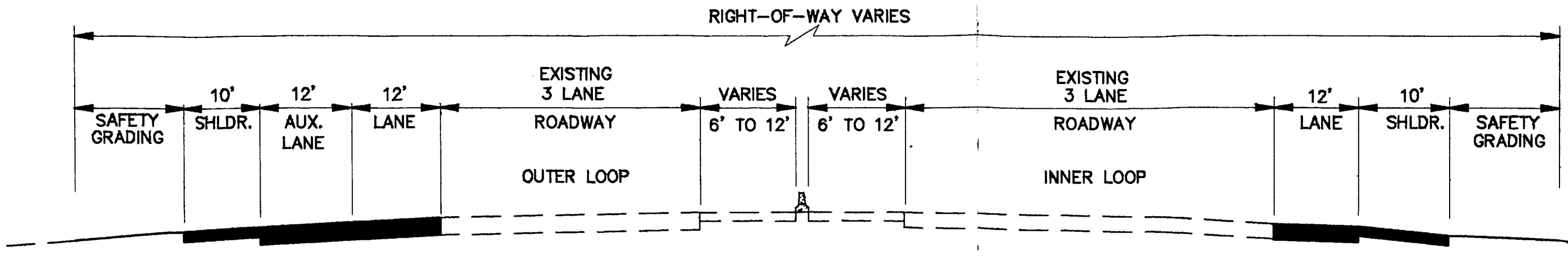
STA. 348+ TO STA. 325+
STA. 310+ TO STA. 300+

- *REQUIRED WIDENING FOR MEDIAN SHOULDER COMPENSATION
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING GROUND

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

I-695: FROM I-70 TO WEST OF MD. 170		
MD. 295: FROM NORTH OF MD. 46 TO THE BALTO. CITY LINE		
I-695 SELECTED ACTION MAINLINE WIDENING		
TYPICAL SECTIONS		
<i>Maryland State Highway Administration</i>		
SCALE: NOT TO SCALE	DATE: APRIL, 1991	FIGURE NO. II-3

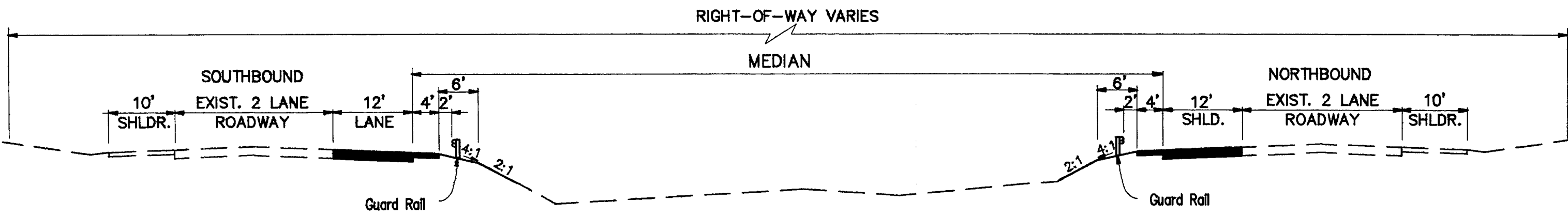
416



**I-695
SELECTED ACTION WITHOUT RETAINING WALL**

LOOKING NORTHBOUND BETWEEN HOLLINS FERRY ROAD AND MARYLAND ROUTE 295

LT. C STA. 61+ TO STA. 47+ RT. C STA. 70+ TO STA. 46+
 LT. C STA. 36+ TO STA. 19+ RT. C STA. 37+ TO STA. 32+



**MARYLAND ROUTE 295
SELECTED ACTION**

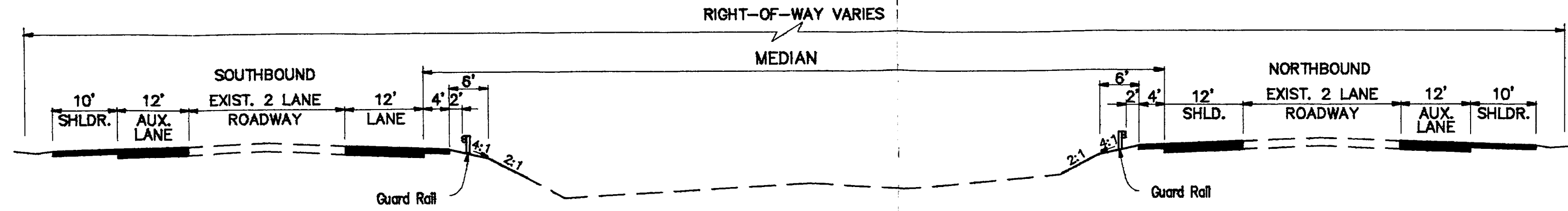
LOOKING NORTHBOUND BETWEEN MD. 46/I-195 AND SOUTH OF I-695
 STA. 310+ TO STA. 167+

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

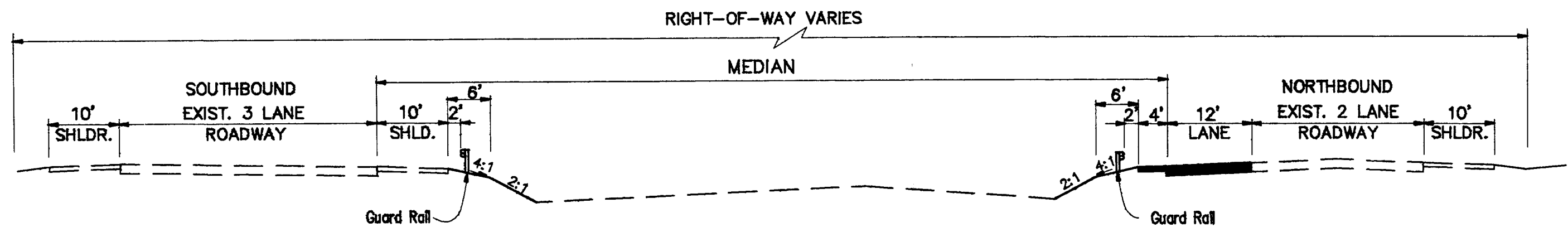
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING GROUND

I-695: FROM I-70 TO WEST OF MD. 170		
MD. 295: FROM NORTH OF MD. 46 TO THE BALTO. CITY LINE		
I-695/MD.295 SELECTED ACTION MAINLINE WIDENING		
TYPICAL SECTIONS		
Maryland State Highway Administration		
SCALE: NOT TO SCALE	DATE: APRIL, 1991	FIGURE NO. II-5

N: I-695 TYPICALS TYPICAL-3A.DWG



MARYLAND ROUTE 295
SELECTED ACTION
 LOOKING NORTHBOUND BETWEEN NURSERY ROAD AND SOUTH OF I-695
 STA. 167+ TO STA. 130+
 (SOUTHBOUND MEDIAN LANE ADDITION EXISTING BETWEEN
 STA. 155+ TO STA. 120+)



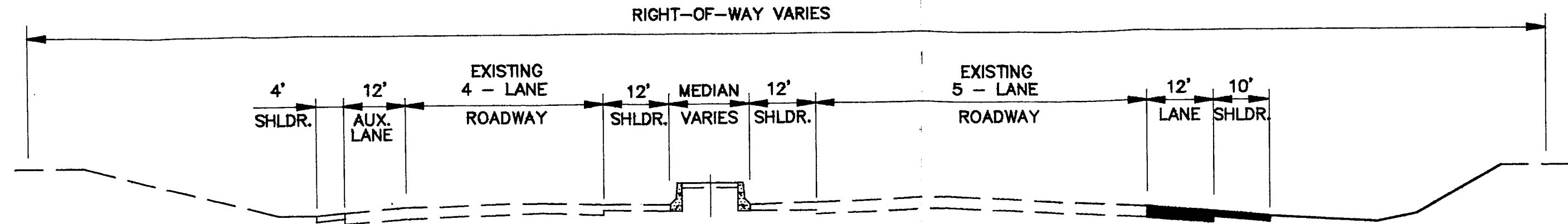
MARYLAND ROUTE 295
SELECTED ACTION
 LOOKING NORTHBOUND BETWEEN
 SOUTH OF I-695 AND THE BALTIMORE CITY LINE
 STA. 130+ TO STA. 28+

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 PAVEMENT
- EXISTING PAVEMENT
- EXISTING GROUND

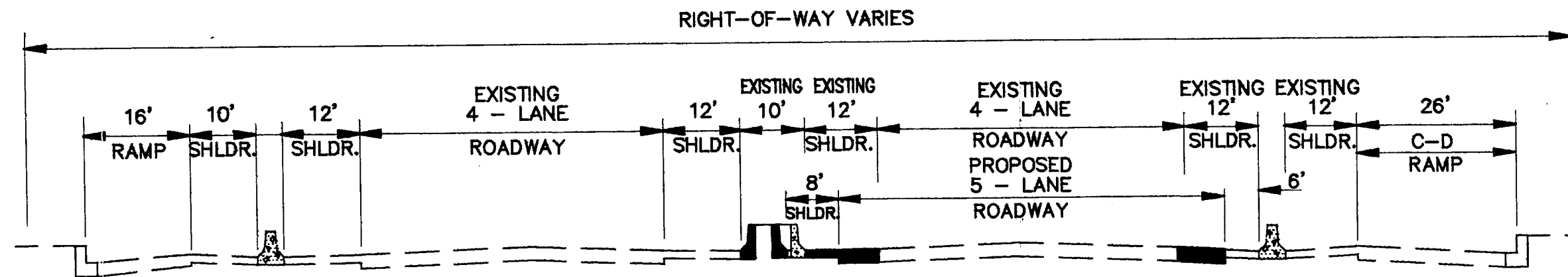
I-695: FROM I-70 TO WEST OF MD. 170		
MD. 295: FROM NORTH OF MD. 46 TO THE BALTO. CITY LINE		
MD.295 SELECTED ACTION MAINLINE WIDENING		
TYPICAL SECTIONS		
<i>Maryland State Highway Administration</i>		
SCALE: NOT TO SCALE	DATE: APRIL, 1991	FIGURE NO. II-6

