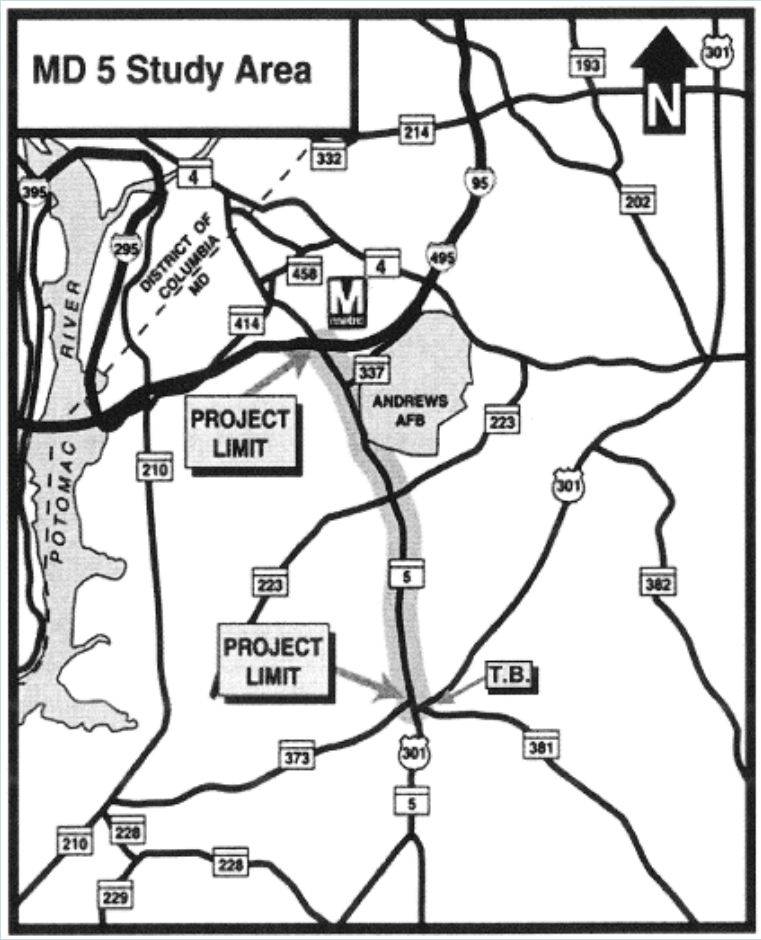
Environmental Assessment

SHA Project Number PG391A16

MD 5 Corridor Transportation Study

From North of the U.S. 301/MD 5 Interchange to
North of the I-95/I-495 Interchange

Prince George's County, Maryland



April 2012

prepared by:

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

FEDERAL HIGHWAY ADMINISTRATION
DELMAR DIVISION

MD 5 CORRIDOR TRANSPORTATION STUDY
North of the US 301/MD 5 Interchange to
North of the I-95/I-495 Interchange

ADMINISTRATIVE ACTION

ENVIRONMENTAL ASSESSMENT

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Submitted Pursuant to: 42 U.S.C. 4332(2)(c); 49 U.S.C. 303
23 U.S.C. 771 and CEQ Regulations (40 CFR 1500 et seq)

Melinda Peters
Administrator

4/10/12
Date

Gregory I. Slater
Director
Office of Planning and
Preliminary Engineering

4/19/2012
Date

For Gregory Murrill
Division Administrator
Federal Highway Administration-
DelMar Division

Summary

SUMMARY

A. Administrative Action

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

B. Additional Information

Additional information pertaining to this project may be obtained by contacting either:

Mr. Bruce M. Grey
Deputy Director
Office of Planning and Preliminary Engineering
State Highway Administration
707 North Calvert Street
Mailstop C-301
Baltimore, Maryland 21202
Hours: 8:00 a.m. to 4:30 p.m.
Phone: (410) 545-8500

Ms. Keilyn Perez
Area Engineer
Federal Highway Administration
Delmar Division
City Crescent Building
10 South Howard Street, Suite 2450
Baltimore, Maryland 21201
Hours: 7:30 a.m. to 4:30 p.m.
Phone: (410) 779-7141

C. Description of Proposed Action/Purpose and Need

The purpose of the MD 5 Corridor Transportation Study from north of the US 301 interchange to north of the I-95/I-495 interchange with MD 5 is to:

- facilitate safe and efficient traffic flow,
- provide cost-effective transportation infrastructure,
- serve and support existing and future traffic demand, land use planning, and development efforts, and
- enhance and facilitate transit services.

The Federal Highway Administration (FHWA) and the Maryland State Highway Administration (SHA) are the lead agencies for the project.

Study-area improvements are needed to accommodate future traffic volumes generated by planned development along MD 5 and at the development centers at each end of the corridor. Drivers experience traffic congestion along the MD 5 corridor during the peak commuter periods, especially in the southern portion of the corridor which includes signalized intersections and only four through-travel lanes (two lanes per direction). Areas adjacent to the southern portion of the corridor and points south have experienced some of the greatest levels of population growth in all of Maryland, and anticipated growth and development in these areas are expected to contribute to increased traffic volumes. SHA forecasts that these increases will result in greater levels of congestion along the entire MD 5 corridor and will increase the potential for high crash rates. Upgrades along the MD 5 corridor would help improve traffic operations and safety and support proposed land use and development patterns throughout the area.

D. Alternatives Retained for Detailed Study

The MD 5 Corridor Transportation Study has evaluated alternatives for improvements to a segment of MD 5 that is approximately 10 miles long. The corridor extends from just north of the convergence of MD 5 with US 301 near Brandywine, to the intersection of MD 5 with Auth Road just north of the I-95/I-495 interchange. The project would widen this segment of MD 5 and/or provide priced and non-priced-managed lanes, and options for replacing intersections at Surratts Road and Moores Road/Earnshaw Drive/Burch Hill Road with grade-separated interchanges. The alternatives retained for detailed study (ARDS) consist of six mainline alternatives and four interchange options (two options at each of two locations).

A Final Environmental Impact Statement (FEIS) was signed in 1988 for improvements in the MD 5 corridor. The improvements proposed in that document were constructed as funding became available. Improvements completed or underway associated with that project include:

- reconfiguration of the I-95/I-495 ramp with improved access to the MD 5 Branch Avenue Metro station,
- addition of a lane in each direction from I-95/I-495 to MD 223,
- conversion of three at-grade signals into grade-separated interchanges (Manchester Drive, Allentown Road, and Woodyard Road), and
- addition of a lane at the paired signalized intersections at Brandywine Road and MD 373.

Alternative 3, as proposed with the current study, contains the remaining improvements associated with the previous FEIS. Alternatives 4, 5, 6, and 8 reflect concepts based on an updated analysis of transportation needs and Prince George's County Transportation planning documents.

Alternatives Retained for Detailed Study include the following:

- Alternative 1 – No-Build;
- Alternative 3 – MD 5 upgrade south of MD 223 only: Widen MD 5 with one additional 12-foot wide through-lane and a 12-foot wide shoulder to the inside and convert remaining at-grade intersections to grade-separated interchanges;
- Alternative 4 – MD 5 upgrade entire corridor: Incorporate all improvements from Alternative 3, add a fourth 12-foot wide through-lane and a 12-foot wide shoulder in each direction north of MD 223, and provide a direct-access ramp onto the proposed Metro Access Road;
- Alternative 5 – Two new reversible price-managed lanes in the MD 5 median: Convert remaining at-grade intersections to grade-separated interchanges; provide direct access ramps to/from price-managed lanes at MD 223 and I-95/I-495 interchange; provide a direct access ramp onto proposed Metro Access Road;
- Alternative 6 – MD 5 upgrade of the entire corridor with two price-managed lanes: Construct one additional lane in the median as a price-managed lane and convert one existing general purpose lane into the second price-managed lane north of MD 223; convert the remaining at-grade intersections to grade-separated interchanges; construct direct access ramps to/from price-managed lanes at MD 223 and I-95/I-495 interchange; provide a direct access ramp onto proposed Metro Access Road;

- Alternative 8 – One additional inside lane along the entire corridor designated as a High Occupany Vehicle (HOV) lane: Convert the remaining at-grade intersections to grade-separated interchanges; provide direct-access ramps to/from the HOV lane at MD 223, and provide a direct-access ramp onto proposed Metro Access Road;
- Surratts Road Interchange Option A – A grade-separated, modified diamond interchange with Surratts Road bridging MD 5: Remove the existing "S" curve on Surratts Road, shift Surratts Road north of existing intersection; provide second entrance to Southern Maryland Hospital Center;
- Surratts Road Interchange Option B – Diamond interchange with Surratts Road bridging MD 5: Construct an interchange at the existing intersection, remove the existing "S" curve on Surratts Road, and provide second entrance to the Southern Maryland Hospital Center;
- Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A – Modified diamond grade-separated interchange between two existing unsignalized intersections of Moores Road and Earnshaw Drive with MD 5: Provide a bridge over MD 5 at interchange; and
- Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option B – Same interchange proposed as for Option A: Construct two-way service roads parallel to MD 5 between Moores Road and Earnshaw Drive. Build a bridge over MD 5 to connect the two service roads.

E. Summary of Environmental Impacts

A comparative summary of environmental impacts associated with the No-Build Alternative and the five mainline alternatives and four interchange options is described below (**Table S-1**):

- The build alternatives and interchange options would have no adverse impacts on community facilities or services.
- For the build alternatives, residential displacements would range up to seven and business displacements would range up to two. Under the interchange options, residential and commercial displacements would range up to one.
- No historic standing structures would be affected by the build alternatives or interchange options.
- No archeological resource sites would be affected by the build alternatives or interchange options.
- The build alternatives would directly impact 17.6 to 89.7 acres of prime farmland soils. The interchange options would impact a maximum of 12.1 additional acres of prime farmland soils.
- The build alternatives would directly impact 4.3 to 10.7 acres of wetlands, 12,087 to 20,153 linear feet of waterways, and 14.9 to 20.4 acres of floodplains. The interchange options would impact an additional 0.2 to 2.6 acres of wetlands, 1,994 to 3,866 linear feet of waterways, and 0.7 to 9.2 acres of floodplain.
- The build alternatives would directly impact 51.8 to 73.5 acres of tree-canopy cover. The interchange options would impact an additional 11.4 to 32.8 acres of tree-canopy cover.

- The build alternatives would result in 16.2 to 79.0 acres of new impervious surfaces. The interchange options would add 3.8 to 9.6 acres of new impervious surfaces.
- Sixteen potential hazardous materials sites could be affected by the build alternatives and interchange options. Depending on the amount of property acquired, further investigations of some or all of these sites could be required before acquisition.
- The build alternatives and interchange options would not exceed the State/National Ambient Air Quality Standards.
- As a result of the build alternatives, a number of noise sensitive areas (NSAs) would experience build year noise levels that approach or exceed the FHWA noise abatement criteria for the intended land use. Noise impacts would occur in 13 NSAs under Alternative 3, 37 NSAs under Alternative 4; 36 NSAs under Alternative 5; 37 NSAs under Alternative 6; and 37 NSAs under Alternative 8.
- The feasibility and reasonableness criteria for consideration of noise abatement measures are met at 7 NSAs with Alternative 3; 17 NSAs with Alternative 4; 15 NSAs with Alternative 5; 16 NSAs with Alternative 6; and 17 NSAs with Alternative 8.
- None of the build alternatives or interchange options would have a disproportionately high or adverse impact on minority or low-income populations.
- Indirect and cumulative impacts on environmental resources are likely to occur with this project. Indirect impacts would include both beneficial and negative effects on communities and businesses, and deleterious effects on natural resources and habitats. However, no growth-inducing effects or other effects related to induced changes in land use, population density, or growth rate would result from the MD 5 project.

Table S-1: Summary of Impacts.

Resources	No-Build	Alt 3	Alt 4	Alt 5	Alt 6	Alt 8	Surratts Road Interchange – Option A	Surratts Road Interchange – Option B	Moores Rd./ Earnshaw Dr./ Burch Hill Rd. Interchange – Option A	Moores Rd./ Earnshaw Dr./ Burch Hill Rd. Interchange – Option B
Socio-Economic Environment										
1. Displacements										
Residential (No.)	0	0	0	7	2	0	1	1	0	0
Business (No.)	0	0	2	2	2	2	1	0	0	0
2. Total Number of Properties Affected	**0**	**56**	**187**	**209**	**186**	**198**	**29**	**31**	**28**	**35**
3. Right-of-Way Required (acres)										
Residential	0	9.1	16.2	21.1	19.6	16.3	4.2	4.2	20.2	12.1
Commercial/Industrial	0	1.4	15.9	16.7	16.3	16.9	9.9	9.7	0.1	0.9
Agricultural	0	0.8	0.8	0.8	0.8	0.8	0	0	5.6	7.5
Parkland	0	0	0	0	0	0	0	0	0	0
US Government	0	0	8.3	9.6	9.3	8.7	0	0	0	0
Total Right-of-way Required	**0**	**27.6**	**61.7**	**71.2**	**69.0**	**65.1**	**20.5**	**20.4**	**25.9**	**25.6**
Natural Environment										
1. Prime Farmland Soils (acres)	0	17.6	85.6	89.2	89.7	88.3	0	<0.01	4.9	12.1
2. Wetlands (acres)	0	4.3	9.1	10. 7	10.4	9.7	0.2	0.3	0.2	2.6
3. Stream (linear feet)[1]	0	12,087	18,010	20,153	19,520	18,183	2,715	3,410	1,994	3,866
4. Impervious Surface (acres)	0	16.2	30.3	79.0	51.1	32.7	6.0	9.6	5.3	3.8
5. 100-yr Floodplain (acres)	0	14.9	19.8	20.3	20.4	20.1	4.6	4.6	0.7	9.2
6. Forest (acres)	0	51.8	65.6	73.5	70.7	65.7	11.6	11.4	26.0	32.8
7. Number of NSAs Exceeding Abatement Criteria[2]	NA	13	37	36	37	37	NA	NA	NA	NA
8. Number of NSAs where noise barriers are warranted, feasible, and reasonable	NA	7	18	16	17	18	NA	NA	NA	NA
Cost Estimates										
1. Construction (millions)	0	$206-$226	$660-$730	$930-$1,028	$989-$1,093	$745-$825	$94-$104	$102-$112	$75-$83	$86-$95

[1] Total stream impacts include all perennial, intermittent, and ephemeral channels, and unclassified culverts.
[2] The Noise Analysis for each alternative included the Surratts Road and Moores Road/Earnshaw Drive/Burch Hill Road interchange options.

ENVIRONMENTAL ASSESSMENT FORM

The following Environmental Assessment Form is a requirement of the Maryland Environmental Policy Act and Maryland Department of Transportation Order 11.01.06.02. Its use is in keeping with the provisions of 1500.4(k) and 1506.2 and 1506.6 of the Council of Environmental Quality Regulations, effective July 31, 1979, which recommend that federal, state and local procedures be integrated into a single process to reduce duplication.

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

MD 5 Corridor Transportation Study from
North of the US 301/MD 5 Interchange to North of the I-95/I-495 Interchange at Auth Road/MD 5 in Prince George's County
Project # PG391A16

ENVIRONMENTAL ASSESSMENT FORM	Yes	No	Comments
A. Land Use Considerations			
1. Will the action be within the 100-year flood plain?	X		See Section III.E.4
2. Will the action require a permit for construction or alteration within the 50-year flood plain?		X	
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?	X		See Section III.E.3(c)
4. Will the action require a permit for the construction or operation of facilities for solid waste disposal, including dredge and excavation spoil?		X	
5. Will the action occur on slopes exceeding 15%?		X	
6. Will the action require a grading plan or a sediment control permit?	X		See Section III.E.3(b)
7. Will the action require a mining permit for deep or surface mining?		X	
8. Will the action require a permit for drilling a gas or oil well?		X	
9. Will the action require a permit for airport construction?		X	
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?		X	
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?		X	
12. Will the action affect the use of any natural or manmade features that are unique to the county, state, or nation?		X	
13. Will the action affect the use of an archeological or historical site or structure?		X	See Section III.D
B. Water Use Considerations			

ENVIRONMENTAL ASSESSMENT FORM	Yes	No	Comments
14. Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?	X		See Section III.E.3(b)
15. Will the action require the construction, alteration, or removal of a dam, reservoir, or waterway obstruction?		X	
16. Will the action change the overland flow of storm water or reduce the absorption capacity of the ground?	X		See Section III.E.3(b)
17. Will the action require a permit for the drilling of a water well?		X	
18. Will the action require a permit for water appropriation?		X	
19. Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?		X	
20. Will the action require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?		X	
21. Will the action result in any discharge into surface or sub-surface water?	X		See Section III.E.3(a-c)
22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?	X		See Section III.E.3(c)
C. Air Use Considerations			
23. Will the action result in any discharge into the air?	X		See Section III.F
24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?		X	See Section III.F
25. Will the action generate additional noise, which differs in character or level from present conditions?	X		See Section III.G.3
26. Will the action preclude future use of related air space?		X	
27. Will the action generate any radiological, electrical, magnetic, or light influences?		X	
D. Plants and Animals			
28. Will the action cause the disturbance, reduction, or loss of any rare, unique or valuable plant or animal?		X	See Section III.E.6
29. Will the action result in the significant reduction or loss of any fish or wildlife habitats?		X	See Section III.E.5

ENVIRONMENTAL ASSESSMENT FORM	Yes	No	Comments
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical, or radiological control agents?		X	
E. Socio-Economic			
31. Will the action result in a preemption or division of properties or impair their economic use?	X		See Section III.A.4
32. Will the action cause relocation of activities, structures, or result in a change in the population density or distribution?	X		See Section III.A.4
33. Will the action alter land values?	X		See Section III.C
34. Will the action affect traffic flow and volume?	X		See Section I.D
35. Will the action affect the production, extraction, harvest, or potential use of a scarce or economically important resource?		X	
36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?		X	
37. Is the action in accord with federal, state, regional, and local comprehensive or functional plans, including zoning?	X		See Section III.C.2
38. Will the action affect the employment opportunities for persons in the area?		X	
39. Will the action affect the ability of the area to attract new sources of tax revenue?		X	
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocation elsewhere?		X	
41. Will the action affect the ability of the area to attract tourism?		X	
E. Other Considerations			
42. Could the action endanger public health, safety, or welfare?		X	
43. Could the action be eliminated without deleterious affects to the public health, safety, welfare, or the natural environment?		X	

ENVIRONMENTAL ASSESSMENT FORM	Yes	No	Comments
44. Will the action be of statewide significance?		X	
45. Are there any other plans or actions (federal, state, county, or private) that, in conjunction with the subject action could result in a cumulative or synergistic impact on public health, safety, welfare, or environment?	X		See Section III.I
46. Will the action require additional power generation or transmission capacity?		X	
47. This agency will develop a complete environmental affects report on the proposed action.	X		See Environmental Assessment

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I. Purpose and Need

I. PURPOSE AND NEED

A. Project Location and Description

The Maryland SHA is proposing highway improvements along a segment of MD 5 (Branch Avenue) in Prince George's County. The segment extends for approximately 10 miles, beginning just north of the convergence of MD 5 with US 301 near Brandywine and continuing to the intersection of MD 5 with Auth Road just north of the I-95/ I-495 (Capital Beltway) Interchange (**Figure I-1).** The project is referred to as the MD 5 Corridor Transportation Study.

MD 5 is a six-lane divided highway with full access control in the northern half of the project corridor from the MD 223 (Woodyard Road) interchange to the Capital Beltway interchange. Access is provided at six grade-separated interchanges or ramp connections (MD 223, Malcolm and Schultz Roads, Coventry Way, Old Alexander Ferry Road, MD 337/Allentown Road, and Linda and Deer Pond Lanes). MD 5 is a four-lane divided highway with limited access control in the southern half of the project corridor from the US 301/MD 5 interchange to the MD 223 interchange. Access points are provided at three at-grade signalized intersections (MD 373, Brandywine Road, and Surratts Road) and two unsignalized intersections (Burch Hill Road/Earnshaw Drive and Moores Road). Within the project corridor, MD 5 is functionally classified under the Federal Functional Classification System as an Urban Freeway/Expressway north of MD 373 and as a Rural Other Principal Arterial south of MD 373.

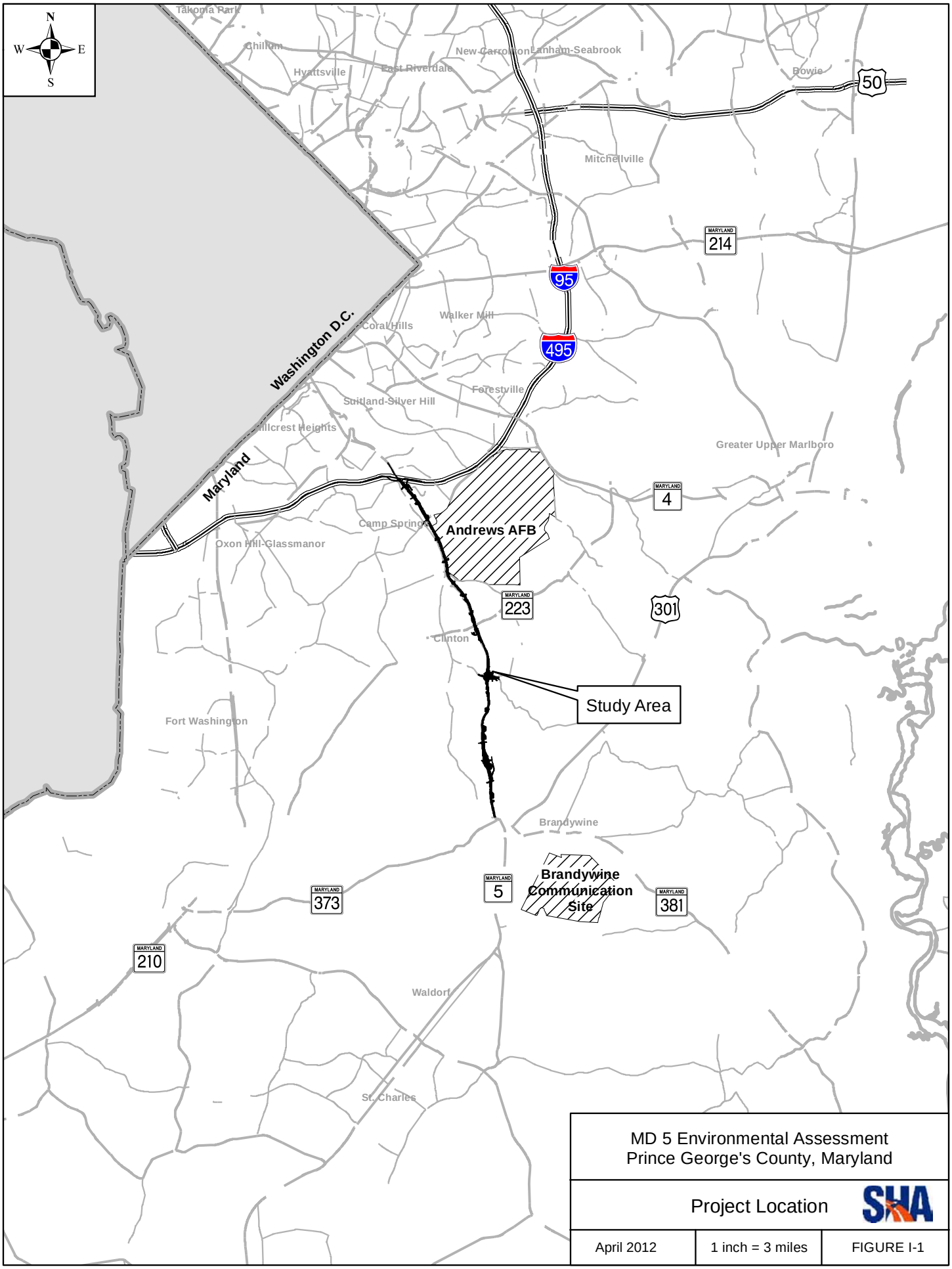
The MD 5 Corridor Transportation Study is evaluating alternatives for widening this segment of MD 5 and/or providing managed lanes, and options for constructing grade-separated interchanges to replace selected at-grade intersections.

B. Project Background

MD 5 within its project limits has been the focus of several transportation studies over the past 25 years. A Final Environmental Impact Statement (FEIS) was completed in 1988, that evaluated improvements to MD 5 from north of I-95 to south of US 301. The selected action proposed the reconstruction of MD 5 as a multi-lane facility with the addition of one lane in each direction on the median side (to provide a total of six lanes), and the construction of up to six new interchanges to replace major at-grade intersections. The improvements proposed in that document were constructed as funding became available. Improvements completed or underway associated with that project include:

- reconfiguration of the I-95/I-495 ramp with improved access to the MD 5 Branch Avenue Metro station,
- addition of a lane in each direction from I-95/I-495 to MD 223,
- conversion of three at-grade signals into grade-separated interchanges (Manchester Drive, Allentown Road, and Woodyard Road), and
- addition of a lane at the paired signalized intersections at Brandywine Road and MD 373.

No improvements were implemented in the southern section of the corridor south of MD 223, which remains a four-lane divided section with limited access controls. Alternative 3, as proposed with the current study, contains the remaining improvements associated with the



MD 5 Environmental Assessment
Prince George's County, Maryland

Project Location

April 2012	1 inch = 3 miles	FIGURE I-1

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previous FEIS. Alternatives 4, 5, 6, and 8 reflect concepts based on an updated analysis of transportation needs and Prince George's County Transportation planning documents.

The FEIS also identified the need to construct an interchange at the MD 5/MD 373/MD 381 intersections; this breakout project (referred to as the MD 5/Brandywine Road/MD 373 Interchange project) is currently in final design.

The MD 5 corridor has also been included in the US 301 Southern Corridor Transportation Studies. In 1993, then Governor William Donald Schaefer and Transportation Secretary O. James Lighthizer appointed a diverse 75-member task force to the study and developed a comprehensive package of transportation recommendations to address transportation problems related to land use, growth, economic development, and environmental issues along the US 301 corridor from the Governor Nice Bridge over the Potomac River to US 50 near Bowie. In 1996, the Task Force issued recommendations for further detailed study to address transportation, land use economic development, and environmental issues along US 301 and MD 5. In 1997, a planning strategy was developed for the analysis of the Task Force recommendations. MD 5 was included as a sub-corridor as part of the US 301 Southern Corridor portion of the project; however, no preferred transportation alternatives were identified and no formal recommendations were promoted by SHA for the Southern Corridor prior to the cessation of those studies. In June 2005, the MD 5 corridor was separated from the US 301 Corridor project through the Logical Termini report.

The current study proposes to reinvestigate possible transportation solutions for the MD 5 corridor based on an updated assessment of transportation needs. The current study corridor extends from just north of its interchange with US 301 to north of the I-95/ I-495 interchange. In order to maintain the integrity of the interstate system, the study must also consider the potential impacts to I-95/I-495 when improving traffic operations along northbound MD 5.

C. Purpose of the Project

The purpose of the MD 5 Corridor Transportation Study is to facilitate safe and efficient traffic flow while providing cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts, while enhancing and facilitating transit services.

D. Need for the Project

Currently, drivers experience traffic congestion along the MD 5 corridor during AM and PM peak commuter periods, especially in the southern portion of the corridor which includes signal-controlled intersections and four through travel lanes (two lanes per direction). Areas adjacent to the southern portion of the corridor and points south in Prince George's County, and the Southern Maryland region (including Charles, Calvert, and St. Mary's Counties) have experienced some of the highest levels of population growth in Maryland over the past 25 years (61 percent to 156 percent), and are forecasted to continue to grow at levels faster than those of the state as a whole. The anticipated growth and development south of the project corridor is expected to contribute to increasing traffic volumes and congestion along the entire MD 5 corridor by 2030.

1. Existing and Future Traffic Conditions

Average Weekday Daily Traffic (ADT) in 2008 ranged from 63,200 to 126,300 vehicles per day with the section from MD 337 to I-95/I-495 having the highest volumes (**Table I-1**). Traffic volumes generally increase along MD 5 moving from south to north as traffic accesses MD 5 to travel to I-95/495 and Washington, D.C. The volumes are projected to increase to a range of 75,200 to 149,700 by the year 2030, as residential, employment, and commercial growth in the corridor and Southern Maryland continues.

Table I-1: MD 5 Existing (2008) and Forecasted (2030) Average Weekday Daily Traffic

MD 5 Sections/Intersections	2008 Daily Volume (Range)	2030 No-Build Daily Volume (Range)
US 301/MD 5 Interchange at T.B. to MD 223	63,200 – 79,900	75,200 – 101,500
MD 223 to MD 337	108,000 – 124,200	130,100 – 148,400
MD 337 to I-95/I-495	120,000 – 126,300	143,100 – 149,700

A Level of Service (LOS) analysis for 2008 and 2030 was performed for at-grade intersections along MD 5. LOS is a measure of the congestion experienced by drivers, and ranges from LOS A (free flow with little or no congestion) to LOS F (failure with stop and go conditions). LOS is normally computed for the peak periods of a typical day, with LOS D (approaching unstable flow) or better generally considered acceptable for highways in urban and suburban areas. At LOS E, volumes are near the capacity of the highway. LOS F represents conditions in which there are operational breakdowns with stop and go traffic and extremely long delays at signalized intersections.

In 2008, all five of the at-grade intersections along MD 5 operated at a LOS F during the AM or PM peak hours, with volume to capacity (V/C) ratios ranging from 1.00 to 1.23. These findings match observations in the field as queues along MD 5 at these signalized intersections are common during rush hours, particularly northbound (NB) in the morning and southbound (SB) in the evening (**Table I-2**).

Table I-2: MD 5 Existing (2008) & Forecasted (2030) LOS Analyses Results

	Intersection	Existing Condition	Existing V/C Ratio	Alternative 1 No Build LOS	Alternative 1 No Build V/C Ratio	All Build Alternatives 3, 4, 5, 6 and 8
		Year 2008 AM (PM)	Year 2008 AM(PM)	Year 2030 AM (PM)	Year 2030 AM (PM)	Year 2030 AM (PM)
MD 5	**Accokeek Rd (MD 373)**	F (F)	1.10 (1.00)	*	*	*
MD 5	**Brandywine Rd (MD 381)**	F (E)	1.23 (0.97)	*	*	*
MD 5	**Moores Rd**	F (D)	1.19 (0.88)	F (F)	1.47 (1.36)	°
MD 5	**Burch Hill Rd/Earnshaw Dr**	F (E)	1.23 (0.93)	F (F)	1.66 (1.37)	°
MD 5	**Surratts Rd**	F(D)	1.13 (0.83)	F (F)	1.42 (1.19)	°

* Grade separated interchange proposed as part of the MD 5/Brandywine Road/MD 373 Interchange project
° Grade separated interchange proposed under MD 5 Corridor Transportation Study alternative

By 2030, the intersections will continue to fail during the AM and PM peak hours. In addition, the V/C ratios of these intersections range from 1.19 to 1.66 which equate to longer queues and side street delays. Under the MD 5 Corridor Transportation Study, all remaining at-grade intersections would be converted to grade-separated interchanges, to reduce delay and queuing.

In June 2010, the SHA conducted a Traffic Sensitivity Analysis to determine how the forecasted traffic data would change based on updated modeling prepared by the Metropolitan Washington Council of Government (MWCOG). The new Regional Transportation Model [MWCOG Round 7.2A (*MWCOG 2009a and 2009b in Section V. References*)] shows that projected traffic volumes are reduced by approximately 10 percent from the original modeled volumes. This sensitivity analysis showed that the original traffic volumes developed for the MD 5 Corridor Transportation Study are useable for estimated traffic volumes through 2030.

2. Traffic Safety

The updated crash history for the MD 5 Corridor from 2008 to 2010 shows a total of 635 crashes and seven fatalities. These numbers are generally less than but consistent with the comparable weighted statewide average crash and fatality rates for similar types of roadways. Rear end collisions (49 percent) were the most frequent type of collision on MD 5, and are prevalent during stop-and-go conditions, such as at signalized intersections along highways. Other collisions were substantially higher than respective statewide averages (**Table I-3**), and as a collection of collisions types not otherwise listed in the table, are not predictive of traffic flow conditions or patterns.

Table I-3: 2008 – 2010 Crash Data on MD 5 from US 301 to Auth Road

Category	2008	2009	2010	Total	Study Rate (%)	Statewide Rate (%)
Fatalities	5	2	0	7	0.6	0.7
Total Accidents	231	209	195	635	58.8	81.2
Opposite Direction	7	4	3	14	1.3	1.3
Rear End	116	99	90	305	28.2	34.5
Sideswipe	29	32	28	89	8.2	9.2
Left Turn	6	4	6	16	1.5	3.6
Angle	11	8	15	34	3.1	6.9
Pedestrian	0	0	0	0	0.0	0.9
Parked Vehicle	1	0	1	2	0.2	0.9
Fixed Object	45	34	37	116	10.7	15.0
Other	16	28	15	59	5.5*	3.0
Truck Related	25	17	17	59	5.5	6.2

* = Substantially higher than statewide rate

3. Intermodal Connectivity

Transit services along the MD 5 corridor include bus service, a park and ride lot, and Metrorail service. Patrons of these transit routes deal with many of the same congestion and safety issues as those using personal vehicles because they share the same facility. SHA is committed to working with the area's transportation agencies to develop alternatives which will take advantage of or enhance current intermodal resources and capabilities. Such alternatives could include transit improvements as part of larger transportation improvement packages. All build alternatives are designed to allow Bus Rapid Transit (BRT) use either along the median shoulder (Alternatives 3 and 4) or within the managed lanes (Alternatives 5, 6 and 8).

II. Alternatives Considered

II. ALTERNATIVES CONSIDERED

A. Alternatives Presented at the Alternatives Public Workshop

SHA considered a full range of alternatives during the initial planning stages of the project. At the June 15, 2006 Alternatives Public Workshop, SHA presented seven build alternatives, the No-Build Alternative, and four interchange options to the public. Five build alternatives (Alternatives 3, 4, 5, 6, and 8), the No-Build Alternative (Alternative 1), and all interchange options were retained for detailed study. Two build alternatives (Alternatives 2 and 7) were dropped from further consideration. Descriptions of the alternatives dropped from further consideration, and the reasons they were dropped, are provided below.

Alternative 2 – Transportation Systems Management (TSM)
The TSM Alternative consists of a series of improvements throughout the MD 5 corridor to address the areas of greatest need at specific locations or segments of the roadway. TSM improvements can generally be implemented with relatively low costs and impacts. These improvements include the following:

- Combine acceleration and deceleration lanes into auxiliary lanes northbound and southbound between MD 223 and Coventry Way,
- Construct two-lane southbound exit ramps at Coventry Way and MD 223 (Woodyard Road),
- Construct two-lane northbound entry ramp at MD 223,
- Allow inside shoulder use to provide enhanced bus service,
- Construct four-way continuous flow intersection at Surratts Road,
- Add four through lanes at Burch Hill/Earnshaw signalized intersection, and
- Consider Park and Ride and transit.

Alternative 2 was dropped from further consideration because it did not fully meet the project Purpose and Need as a stand-alone alternative. Alternative 2 would not eliminate the at-grade intersections at Surratts Road, Burch Hill Road/Earnshaw Drive or Moores Road, which are primary factors contributing to traffic congestion during peak travel periods. Alternative 2 does, however, contain design elements that could be incorporated into the alternatives retained for detailed study, including inside shoulder use to provide enhanced bus service for the non-managed lane alternatives as well as Park and Ride and transit considerations.

Alternative 7 – Movable Barrier Express Toll Lane (ETL)
Alternative 7 would convert the remaining at-grade intersections in the project area to grade-separated interchanges. During the morning hours, this alternative would provide one additional northbound ETL north of MD 223and convert of one existing general purpose lane to an ETL. Southbound traffic would continue to have access to three general purpose lanes.

In the evening, this alternative would provide one additional southbound ETL and convert one existing general purpose lane to an ETL. Northbound traffic would continue to have access to three general purpose lanes. The transition from the morning period to the evening period would be made with a movable barrier. South of MD 223, one reversible ETL would be added in the median.

Alternative 7 was dropped from further consideration because it did not provide a benefit over the other managed lane alternatives. This alternative had a number of drawbacks including the need for a movable barrier machine, machine operator, and variable lane indicators, increased maintenance costs, and the amount of time required to move five miles of barrier each day.

B. Alternatives Retained for Detailed Study

The alternatives retained for detailed study (ARDS) consist of six mainline alternatives and four interchange options, two at each of two different locations. A brief description of the MD 5 alternatives and interchange options is provided below, and each is depicted in **Appendix A**.

A system preservation/breakout project is currently under development, which includes the ramp improvements at I-95/I-495 and MD 5 southbound and closes the right in/right configuration from MD 5 onto Linda Lane and would include capacity improvements at the intersection of Allentown Road and Old Branch Avenue. Since that project is currently in design and is not funded for construction, the improvement to convey the redirected traffic south to Allentown Road to access MD 5 are shown in these ARDS. These improvements will add a lane of pavement to all approaches to the intersection of Old Branch Avenue and Allentown Road, except for westbound Allentown Road, and through the interchange connecting eastbound Allentown Road to northbound MD 5. Both the Linda Lane closure and Allentown Road improvements are shown on the alternatives mapping.

Alternative 1 – No-Build
Alternative 1 includes minor short-term improvements that would occur as part of normal maintenance and safety projects. This alternative serves as the baseline for comparing potential impacts and benefits associated with the build alternatives.

Alternative 3 – Expressway Upgrade South of MD 223
Alternative 3 would convert the remaining at-grade intersections into grade-separated interchanges and widen MD 5 with one additional 12-foot through lane and 12-foot shoulder to the inside in each direction. The wider shoulder south of MD 223 could accommodate buses and Bus Rapid Transit (BRT) operations. The mainline MD 5 widening would occur south of MD 223 only. However, the intersection improvements noted above would be made to Allentown Road, at the intersections with Old Branch Avenue and at the MD 5 ramp terminals, to address increased traffic resulting from the Linda Lane closure.

Alternative 4 – Expressway Upgrade Entire Corridor
Alternative 4 would incorporate all of the improvements from Alternative 3 and add a fourth 12-foot through lane and 12-foot shoulder in each direction from north of MD 223 (Woodyard Road) to the Capital Beltway. The shoulder could accommodate buses and Bus Rapid Transit (BRT) operations. This alternative would also provide a direct-access ramp onto the proposed Metro Access Road. The intersection capacity improvements noted above at Allentown Road are included.

Alternative 5 – Two Reversible Price-Managed Lanes
Alternative 5 would provide two new reversible price-managed lanes in the MD 5 median, with access allowed only at select locations. Buses would be allowed to travel in the price-managed

lanes at no cost. This alternative would also convert the remaining at-grade intersections into grade-separated interchanges and provide direct-access ramps to and from the price-managed lanes at MD 223 (Woodyard Road) and the Capital Beltway. At MD 223, ramps would be provided to and from the north, with access to the commuter parking lot. This alternative would also provide a direct-access ramp onto the proposed Metro Access Road. The intersection capacity improvements noted above at Allentown Road are included.

Alternative 6 – One to Two Price-Managed Lanes
Alternative 6 north of MD 223 would provide one additional price-managed lane in each direction and convert one existing general-purpose lane in each direction to a price-managed lane, resulting in two general-purpose and two price-managed lanes in each direction. South of MD 223, this alternative would provide one additional price-managed lane in each direction and keep the two existing lanes in each direction as general-purpose lanes. Buses would be allowed to travel in the price-managed lanes at no cost. This alternative would also convert remaining at-grade intersections into grade-separated interchanges and provide direct-access ramps to and from the price-managed lanes at MD 223 (Woodyard Road) and the Capital Beltway. At MD 223, ramps would be provided to and from the north, with access to the commuter parking lot. This alternative would also provide a direct-access ramp onto the proposed Metro Access Road. The intersection capacity improvements noted above at Allentown Road are included.

Alternative 8 – Non-Price-Managed Lanes (HOV)
Alternative 8 would widen MD 5 with one additional lane to the inside in each direction along the whole corridor, with the additional lane designated as a Non-Price-Managed Lane (High Occupancy Vehicle, or HOV) which could accommodate buses and Bus Rapid Transit (BRT) operations. This alternative would also provide direct-access ramps to and from the non-price-managed lanes at MD 223 (Woodyard Road). At this location, ramps would be provided to and from the north, with access to the commuter parking lot. This alternative would also provide a direct-access ramp onto the proposed Metro Access Road. The intersection capacity improvements noted above at Allentown Road are included.

Surratts Road Interchange – Option A
This option would create a grade-separated interchange at MD 5 and Surratts Road, with Surratts Road bridging over MD 5. The intersection of Surratts Road and MD 5 is currently an at-grade intersection with traffic signals. Option A would be a Modified Diamond Interchange with ramps for each movement to and from MD 5. Surratts Road would be slightly shifted to the north of the existing intersection. Other improvements would include removing the existing “S” curve on Surratts Road and providing a second entrance to the Southern Maryland Hospital Center.

Surratts Road Interchange – Option B
Option B would be a Diamond Interchange, with Surratts Road bridging over MD 5. The bridge would be placed where the existing intersection is located. Ramps would be included for each movement to and from MD 5. This interchange is proposed at the existing intersection and would require construction of a temporary intersection while the structure is built. Other improvements would include removing the existing “S” curve on Surratts Road and providing a second entrance to the Southern Maryland Hospital Center.

Earnshaw Drive/Burch Hill Road/Moores Road Interchange – Option A
Option A would create a modified diamond interchange between the two existing unsignalized intersections of Moores Road and Earnshaw Drive with MD 5. Currently, Moores Road and Earnshaw Drive are both at-grade intersections with MD 5. The new interchange would include a bridge over MD 5, with ramps to access all directions of MD 5.

Earnshaw Drive/Burch Hill Road/Moores Road Interchange – Option B
Option B also proposes a grade-separated interchange between the two existing unsignalized intersections, as described in Option A; however, two-way service roads would be constructed parallel to MD 5 along both northbound and southbound roadways between Moores Road and Earnshaw Drive. A bridge would be built over MD 5 connecting the two service roads, and drivers would use the service roads and bridge to access both directions along MD 5.

III. Existing Environment and Impacts

III. EXISTING ENVIRONMENT AND IMPACTS

This section describes the existing conditions in the study-area and the potential impacts of the proposed improvements to MD 5. The categories presented affect environmental disciplines identified in the Federal Highway Administration (FHWA) 23 Code of Federal Regulations (CFR) Part 771, "Environmental Impact and Related Procedures," and all other appropriate federal, state, and local laws.

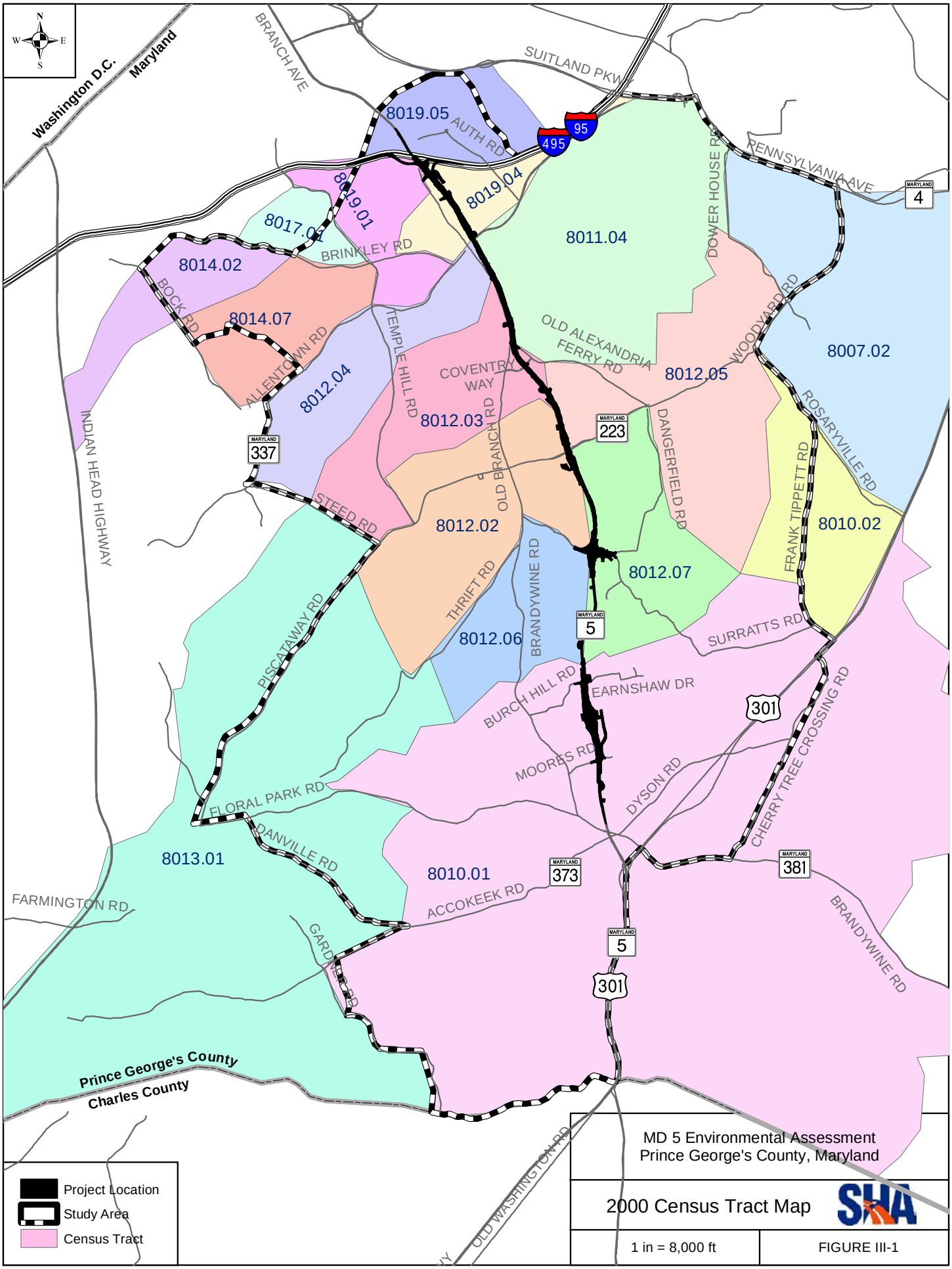
A. Social Characteristics

A socio-economic inventory and community effects analysis were prepared as part of the MD 5 Corridor Transportation Study and are summarized in the following narrative. For additional details, refer to the *Community Effects Assessment Technical Report* (CEA) (*SHA 2011c in Section V. References*). At the time the CEA was completed, Census 2010 data was not available for the study-area; however, the updated Census 2010 data is now available, and is included in this EA discussion. Because of changes in the way that Census 2010 was conducted and the elimination of the long form from the Census, data on income, poverty, and disability is not available for Census 2010. Therefore, data from Census 2000 was used for these sections. A study-area that is much larger than the 380-acre project area was defined for the analysis in recognition that socioeconomic and land-use impacts would extend beyond the physical limits of the project. The study-area encompasses approximately 41,475 acres and is roughly bounded by the Capital Beltway and Pennsylvania Avenue to the north; Woodyard, Rosaryville, Frank Tippett, and Cherry Tree Crossing Roads to the east; Gardner Road and the Charles County line to the south; and Bock, Steed, Piscataway, and Danville Roads to the west (**Figure III-1**).