N:\1995\TYPICALS\TYPII-5.DWG



**I-95
SELECTED ACTION**

LOOKING NORTHBOUND JUST SOUTH OF JOH AVENUE



**I-95
SELECTED ACTION**

LOOKING NORTHBOUND AT CATON AVENUE

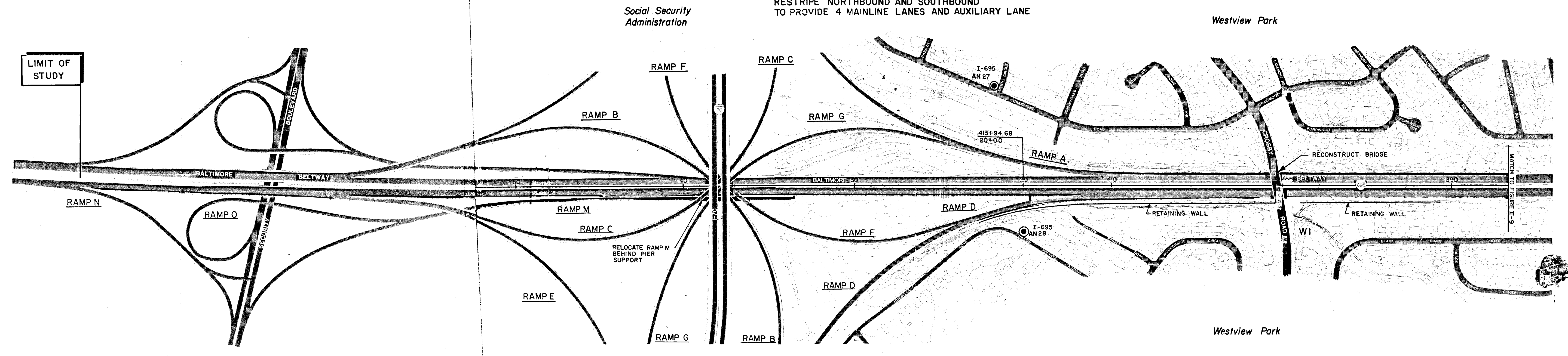
N:\1695\TYPICALS\TYP117.DWG

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

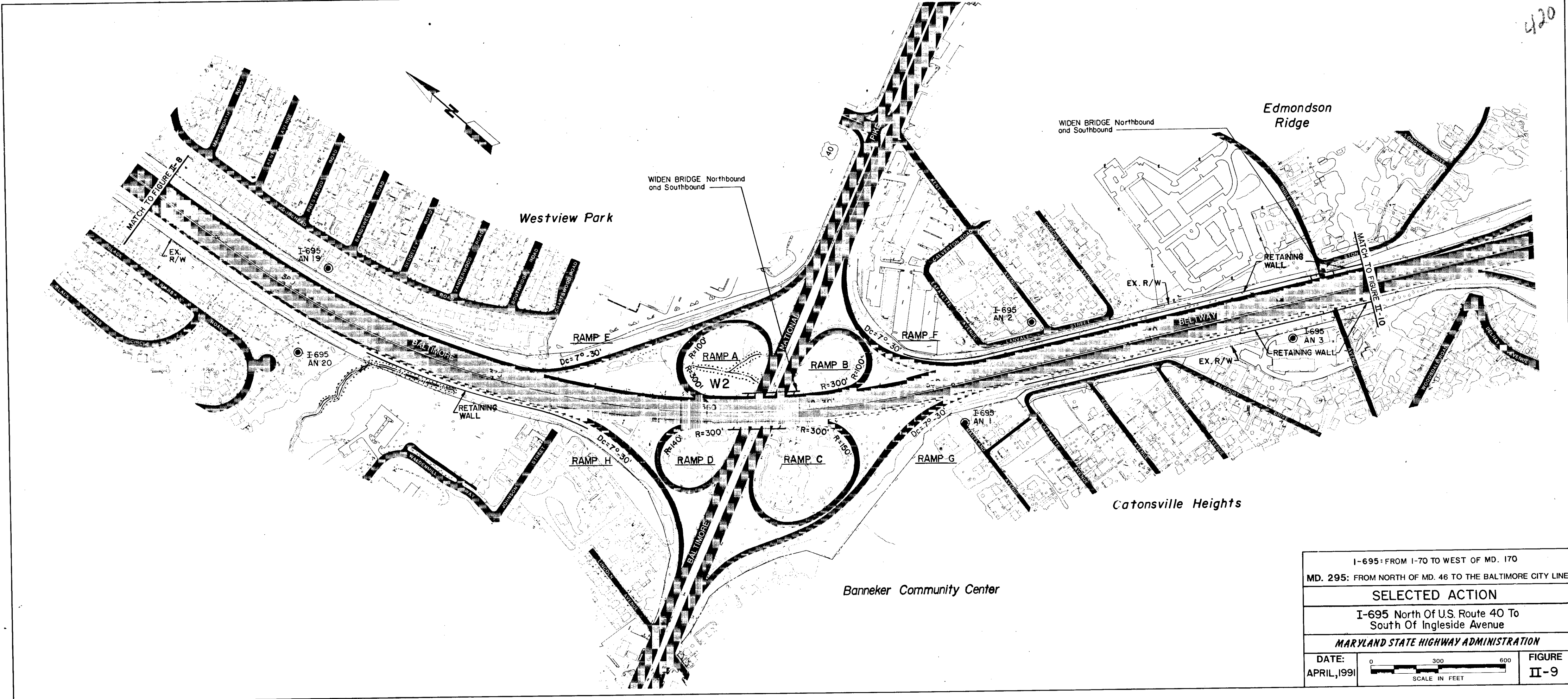
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING GROUND

I-695: FROM I-70 TO WEST OF MD. 170		
MD. 295: FROM NORTH OF MD. 46 TO THE BALTO. CITY LINE		
SELECTED ACTION ON I-95		
TYPICAL SECTIONS		
<i>Maryland State Highway Administration</i>		
SCALE: NOT TO SCALE	DATE: APRIL, 1991	FIGURE NO. II-7

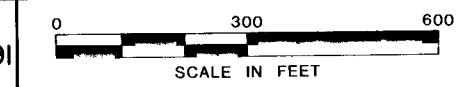
RESTRIPE NORTHBOUND AND SOUTHBOUND
TO PROVIDE 4 MAINLINE LANES AND AUXILIARY LANE

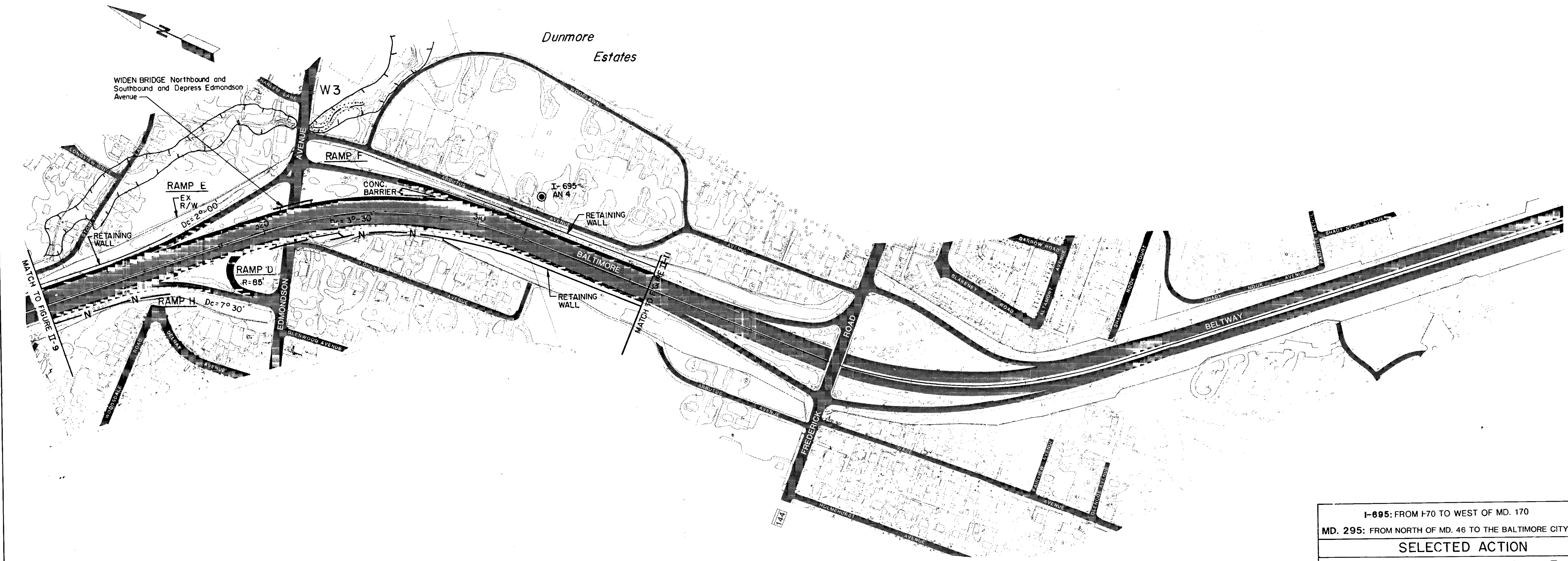


I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695: I-70 Interchange to North Of U.S. Route 40	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: APRIL, 1991	 SCALE IN FEET
	FIGURE II-8

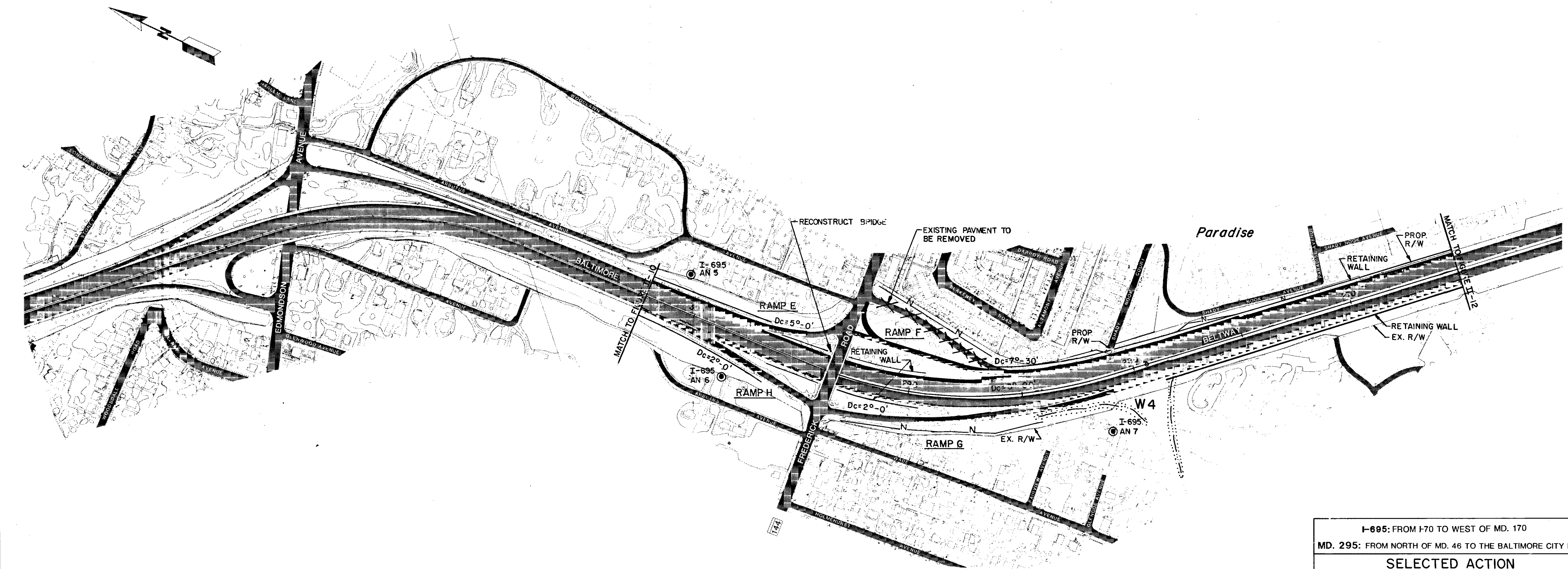


I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695 North Of U.S. Route 40 To South Of Ingleside Avenue	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: APRIL, 1991	FIGURE II-9

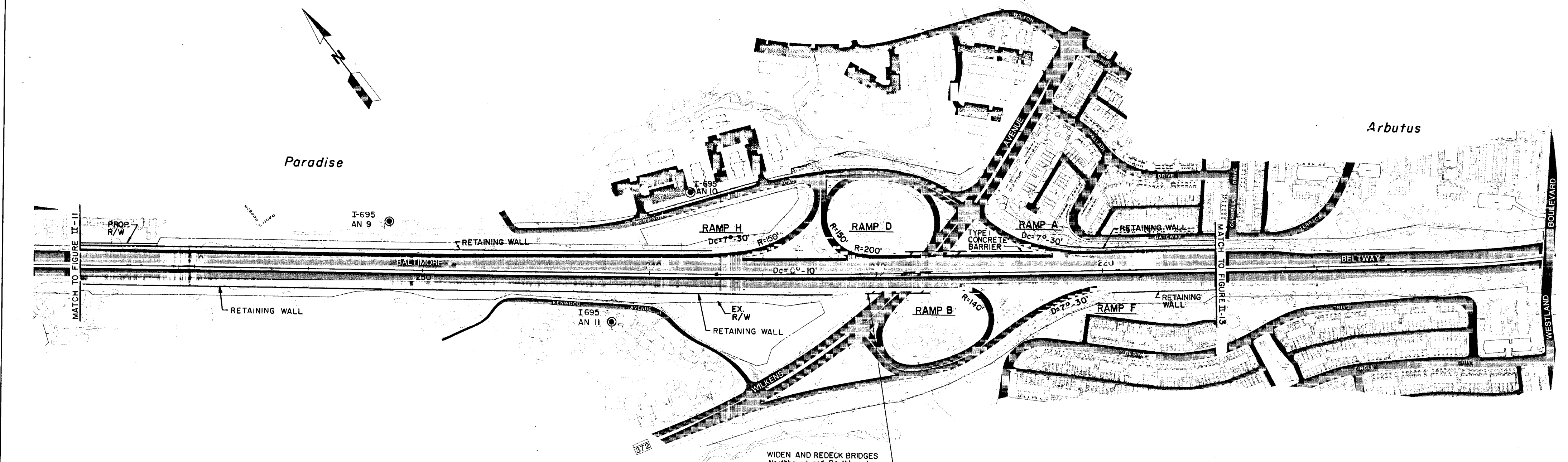




I-695: FROM I-70 TO WEST OF MD. 170							
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE							
SELECTED ACTION							
I-695 North Of Edmondson Avenue To South Of Edmondson Avenue							
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>							
DATE: APRIL, 1991	<table border="1"> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">300</td> <td style="text-align: center;">600</td> </tr> <tr> <td colspan="3" style="text-align: center;">SCALE IN FEET</td> </tr> </table>	0	300	600	SCALE IN FEET		
0	300	600					
SCALE IN FEET							
	FIGURE II-10						

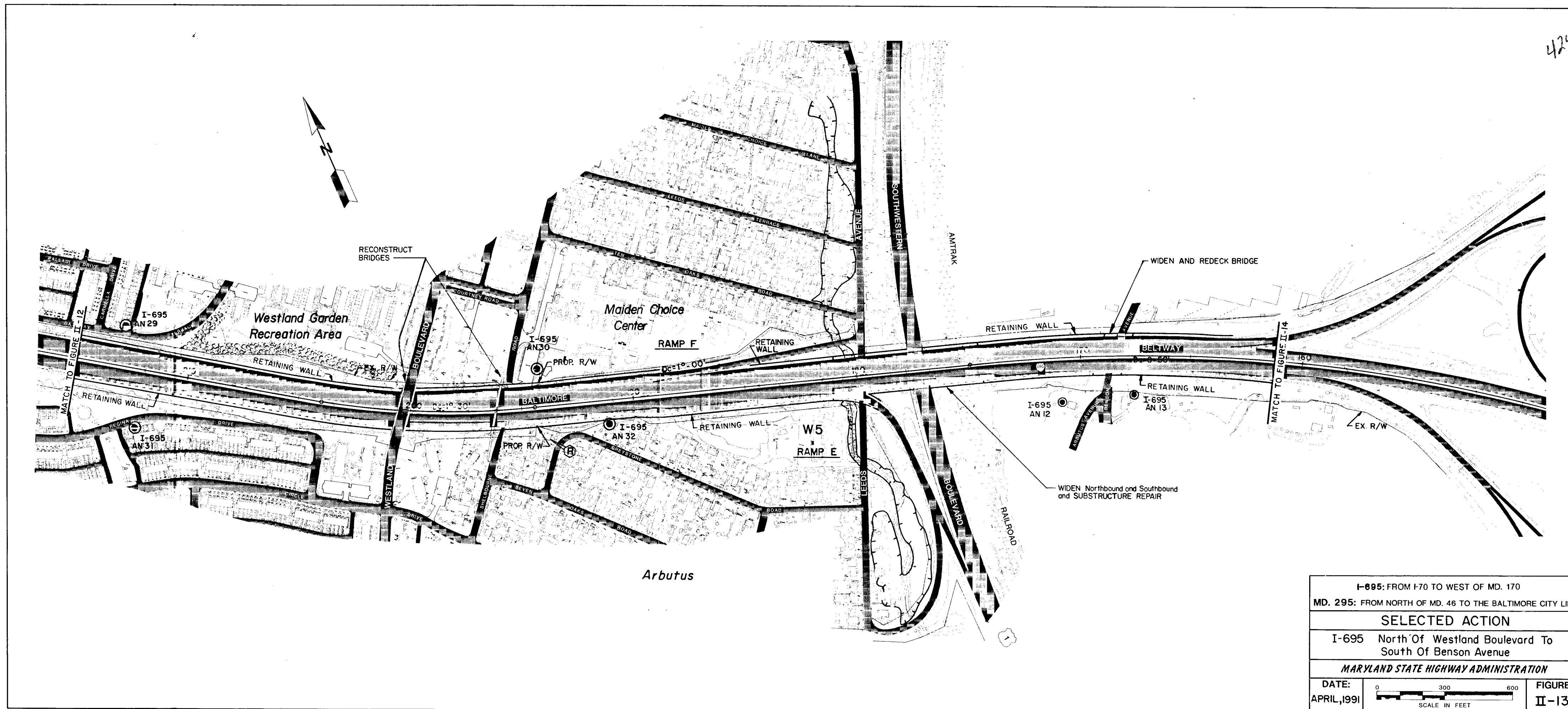


I-695: FROM F70 TO WEST OF MD. 170		
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE		
SELECTED ACTION		
I-695 North Of Frederick Road To South Of Frederick Road		
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>		
DATE: APRIL, 1991	 SCALE IN FEET	FIGURE II-11