The CEA identified communities, community facilities, and commercial and industrial facilities within the study-area. SHA compiled and evaluated census-tract data on population, ethnicity, economics, and other demographics available through the U.S. Census Bureau's Census 2000 and Census 2010. The census tracts that encompass the study-area are depicted on **Figures III-1** (Census 2000) and **III-2** (Census 2010).

1. Population and Housing

Table III-1 shows population statistics for the state of Maryland, Prince George's County, and the study-area in 2010. According to the most recent Census data, approximately 11 percent of the population in the study-area is over age 65, a percentage between those of the state (12.2 percent) and the county (9.4 percent). The percentage of persons within the study-area who have one or more disabilities is 26.7, a percentage similar to those of Prince George's County (27.4 percent) and the state (28.0 percent). Persons with disabilities and persons age 65 and above are fairly evenly distributed throughout the study-area. Approximately 4.2 percent of the study-area's population is considered below the poverty level, a percentage lower than those of the state (8.5 percent) and the county (7.7 percent). Median household income for the study-area ($66,557) is considerably higher than that of the state ($52,868) and the county ($55,256). The study-area's population is composed primarily of persons classified as African-American (78.8 percent).



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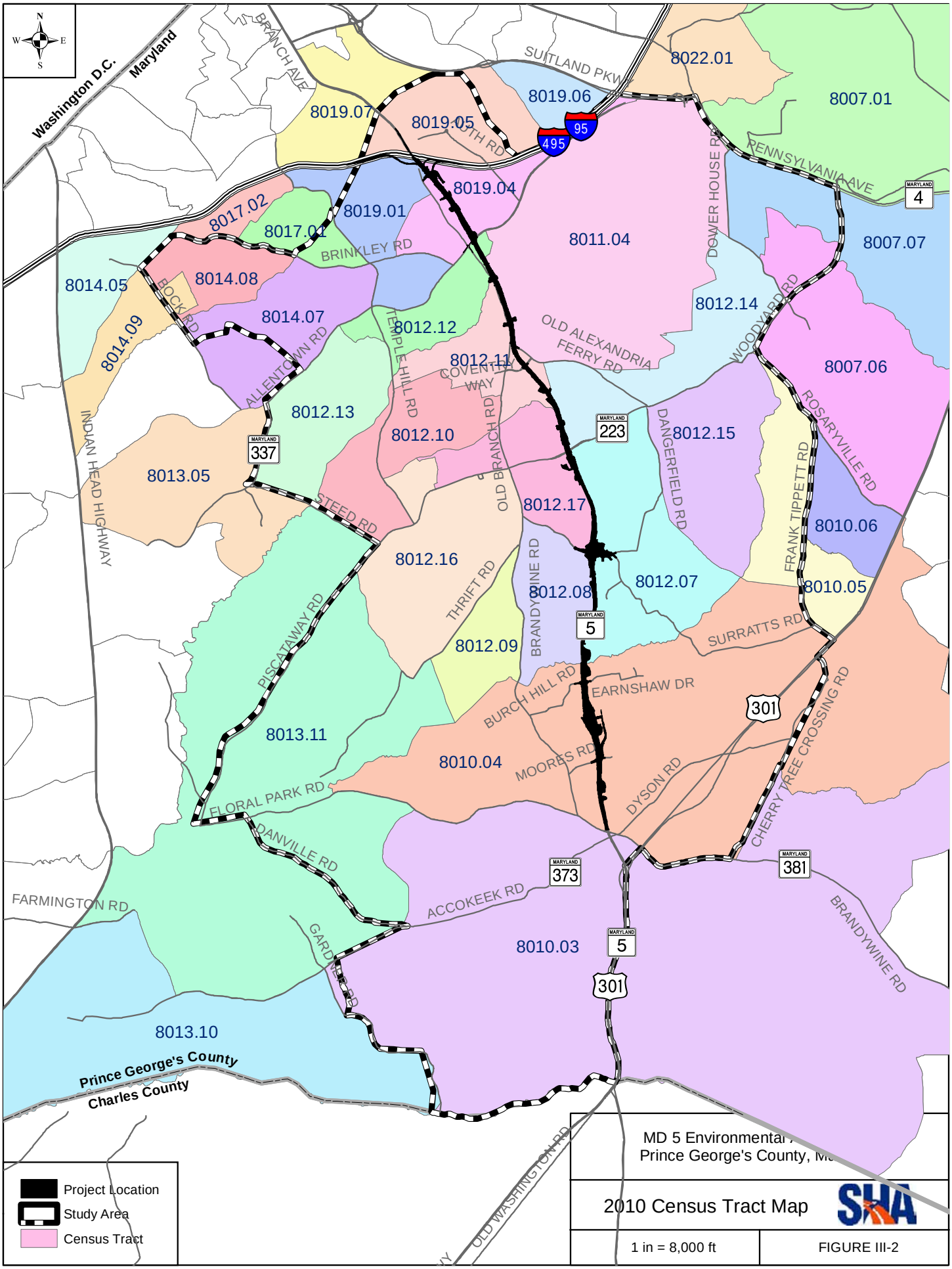

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Table III-1: Population Characteristics, 2000 and 2010

Characteristic		Maryland	Prince George's Co.	Study-Area
Total Population[2]		5,773,552	863,420	97,553
Projected Population for 2030[2]		6,729,500	981,550	n/a
Percent Male / Percent Female[2]		48.4/51.6	47.7/52.3	47.5/52.5
Percent of Population 65 Years and Older[2]		12.2	9.4	11.0
Percent of Population in Poverty[3]		8.5	7.7	4.2
Median Household Income[3]		$52,868	$55,256	$66,557 [4]
Percent of Population with One or More Disabilities[1]		28.0	27.4	26.7
Race[2]	White	58.2	19.2	12.6
	Black	29.4	64.5	78.8
	American Indian	0.4	0.5	0.4
	Asian/Pacific Islander	5.5	4.1	2.4
	Other	3.6	8.5	3.1
	Two or More Races	2.8	3.2	2.7
Percent of Population of Hispanic Origin[2, 5]		8.2	14.9	5.8
Percent Minority[2]		49.9	95.7	93.2

[1]*Source: U.S. Census Bureau, Census 2000*
[2]*Source: U.S. Census Bureau, Census 2010*
[3]*Poverty and Income data based on 1999 census sample data*
[4]*Average of median incomes for census tracts after they were weighted by population*
[5]*Hispanic populations can be of any race*

Table III-2 provides housing statistics for the State of Maryland and Prince George's County. Information on housing characteristics for the study-area has not been included due to changes in the geography of census-tract boundaries that occurred between 2000 and 2010**;** however, the rate of increase in the number of housing units in Prince George's County, Sub-Region V, is expected to greatly exceed the countywide rate (Maryland-National Capital Parks and Planning Commission (M-NCPPC) 2007). From 2005 to 2030, housing units are projected to increase by 47 percent in Sub-Region V.

Table III-2: Housing Trends

Jurisdiction	Households in 2000	Households in 2010	Percent change from 2000 to 2010	Housing Units in 2000	Housing Units in 2010	Percent change from 2000 to 2010
Maryland	1,980,859	2,156,411	8.9	2,145,283	2,378,814	10.9
Prince George's County	286,610	304,042	6.1	302,378	328,182	8.5

Source: U.S. Census Bureau, Census 2000 and Census 2010

Displacements and Property Acquisitions

Tables III-3 and **III-4** provide a summary of displacements and right-of-way (ROW) impacts for each alternative and interchange option. Of all build alternatives, Alternative 5 would require the most residential (7) and business (2) displacements, and the most total ROW acquisition (71.2 acres). Alternative 3 requires no displacements and the least ROW acquisition (27.6 acres). Surratts Road Interchange Option A would require one residential and one business displacement, and Option B would require one residential displacement. The Burch Hill Interchange options would require no displacements. The majority of the property impacts would be narrow strip takes along the proposed roadway alignments; however several larger areas would also be needed to accommodate stormwater management (SWM) and environmental site design (ESD) requirements.

Table III-3: Displacement/Right-of-Way Impacts by Alternative

	Alt 1 No-Build	Alt 3	Alt 4	Alt 5	Alt 6	Alt 8
Total Number of Properties Affected	0	56	187	209	186	198
Residential Displacements	0	0	0	7	2	0
Business Displacements	0	0	2	2	2	2
Residential ROW Acres Required	0	9.1	16.2	21.1	19.6	16.3
Commercial ROW Acres Required	0	1.4	15.9	16.7	16.3	16.9
Industrial ROW Acres Required	0	0	0	0	0	0
US Government ROW Acres Required	0	0	8.3	9.6	9.3	8.7
Agricultural ROW Acres Required	0	0.8	0.8	0.8	0.8	0.8
Parkland ROW Acres Required	0	0	0	0	0	0
Total ROW Acres Required	0	27.6	61.7	71.2	69.0	65.1

Table III-4: Displacement/Right-of-Way Impacts by Interchange Option

	Surratts Road-Option A	**Surratts Road – Option B**	**Moores/ Earnshaw/ Burch Hill -Option A**	**Moores/ Earnshaw/ Burch Hill -Option B**
Total Number of Properties Affected	29	31	28	35
Residential Displacements	1	1	0	0
Business Displacements	1	0	0	0
Residential ROW Acres Required	4.2	4.2	20.2	12.1
Commercial ROW Acres Required	9.9	9.7	0.1	0.9
Industrial ROW Acres	0	0	0	0
Agricultural ROW Acres Required	0	0	5.6	7.5
Parkland ROW Acres Required	0	0	0	0
Total ROW Acres Required	20.5	20.4	25.9	25.6

Title VI Statement and Uniform Relocation Assistance

It is the policy of the SHA 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, or physical or mental handicap in all SHA projects funded in whole or in part by the FHWA. The SHA will not discriminate in highway planning, highway design, highway construction, right-of-way acquisitions, or provision of relocation advisory assistance. This policy has been incorporated in 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 for investigation to the Equal Opportunity Section of the SHA, to the attention of Ms. Sharon Holmes, Deputy Director, Office of Equal Opportunity, 707 North Calvert Street, Mail Stop M-LL3, Baltimore, Maryland 21202.

Property owners affected by displacement would receive relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, revised June 10, 2005 as amended (**Appendix B**). This act requires that the project shall not proceed into any phase that would cause the relocation of any persons or proceed with any construction project until it has furnished assurances that all displaced persons would 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. Payments for cost of moving are also provided.

The SHA Equal Opportunity program also addresses Executive Order (EO) 13166 (originally issued on August 11, 2000) to ensure that people with Limited English Proficiency (LEP) have meaningful access to programs, services, and benefits. The LEP criterion is defined as one who does not speak English as a primary language and has limited ability to read, speak, write, or understand English. The goal of this EO is to improve or provide meaningful access to federally

conducted and federally assisted programs and activities for persons with LEP, as well as to ensure that LEP individuals receive appropriate language services. Information obtained from Census 2000, the M-NCPPC Planning Department, and planning studies conducted for this and other SHA projects that share portions of the current study-area identified no concentrations of people with LEP within the study-area.

Effects on Seniors and Persons with Disabilities

None of the alternatives currently under consideration are expected to have direct impacts on seniors or persons with disabilities. The project would have no impact on senior centers or assisted living facilities, or their access. All new sidewalks and pedestrian facilities would be designed in accordance with applicable Americans with Disabilities Act (ADA) requirements.

2. Environmental Justice

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was signed on February 11, 1994. The EO requires the assessment of disproportionately high and adverse human health and environmental effects on minority and/or low-income populations resulting from proposed federal actions. The EO reaffirms the provisions of Title VI of the Civil Rights Act of 1964 and related statutes and emphasizes the incorporation of those provisions into existing planning and environmental processes.

"Minority" is defined as a person identified as:

- African-American (a person having origins in any of the black racial groups of Africa);
- Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish-culture origin, regardless of race);
- Asian-American (a person having origins in any of the original peoples of the Far East, South East Asia, the Indian subcontinent, or the Pacific Islands); or
- American Indian and Alaska Native (a person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition).

"Low income" is defined as a person whose median household income is at or below the income level set by the Department of Health and Human Services (DHHS) poverty guidelines. The poverty guidelines issued by DHHS are abstracted from the original poverty thresholds updated each year by the United States Census Bureau.

Methods

Identification of minority or low-income populations was based on U.S. Census data and other information sources identified below. Baseline demographic information at the census-tract level was obtained from Census 2000 for low-income populations and 2010 for minority populations. Statistics for the census tracts were compared to average statistics for the study-area to indicate potential concentrations of minority and/or low-income populations (**Figure III-3**). In accordance with SHA's Environmental Justice (EJ) Guidelines, SHA initially looked for individual census tracts with a percentage of minorities "meaningfully greater" than the

study-area average. "Meaningfully greater" is defined as any census tract with a minority population 10 percent or greater than the study-area average. For low-income populations, SHA defined "meaningfully greater" as "any census tract with a percentage of persons living in poverty, 5 percent or greater than the study-area average."

Since census data alone is not sufficient to identify minority and/or low-income communities, it was supplemented with information from other sources (e.g., inquiries to the County Planning Department and the SHA District-3 Right-of-Way Office, Environmental Planning Division, and Office of Equal Opportunity).

Findings

Minority Populations

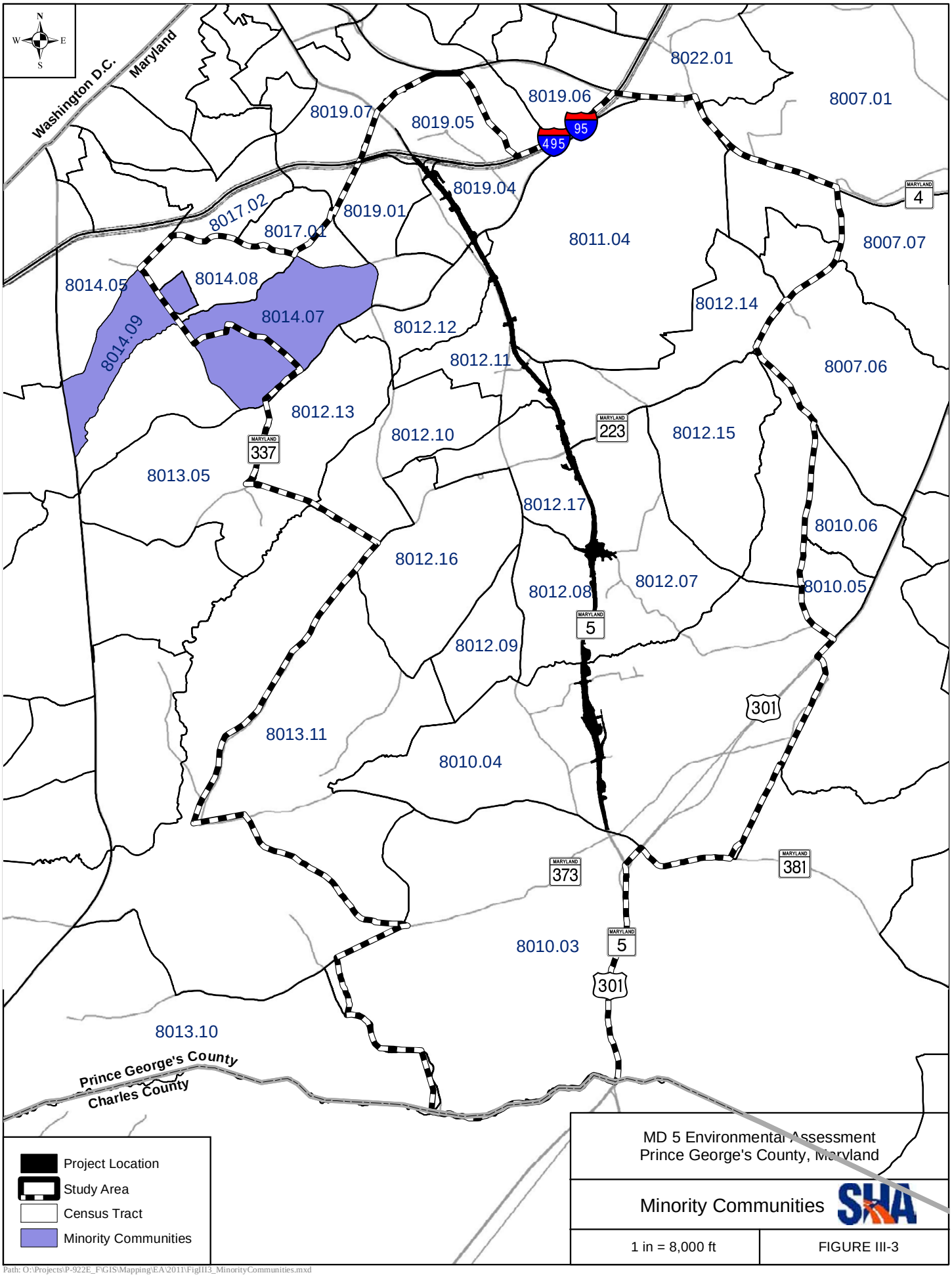
As identified through U.S. Census 2010 data and summarized in **Table III-1,** the total percentage of the study-area minority population (93.2 percent) is slightly lower than that of the county as a whole (95.7 percent). Both the study-area and the county have meaningfully greater minority populations than the state as a whole (49.9 percent). Based on 2010 Census Data, within the study-area, two census tracts have minority populations meaningfully greater than the study-area average and are considered EJ communities (8014.09 at 105.0 percent, and 8014.07 at 103.0 percent). Since Hispanic populations can be of any race, members of those populations may be counted more than once and data may indicate a minority population that exceeds 100 percent. See **Figure III-3** for the location of EJ communities within the study-area.

Low-Income Populations

As summarized in **Table III-1**, the median household income for the study-area ($66,557) was more than $11,000 higher than that of the county ($55,256) and more than $13,000 higher than that of the state ($52,868). As mentioned previously, economic data in the EA is based on Census 2000 data, as the Census 2010 did not survey economic data. Four census tracts have median household incomes $10,000 below the study-area average: Census Tracts 8011.04 ($44,310), 8014.02 ($56,094), 8017.01 ($49,493), and 8019.04 ($51,366). Three of these census tracts are also below the state and county median household income: Census Tracts 8011.04, 8017.01, and 8019.04. The locations of these census tracts (which were based on the 2000 Census) can be found on **Figure III-1**.

The percentage of individuals living in poverty within the study-area (4.2 percent) was lower than in the county (7.7 percent) and the state (8.5 percent). Two census tracts within the study-area have a meaningfully greater number of persons living in poverty than the study-area: Census Tracts 8017.01 (9.1 percent) and 8019.04 (10 percent). These census tracts are therefore identified as containing potential low-income populations.

Based on census data and contacts with government, special interest, school, and community groups, SHA identified four census tracts with minority or low-income populations: 8014.07, 8014.09, 8017.01, and 8019.04.



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Impacts

The proposed widening of MD 5 is relatively consistent throughout the corridor, and interchange improvements would facilitate safer movement through the study-area. The project would have a positive impact on the entire community, including minority and/or low-income communities, by creating a safer, more efficient transportation corridor.

One EJ community is directly adjacent to the project area – Census Tract 8019.04. Alternative 5 would result in five residential relocations along Deer Pond Lane in Census Tract 8019.04. Although Alternative 5 would impact five residences along Deer Pond Lane, it would not result in a disproportionately high or adverse impact to the EJ community, which for the purposes of this study is defined as the entire census tract. This census tract extends from Middleton Lane to the east, Allentown Road to the west and south, and I-95/I-495 to the north, and includes areas on both sides of MD 5. The proposed relocations would not affect any community amenities or services, and because the residential relocations occur immediately adjacent to MD 5, they would not divide the rest of the community. No other Alternatives would result in displacements within this census tract.

SHA sent out 13 letters to the owners of properties identified as potential residential and business displacements throughout the project area on October 20, 2009. The letter invited the property owners to attend a meeting on November 19, 2009, at the New Chapel Baptist Church, 5601 Old Branch Avenue, in Temple Hills, to present their questions and concerns. A Spanish interpreter was provided. No invited property owners in the EJ communities attended the meeting. Only the franchise owner and a corporate representative from the 7-Eleven store located on Surratts Road (opposite the Southern Maryland Hospital Center) attended the meeting.

As the project moves forward, SHA will continue its outreach to the affected EJ community to inform residents of the project's status and provide opportunities for comment. Documentation of the outreach efforts to the entire corridor, including EJ communities, is included in Section IV Comments and Coordination.

3. Public Participation

SHA has initiated outreach strategies for the MD 5 Corridor Transportation Study. As described in the previous paragraph, those strategies have included targeted outreach to residents and business owners that may be displaced by one or more of the project alternatives. An Alternatives Public Workshop was held on June 15, 2006, to provide residents and community members the opportunity to review and comment on the conceptual design of the proposed roadway. The meeting was attended by 120 people, most of whom were concerned about congestion and traffic problems along MD 5. More than 100 people attended an Open House that was held on February 24, 2009, at Surrattsville High School. Many of the attendees expressed the conviction that something must be done to improve traffic operations on MD 5. Documentation of the outreach efforts is included in Section IV: Comments and Coordination.