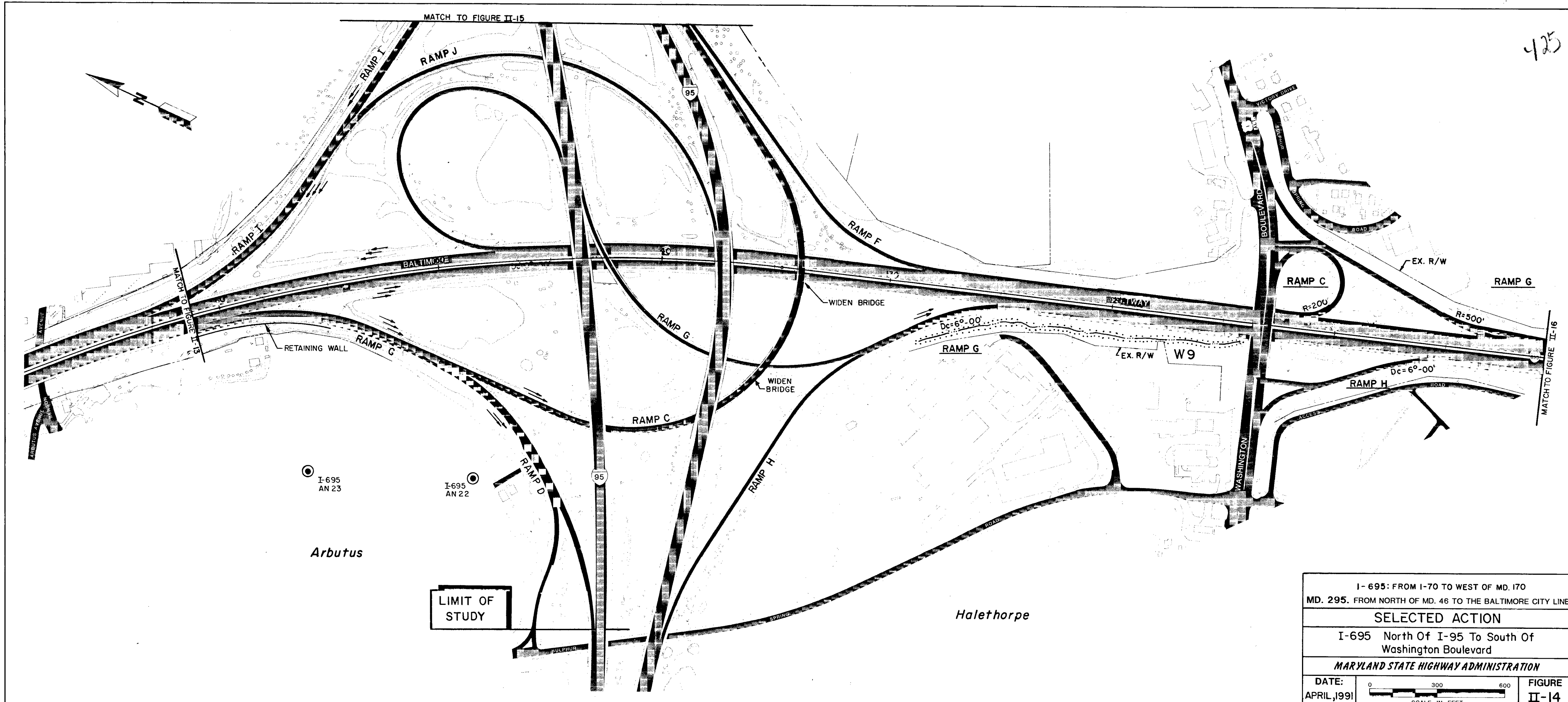
University Of Maryland
Baltimore County Campus

I-695: FROM I-70 TO WEST OF MD. 170		
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE		
SELECTED ACTION		
I-695 North Of Wilkens Avenue To South Of Wilkens Avenue		
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>		
DATE: APRIL, 1991	<p>SCALE IN FEET</p>	FIGURE II-12



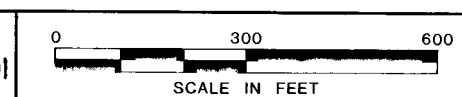
I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695 North Of Westland Boulevard To South Of Benson Avenue	
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>	
DATE: APRIL, 1991	 SCALE IN FEET
	FIGURE II-13

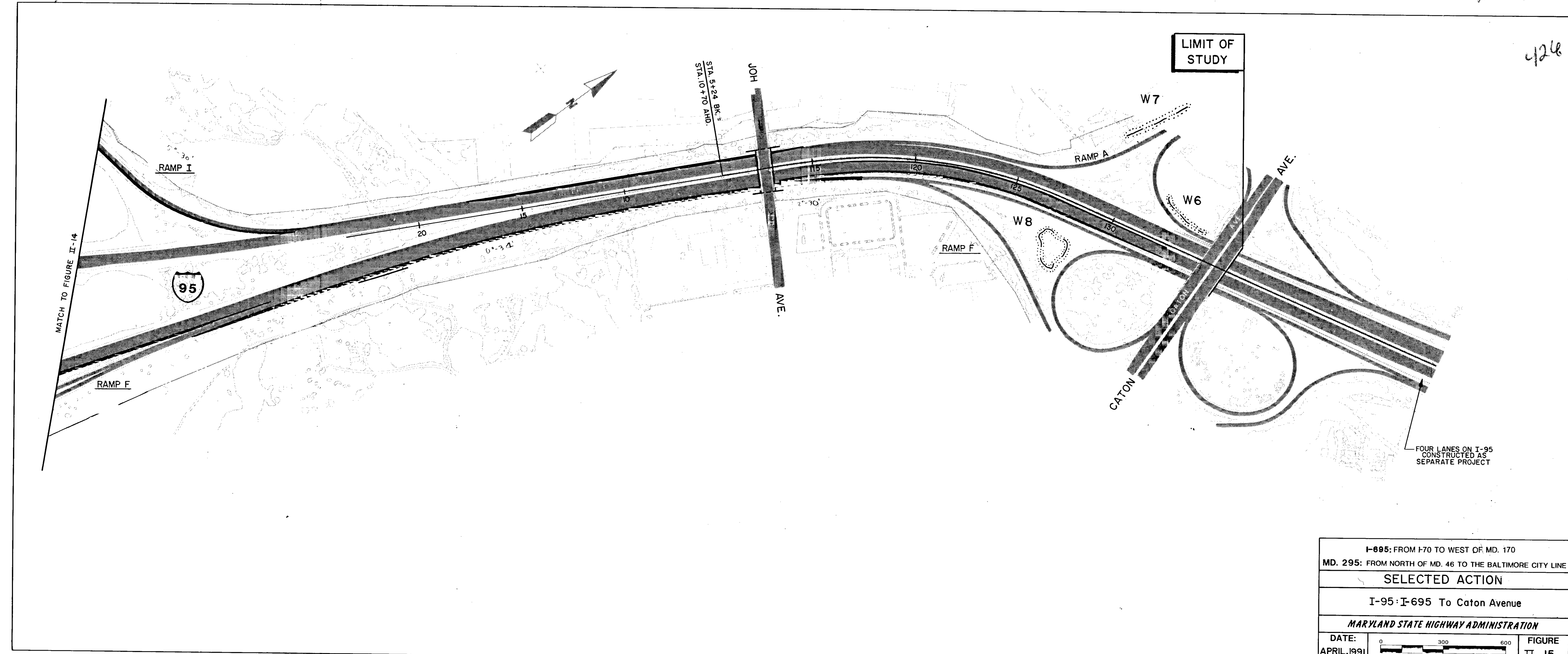
425



LIMIT OF STUDY

I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295. FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695 North Of I-95 To South Of Washington Boulevard	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: APRIL, 1991	FIGURE II-14





426

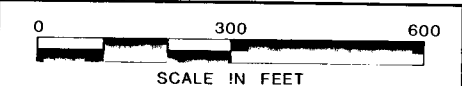
MATCH TO FIGURE II-14

95

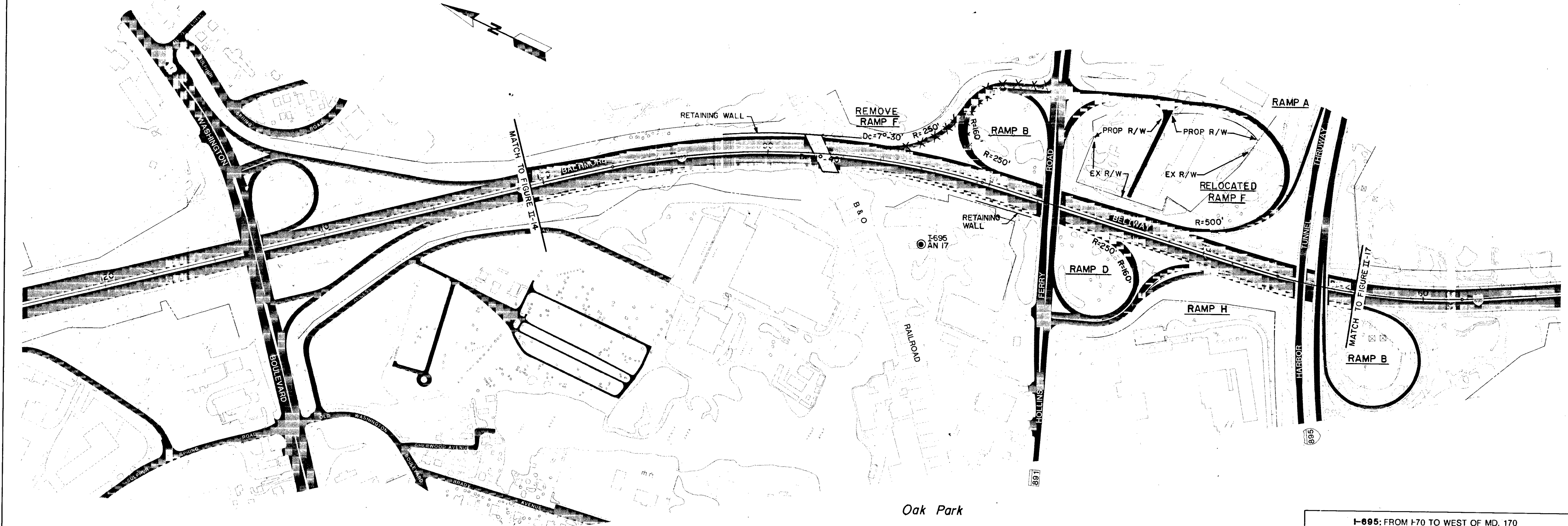
LIMIT OF STUDY

FOUR LANES ON I-95
CONSTRUCTED AS
SEPARATE PROJECT

I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-95: I-695 To Caton Avenue	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: APRIL, 1991	FIGURE II-15

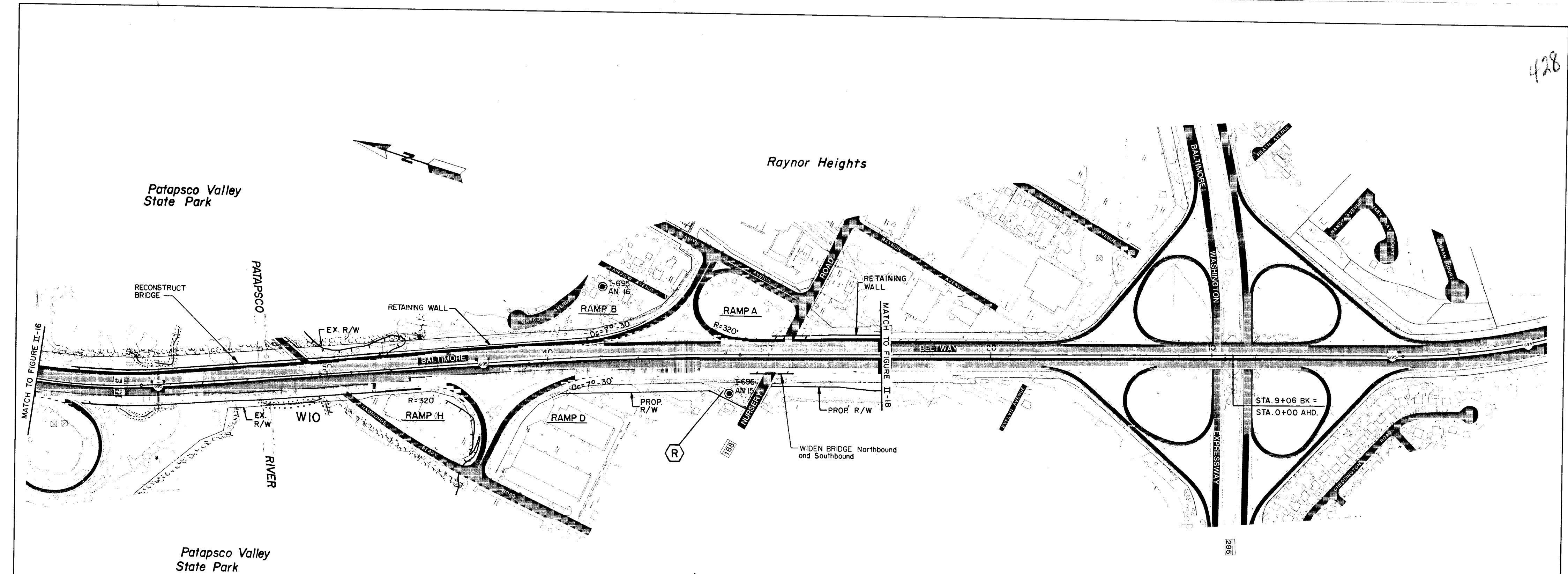


421

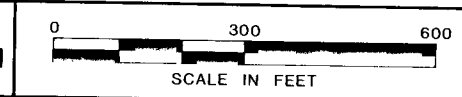


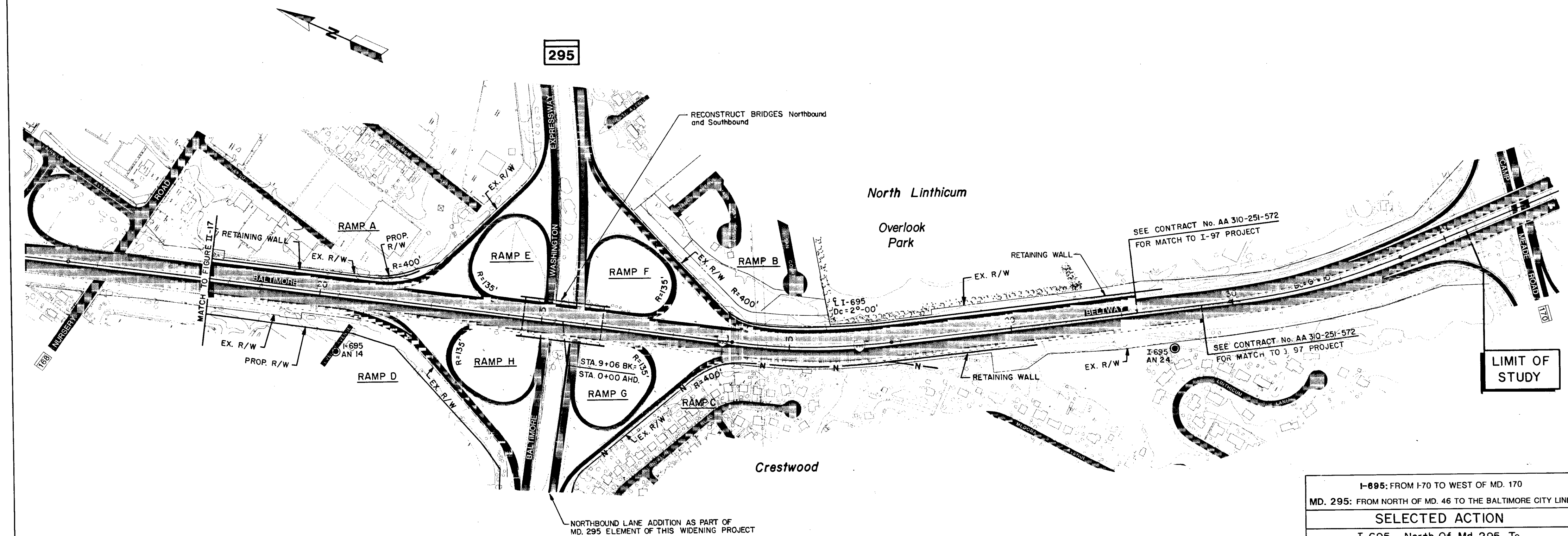
Oak Park

I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695 North Of B.&O. Railroad To South Of Harbor Tunnel Thruway	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: APRIL, 1991	<p>SCALE IN FEET</p>
	FIGURE II-16



I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695 North of Hammonds Ferry Road To South of Nursery Road	
MARYLAND STATE HIGHWAY ADMINISTRATION	
DATE: APRIL, 1991	FIGURE II-17