4. Neighborhoods

The study-area is composed of a number of communities and neighborhoods of different sizes, including (see **Figure III-4**):

Camp Springs	Piscataway	Rosaryville
Oxon Hill-Glassmanor	Friendly	The Heights
Andrews Air Force Base	Tippett	Brandywine
Clinton	Henson Creek	

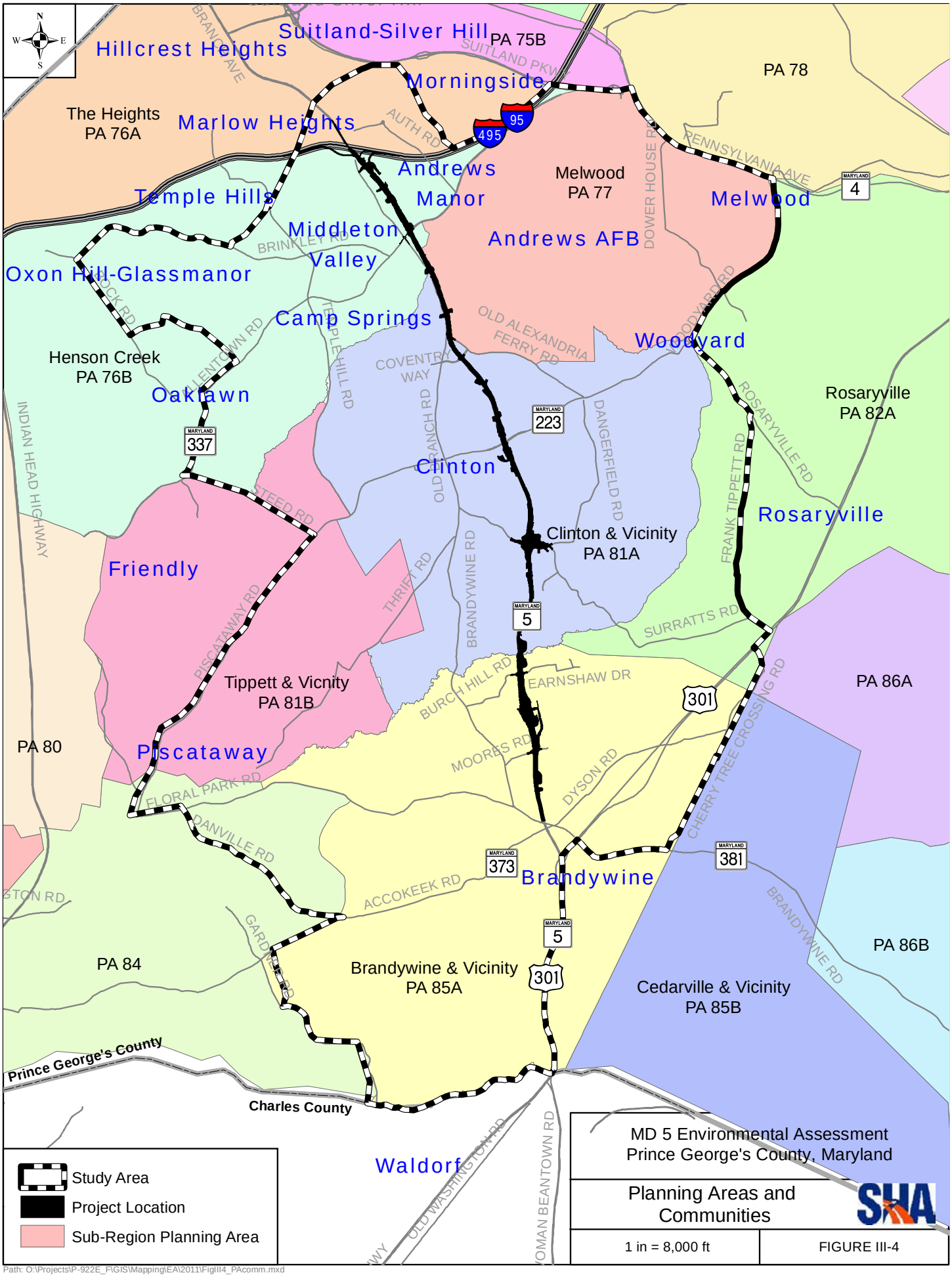
Brandywine, the largest community, is also a county planning area that occupies the southeast portion of the study-area. With the exception of Brandywine, communities within the study-area consist of residential subdivisions of various ages, the majority of which contain single-family detached homes. The study-area is in transition from a relatively sparsely populated rural area to a more densely developed suburban section of the Washington, D.C. Metropolitan Area. New residents will increasingly require facilities and services that greatly exceed those currently available. Section III.A.6 and **Figures III-5A** through **III-5F** include an inventory of current community facilities.

The northern portion of the study-area is characterized by urban-fringe development and includes commercial properties along MD 5 surrounded by older residential neighborhoods. The area is densely developed with little undeveloped land remaining. Developed land near the Capital Beltway and developing areas to the south are included in this area. Neighborhoods that lie within this portion of the study-area include Henson Creek and The Heights. Henson Creek contains a mix of land uses and environments of varying characteristics. The Heights is located along the District of Columbia's southern boundary and includes all land inside the Beltway, south of Suitland Parkway. The municipality of Morningside and the neighborhoods of Camp Springs, Temple Hills, and Oxon-Hill Glassmanor are located within The Heights. Henson Creek and The Heights are included in the Sub-Region VII Master Plan area.

The southern portion of the study-area is more rural in character, with a forested landscape and farmlands and fields that are relatively uncommon throughout the rest of the study-area. Forested lands are sporadically interspersed with older, established subdivisions that alternate with newer, more expansive developments or tracts recently cleared for newer subdivisions.

The Sub-Region V Master Plan area includes land in southern and southwestern Prince George's County, which is generally bounded by the Potomac River, Tinkers Creek, Andrews Air Force Base (AAFB), Piscataway Creek, the CSX (Popes Creek) railroad line, Mattawoman Creek, and the Charles County line. The communities of Brandywine, Piscataway, Tippett, and Clinton lie within this sub-region and the study-area.

The Sub-Region VI Master Plan covers nearly one-third of Prince George's County, most of which has been designated for rural preservation. More than half the county's designated historic sites and resources and its regionally important environmental assets are located in this rural area located primarily east of US 301. According to the Sub-Region VI Master Plan, AAFB and a portion of the Rosaryville community are located in this sub-region and within the project study-area.



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Impacts

Roadway effects on neighborhoods and communities typically fall into three categories: community cohesion, access and mobility, and quality of life. Overall, each of the build alternatives would increase roadway capacity, reduce delays and congestion, and enhance safety and efficiency in the study-area. The project would result in no change in the landscape or natural setting of the study-area and is consistent with the general planning vision of the region.

The No-Build Alternative would result in no displacements or ROW acquisitions and would have no direct effects on neighborhoods or communities. Under this alternative, traffic congestion is expected to increase in the project area, resulting in decreased mobility and quality of life.

MD 5 itself serves as a point of separation between existing communities along the corridor. Since all the mainline alternatives propose widening within the current alignment of MD 5, none of the build alternatives would cause new divisions of community cohesion, accessibility or mobility in the existing neighborhoods with one exception: a group of six residences on Deer Pond Lane, located just south of the I-95/495. These residences would be impacted by the construction of a new access ramp to I-95/495 proposed in Alternative 5 (the two reversible price-managed lanes in the median alternative). The access ramp would displace five of the six residences between MD 5 and Deer Pond Lane. This is an isolated group of homes adjacent to a larger community of over 50 homes on Manchester Drive. The loss of these residences would have a negative impact on cohesion for the Deer Pond Lane community if that alternative is advanced to construction. The larger adjacent community would not be affected.

Although the mainline build alternatives would move the roadway closer to residential areas in several locations, the impacts would not result in a loss of community cohesion or accessibility or cause community isolation, since the connections between the communities on both sides of MD 5 would be maintained and improved. For all build alternatives, access would be maintained to the businesses, community facilities, and residences.

Impacts from the interchange options at Surratts Road and Earnshaw Drive/Burch Hill Road/Moores Road are localized to the neighborhoods and communities surrounding each proposed interchange. Surratts Road Interchange Option A would create a grade-separated interchange with MD 5 and straighten Surratts Road on the east side of MD 5. This interchange would allow easier access to MD 5 from Surratts Road and create a second entrance into the Southern Maryland Hospital Center located in the southeastern quadrant of this intersection. The grade-separated interchange would also allow easier hospital access for emergency services providers. This option would move the intersection of Fox Run Drive and Surratts Road to the east approximately 100 feet, resulting in a small increase in drive time and one residential displacement, which is not part of a larger residential development. No other residences would be displaced. Option A would also result in the displacement of the 7-Eleven convenience store on Surratts Road, a resource to the local community. Although the impact would inconvenience local residents, the overall impact would be minor and SHA anticipates no change in community cohesion.

Surratts Road Interchange Option B is similar to Option A, with the exception that Surratts Road and Fox Run Drive would stay on existing alignment. Option B would result in one residential displacement, which is not part of a larger residential development. No other residences would be impacted and SHA anticipates no change in community cohesion.

Earnshaw Drive/Burch Hill Road/Moores Road Interchange Option A would create a new grade-separated interchange between the two existing at-grade intersections at Moores Road and Burch Hill Road. Cul-de-sacs would be created at Moores Road, Burch Hill Road, and Earnshaw Drive, which would alter access to MD 5 and across MD 5 from these roads. With this option, access to MD 5 from the western side of the highway would require residents to take Moores Road or Burch Hill Road to Brandywine Road, and travel north to the Surratts Road Interchange; or travel south on Brandywine Road to its intersection with MD 5. To reach this area from MD 5, residents would reverse course. Both scenarios would cause a nominal increase in travel distance and time (0.5 – two miles and one - three minutes), but would create a safer and more efficient movement of traffic. On the eastern side of MD 5, residents would need to access MD 5 from Crestwood Avenue to the new interchange to go north or south on MD 5.

The cul-de-sac created at Burch Hill Road would also eliminate direct access from MD 5 into a nursery/landscaping business (Ed's Plant World) located in the southwestern quadrant of Burch Hill Road and MD 5. The county has a proposed project, A-65 Old Fort Road Extended, which may be built to link the new interchange to Brandywine Road or Burch Hill Road and would reduce travel time and distance to the business.

Earnshaw Drive/Burch Hill Road/Moores Road Interchange Option A would alter community cohesion and accessibility, although no community would be completely cut off from the surrounding neighborhoods. These impacts are balanced against the anticipated safety improvements of the grade-separated interchange, and the likely improvements in traffic flow.

Earnshaw Drive/Burch Hill Road/Moores Road Interchange Option B would create service roads on both sides of MD 5, between Moores Road and Burch Hill Road. A bridge over MD 5 would link the two service roads. This option would allow right-turn only access to MD 5 from the eastern and western sides of the study-area and allow access across MD 5 with a nominal increase in travel distance and time (less than 1 mile and one - two minutes). Community cohesion and accessibility would be maintained under this option, while safety would also be improved.

5. Aesthetics and Visual Quality

The degree to which study-area aesthetics and visual quality may be impacted depends upon the alternative selected. The No-Build Alternative and the widening of MD 5 within the median would have no impact on the study-area aesthetics and visual character since the geometry and elevation of the proposed roadway are consistent with existing conditions. Impacts on visual and aesthetic resources would result from the addition of two grade-separated interchanges and new ROW acquisitions.

With all of the build alternatives, a large amount of land is needed for ESD to capture and treat stormwater runoff from the additional pavement proposed under this project. Several larger

stormwater ponds are proposed along the corridor and can be seen on the alternative maps (**Appendix A**) as the LOD "bumps out" in a round shape, away from MD 5. In many cases, these facilities are located in forested areas south of Woodyard Road. There may be visual impacts if forest is removed to place SWM facilities near residential areas; however, SHA would look for opportunities to incorporate landscaping or retain some trees in those areas.

Alternatives 5 and 6 would add direct access ramps at the Capital Beltway, providing access to and from the proposed price-managed lanes. However, these areas already include nearby ramps, and the new ramps would be consistent with the existing visual environment. At the Woodyard Road interchange, new ramps would be added for Alternatives 5, 6, and 8; however these would be at-grade and also consistent with the existing visual environment.

Surratts Road Interchange Option A would provide new ramps and move Surratts Road to a new location north of the current roadway, changing the appearance of the surrounding land. The closest residence to the new ramps is located in the northwest quadrant and would be 280 feet from the new ramp. At this point, the ramp would be elevated 15.4 feet. Nearby residents would be unable to see portions of these new ramps, which would be obscured from view by forested areas. The new interchange alignment would cause greater impacts on adjacent neighborhoods and communities due to additional ramps and the widening of MD 5. Although the visual environment would change under this alternative, the changes would be consistent with the surrounding area.

Surratts Road Interchange Option B would provide new ramps and a new entrance to the Southern Maryland Hospital Center and change the appearance of the surrounding land. The closest residence is located 280 feet from the new ramp, in the northwest quadrant of the study-area. At this point, the ramp would be elevated 14.4 feet. Nearby residents would be unable to see portions of these new ramps, which would be obscured from view by forested areas. This new interchange alignment would cause greater visual impacts on adjacent neighborhoods and communities due to the additional ramps and the widening of MD 5. Although the visual environment would change under this alternative, the changes would be consistent with the surrounding area.

Burch Hill Interchange Option A would provide a grade-separated interchange at a location where none currently exists. Although the current land use would not change, it would add a new visual element. The residence closest to the new ramps is in the northeast quadrant of the study-area and would be 170 feet from the ramp, at an elevation of 34.3 feet. Nearby residents would be unable to see the majority of these new ramps, which would be obscured from view by forested areas. Any area not obscured by the trees would be visible from the front or side of the houses. This new interchange alignment would cause greater visual impacts on adjacent neighborhoods and communities due to the additional ramps and the widening of MD 5. Although the visual environment would change under this alternative, the changes would be consistent with the surrounding area.

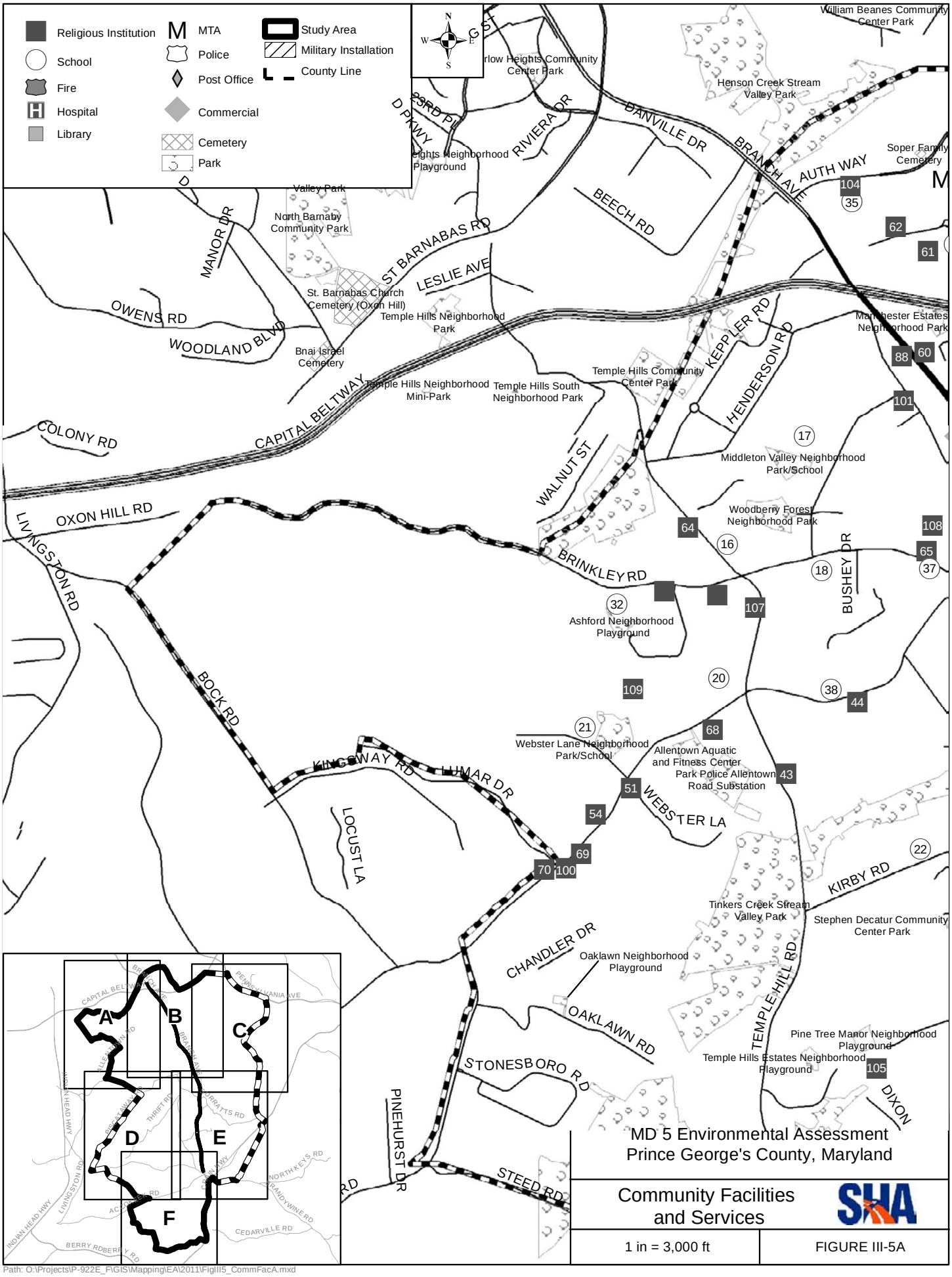
Burch Hill Option B would create service roads that are closer to the residential neighborhoods than existing MD 5. The closest residence is located in the northeast quadrant and would be 230 feet from the new elevated service road. At this point, the service road would be elevated 17.5

feet. Nearby residents would be unable to see the majority of these new ramps, which would be obscured from view by forested areas. Any area not obscured by the trees would be visible from the side of the houses. This new interchange alignment would cause greater visual impacts on adjacent neighborhoods and communities due to the additional ramps and the widening of MD 5. Although the visual environment would change under this alternative, the changes would be consistent with the surrounding area.

All build alternatives would affect the aesthetics and visual quality of the study-area to some degree, and each would incorporate landscaping into the final design to offset those visual impacts. The landscaping would help soften the appearance of the transportation improvements, the new structures, and any necessary retaining walls. The project would be designed to reflect or enhance the current appearance of the surrounding area as much as possible. In addition, SHA would consider nearby residences when installing street lights. As the project design is refined, aesthetic treatments would be incorporated to maintain or enhance the compatibility of the proposed improvements with the surrounding community.

6. Community Facilities and Services

Community facilities and services were identified and inventoried through a combination of online resources (Dowling Web Design 2005; M-NCPPC 2007) and field reconnaissance. The location of these facilities and services is illustrated in **Figures III-5A** to **III-5F**. **Table III-5** (following the figures) provides a key to the community facilities and services depicted on the figures.