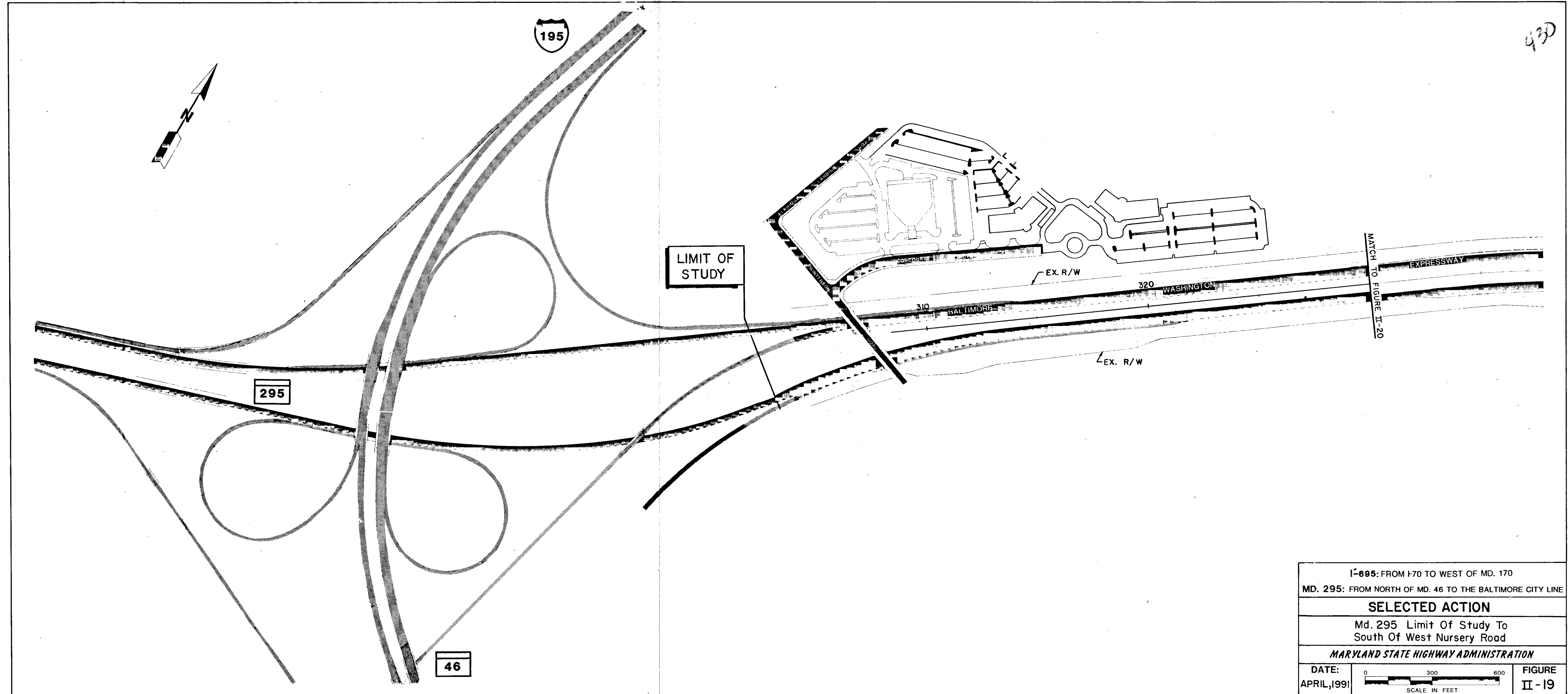




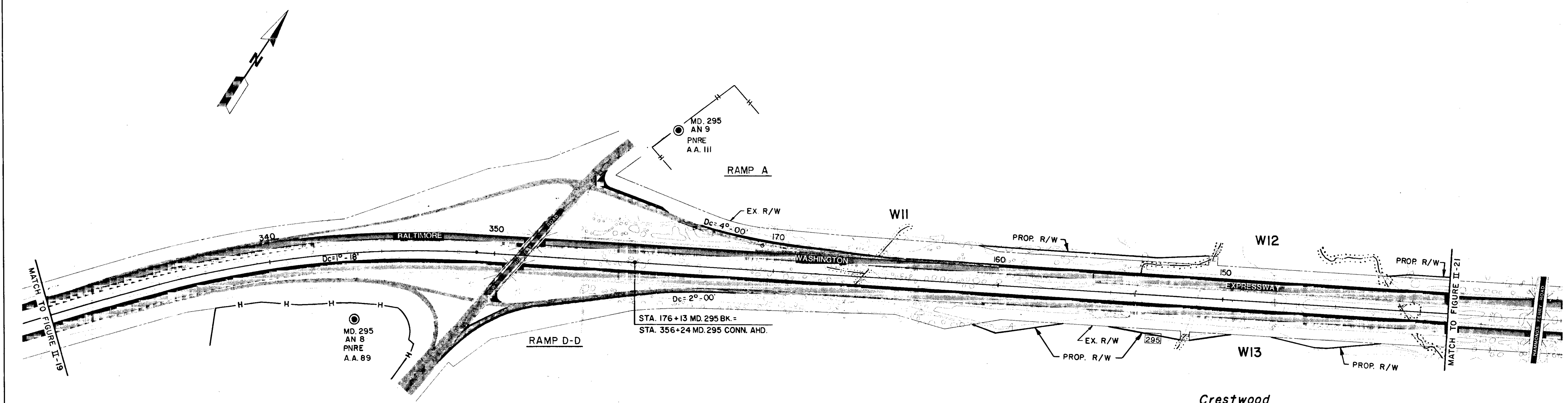
I-695: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
I-695 North Of Md. 295 To North Of Md. 170	
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>	
DATE: APRIL, 1991	 SCALE IN FEET
	FIGURE II-18

NORTHBOUND LANE ADDITION AS PART OF MD. 295 ELEMENT OF THIS WIDENING PROJECT

430



I-195: FROM I-70 TO WEST OF MD. 170	
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE	
SELECTED ACTION	
Md. 295 Limit Of Study To South Of West Nursery Road	
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>	
DATE: APRIL, 1991	FIGURE II - 19



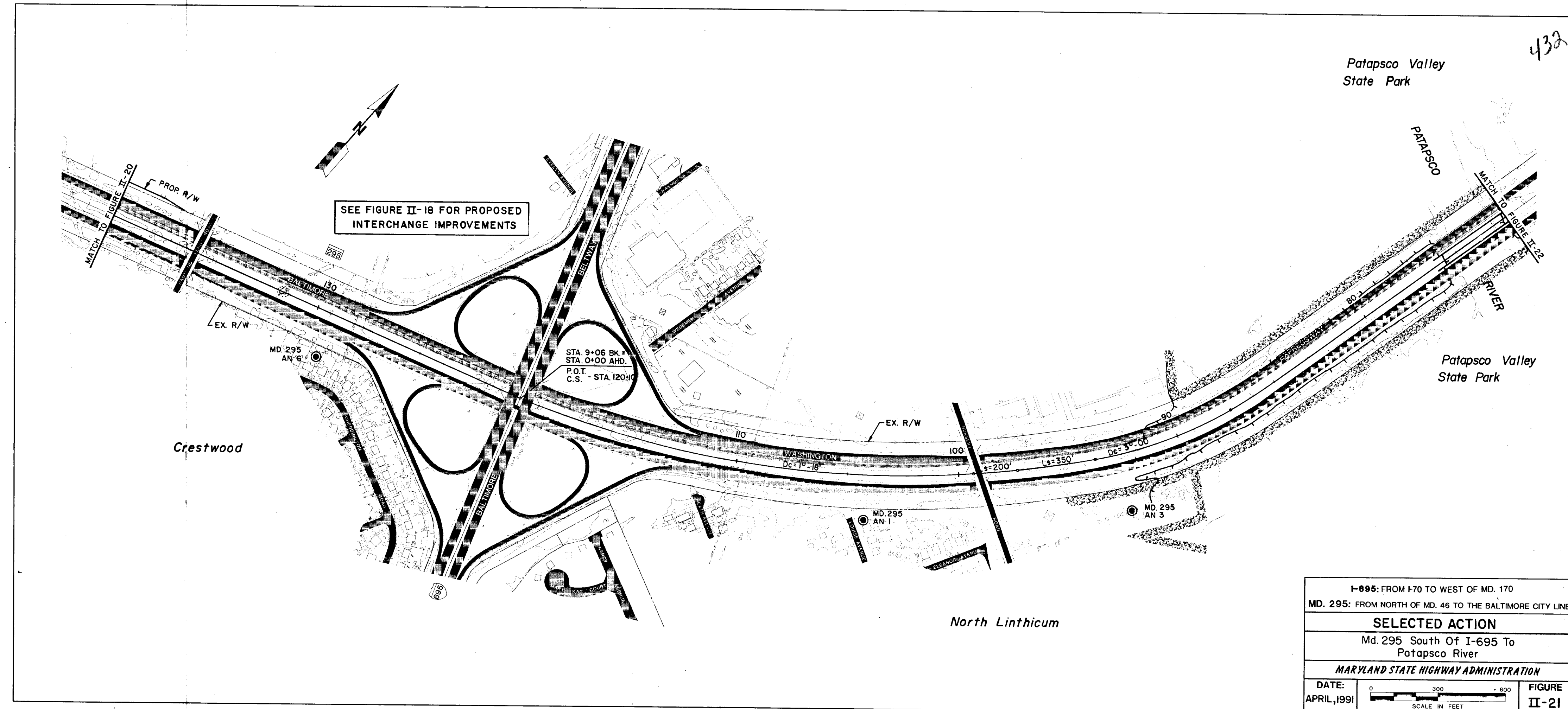
I-895: FROM I-70 TO WEST OF MD. 170							
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE							
SELECTED ACTION							
Md. 295 South Of West Nursery Road To South Of Hammonds Ferry Road							
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>							
DATE: APRIL, 1991	<table border="1"> <tr> <td>0</td> <td>300</td> <td>600</td> </tr> <tr> <td colspan="3" style="text-align: center;">SCALE IN FEET</td> </tr> </table>	0	300	600	SCALE IN FEET		
0	300	600					
SCALE IN FEET							
	FIGURE II-20						

432

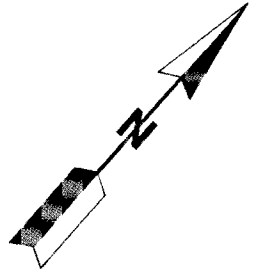
Patapsco Valley State Park

PATAPSCO RIVER

Patapsco Valley State Park



SEE FIGURE II-18 FOR PROPOSED INTERCHANGE IMPROVEMENTS



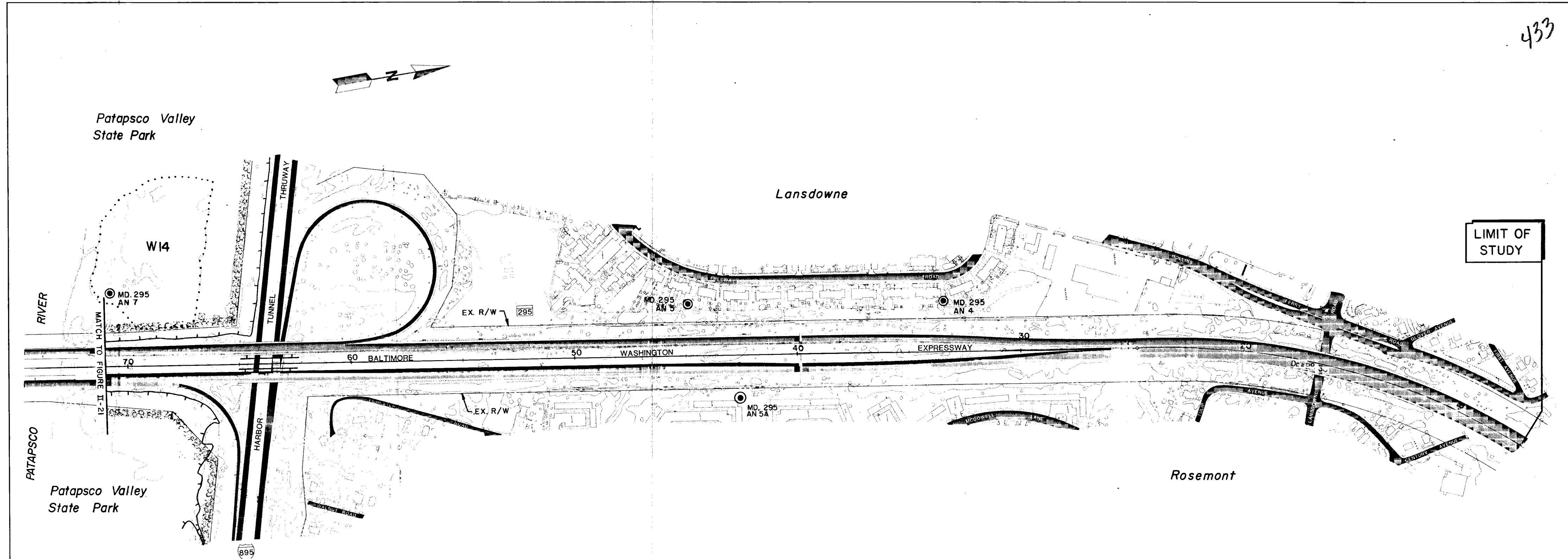
MATCH TO FIGURE II-20

MATCH TO FIGURE II-22

Crestwood

North Linthicum

I-695: FROM I-70 TO WEST OF MD. 170		FIGURE II-21
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE		
SELECTED ACTION		
Md. 295 South Of I-695 To Patapsco River		
MARYLAND STATE HIGHWAY ADMINISTRATION		
DATE: APRIL, 1991	 SCALE IN FEET	



I-895: FROM I-70 TO WEST OF MD. 170							
MD. 295: FROM NORTH OF MD. 46 TO THE BALTIMORE CITY LINE							
SELECTED ACTION							
Md. 295 South Of I-895 To Limit Of Study							
<i>MARYLAND STATE HIGHWAY ADMINISTRATION</i>							
DATE: APRIL, 1991	<table border="1"> <tr> <td>0</td> <td>300</td> <td>600</td> </tr> <tr> <td colspan="3" style="text-align: center;">SCALE IN FEET</td> </tr> </table>	0	300	600	SCALE IN FEET		
0	300	600					
SCALE IN FEET							
	FIGURE II-22						

434

APPENDIX B
SUPPORTING DATA

Table B-1	Analysis of Comments - Alternates Public Meeting
Table B-2	Summary of Responses Resulting from Location/Design Public Hearing
Table B-3	Study Area Population Data
Table B-4	Study Area Household Data
Table B-5	Classification of Employment
Table B-6	Wetland Classification in Study Area

435

**TABLE B-1 - ANALYSIS OF COMMENTS
ALTERNATES PUBLIC MEETING**

November 26, 1985

WRITTEN COMMENTS

(Approximately 4,300 on mailing list 3% response)

Mailing list addition (or no comment)	-	20
Opposed to project in general	-	7
Favor project in general	-	3
Issues raised:		
Specific property impacts	-	34
Noise	-	32
Favor Outer Beltway	-	4
Control Truck Traffic	-	1
Control Development	-	1
Class I-695/Harbor Tunnel Ramps	-	1
Oppose closing Leeds Avenue	-	2
Questioned aspects of impacts at:		
I-695/Maryland Route 295	-	2
I-695/Nursery Road	-	1
I-695/Wilkens Avenue	-	2
I-895	-	1

VERBAL COMMENTS

40 (Approximately 400 attended meeting)

Issues raised:		
Noise	-	8
Outer Beltway	-	5
Closing Leeds Avenue	-	2
Flooding at Stoney Lane	-	2
Propose constructing elevated roadway in median	-	2
Close more Beltway ramps to limit traffic	-	1
Consider Rapid Transit	-	1
Former SHA property at Woodlawn Ave & Fred. Rd.	-	1
Questioned aspects of impacts at:		
I-95/Wilkens Avenue	-	4
I-695/Maryland Route 295	-	2
U.S. Route 40	-	2

WRITTEN AND VERBAL COMMENTS

Issues Raised:		
Noise	-	40
Specific property impacts	-	34
Need for Outer Beltway	-	9
Impacts at Wilkens Avenue	-	6
Impacts at I-95/Maryland Route 295	-	4
Oppose closing Leeds Ave. Interchange	-	4

437

TABLE B-3 - STUDY AREA POPULATION DATA

	1980	1985	1990	1995	2000	2005	2010
<u>Baltimore County</u> <u>Census Tract</u> <u>Number</u>							
4015.05	3026	3218	3111	2992	2945	2921	2888
4011.01	4858	5798	5560	5351	5271	5187	5123
4001	1159	1431	2231	2533	2703	3289	4668
4002	2806	2669	2570	2473	2434	2393	2371
4003	1036	982	980	962	1038	1088	1073
4006	3070	2922	2805	2709	2667	2627	2598
4007.01	2762	2199	2135	2071	2048	2025	2006
4008	2891	2838	2725	2626	2589	2551	2522
4016.01	1096	1434	1430	1426	1424	1423	1421
4016.02	1139	1575	1546	1524	1515	1505	1498
4301.01	4659	4446	4259	4099	4076	4213	4245
4301.02	2646	2571	2463	2369	2331	2292	2273
4302	2839	2721	2627	2630	2492	2450	2439
4303	6615	6295	6043	5814	5725	5628	5505
4304	2992	2996	2920	2873	2832	2814	2813
4305	1079	1036	993	955	939	923	911
4307	4520	4307	4410	4613	4552	4485	4517
4308	4035	3833	3679	3541	3487	3428	3405
4309	5166	4922	4719	4541	4471	4523	4549
Baltimore County Total	57894	58190	57206	56102	55539	55765	56825
<u>Anne Arundel County</u> <u>Census Tract</u> <u>Number</u>							
7503	3092	3042	3065	3109	3078	3034	
7505	4016	4063	4142	4251	4261	4205	
7502.01	2574	2602	2810	3032	3161	3124	
7502.02	3176	3216	3316	3354	3330	3265	
7508.02	9151	10422	10409	10717	10694	10565	
Anne Arundel Total	22009	23345	23742	24463	24524	24193	
Study Area TOTAL	79903	81535	80948	80565	80063	81018	

Sources: Bureau of Census 1980: Baltimore and Anne Arundel County Planning and Zoning.

438

TABLE B-4 - STUDY AREA HOUSEHOLD DATA

	1980	1985	1990	1995	2000	2005	2010
<u>Baltimore County</u> Census Tract Number							
4015.05	972	1083	1093	1093	1093	1103	1105
4011.01	1782	2244	2246	2248	2250	2252	2254
4001	341	498	867	1049	1146	1445	2131
4002	1208	1215	1221	1222	1222	1222	1227
4003	361	363	378	384	428	459	459
4006	1314	1316	1318	1323	1323	1325	1328
4007.01	1086	1092	1103	1109	1113	1118	1121
4008	1102	1133	1135	1137	1139	1141	1143
4016.01	51	58	58	58	58	58	58
4016.02	10	10	10	10	10	10	10
4301.01	1692	1700	1700	1701	1719	1807	1845
4301.02	941	957	957	957	957	957	962
4302	1012	1019	1027	1028	1029	1029	1036
4303	2099	2103	2107	2108	2109	2109	2113
4304	1093	1111	1129	1154	1155	1167	1182
4305	394	396	396	396	396	396	396
4307	1586	1587	1696	1845	1850	1854	1892
4308	1561	1565	1568	1569	1570	1570	1580
4309	2323	2326	2328	2329	2330	2398	2444
Baltimore County Total	20928	21776	22337	22720	22897	23420	24286
<u>Anne Arundel County</u> Census Tract Number							
7503	1065	1098	1144	1197	1217	1224	
7505	1304	1386	1461	1546	1593	1602	
7502.01	852	908	1021	1142	1226	1236	
7502.02	1074	1142	1218	1271	1298	1298	
7508.02	3258	3817	3937	4173	4276	4308	
Anne Arundel Total	7553	8351	8781	9329	9610	9668	
Study Area TOTAL	28481	30127	31118	32226	33030	33954	

Sources: Bureau of Census 1980: Baltimore and Anne Arundel County Planning and Zoning.