MD 5 Environmental Assessment
Prince George's County, Maryland

Community Facilities and Services

SHA

1 in = 3,000 ft

FIGURE III-5A

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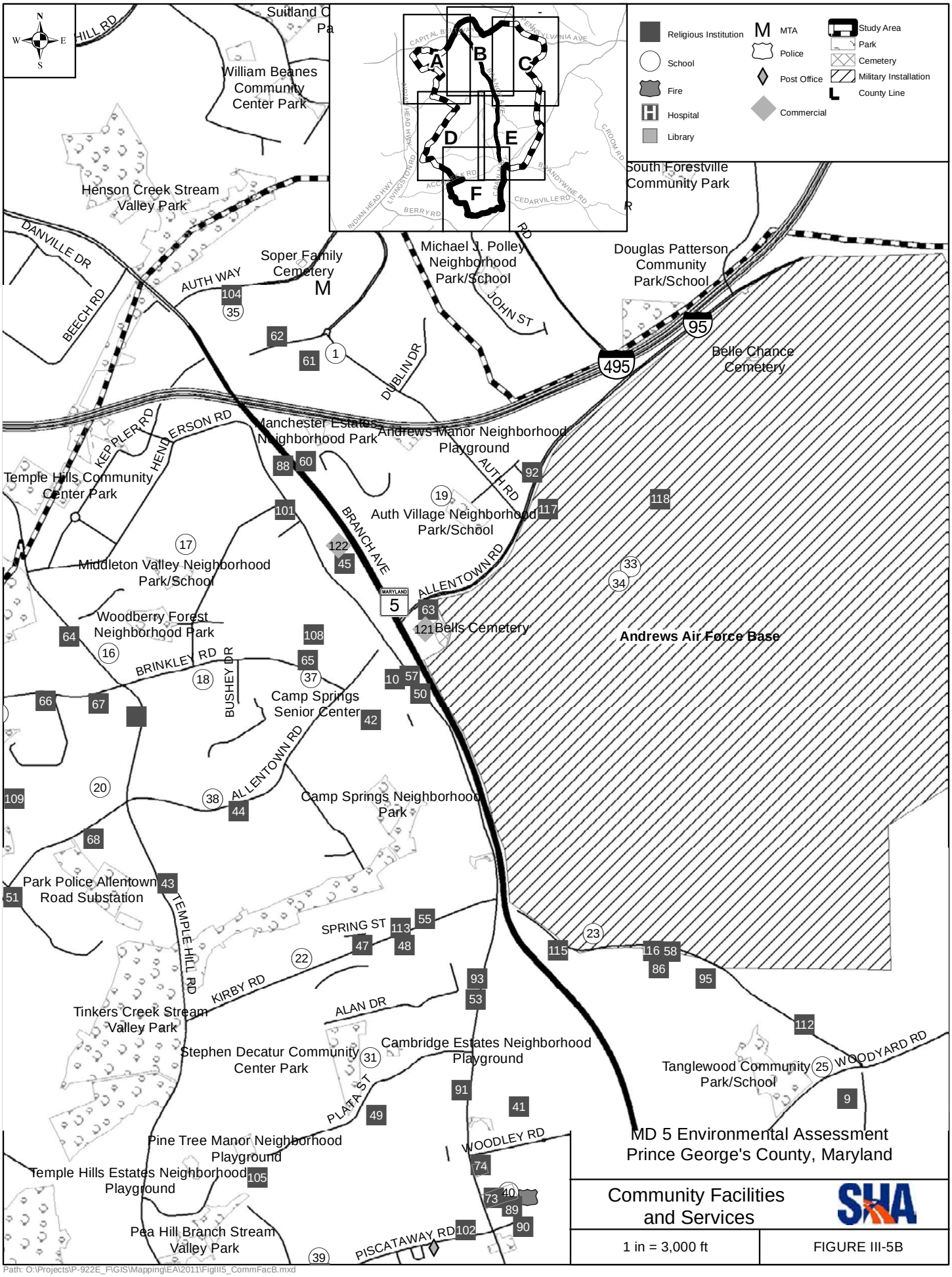
Religious Institution
School
Fire
Hospital
Library
MTA
Police
Post Office
Commercial
Study Area
Park
Cemetery
Military Installation
County Line
William Beanes Community Center Park
Henson Creek Stream Valley Park
South Forestville Community Park
Soper Family Cemetery
Michael J. Polley Neighborhood Park/School
Douglas Patterson Community Park/School
Belle Chance Cemetery
Manchester Estates Neighborhood Park
Andrews Manor Neighborhood Playground
Temple Hills Community Center Park
Auth Village Neighborhood Park/School
Middleton Valley Neighborhood Park/School
Woodberry Forest Neighborhood Park
Bells Cemetery
Andrews Air Force Base
Camp Springs Senior Center
Camp Springs Neighborhood Park
Park Police Allentown Road Substation
Tinkers Creek Stream Valley Park
Stephen Decatur Community Center Park
Cambridge Estates Neighborhood Playground
Tanglewood Community Park/School
Pine Tree Manor Neighborhood Playground
Temple Hills Estates Neighborhood Playground
Pea Hill Branch Stream Valley Park
DANVILLE DR
BEECH RD
AUTH WAY
DUBLIN DR
JOHN ST
KEPPLER RD
HENDERSON RD
AUTH RD
BRANCH AVE
ALLENTOWN RD
BRINKLEY RD
BUSHEY DR
TEMPLE HILL RD
SPRING ST
KIRBY RD
ALAN DR
PLATA ST
WOODLEY RD
WOODYARD RD
PISCATAWAY RD
MD 5 Environmental Assessment
Prince George's County, Maryland
Community Facilities and Services
1 in = 3,000 ft
FIGURE III-5B
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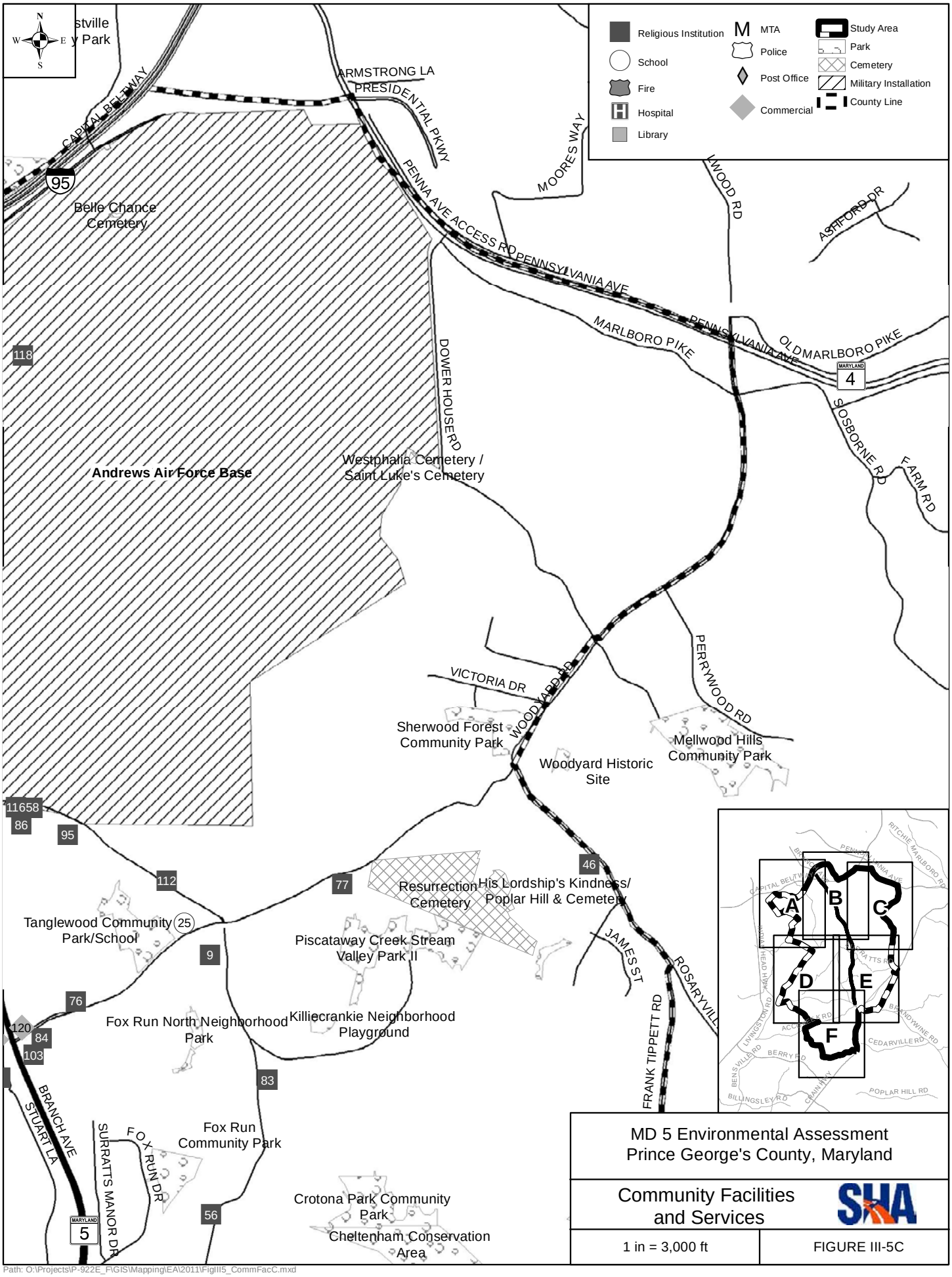

MD 5 Environmental Assessment
Prince George's County, Maryland

Community Facilities and Services

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FIGURE III-5C

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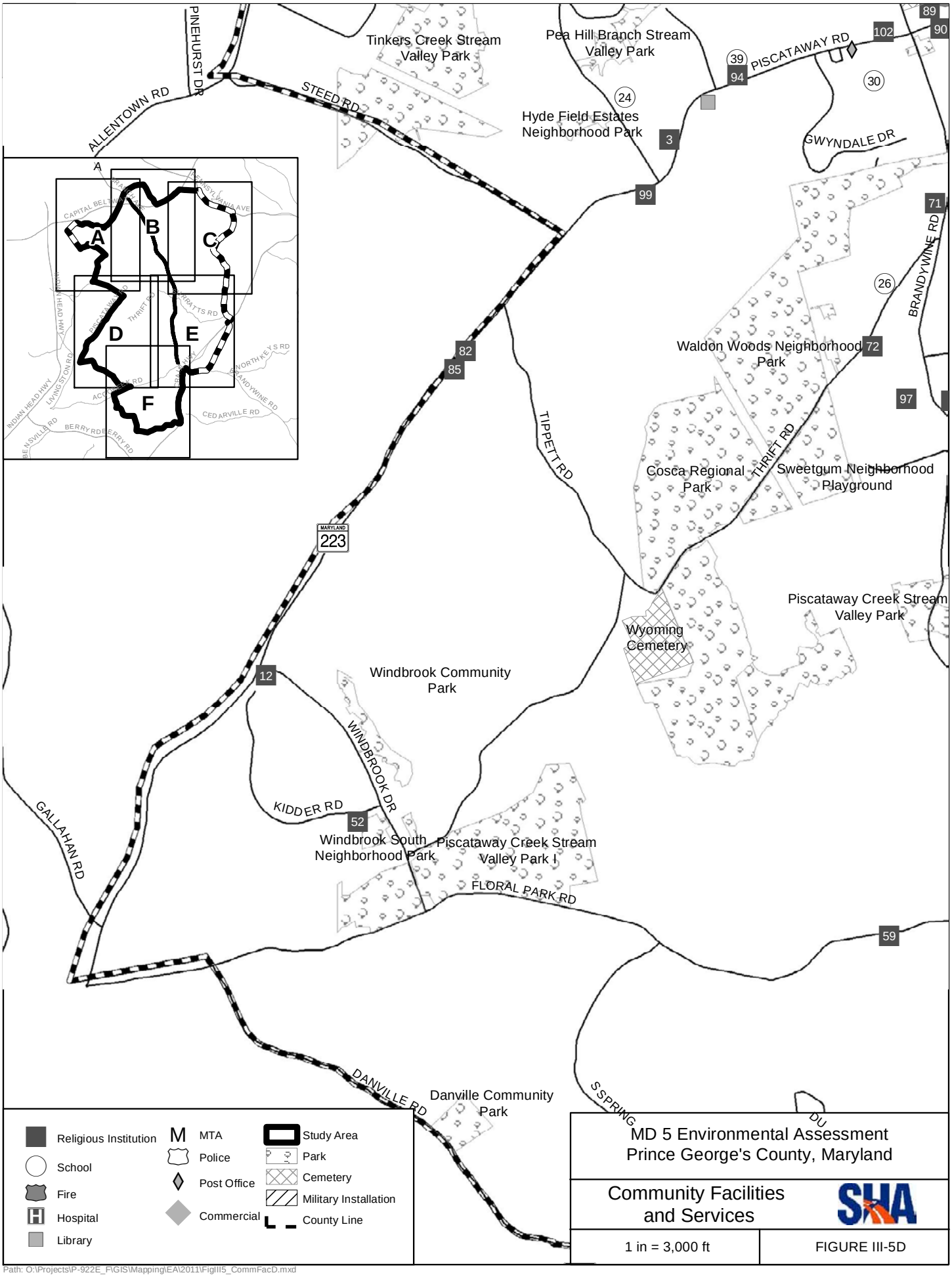

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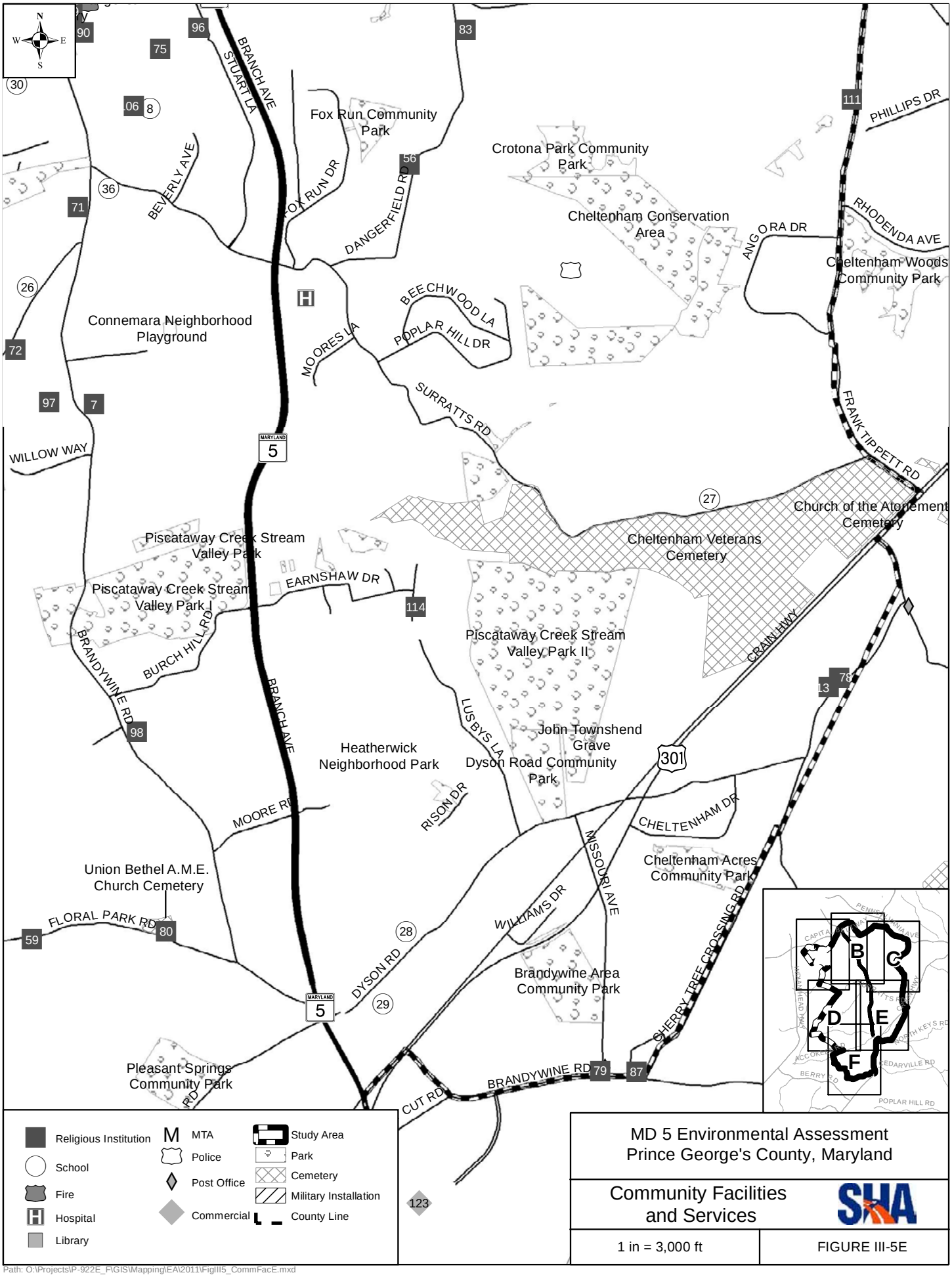
Fox Run Community Park
Crotona Park Community Park
Cheltenham Conservation Area
Cheltenham Woods Community Park
Connemara Neighborhood Playground
Piscataway Creek Stream Valley Park
Piscataway Creek Stream Valley Park I
Piscataway Creek Stream Valley Park II
Cheltenham Veterans Cemetery
Church of the Atonement Cemetery
Heatherwick Neighborhood Park
John Townshend Grave
Dyson Road Community Park
Cheltenham Acres Community Park
Union Bethel A.M.E. Church Cemetery
Brandywine Area Community Park
Pleasant Springs Community Park
BRANCH AVE
STUART LA
BEVERLY AVE
FOX RUN DR
DANGERFIELD RD
PHILLIPS DR
ANGORA DR
RHODENDA AVE
BEECHWOOD LA
POPLAR HILL DR
MOORES LA
SURRATTS RD
FRANK TIPPETT RD
WILLOW WAY
EARNSHAW DR
BURCH HILL RD
BRANDYWINE RD
CRAIN HWY
LUSBYS LA
RISON DR
MOORE RD
CHELTENHAM DR
MISSOURI AVE
WILLIAMS DR
SHERRY TREE CROSSING RD
FLORAL PARK RD
DYSON RD
CUT RD
BRANDYWINE RD
POPLAR HILL RD
Religious Institution
School
Fire
Hospital
Library
MTA
Police
Post Office
Commercial
Study Area
Park
Cemetery
Military Installation
County Line
MD 5 Environmental Assessment
Prince George's County, Maryland
Community Facilities and Services
1 in = 3,000 ft
FIGURE III-5E
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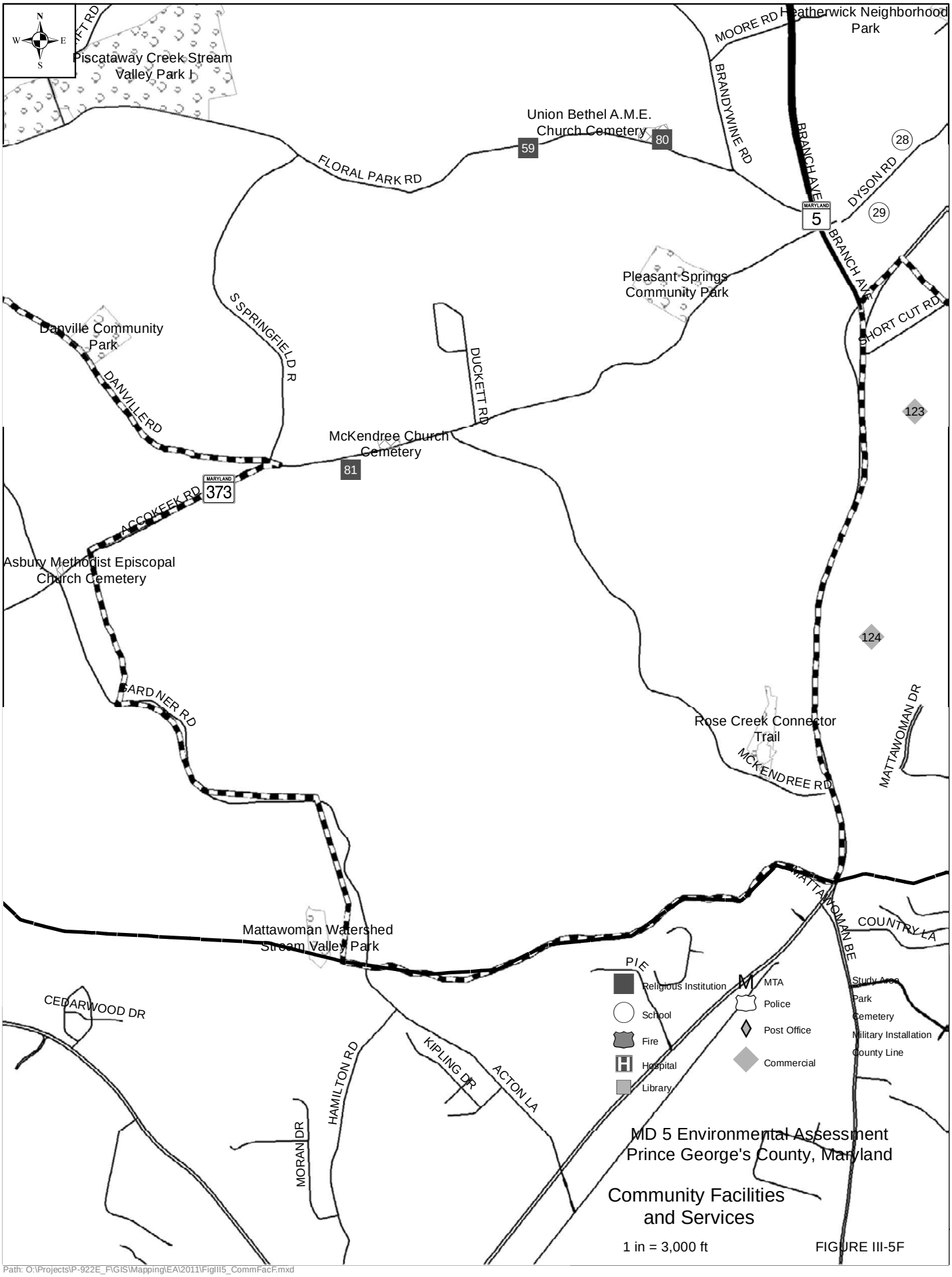

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Table III-5: Listing of Community Facilities (associated with Figures III-5A-F)

#	NAME	#	NAME
1	St. Phillips School	64	Broadview Baptist Church
2	Branch Avenue Metro	65	Bethel Bible Church
3	Greater Refuge Church	66	Church of Christ-Oxon Hill
4	Library	67	Unity Presbyterian Church-Camp Springs
5	Post Office	68	Bethany Christian Church
6	Clinton Volunteer Fire Department	69	Ebenezer AME Church
7	Clinton United Methodist Church	70	Allentown Baptist Church
8	United Church Academy	71	Clinton United Presbyterian Church
9	New Horizon	72	Clinton Christian Assembly
10	Federal Law Enforcement Training Center	73	St. John's Catholic Church
11	Southern Maryland Hospital Center	74	Christ Episcopal Church of Clinton
12	Brethren Baptist Church	75	Antioch Baptist Church
13	Christian Love Church	76	Clinton Baptist Church
14	Post Office	77	Camp Springs Community Church
15	Post Office	78	Cheltenham Church of God
16	Allenwood Elementary School	79	Brandywine Episcopal Church
17	Middleton Valley Elementary School	80	Union Bethel AME Church
18	Thurgood G. Marshall Middle School	81	Apostolic Faith Church
19	Princeton Elementary School	82	Adams Inspirational AME Church
20	Crossland High School	83	Bladensburg Baptist Church
21	Avalon Elementary School	84	Berean Baptist Church
22	James Ryder Randall Elementary School	85	Bible Lighthouse Missionary Church
23	Francis T. Evans Elementary School	86	Bible Prayer Time Faith, Inc.
24	Clinton Grove Elementary School	87	Brandywine Bible Church
25	Tanglewood Special Education Center	88	Nativity Episcopal Church
26	Waldon Woods Elementary School	89	Center of Praise & Worship
27	Regional Institute for Children and Adolescents	90	Christ Temple Church
28	Gwynn Park Middle School	91	Christian Science Church
29	Gwynn Park High School	92	Church of the Great Commission
30	Surrattsville High School	93	Hope Lutheran Church
31	Stephen Decatur Middle School	94	Independent Baptist Church
32	Aylor-Brinkley	95	Little Rock Baptist Church
33	Central Michigan University	96	Lords Church & Christian Center
34	Embry-Riddle Aeronautical University	97	Love & Faith World Outreach
35	Strayer College	98	Maryland Gospel Assembly Church
36	Grace Brethren Christian Schools	99	Mt. Ennon Baptist Church
37	Progressive Christian Academy	100	National Church of God
38	Henson Valley Montessori School	101	New Chapel Baptist Church

#	NAME	#	NAME
39	Independent Baptist School	102	New Horizon Baptist Church
40	Saint John's School	103	New Life Christian Church
41	Clinton Community Chapel	104	None Suffer Lack Church
42	Community of Hope Church	105	Oblation Baptist Church
43	Davies Memorial Unitarian Church	106	Outreach Christian Center
44	First Baptist Church-Camp Springs	107	Power of the Resurrection Baptist Church
45	Evangel Assembly of God	108	Progressive Baptist Church
46	Fellowship Baptist Church	109	Rising Star Church
47	First New Horizon Baptist Church	110	Shepherd's House Church of God
48	First United Pentecostal Church	111	Upper Marlboro Apostolic Church
49	Gospel Deliverance Christian Church	112	Spiritual Guidance Church
50	Gospel Missionary Baptist Church	113	Victory Christian Ministries
51	Grace Assembly Church	114	Way of Life Church of Christ
52	Greater Refuge Church of God	115	Way of Life Church of Christ
53	Greater Refuge Church of God	116	Words of Life Christian Church
54	Greater Revelation Baptist Church	117	Chapel 1
55	Silver Hill Congregation Jehovah's Witnesses	118	Chapel 3
56	Jerusalem AME Church	119	Woodyard Crossing
57	Joshua Christian Center	120	Clinton Park Shopping Center
58	Kingdom of God Ministries	121	Allentown Outlet Mall
59	Highway Church of Jesus	122	Branch Avenue Plaza
60	Kirkland Memorial Second Church	123	Brandywine Commerce Center
61	St. Phillip's Church	124	Brandywine 301 Industrial Park
62	Church of Jesus Christ of Latter Day Saints	125	Triangle Industrial Park
63	Bells United Methodist Church		

Emergency Services and Law Enforcement

Four emergency services departments serve the study-area: the Clinton Volunteer Fire Department, Brandywine Volunteer Fire Department, Silver Hill Volunteer Fire Department, and Ritchie Volunteer Fire Department. Two police departments also respond within the study-area: the District IV Police Station and the District V Police Station.

SHA requested comments on the project and its possible effects on response times from the emergency services and law enforcement facilities that serve the area and sent letters to Police Chief Roberto L. Hylton, Prince George's County Police; Acting Fire Chief Eugene A. Jones; and Prince George's County Fire/EMS. Chief Hylton stated that any of the proposed improvements would enhance the ability of the police to respond to calls and asked that his office be notified in advance of any road closures due to construction so he could inform personnel. Acting Chief Jones stated that, during construction, transport times would increase, but when the improvements were completed they would improve traffic flow and decrease response times for emergency vehicles. He also stated that adequate access must be maintained

near Southern Maryland Hospital Center. Chief Jones also sent a letter stating that the Prince George's County Fire/Emergency Medical Services (EMS) Department is in support of Alternative 8. Letters from both organizations are included in Section IV Comments and Coordination.

Impacts

None of the proposed build alternatives, interchange options, or the No-Build Alternative would directly impact community facilities or services. Temporary impacts on traffic operations would affect all community facilities and services as a result of construction activities associated with each of the build alternatives. However, these temporary impacts would be partially offset by a Maintenance of Traffic plan developed prior to construction, and the long-term benefits of reduced traffic congestion, and safer, more efficient travel.

B. Economic Environment

The following information is summarized from the *MD 5 Community Effects Analysis Technical Report* (*SHA 2011c in Section V. References*). This section examines the employment characteristics, industries, commuting modes, travel times, and tax base of Prince George's County. Regional characteristics refer to the county as a whole, whereas local characteristics are limited to the study-area. All data in the Economic Environment Section relies on Census 2000 data as the data included in this section is not available from Census 2010.

1. Employment Characteristics

Employment by industry among the civilian population in the county and state is summarized in **Table III-6**. Education, health, and social services industries employ the greatest number of workers in the county (20 percent) and the state (20.9 percent). Overall, the employment characteristics between the state and county are similar.

Employment by industry for study-area residents is summarized in **Table III-7**. Local employment characteristics were generally consistent with the county as a whole. Within the study-area, public administration is the largest employment industry (21.9 percent). Within individual census tracts, the public administration, and educational, health, and social services industries are the two highest employment industries.

Table III-6: Employment Characteristics for the State and County

Industry	Maryland		Prince George's County	
	Number	Percent	Number	Percent
Agriculture, Forestry, Fishing and Hunting, Mining	16,178	0.6	635	0.2
Construction	181,280	6.9	23,612	5.9
Manufacturing	189,327	7.3	13,695	3.4
Wholesale Trade	72,621	2.8	8,119	2.0
Retail Trade	273,339	10.5	37,447	9.4
Transportation and Warehousing, Utilities	127,294	4.9	26,753	6.7
Information	103,351	4.0	20,297	5.1
Finance, Insurance, Real Estate, Rental and Leasing	186,159	7.1	24,058	6.0
Professional, Scientific, Management, Administrative, Waste Management Services	323,834	12.4	50,505	12.6
Educational, Health and Social Services	538,350	20.6	79,934	20.0
Arts, Entertainment, Recreation, Accommodation, Food Services	177,341	6.8	25,779	6.5
Public Administration	273,959	10.5	63,450	15.9
Other	145,424	5.6	25,071	6.3
Total	**2,608,457**	**100**	**399,355**	**100**

Source: U.S. Census Bureau, Census 2000

Table III-7: Employment Characteristics for the MD 5 Study-Area

Industry	Study-Area	
	Number	Percent
Agriculture, Forestry, Fishing and Hunting, Mining	107	0.2
Construction	2,365	5.2
Manufacturing	1,488	3.3
Wholesale Trade	801	1.8
Retail Trade	3,789	8.4
Transportation and Warehousing, Utilities	3,754	8.3
Information	1,967	4.4
Finance, Insurance, Real Estate, Rental and Leasing	2,489	5.5
Professional, Scientific, Management, Administrative, Waste Management Services	5,131	11.4
Educational, Health and Social Services	8,269	18.4
Arts, Entertainment, Recreation, Accommodation, Food Services	2,290	5.1
Public Administration	9,886	21.9
Other	2,714	6.0
Total	**45,050**	**100**

Source: U.S. Census Bureau, Census 2000

Commutation data from Census 2000 indicates that county residents are much more likely to travel outside the county for work than are residents of most other counties throughout Maryland. Only 39 percent of the county's employed residents worked within the county (Maryland Department of Planning (MDP) 2006), one of the lowest among all Maryland counties. Of the commuters that traveled outside the county, 52 percent worked in Washington, D.C., 19 percent worked in Virginia (primarily Arlington and Fairfax Counties), 17 percent worked in Montgomery County, nine percent worked in the Baltimore region, and three percent worked elsewhere. In addition, only 53 percent of workers employed within the county were residents.

Available travel time data give some indication of the relative importance of local employment to area residents. Workers residing in the study-area have a longer commute time than the county and state average. Although 42.5 percent of workers in the study-area commute 40 minutes or more to work, only 37.7 percent of workers in the county commute the same length of time.

The No-Build Alternative would have no direct impact on local employment characteristics. Alternatives 4, 5, 6, and 8 would require the displacement of two businesses, Clinton Square and Young's Auto Repair. As previously discussed, Surratts Interchange Options A and B would require one additional business displacement, a 7-11 convenience store; however, these options would facilitate safer, faster travel through the interchange and would improve access to Southern Maryland Hospital Center. Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option B would eliminate direct access from MD 5 to Ed's Plant World at the intersection of Burch Hill Road and MD 5. Although customers of this business would need to travel farther to gain access to the garden center, Option B would permit them to access the business from the planned service road on the eastern side of MD 5. Impacts on businesses as a result of the build alternatives are relatively minor in comparison to the size of the project. The Capital Beltway and Woodyard Road direct-access ramps would have no direct impact on study-area businesses or employment.

The No-Build Alternative would have no direct impact on regional employment characteristics. Construction of the build alternatives would have no direct impact on the regional economy, but may cause indirect effects over the course of the project. Such indirect impacts would arise from the easing of congestion on MD 5. Decreased congestion, resulting in decreased travel time, could benefit the regional economy by enabling workers and delivery vehicles to travel through the corridor more quickly. These indirect effects may enhance the increased future employment that is forecast for the region.

2. Tax Base

The real-property tax rate for Prince George's County is $0.96 per $100 of assessed value. The tax rate was capped under the 1978 amendment to the County Charter known as Tax Reform Initiative (TRIM). Under TRIM, the real-property tax rate remains constant, and real property tax revenue adjusts only through changes in assessed values of property. The county estimated $705.3 million in total revenue from property tax for fiscal year 2010.

Alternatives 4, 5, 6, and 8, as well as Surratts Interchange Options A and B, would require residential and/or business displacements. All displacements would result in a loss of property-tax revenue and reduce the tax base by converting commercial or residential property to transportation uses. The reduction in revenue would be minor in comparison to the size of the project and the improved roadway system within the study-area could encourage additional commercial and residential growth.

C. Land Use

1. Existing and Future Land Use

Existing land use within the study-area was examined according to the MDP 2002 Land Use/Land Cover for Maryland. The predominant existing land use within the 42,144-acre study-area is undeveloped land, primarily forested (44.6 percent) and agricultural (10.9 percent), with some open urban land (2.7 percent). AAFB, located in the northeastern section of the study-area, accounts for most of the open urban land. The next highest land use category is residential development (25.8 percent), which is concentrated in the northern portion of the study-area. Commercial and industrial lands are concentrated along either side of MD 5 and other major roadways.

Land use in the study-area over the next two decades will be shaped by comprehensive planning and zoning. The study-area is located within 10 Planning Areas and three Sub-Regions of Prince George's County (Sub-Regions V, VI, and VII). Each Sub-Region has an existing Master Plan or one under development that builds upon and refines the general vision identified in the County Master Plan.

According to the 2002 Prince George's County General Plan, future growth in the northern section of the study-area above Allentown Road will involve infill and redevelopment for commercial/employment and high-density residential uses. Future growth in the portion of the study-area south of Allentown Road will primarily consist of low-density residential and employment uses and will result in considerable growth as new development continues to increase in this area. Section III-I contains a detailed discussion of existing and future land use.

2. Impacts on Land Use

Direct changes to current or future land use within the study-area as a result of this project would be minor. Although some forested land would be converted to transportation uses, the project is entirely consistent with the Prince George's County General Plan and Sub-Region Master Plans for the study-area. All development and zoning proposals submitted to the Planning Board are evaluated by the Prince George's County Transportation Planning Section for potential impacts on future traffic and transportation facilities (M-NCPPC 2002a). The evaluation considers future transportation improvements only when funding has been approved for construction. Consequently, any pending future residential/commercial development projects would not depend upon the MD 5 Corridor Transportation Study for approval.

3. Compliance with Smart Growth Initiatives

In 1997, the Maryland General Assembly passed five pieces of legislation collectively known as the Smart Growth and Neighborhood Conservation Initiative. Smart Growth directs the state to

target programs and funding to support established communities and locally designated growth areas and to protect rural areas. A component of the Smart-Growth Priority Funding Areas Act provides a geographic focus for the state's investments in growth-related infrastructure by requiring all counties to identify and map the Priority Funding Areas (PFAs) that meet the requirements of the legislation. The remaining components complement this geographic focus by targeting specific state resources to preserve land outside the PFAs, encouraging growth inside PFAs, and ensuring that existing communities continue to provide a high quality of life for their residents. One large PFA occupying the area north of Burch Hill Road and Earnshaw Drive encompasses approximately 80 percent of the MD 5 corridor (**Figure III-6**). The portion of MD 5 from the Burch Hill Road and Earnshaw Drive intersections to the MD 373 and MD 381 intersections is not encompassed by a PFA. However, a PFA corresponding to the Brandywine area is located immediately south and east of the project's southern terminus.

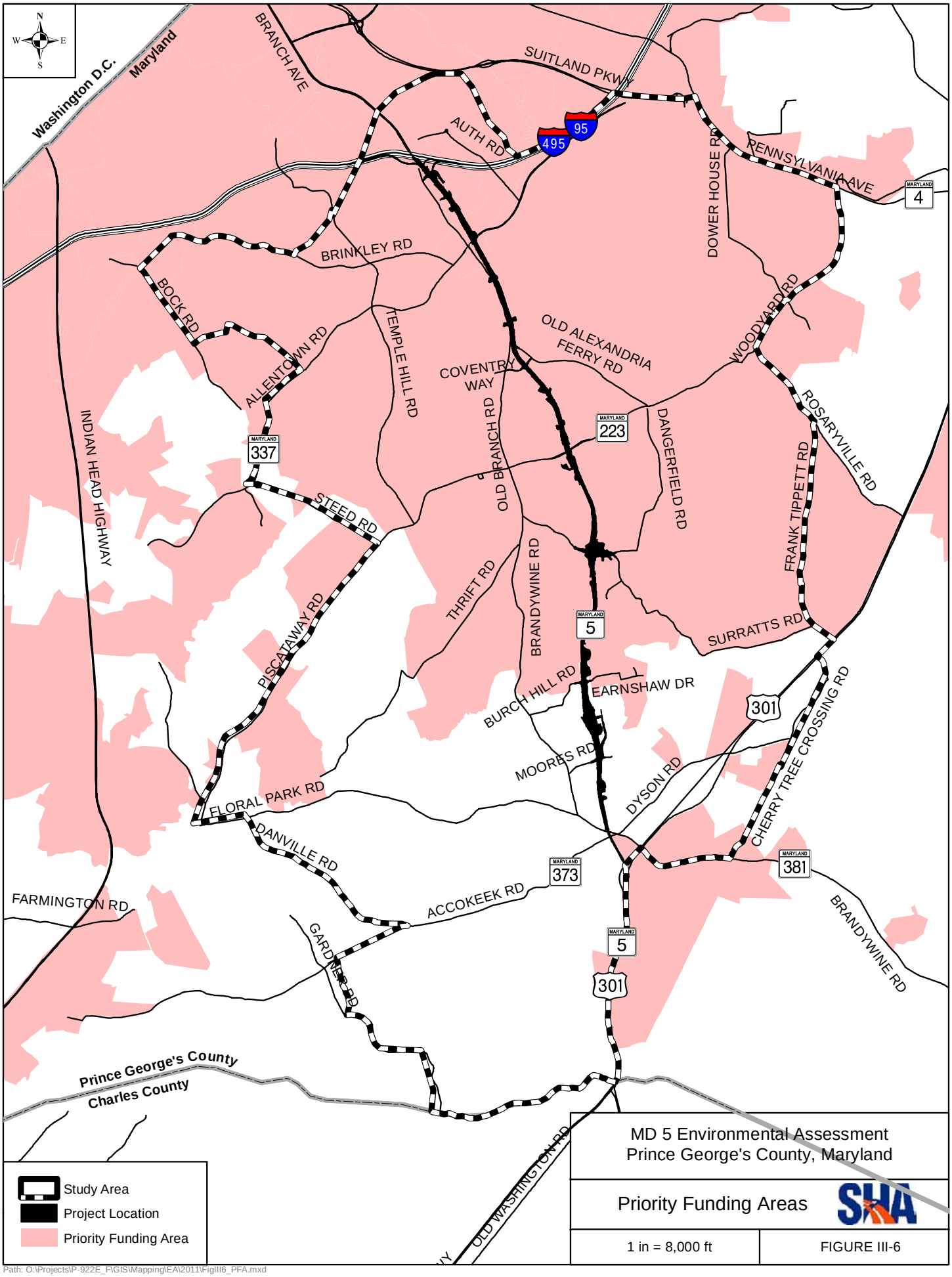
With the exception of the southern portion of the MD 5 project corridor, the study-area is located within a PFA and is consistent with Smart-Growth criteria. SHA has coordinated with MDP to confirm that the origin and destination modeling supports that the project serves to connect PFAs in both the northern and southern portions of the study area. SHA will continue to coordinate with MDP to ensure project compliance with Smart-Growth Initiatives once a Preferred Alternative is designated.

4. Livability Principles and Sustainability

As part of its Every Day Counts initiative, FHWA has established six guiding principles of the livability initiative. Departments of Transportation are encouraged to be mindful of the following principles during project planning.

- **Provide more transportation choices –** Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our dependence on oil, improve air quality, and promote public health.
- **Promote equitable, affordable housing –** Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- **Enhance economic competitiveness -** Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
- **Supporting existing communities -** Target federal funding toward existing communities through transit-oriented mixed- use development and land recycling to revitalize communities, reduce public works costs, and safeguard rural landscapes.
- **Coordinate policies and leverage investment -** Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
- **Value communities and neighborhoods -** Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods, whether rural, urban, or suburban.

In early 2009, an intermodal working group was formed to start shaping the U.S. Department of Transportation's (USDOT) vision of livability. Initial steps included the identification of all



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existing programs and authorities within the USDOT that already supported livability, and drafting possible changes to these programs that would allow the USDOT to make livability a priority and to make real improvements in the lives of American citizens.

In June 2009, the U.S. Department of Housing and Urban Development, USDOT, and the EPA united to form the Partnership for Sustainable Communities, an unprecedented agreement to coordinate federal housing, transportation, and environmental investments, protect public health and the environment, promote equitable development, and help address the challenges of climate change. The three agencies are working together to coordinate federal policies, programs, and resources to help urban, suburban, and rural areas and regions build more sustainable communities, to make those communities the style of development in the United States, and to remove policy or other barriers that have kept Americans from doing so.

a. Effects on Livability Principles and Sustainability

The purpose of the MD 5 Corridor Transportation Study is to facilitate safe and efficient traffic flow while providing cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts, while enhancing and facilitating transit services. The proposed project would improve economic competitiveness of the surrounding communities by providing transportation solutions to ensure more reliable and timely access to employment centers, educational opportunities, services and other basic needs throughout the MD 5 study area, while also supporting existing communities by accommodating Bus Rapid Transit operations throughout the corridor, thereby providing more safe, reliable and economical transportation choices to decrease household transportation costs and promote public health. The MD 5 Corridor Transportation Study would support the effectiveness of programs to plan for future growth by providing transportation infrastructure improvements to connect existing PFAs. SHA has worked extensively with the Prince George's County officials to include design features that address local and regional transportation needs with respect to the development and revitalization trends and setting of the adjacent communities.

All of the mainline build alternatives would widen MD 5 to provide improved capacity and traffic operations throughout the MD 5 corridor, while also converting the existing at-grade intersections to grade-separated interchanges. Alternatives 3 and 4 would provide a 12-foot shoulder designed to accommodate buses and Bus Rapid Transit operations. Alternative 5 would provide two new price-managed lanes in the MD 5 median, while Alternative 6 would provide one additional price-managed lane in each direction. Both Alternatives 5 and 6 would allow buses to travel in the price-managed lanes at no cost, providing enhanced transportation options and timely, more reliable service. Alternative 8 would widen MD 5 with one additional lane, with the new lane being designed as a non-price-managed HOV lane, which could accommodate buses or Bus Rapid Transit operations. Alternatives 4 through 8 would also provide a direct access ramp onto the proposed Metro Access Road, providing enhanced access to transit. Because MD 5 is a controlled access highway, no sidewalks or pedestrian facilities will be incorporated into the design.

The design elements of each alternative were developed to ensure that the project is consistent with the growth elements of the Prince George's County Approved General Plan (M-NCPPC 2002b), the three Sub-Region Master Plans (Sub-Regions V, VI, and VII), and other approved

plans. Each of these plans calls for the MD 5 corridor to be upgraded to a fully access controlled highway with grade-separated interchanges as a means to achieve its future land use goals. The project would address the needs identified in the land use plans by alleviating the predicted traffic congestion throughout the study area.

The proposed improvements would support the Livability Initiative by helping to provide more transportation choices, enhancing economic competitiveness through reliable and timely transportation options, and by supporting existing communities that are located in the Prince George's County's Developing Tier and PFAs. While not specifically addressing all of guiding principles of the Livability Initiative, the proposed alternatives would indirectly support them by providing important transportation infrastructure and addressing local and regional transportation needs. None of the MD 5 Corridor Transportation Study alternatives would be inconsistent with the FHWA's Livability Initiative.

D. Cultural Resources

Identification and evaluation of historic architectural and archaeological resources was conducted in accordance with federal and state laws, which protect important cultural resources. Background research and field surveys were conducted to facilitate identification of cultural resources. An Area of Potential Effect (APE) was delineated in which to identify resources and evaluate the potential impacts of those resources.

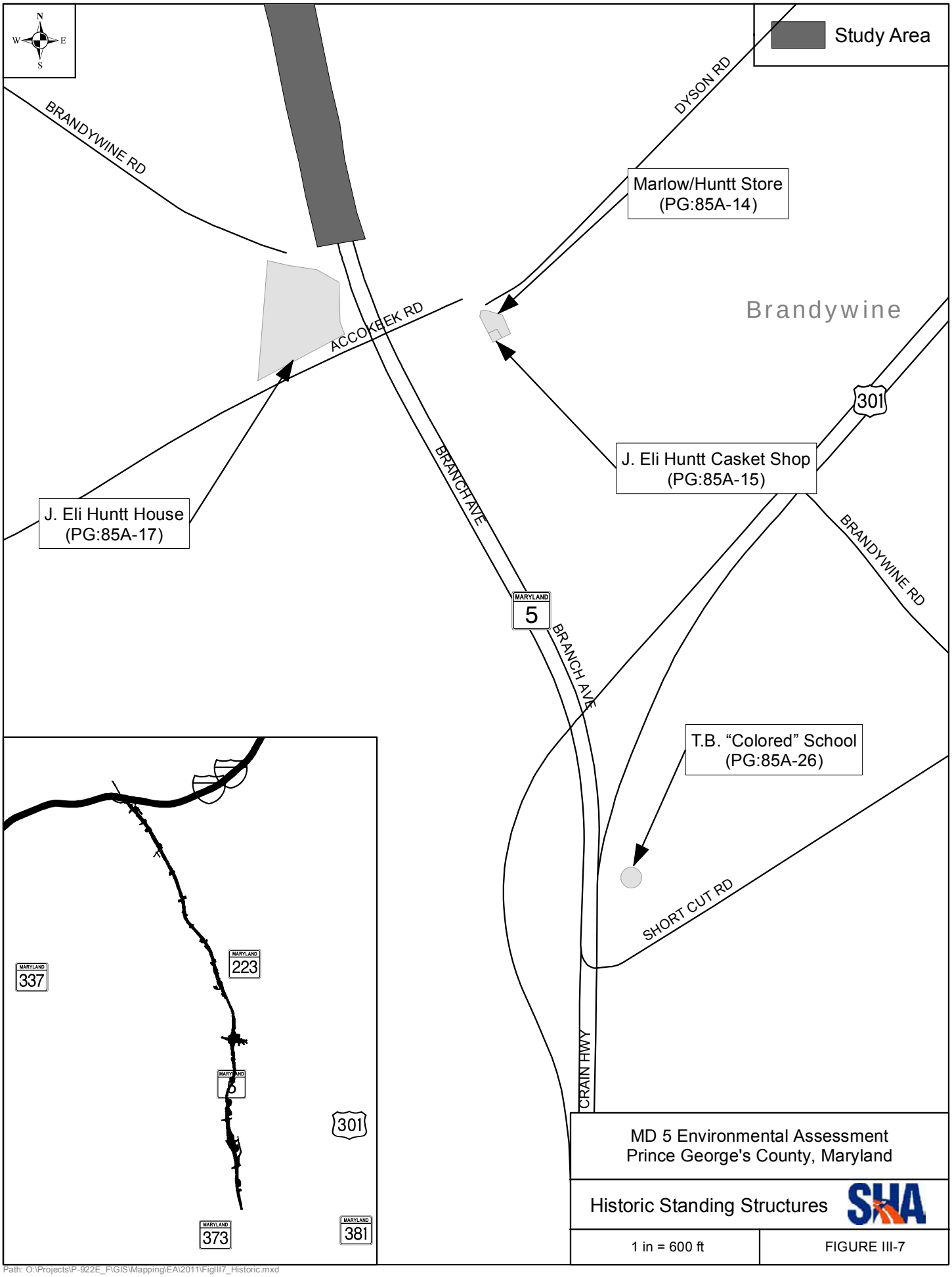
All cultural resources identified during the architectural and archaeological surveys were evaluated for their eligibility to be included on the National Register of Historic Places (NRHP). The NRHP criteria evaluates the significance of properties based on their integrity, and determine if those properties are associated with broad patterns of our history (Criterion A); or are associated with the lives of persons significant in our past (Criterion B); or that embody the distinctive characteristics of a type, period, or method of construction representing the work of a master, or have artistic value (Criterion C); or that yield information important in prehistory or history (Criterion D) (36 CFR 60.4, and National Register Bulletin No. 15).