439

TABLE B-5: CLASSIFICATION OF EMPLOYMENT¹

Managerial and professional specialty occupations

Executive, administrative, and managerial occupations
Professional specialty occupations

Technical, sales and administrative support occupations

Technicians and related support occupations
Sales occupations
Administrative support occupations, including
clerical

Service occupations

Private household occupations
Protective service occupations
Service occupations, except protective and household

Farming, forestry and fishing occupations

Precision production, craft and repair occupations

Operators, fabricators and laborers

Machine operators, assemblers and inspectors
Transportation and material moving occupations
Handlers, equipment cleaners, helpers and laborers

¹ 1980 U.S. Census

TABLE B-6 - WETLAND CLASSIFICATIONS IN STUDY AREA

440

<u>Wetland Classification</u>	<u>Description</u>
PEM2A non-tidal	- Palustrine emergent, lower perennial, temporary flooding
PEM2C non-tidal	- Palustrine emergent, lower perennial, seasonal
PF01A non-tidal	- Palustrine forested, broad-leafed deciduous, temporary flooding
PF01C non-tidal	- Palustrine forested, broad-leafed deciduous, seasonal
R20WH non-tidal	- Riverine, lower perennial, open water, permanent
PSS1A non-tidal	- Palustrine, scrub-shrub, broad-leafed deciduous, temporary flooding
PSS1C non-tidal	- Palustrine, scrub-shrub, broad-leafed deciduous, seasonal
E1UB4LG	- Estuarine, sub-tidal, unconsolidated bottom, organic, oligo-haline
E2EM1PG	- Estuarine, intertidal, emergent persistent, irregular flooding, oligo-haline
E10WLG	- Estuarine, sub-tidal, open-water, oligo-haline

441

APPENDIX C

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 as published in CFR Vol. 51, No. 39 on February 27, 1986) and/or the Annotated Code of Maryland, Real Property, Title 12, Subtitle 2, Sections 12-201 through 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, cost 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 lesser of the replacement cost minus the net proceeds of the 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

443

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 cost payments provide that the State may determine that displaced farm may be paid from a minimum of \$2,500 to a maximum of \$10,000 based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-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 rehousing. Detailed studies must be completed by the State Highway Administration before "housing as a last resort" can be utilized.

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

444

APPENDIX D

GLOSSARY

(These terms may appear either in the EIS or as noted on the drawings)

Arterial Highway : A highway primarily for thru-traffic, usually on a continuous route.

Aux. Lane : Auxiliary Lane
The portion of roadway adjoining the traveled way for parking, speed change, or for other purposes supplementary to the thru-traffic movement.

A.D.T. : 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.

Collector-Distributor (C-D) Road : A road contiguous to and generally paralleling an expressway, freeway, parkway or thru-street. Designed to intercept, collect, and distribute traffic desiring to cross, enter or leave such highways and may furnish access to property that otherwise would be isolated as a result of the controlled access. (Also referred to as Service Road.)

Control of Access : Full - Complete restriction of access on a thru 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.

445

- Design Hour Volume (DHV) : 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 selected for purposes of design and correlation of those geometric features of a highway, such as curvature and sight distance, upon which safe vehicle operations is dependent.
- Diurnal : Recurring every day, daily cycle. In reference to traffic flow, a term identifying hourly variations in traffic volumes (hourly flow rates).
- Endangered : An organism of very limited numbers which may be subject to extinction, and is protected by law under the Endangered Species Act.
- Expressway : A divided arterial highway for thru-traffic with full or partial control of access and generally with grade separation at major highways.
- Freeway : An expressway with full control of access, grade separations at all roadway crossings. Access is permitted only at interchanges.
- 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.
- Herbaceous : A non-woody plant.

Horizontal Sight Distance

:

The clear zone required adjacent to a highway curve which permits drivers to "see around the corner" for potential obstructions or other objects in their path.

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.

Interstate Freeway

:

A freeway primarily for thru-traffic with full interchanges for access. Interchange spacing is generally greater than that for a freeway.

Levels of Service

:

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.

447

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

Level F - forced traffic flow at low speeds; low volumes and high densities; frequent delays

For interrupted flow conditions, such as major highways and arterials with traffic signals, the following Levels of Service apply:

Level A - free flow, no delay at traffic signals.

Level B - occasional delays at traffic signals.

Level C - increasing volumes; moderate delays at traffic signals.

Level D - lower speeds; increasing volumes, frequent delays at traffic signals.

Level E - low speeds; high traffic volumes; signal backups almost to the previous light.

Level F - forced traffic flow; successive backups between signals.

Mainline : The portion of a roadway or highway that carries through traffic.

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

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

448

Initial - To be constructed initially
Ultimate - The configuration subsequent to future construction.

- Outer Separation : A separator between a frontage road or ramp and the roadway (or ramp) of a controlled-access highway.
- R/W, R.O.W. : Right-of-Way (Line)
The outer limits inside which the State owns and maintains for a highway facility.
- Ramps : Interchange ramps serve to connect on facility with another and provide for the transfer of vehicles. Ramps include inner ramps (located on the inside or within an interchange) and outer ramps. Ramps types may be loop ramps, diamond ramps (requiring left turns at the cross street) or directional/flyover ramps providing a direct connection between facilities.
- Safety Grading : That portion of ground adjacent to the traveled way that is clear of any fixed obstructions and graded to reduce the overturning of out-of-control vehicles.
- 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 for Federal-Aid Highway projects only if there is no feasible and prudent alternative to its use, and if the project includes all possible planning to minimize harm to "4(f) lands".
- Sensitive : An organism or community very susceptible to environmental changes.

449

- Service Road : See Frontage Road.
- Shldr. : Shoulder
That portion of a highway adjacent and parallel to the travelled roadway for the accommodations of stopped vehicles for emergency use and for lateral support. May or may not be fully paved.
- Side Slopes : The slope of earth permissible in given locations, as a ratio of horizontal to vertical measurement. (2:1, 4:1, 6:1).
- 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.
- Understory : Shrubs and small trees growing under the larger tree canopy.
- Vehicle Recovery Area : That portion of ground adjacent to the traveled way that is clear of any fixed obstructions. For safety operation, generally no less than 30 feet measured from the edge of the traveled lane.
- Wetlands : The term "wetlands" refers to those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

450

APPENDIX E

INDEX

	Page
<u>A</u>	
Accidents and Safety	
Existing	I-10, III-23
Impacts	IV-8
Airport, BWI	III-18
Air Quality	
Existing	S-6, III-45
Impacts	IV-20, V-3
Alternates Considered	S-2, II-1
Alternates Public Meeting	II-1, B-2
Aquatic Habitat	
Description	III-42
Impacts	IV-17
Archaeological Sites	
Description	III-51
Impacts	IV-51
Auxiliary Lanes	II-13
Avoidance Options	V-4
<u>B</u>	
Bridges	II-13
Bus	III-17
<u>C</u>	
Churches	III-6
Climate	III-26
Coastal Resources	IV-13
Comments	
Agency	VIII-A1
Citizen	VIII-B1, VIII-C1
Community Facilities and Services	
Existing	III-6
Impacts	IV-3
Construction Techniques	II-31
Coordination	
Agency	V-7, VIII-D1
Community Association	VIII-E1
Critical Areas	III-44
Cultural Resources	III-50
<u>D</u>	
Design Exceptions	II-22
Displacements	S-6, IV-1
Distribution List	VII-1

451

E

Economic Setting	
Existing	III-12
Impacts	IV-3
Educational Facilities	III-9
Emergency Services	III-10
Employment	III-3, B-6
Endangered Species	III-43
Equal Opportunity Program	IV-3

F

Farmland, Prime	
Existing	III-43
Impacts	IV-10
Floodplains	
Existing	III-32
Impacts	IV-15

G

Geology	III-26
Glossary	D-1
Grading Alternatives	II-11
Groundwater	III-29

H

Highway System	I-1, III-15
Historic Sites	
Description	III-50
Impacts	IV-50

I

Informational Contacts	S-1
Interchange Options	II-10

J, K, L

Land Use	
Existing	III-13
Future	III-14
Impacts	IV-4
Law Enforcement	III-10
Level of Service	
Existing	III-21
Impacts	IV-7
Location/Design Public Hearing	II-2, B-3
Location, Project	I-1

M

Medical Facilities	III-12
Mineral Resources	III-28
Mitigation	V-6
MTA	III-17

N

Natural Resources	III-26
Need, Project	I-4
Neighborhoods	
Existing	III-6
Impacts	IV-2
Noise	
Existing	S-6, III-45
Impacts	IV-25, V-4

O

Other Projects	I-11
--------------------------	------

P

Parklands	
Description	III-44
Impacts	IV-18
Parks and Recreation Areas	III-10
Permits	S-5
Population	III-1, B-4
Characteristics	III-6
Port	III-19
Preparers	VI-1
Purpose, Project	I-4

Q, R

Rail	III-16
Regional Transportation	I-4
Relocation Assistance Program	C-1
Relocations	S-8, IV-1
Right-of-Way	S-8, IV-2

453

S

Schools	III-9
Section 4(f) Evaluation	S-4, V-1
Sedimentation	IV-10
Selected Action	II-6
Sensitive Natural Areas	
Description	III-44
Impacts	IV-18
Soils	III-27
Stormwater Management	IV-10

T

Terrestrial Habitat	
Description	III-42
Impacts	IV-17
Topography	III-26
Traffic Operations	
Existing	I-7, III-19
Impacts	IV-5
Transit Service, Other	III-17

U, V

Vegetation	III-32
Visual Quality	IV-19

W

Water Quality	
Description	III-29
Impacts	IV-10
Water Resources	III-29
Wetland Classifications	B-7
Wetlands	
Description	III-32
Impacts	IV-13
Wildlife	
Description	III-42
Impacts	IV-18
Woodlands/Reforestation	
Description	III-43
Impacts	IV-17

X, Y, Z

Zoning	III-13
------------------	--------