1. Historic Standing Structures

"Historic standing structures" refers to any above-ground building, structure, district, or object that contributes to our cultural past. When these resources meet the criteria for listing in the NRHP, they are historic properties that must be considered under the requirements of the National Historic Preservation Act of 1966.

The following historic standing structures were previously determined eligible for listing in the National Register of Historic Places (NRHP) and are located adjacent to the APE:
Marlow/Huntt Store (PG:85A-14)
J. Eli Huntt Casket Shop (PG:85A-15)
J. Eli Huntt House (PG:85A-17)
T.B. "Colored" School (PG:85A-26)

The locations of these structures are indicated on **Figure III-7**.



MD 5 Environmental Assessment
Prince George's County, Maryland

Historic Standing Structures

1 in = 600 ft

FIGURE III-7

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These four NRHP eligible properties are located within the APE for the Brandywine Road intersection with MD 5 breakout project, and are outside of the APE for the MD 5 corridor project.

Impacts

The Maryland Historical Trust (MHT), the State Historic Preservation Officer (SHPO) for the State of Maryland, concurred on October 15, 2009 that no historic properties would be affected by the proposed improvements. In response to revised limits of disturbance (LOD) associated with ESD changes, SHA submitted a revised APE to MHT on April 20, 2011, again recommending that there would be no historic structures affected. MHT concurred with this finding on May 19, 2011. No historic structures would be affected by the build alternatives. See Section IV Comments and Coordination (pages IV-60 to IV-66) for this correspondence.

2. Archaeological Resources

Archaeological resources relate to evidences of past human occupation that can be used to reconstruct the lifeways of past peoples. These include sites, artifacts, environmental and all other relevant information, as well as the contexts in which they occur. All archaeological (prehistoric and historic) sites must be evaluated for their eligibility for the NRHP by the MHT.

There is one previously identified archaeological site located within the APE (Surratts Site 18PR315) as well as high archeological potential for both prehistoric and historic era sites within undeveloped portions of the APE near streams, historic road alignments, and previously identified sites. A Phase I investigation was completed, and revealed a limited number of artifacts at the previously identified Surratts Site, as well as extensive disturbance resulting from the recent construction of a housing development. No new sites were discovered within the remaining undeveloped portions of the APE. This site was recommended as not eligible for the NRHP on October 1, 2009.

Impacts

The MHT concurred on October 15, 2009 that the Surratts Site does not warrant additional survey work and is not eligible for listing on the NRHP. In response to LOD revisions associated with ESD changes, SHA submitted a revised APE to MHT on April 20, 2011, again recommending that there would be no archeological resources affected. MHT concurred with this finding on May 19, 2011. No archeological resource sites would be affected by the build alternatives. See *Section IV Comments and Coordination* for this correspondence.

E. Natural Environment

The additional detail regarding the following information is presented in the *Natural Environmental Technical Report* (*SHA 2011f* in *Section V. References*). The No-Build Alternative is not expected to result in any impacts to natural environmental resources.

1. Topography and Geology

The study-area is located within the Atlantic Coastal Plain Province and lies within the Western Shore Uplands Region. Most of the study-area is in the Waldorf Upland Plain District of the Region, which consists mainly of sands and gravels of the Pliocene age. The Piscataway stream valley is in the Potomac Estuary and Lowlands District of the Region, which contains mixed fluvial, estuarine, and marginal marine sands, silts, and clays, with some fine to medium pebbles (Reger and Cleaves, 2008). Topography within the study-area consists of gentle to moderate slopes. The highest elevations are in the northern portion of the study-area and the lowest are along Piscataway Creek toward the southern project terminus.

Impacts

No direct impacts to topography are expected for any of the MD 5 mainline widening alternatives. Excavation and grading associated with each of the grade-separated interchange options may affect micro-topography at local levels. However, any alterations in surface or groundwater drainage are expected to be minimal and offset by proposed SWM facilities.

2. Soils

The study-area contains hydric soils, prime farmland soils, and Maryland farmland soils of statewide importance.

Impacts

Direct impacts to soils within the study-area by the build alternatives and interchange options are summarized in **Table III-8**. In general, most of the direct impacts to soils would occur where land grading is necessary for construction. Most of the planned improvements are to areas that have already been disturbed, such as the MD 5 ROW, and existing interchanges and intersections.

Table III-8: Direct Impacts (acres) to Hydric, Highly Erodible, and Farmland Soils

Mainline Alternatives	**Alt 3 Upgrade South of MD 223**	**Alt 4 Upgrade Entire Corridor**	**Alt 5 Rev. Price-Managed Lanes**	**Alt 6 One to Two Price-Managed Lanes**	**Alt 8 HOV**
Hydric	21.5	26.6	31.8	31.2	26.8
Highly Erodible	67.9	103.0	112.8	112.4	103.6
Prime Farmland	17.6	85.6	89.2	89.7	88.3
Farmland of Statewide Importance	42.5	93.4	102.2	99.2	95.8
Interchange Options	**Surratts Rd Option A**	**Surratts Rd Option B**	**Moores/ Earnshaw/ Burch Hill Option A**	**Moores/ Earnshaw/ Burch Hill Option B**	
Hydric	5.9	5.9	1.6	7.1	
Highly Erodible	29.0	28.3	35.3	37.9	
Prime Farmland	0	<0.1	4.9	12.1	
Farmland of Statewide Importance	5.9	5.8	15.2	18.2	

Avoidance, Minimization, and Mitigation Strategies

As the MD 5 project advances to more detailed design, existing soils will be evaluated for compatibility with roadway construction. Factors such as erodibility and steep slopes may be a limiting factor for construction. In addition, a Sediment and Erosion Control Plan would be developed during the final design stage in accordance with Maryland Department of the Environment (MDE) guidelines.

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federally funded projects contribute to the unnecessary and irreversible conversion of farmland to nonagricultural use. To comply with the FPPA, a Farmland Conversion Impact Rating Form AD-1006 was completed and submitted to the Natural Resources Conservation Service (NRCS) office in Prince George's County on October 7, 2009. The NRCS responded on November 6, 2009, providing information on the acreage and usage of farmland in the vicinity of the project. Coordination with the NRCS was re-initiated in November of 2011, to address changes in the LOD associated with ESD modifications. The NRCS responded on February 9, 2012, indicating that they determined that the MD 5 Corridor Transportation Study area has been identified as urbanized area (UA) on the US Census Bureau mapping, and therefore the FPPA does not apply. See Section IV Comments and Coordination (pages IV-67 to IV-74 for this correspondence).

3. Aquatic Resources

b. Groundwater and Hydrogeology

Within the study-area, groundwater sources are found in the Patuxent, Patapsco, and Magothy aquifers, which are Coastal Plain aquifers of the Chesapeake Group. The Aquia aquifer is also found within the study-area, but is not used as a water source in this area. The Coastal Plain aquifers are generally confined and the study-area is not located within any aquifer recharge areas (Prince George's County 2008; Water Resource Management Advisory Committee 2004). According to U.S. Environmental Protection Agency (EPA) Region 3 aquifer mapping, no designated sole source aquifers are located within or around the study-area (EPA Virtual Aquifer).

Water levels in the confined aquifers of southern Maryland, including those in the project area, have decreased in the last 50 years. In 2004, it was determined that portions of several aquifers in southern Maryland were reaching levels low enough to cause MDE to prohibit additional withdrawals by major water users. These aquifers are the Magothy, Patapsco, and Aquia. All three aquifers are found in the study-area, but only the Magothy is considered to be of concern in this area (Prince George's County 2008; Water Resource Management Advisory Committee 2004).

Two wells are located near the study-area. Both wells are used by commercial properties and are not used for public water supply. The MDE has not established a wellhead protection zone for either well (MDE personal communication, December 9, 2008).

Impacts

In general, construction activities associated with any of the build alternatives may result in changes to groundwater quantity or quality. A large increase in the amount of impervious surfaces could affect groundwater quantity by reducing infiltration of surface runoff into the soils and groundwater resources. However, the water source aquifers within the study-area are confined, reducing the potential for the project to affect the groundwater that is being used as a water source by water supply wells. An approved SWM plan would be implemented to avoid and minimize any potential impacts to groundwater quantity and quality, utilizing the latest ESD techniques to replicate natural drainage patterns using non-structural practices.

Avoidance, Minimization, and Mitigation Strategies

New SWM facilities would be designed to infiltrate runoff to maintain recharge levels to stream and wetland hydrology. In addition, SWM facilities can capture and filter contaminants from stormwater runoff before they infiltrate groundwater.

c. Water Quality

The study-area is located within the Potomac River Upper Tidal and Piscataway Creek watersheds; approximately 70 percent of the project study-area is in the Piscataway Creek watershed (see **Figure III-8**). All of the first through fourth order streams within both of these watersheds are listed as Category 5 Waters (impaired) on the Integrated List of Impaired Surface Water [303(d) list] (MDE 2010). Within the MD 5 project area, these waterways had low scores on the benthic and fish assessments, although the type of pollutant was "unknown" and no total maximum daily loads had been set. All streams within the study-area have also been designated as Use I-P waters. Use I-P waters are to be of sufficient quality to support water contact recreation, protection of aquatic life, and public water supply, and all have an in-stream work restriction of March 1 through June 15, inclusive, during any year (DNR 2009).

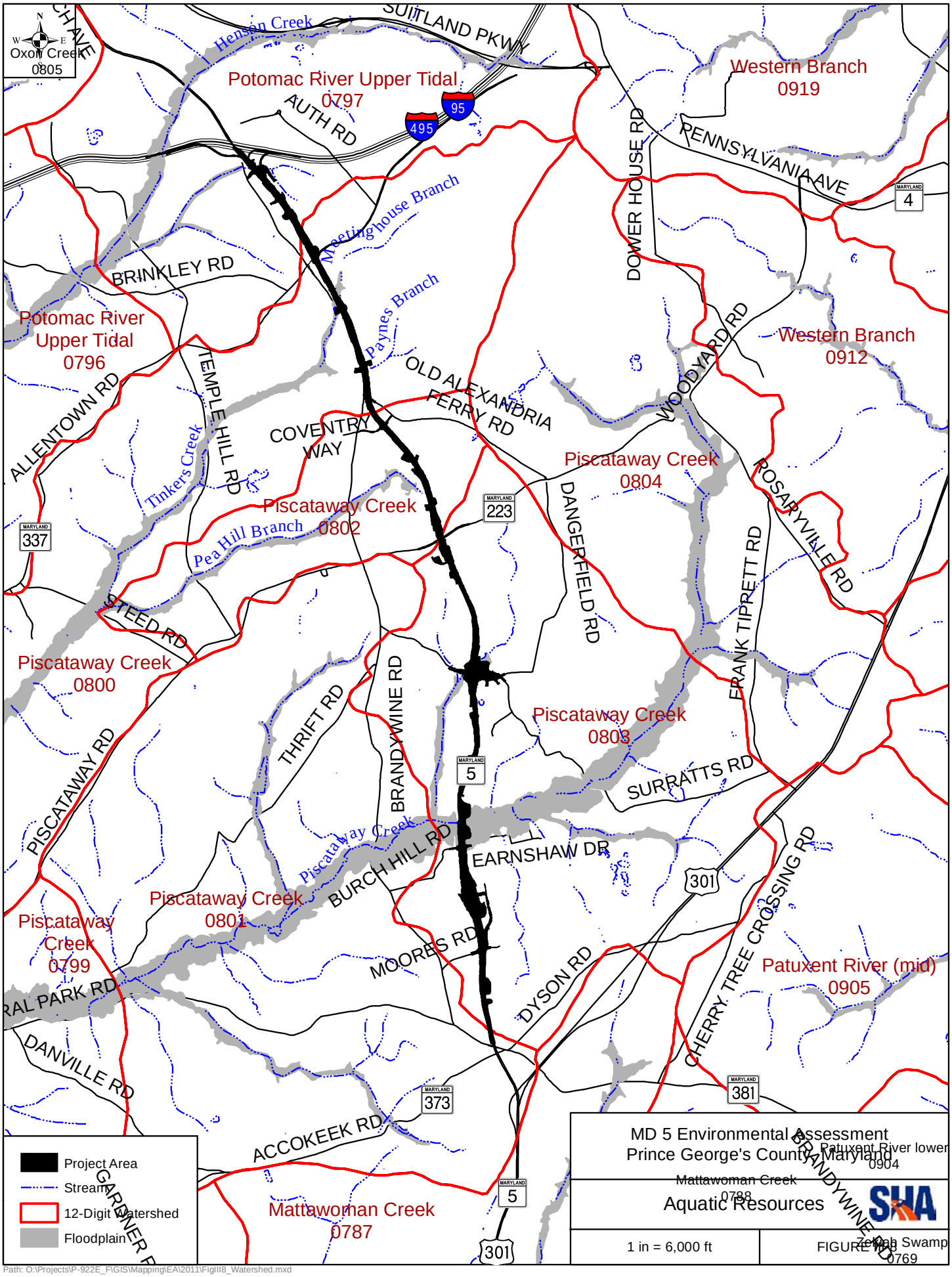
The Potomac River Upper Tidal and Piscataway Creek watersheds have been designated as Tier I Biodiversity Ranking watersheds, meaning that these watersheds are considered essential strongholds for one or more state-listed, threatened, or endangered aquatic species (DNR 2009). Additionally, two mainstem segments of Piscataway Creek (Piscataway Creek 1 and 2) have been designated as High Quality (Tier II) Waters (MDE 2010). Tier II Waters are stream segments in which water quality is above the minimum requirements specified by water quality standards for their designated use. Piscataway Creek 1 is located in the vicinity of the MD 5 project study-area.

Water quality data for the Upper Tidal Potomac River and the Piscataway Creek has been collected by the Maryland Biological Stream Survey and Maryland Stream Waders Volunteer Monitoring Program. Water quality data was compiled and assessed for 29 stream sampling stations located upstream and downstream of the study-area, generally within 0.5 mile of the project. This data showed that water quality, aquatic habitat, and living resources in all the waterways in the study-area have been impacted by development and land use practices, and are typical of sub-watersheds in developed suburban areas throughout the Potomac River and Piscataway Creek watersheds.

Impacts

Construction activities associated with each of the build alternatives at and around waterway crossings could cause permanent water quality impacts through alteration of the stream channel, which could result in the alteration of hydrology at the site. Such hydrological changes may destabilize the channel and stream banks, increase erosion and sediment loads in the stream, and affect water quality and aquatic habitats that support macroinvertebrates and fish. Temporary impacts to water quality during construction may occur due to dewatering, erosion, or vegetation removal.

An increase in impervious surfaces may potentially result in indirect effects on water quality and aquatic biota. For the build-alternatives, the increase in impervious surfaces would range from 16.2 acres for Alternative 3, to 79.0 acres for Alternative 5. The Surratts Road options would add 6.0 to 9.6 acres, and the Moores Road/Earnshaw Drive/Burch Hill Road options would add 3.8 to 5.3 acres of impervious surface area.


Oxon Creek
0805
Henson Creek
SUITLAND PKWY
Potomac River Upper Tidal
0797
AUTH RD
95
495
Western Branch
0919
DOWER HOUSE RD
PENNSYLVANIA AVE
4
Meetinghouse Branch
BRINKLEY RD
Paynes Branch
Potomac River
Upper Tidal
0796
TEMPLE HILL RD
OLD ALEXANDRIA
FERRY RD
WOODYARD RD
Western Branch
0912
ALLENTOWN RD
COVENTRY
WAY
Tinkers Creek
Piscataway Creek
0804
ROSARYVILLE RD
Piscataway Creek
0802
223
DANGERFIELD RD
337
Pea Hill Branch
FRANK TIPPETT RD
STEED RD
Piscataway Creek
0800
THRIFT RD
BRANDYWINE RD
Piscataway Creek
0803
5
SURRATTS RD
PISCATAWAY RD
Piscataway Creek
BURCH HILL RD
EARNSHAW DR
301
Piscataway Creek
0801
Piscataway
Creek
0799
MOORES RD
DYSON RD
CHERRY TREE CROSSING RD
Patuxent River (mid)
0905
RAL PARK RD
DANVILLE RD
381
373
ACCOKEEK RD
Project Area
Stream
12-Digit Watershed
Floodplain
Mattawoman Creek
0787
5
301
MD 5 Environmental Assessment
Prince George's County, Maryland
Aquatic Resources
1 in = 6,000 ft
FIGURE III-8
Path: O:\Projects\P-922E_F\GIS\Mapping\EA\2011\FigIII8_Watershed.mxd

Many indicators of stream quality or relative health decline when impervious cover exceeds 10 percent, and severe degradation is expected when imperviousness exceeds 25 percent (Center for Watershed Protection 2003). The project would primarily affect streams in the Piscataway Creek watershed which has a land area of 43,579 acres. Imperviousness was 16.7 percent in the Piscataway Creek watershed as of 1994 (DNR 1998), and has undoubtedly increased since that time based on recent growth rates and land use changes (see Section III.I.1).

Avoidance, Minimization, and Mitigation

Aquatic resource water quality would be protected by use of the Use I-P in-stream work restriction, which protects the spawning and nursery periods of migratory fish, and strict adherence to approved Erosion and Sediment Control Plans and other best management practices (BMPs) that meet the conditions of the Maryland Stormwater Act of 2007 (MDE 2007). This act promotes the use of ESD techniques in place of traditional SWM practices. The goal of ESD is to utilize innovative non-structural techniques to optimize the conservation of natural drainage features, minimize impervious surfaces, and slow down runoff rates to maintain discharge timing and increase infiltration and evapotranspiration. The use of appropriate ESD techniques with an effective Erosion and Sediment Control Plan would help to reduce the risk of surface water and groundwater contamination, and minimize the deleterious effects of increased impervious surfaces on aquatic resources. A SWM/ESD plan would be developed for the selected alternative. A National Pollutant Discharge Elimination System Notice of Intent form would also be submitted to MDE. As the project advances to more detailed phases of design, other specific strategies to avoid and minimize direct and indirect impacts to streams in the study-area would be explored.

d. "Waters of the United States," including Wetlands

A wetland identification and delineation was conducted from February through June of 2009, and November 2010 through January 2011. Sixty-six wetlands and 84 waterways were identified within the study-area (their locations are shown on the alternatives mapping in **Appendix A).** Of the delineated wetlands, the most common Cowardin habitat classification types were palustrine emergent (PEM) and palustrine forested (PFO) habitat. Many wetlands supported more than one type of habitat. Of the delineated waterways, 20 were perennial streams, 15 were intermittent streams, and 49 were ephemeral channels with a hydrological connection to another waterway or wetland.

Impacts

Direct impacts to waterways (linear feet) and wetlands (acres) by each of the build alternatives and interchange options are summarized in **Tables III-9** and **III-10**, respectively. Alternative 3 would impact 12,087 linear feet of stream, in addition to 1,780 linear feet of culverted channel. The total impact to all non-culverted waterways is similar in magnitude among Alternatives 4, 5, 6, and 8, ranging from 18,010 linear feet (Alternative 4) to 20,153 linear feet (Alternative 5). These four alternatives would affect an additional 4,585 to 5,385 linear feet of culverted channels. More than 50 percent of the total impacts to non-culverted channels would be associated with ephemeral channels for any of the build alternatives involving upgrades to the entire MD 5 corridor (Alternatives 4 through 8). Surratts Road Interchange Options A or B

would add 2,715 to 3,410 linear feet of non-culverted stream impacts to any of the build alternatives. The Moores Road/Earnshaw Drive/Burch Hill Road Interchange Options A and B would impact an additional 1,994 and 3,866 linear feet, respectively, of non-culverted channels, although some of the impacted streams would also be affected by the mainline alternatives.

Impacts to palustrine wetlands from the build alternatives would range between 4.3 acres (Alternative 3) to 10.7 acres (Alternative 5). The Surratts Road Options A and B would impact an additional 0.2 to 0.3 acre of palustrine wetland, respectively. The Moores Road/Earnshaw Drive/Burch Hill Road would impact 0.2 to 2.6 acres of palustrine wetland, respectively.

Depending on the alternative, approximately 35 to 55 percent of the wetland impacts, and 55 to 65 percent of the stream impacts are attributable to large bump-out areas identified for potential SWM facilities, which are generally located in low-lying areas where wetlands and streams are present. Avoidance and minimization of wetland and stream impacts would be analyzed during the design phase of the SWM facilities.

Avoidance, Minimization, and Mitigation

Direct impacts to wetlands and waterways would be regulated under Section 404 permitting by the US Army Corps of Engineers (USACE). SHA will coordinate with MDE and the USACE to verify the jurisdictional boundaries and classifications of "Waters of the U.S.", and determine the amount, nature, and location of wetland and stream mitigation during stage III of project planning, after a preferred alternative has been identified and impacts are further refined. The amount and type of mitigation required for unavoidable direct impacts would be based on wetland replacement ratios stipulated in the Maryland Compensatory Mitigation Guidance developed by the Interagency Mitigation Task Force and Code of Maryland Regulations (COMAR). The mitigation goal would be to replace, preserve, and enhance functions within the same watershed that were lost due to the impacts associated with the project.

Preliminary design measures have already been implemented to avoid and minimize surface water impacts. These measures include using the existing MD 5 median for widening the roadway to the extent possible, constructing retaining walls to minimize overall section widths, using 2:1 slopes in sensitive areas, and reducing clear-zone areas by using guardrails to minimize section widths.

BMPs for erosion and sediment control would minimize short-term impacts of sediment and pollutant discharges on streams. Direct construction impacts to aquatic resources would be minimized by instream work restrictions. Generally, no instream work is permitted in Use I streams from March 1 through June 15, inclusive, during any year. Long-term impacts on aquatic habitats and water quality would be minimized through the development and application of a SWM plan in accordance with the Maryland Stormwater Act of 2007 (MDE 2007). This SWM approach encourages SHA to implement ESD to the maximum extent practicable, through the use of nonstructural best management practices and other better site-design techniques. These practices would provide treatments for quantity and quality of stormwater runoff before it is discharged into receiving waters. During the final design phases of the project, culverts would be sized to maintain the geomorphic stability of the stream channels as bankfull and flood-prone elevations are evaluated.

Table III-9: Direct Impacts (linear feet/sq. feet) to Delineated Waterways

Waterway Number	Cowardin Classification	Alt 3 Upgrade South of MD 223 Lin. ft. (sq. ft.)	Alt 4 Upgrade Entire Corridor Lin. ft. (sq. ft.)	Alt 5 Reversible Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 6 One to Two Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 8 HOV Lin. ft. (sq. ft.)	Surratts Rd Option A Lin. ft. (sq. ft.)	Surratts Rd Option B Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option A Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option B Lin. ft. (sq. ft.)
Potomac River Upper Tidal Subwatershed 02140201-0797 (Henson Creek)										
Henson Creek	Perennial	-	-	77.3*	115.5*	-	-	-	-	-
WW 1	Perennial (R2UB1)	-	-	534.9 (7,128.3) 356.2*	515.8 (6,977.8) 355.5*	-	-	-	-	-
WW 2	Perennial (R2UB1)/ Ephemeral	-	0 (0) 4.5 (9.0)	125.8 (613.7) 180.9 (361.8)	0 (0) 139.2 (278.4)	0 (0) 4.4 (8.9)	-	-	-	-
WW 4	Ephemeral	-	-	87.9 (351.4)		-	-	-	-	-
WW 6	Ephemeral	-	-	134.7 (134.7)	66.5 (66.5)	-	-	-	-	-
WW 7	Ephemeral	-	18.2 (18.2)	8.0 (8.0)	22.0 (22.0)	18.2 (18.2)	-	-	-	-
WW 8	Ephemeral	-	-	42.1 (42.1) 53.2*	42.1 (42.1) 53.2*	-	-	-	-	-
WW 9	Perennial (R2UB1)	-	-	114.9 (387.5)	114.9 (387.5)	-	-	-	-	-
WW 11	Ephemeral	-	-	239.5 (479.1)	105.7 (211.4)	-	-	-	-	-
WW 12	Ephemeral	-	52.5 (104.9) 188.9*	124.7 (249.4) 188.9*	62.3 (124.7) 188.9*	66.1 (132.2) 188.9*	-	-	-	-
WW 13	Perennial (R2UB1)	-	-	428.1 (5,026.6)	435.0 (5,065.5)	-	-	-	-	-
WW 14	Ephemeral	-	13.1*	236.1 (118.1) 124.0*	236.1 (118.1) 124.0*	13.1*	-	-	-	-
WW 14b	Ephemeral	-	-	9.8 (24.6)	9.8 (24.6)	-	-	-	-	-
WW 15	Ephemeral	-	397.0 (397.0)	397.0 (397.0)	397.0 (397.0)	397.0 (397.0)	-	-	-	-
WW 16	Ephemeral	-	843.6 (2,952.5)	843.6 (2,952.5)	843.6 (2,952.5)	843.6 (2,952.5)	-	-	-	-
WW 17	Intermittent (R4SB5)/ Ephemeral	-	158.1 (1,098.9) 326.1*	265.6 (1,410.0) 326.1*	160.8 (1,102.4) 326.1*	158.1 (1,098.9) 326.1*	-	-	-	-
WW 18	Ephemeral	-	19.5 (29.3)	90.8 (136.1)	59.1 (88.6)	121.3 (182.0)	-	-	-	-
WW 19	Intermittent (R4SB5)	-	123.7 (576.0)	111.4 (545.9)	123.7 (576.0)	123.7 (576.0)	-	-	-	-
WW 20	Ephemeral	-	175.8 (1,884.9)	175.8 (1,884.9)	175.8 (1,884.9)	175.8 (1,884.9)	-	-	-	-
WW 21	Ephemeral	-	560.0 (1,680.1)	560 (1,680.1)	512.8 (1,538.4)	560.0 (1,680.1)	-	-	-	-
Piscataway Creek Subwatershed 02140203-0800 Watershed (Meetinghouse Branch and Paynes Branch)										
WW 22	Ephemeral	-	606.4 (1,819.3)	218.5 (655.4)	218.5 (655.4)	218.5 (655.4)	-	-	-	-
WW 24 (Meeting-house Branch)	Perennial (R2UB1)	-	543.9 (10,716.8) 243.4*	634.3 (12,528.8) 243.4*	618.4 (12,235.1) 243.4*	624.2 (12,332.3) 243.4*	-	-	-	-
WW 25	Intermittent (R4SB5)	-	53.6 (107.3)	76.3 (152.7)	70.5 (141.0)	76.0 (152.0)	-	-	-	-
WW 26	Perennial (R2UB1)	-	3.8 (15.1)	3.8 (15.1)	3.8 (15.1)	3.8 (15.1)	-	-	-	-
WW 27	Ephemeral	-	247.9 (247.9)	247.9 (247.9)	247.9 (247.9)	247.9 (247.9)	-	-	-	-
WW 28	Intermittent (R4SB5)	-	340.0 (1,360.0) 211.4*	336.6 (1,346.4) 211.4*	354.3 (1,416.9) 211.4*	335.7 (1,342.8) 211.4*	-	-	-	-
WW 29	Ephemeral	-	137.5 (275.0)	137.5 (275.0)	137.5 (275.0)	137.5 (275.0)	-	-	-	-
WW 30	Perennial (R2UB1)	-	138.6 (1,834.6) 177.8*	171.1 (2,218.2) 177.8*	162.8 (2,128.5) 200.8*	138.6 (1,834.6) 177.8*	-	-	-	-

Waterway Number	Cowardin Classification	Alt 3 Upgrade South of MD 223 Lin. ft. (sq. ft.)	Alt 4 Upgrade Entire Corridor Lin. ft. (sq. ft.)	Alt 5 Reversible Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 6 One to Two Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 8 HOV Lin. ft. (sq. ft.)	Surratts Rd Option A Lin. ft. (sq. ft.)	Surratts Rd Option B Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option A Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option B Lin. ft. (sq. ft.)
WW 32	Ephemeral	-	15.3 (306.1)	15.3 (306.1)	15.3 (306.1)	15.3 (306.1)	-	-	-	-
WW 33	Ephemeral	-	198.3 (594.9)	198.3 (594.9)	198.3 (594.9)	198.3 (594.9)	-			-
WW 34	Ephemeral/ Perennial (R2UB1)	-	355.9 (889.7) 54.3 (135.8) 127.1*	355.9 (889.7) 54.3 (135.8) 127.1*	355.9 (889.7) 54.3 (135.8) 127.1*	355.9 (889.7) 54.3 (135.8) 127.1*	-	-	-	-
Piscataway Creek Subwatershed 02140203-0802 Watershed (Pea Hill Branch)										
WW 35	Perennial (R2UB1)	-	134.1 (996.2) 381.3*	134.9 (1,008.4) 381.3*	139.0 (1,036.4) 381.3*	109.6 (821.2) 381.3*	-	-	-	-
WW 36	Ephemeral	-	46.2 (1,066.9) 790.7*	60.7 (1,220.1) 787.9*	60.7 (1,220.1) 785.7*	33.4 (824.8) 664.5*	-	-	-	-
WW 37	Ephemeral	-	211.9 (635.7)	210.2 (630.7)	213.0 (639.1)	496.7 (1,490.0)	-	-	-	-
WW 38 (Pea Hill Branch)	Perennial (R2UB3)	-	60.9 (843.8) 136.6*	74.8 (1,007.9) 136.6*	84.7 (1,125.3) 136.6*	61.1 (842.2) 136.6*	-	-	-	-
WW 62	Intermittent (R4SB5)	-	25.0 (75.0)	49.8 (149.3)	64.4 (193.1)	25.4 (76.1)	-	-	-	-
Piscataway Creek Subwatershed 02140203-0803 Watershed (Piscataway Creek Mainstem)										
WW 39	Ephemeral	-	443.5 (933.6) 355.2*	421.2 (929.1) 355.2*	457.8 (987.4) 355.2*	542.1 (1,201.0) 355.2*	-	-	-	-
WW 40	Perennial (R2UB1)	321.3 (5,186.3) 512.1*	321.3 (5,186.3) 512.1*	321.3 (5,186.3) 512.1*	321.3 (5,186.3) 512.1*	321.3 (5,186.3) 512.1*	374.1 (6,012.6) 461.9*	438.5 (7,145.3) 476.4*	-	-
WW 41	Perennial (R2UB5)	502.7 (1,897.9) 224*	502.7 (1,897.9) 224*	502.7 (1,897.9) 224*	502.7 (1,897.9) 224*	502.7 (1,897.9) 224*	601.1 (2,193.1) 224.0*	601.1 (2,193.1) 224.0*	-	-
WW 42	Ephemeral	57.2 (171.6)	57.2 (171.6)	57.2 (171.6)	57.2 (171.6)	57.2 (171.6)	57.2 (171.5)	57.2 (171.5)	-	-
WW 43	Intermittent (R4SB)/ Ephemeral	1,024.7 (3,074.2) 185 (92.5)	1,024.7 (3,074.2) 185 (92.5)	1,024.7 (3,074.2) 185 (92.5)	1,024.7 (3,074.2) 185 (92.5)	1,024.7 (3,074.2) 185 (92.5)	1,024.7 (3,074.2) 69.4 (34.7)	1,024.7 (3,074.2) 70.1 (35.1)	-	-
WW 44	Perennial (R2UB1)	-	-	-	-	-	10.8 (64.8)	6.2 (38.2)	-	-
WW 45	Perennial (R2UB1)	-	-	-	-	-	323.7 (2,893.7) 142.5*	317.4 (2,721.7) 142.5*	-	-
WW 46	Ephemeral	-	-	-	-	-	23.7 (91.9)	23.7 (91.9)	-	-
WW 47	Intermittent (R4SB3)/Perennial (R2UB1)	96.2 (144.3) 61.4 (92.1)	96.2 (144.3) 61.4 (92.1)	96.2 (144.3) 61.4 (92.1)	96.2 (144.3) 61.4 (92.1)	96.2 (144.3) 61.4 (92.1)	-	-	-	-
WW 48	Ephemeral	45.7 (22.9)	45.7 (22.9)	45.7 (22.9)	45.7 (22.9)	45.7 (22.9)	-	-	-	-
WW 49	Ephemeral	292.5 (585)	292.5 (585.0)	292.5 (585.0)	292.5 (585.0)	292.5 (585.0)	-	-	-	-
WW 50 (Piscataway Creek)	Perennial (R2UB3)	377.8 (15,730.5)	377.8 (15,730.5)	377.8 (15,730.5)	377.8 (15,730.5)	377.8 (15,730.5)	-	-	-	192.1 (7,265.8)
WW 51	Perennial (R2UB1)	1,130.3 (3,390.9)	1,130.3 (3,390.9)	1,130.3 (3,390.9)	1,130.3 (3,390.9)	1,130.3 (3,390.9)	-	-	20.8 (62.4)	1,130.3 (3,391.0)
WW 52	Ephemeral/ Intermittent (R4SB5)	189.4 (189.4) 155.7 (155.7)	189.4 (189.4) 155.7 (155.7)	189.4 (189.4) 155.7 (155.7)	189.4 (189.4) 155.7 (155.7)	189.4 (189.4) 155.7 (155.7)	-	-	-	189.4 (189.4) 155.7 (155.7)
WW 53	Intermittent (R4SB5)/ Ephemeral	35.4 (35.4) 125.4 (376.2)	35.4 (35.4) 125.4 (376.2)	35.4 (35.4) 125.4 (376.2)	35.4 (35.4) 125.4 (376.2)	35.4 (35.4) 125.4 (376.2)	-	-	9.9 (9.9) 0 (0)	35.4 (35.4) 0 (0)
WW 54	Intermittent (R4SB5)	-	-	-	-	-	-	-	-	6.4 (12.7) 41.0*
WW 55	Ephemeral	-	-	-	-	-	-	-	-	61.4 (184.1)
WW 56	Ephemeral	232.6 (232.6)	232.6 (232.6)	232.6 (232.6)	232.6 (232.6)	232.6 (232.6)			232.6 (232.6)	232.6 (232.6)

Waterway Number	Cowardin Classification	Alt 3 Upgrade South of MD 223 Lin. ft. (sq. ft.)	Alt 4 Upgrade Entire Corridor Lin. ft. (sq. ft.)	Alt 5 Reversible Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 6 One to Two Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 8 HOV Lin. ft. (sq. ft.)	Surratts Rd Option A Lin. ft. (sq. ft.)	Surratts Rd Option B Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option A Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option B Lin. ft. (sq. ft.)
WW 57	Perennial (R2UB1)	162.0 (486.0) 406.6*	162.0 (486.0) 406.6*	162.0 (486.0) 406.6*	162.0 (486.0) 406.6*	162.0 (486.0) 406.6*	-	-	434.5 (1,673.3) 177.4*	412.0 (1,237.2) 231.6*
WW 58	Intermittent (R4SB)	126.4 (252.8)	126.4 (252.8)	126.4 (252.8)	126.4 (252.8)	126.4 (252.8)	-	-	97.1 (194.1)	126.4 (252.9)
WW 59	Intermittent (R4SB)	875.0 (1,312.5)	875.0 (1,312.5)	875.0 (1,312.5)	875.0 (1,312.5)	875.0 (1,312.5)	-	-	-	-
WW 60	Ephemeral	76.1 (152.2)	29.2 (58.3)	29.2 (58.3)	29.2 (58.3)	29.2 (58.3)	-	-	213.9 (427.9)	135.7 (271.5)
WW 63	Intermittent (R4SB)/Ephemeral	-	-	-	-	-	-	-	-	-
WW 64	Intermittent (R4SB)/Ephemeral	36.5 (91.3) 227.4 (568.5)	36.5 (91.3) 227.4 (568.5)	36.5 (91.3) 227.4 (568.5)	36.5 (91.3) 227.4 (568.5)	36.5 (91.3) 227.4 (568.5)	0 (0) 203.6 (509.1)	36.5 (91.2) 227.4 (568.5)	-	-
WW 65	Perennial (R2UB1)	80.5 (736.0) 344.2*	80.5 (736.0) 344.2*	80.5 (736.0) 344.2*	80.5 (736.0) 344.2*	80.5 (736.0) 344.2*	-	89.3 (1,060.1) 204.9*	-	-
WW 66	Intermittent (R4SB5)/Ephemeral	214.4 (428.8) 86.1 (172.2)	214.4 (428.8) 86.1 (172.2)	214.4 (428.8) 86.1 (172.2)	214.4 (428.8) 86.1 (172.2)	214.4 (428.8) 86.1 (172.2)	-	214.4 (428.8) 86.1 (172.3)	-	-
WW 67	Ephemeral	1,188.5 (2,377.0)	1,188.5 (2,377.0)	1,188.5 (2,377.0)	1,188.5 (2,377.0)	1,188.5 (2,377.0)	-		985.4 (1,970.8)	1,188.5 (2,377.0)
WW 68	Ephemeral	2,145.4 (2,145.4) 62.7*	2,145.4 (2,145.4) 62.7*	2,145.4 (2,145.4) 62.7*	2,145.4 (2,145.4) 62.7*	2,145.4 (2,145.4) 62.7*	-	-	-	-
WW 69	Ephemeral	27.3 (54.6)	27.3 (54.6)	27.3 (54.6)	27.3 (54.6)	27.3 (54.6)	27.6 (55.2)	27.3 (54.7)	-	-
WW 70	Ephemeral	570.2 (1,140.4)	570.2 (1,140.4)	570.2 (1,140.4)	570.2 (1,140.4)	570.2 (1,140.4)	-	190.0 (380.0)	-	-
WW 71	Ephemeral	109.3 (164.0) 230.2*	109.3 (164.0) 230.2*	109.3 (164.0) 230.2*	109.3 (164.0) 230.2*	109.3 (164.0) 230.2*	-	-	-	-
WW 74	Ephemeral/ Intermittent (R4SB5)	932.4 (2,331.1) 80.4 (201.1)	932.4 (2,331.1) 80.4 (201.1)	932.4 (2,331.1) 80.4 (201.1)	932.4 (2,331.1) 80.4 (201.1)	932.4 (2,331.1) 80.4 (201.1)	-	-	-	-
WW 75	Ephemeral	26.6 (79.8)	26.6 (79.8)	26.6 (79.8)	26.6 (79.8)	26.6 (79.8)	-	-	-	-
WW 76	Ephemeral	27.9 (27.9)	27.9 (27.9)	27.9 (27.9)	27.9 (27.9)	27.9 (27.9)	-	-	-	-
WW 77	Ephemeral	-					-	-	-	-
WW 78	Perennial (R2SB3)	55.9 (83.9)	55.8 (83.8)	55.8 (83.8)	55.8 (83.8)	55.8 (83.8)	-	-	-	-
WW 79	Ephemeral	33.5 (67.0)	33.5 (67.0)	33.5 (67.0)	33.5 (67.0)	33.5 (67.0)	-	-	-	-
WW 80	Ephemeral/ Intermittent (R2UB1)	53.9 (107.8) 0 (0)	53.9 (107.8) 0 (0)	53.9 (107.8) 0 (0)	53.9 (107.8) 0 (0)	53.9 (107.8) 0 (0)	-	-	-	-
WW 80a	Ephemeral	12.4 (24.8)	12.4 (24.8)	12.4 (24.8)	12.4 (24.8)	12.4 (24.8)	-	-	-	-
WW 80b	Ephemeral	17.6 (35.2)	17.6 (35.2)	17.6 (35.2)	17.6 (35.2)	17.6 (35.2)	-	-	-	-
WW 81	Ephemeral	5.7 (5.7)	5.7 (5.7)	5.7 (5.7)	5.7 (5.7)	5.7 (5.7)	-	-	-	-
WW 82	Ephemeral	39.6 (79.2)	39.6 (79.2)	39.6 (79.2)	39.6 (79.2)	39.6 (79.2)	-	-	-	-
WW 83	Ephemeral/ Intermittent (R2UB1)	41.6 (62.4) 1.4 (2.1)	41.6 (62.4) 1.4 (2.0)	41.6 (62.4) 1.4 (2.0)	41.6 (62.4) 1.4 (2.0)	41.6 (62.4) 1.4 (2.0)	-	-	-	-
WW 84	Ephemeral	-	-	-	-	-	-	-	-	-
WW 85	Perennial (R2UB3)	-	-	-	-	-	-	-	-	-

* Culverted channel
** Total Culverted Channels includes all culverted channels, regardless of classification, plus undelineated culverted waterways

Cowardin Classification	Alt 3 Upgrade South of MD 223 Lin. ft. (sq. ft.)	Alt 4 Upgrade Entire Corridor Lin. ft. (sq. ft.)	Alt 5 Reversible Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 6 One to Two Price-Managed Lanes Lin. ft. (sq. ft.)	Alt 8 HOV Lin. ft. (sq. ft.)	Surratts Rd Option A Lin. ft. (sq. ft.)	Surratts Rd Option B Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option A Lin. ft. (sq. ft.)	Moores/Earnshaw/ Burch Hill Option B Lin. ft. (sq. ft.)
Total Perennial Streams	2,691.9 (27,603.6)	3,627.4 (42,145.8)	4,968.7 (57,673.8)	4,820.5 (56,710.5)	3,683.4 (43,584.7)	1,309.7 (11,164.2)	1,452.5 (13,158.4)	455.3 (1,735.7)	1,734.4 (11,894.0)
Total Intermittent Streams	2,646.1 (5,698.2)	3,346.5 (8,915.3)	3,485.8 (9,302.4)	3,419.8 (9,127.5)	3,365.0 (8,943.9)	1,024.7 (3,074.2)	1,275.6 (3,594.2)	107 (204)	323.9 (456.7)
Total Ephemeral Streams	6,749.3 (11,265.4)	11,036.4 (25,016.5)	11,698.8 (25,740.2)	11,279.3 (24,736.3)	11,134.4 (24,912.1)	381.5 (862.4)	681.8 (1,474.0)	1,431.9 (2,631.3)	1,807.6 (3,254.6)
Total Perennial, Intermittent, and Ephemeral Streams	**12,087.3 (44,567.2)**	**18,010.3 (76,077.6)**	**20,153.3 (92,716.4)**	**19,519.6 (90,574.3)**	**18,182.8 (77,440.7)**	**2,715.2 (15,100.8)**	**3,409.9 (18,226.6)**	**1,994.2 (4,571.0)**	**3,865.9 (15,605.3)**
Total Culverted Channels**	1,779.8 (--)	4,731.4 (--)	5,326.2 (--)	5,384.5 (--)	4,585.2 (--)	828.4 (--)	1,047.8 (--)	177.4 (--)	272.6 (--)
Grand Total for All Channel Types	13,867.1 (--)	22,741.7 (--)	25,479.5 (--)	24,904.1 (--)	22,768.0 (--)	3,543.6 (--)	4,457.7 (--)	2,171.6 (--)	4,138.5 (--)

* Culverted channel
** Total Culverted Channels includes all culverted channels, regardless of classification, plus undelineated culverted waterways.

Table III-10: Direct Impacts (acres) to Delineated Wetlands

Wetland Number	Cowardin Classification	Alt 3 Upgrade South of MD 223	Alt 4 Upgrade Entire Corridor	Alt 5 Reversible Price-Managed Lanes	Alt 6 One to Two Price-Managed Lanes	Alt 8 HOV	Surratts Rd Option A	Surratts Rd Option B	Moores/Earnshaw/ Burch Hill Option A	Moores/Earnshaw/ Burch Hill Option B
Potomac River Upper Tidal Subwatershed 02140201-0797 (Henson Creek)										
WET 1	PEM1	--	<0.1	<0.1	<0.1	<0.1	--		--	--
WET 4	PEM1*	--		0.1	<0.1	--		--		--
WET 6	PEM1/POW*	--	--	0.2	0.2	--	--		--	--
WET 7	PEM1*	--	0.5	0.6	0.6	0.5	--		--	--
WET 8	PFO1	--		<0.1	<0.1	--		--		--
WET 9	PFO1	--		0.2	0.2	--		--		--
WET 11	PFO1	--		0.3	0.3	--	--	--		--
WET 12	PEM1/POW*	--	0.3	0.4	0.4	0.4	--	--	--	--
WET 13	PEM1/POW*	--	0.2	0.2	0.2	0.2	--		--	--
WET 14	PFO1	--	0.3	0.3	0.3	0.3	--		--	--
WET 15	PEM1/POW*	--	0.8	0.8	0.8	0.8	--	--	--	--
WET 18	PEM1	--	<0.1	<0.1	<0.1	0.1	--	--	--	--
Piscataway Creek Subwatershed 02140203-0800 Watershed (Meetinghouse Branch and Paynes Branch)						--		--		
WET 16	PEM1*	--	0.2	0.2	0.2	0.2	--		--	--
WET 19**	POW*	--	0.2	0.4	0.2	0.3	--		--	--
WET 20	PEM1/PFO1	--	0.1	0.1	0.1	0.2	--		--	--
WET 21	PEM1	--	<0.1	<0.1	<0.1	<0.1	--		--	--
WET 22	PFO1/PEM1	--	0.1	0.1	0.1	0.1	--		--	--
WET 23**	PEM1	--	0.2	0.3	0.2	0.3	--		--	--
WET 24	POW*	--	0.4	0.4	0.4	0.4	--		--	--
WET 25	PEM1	--	<0.1	<0.1	<0.1	<0.1	--		--	--
WET 26	PEM1*	--	0.2	0.2	0.2	0.2	--		--	--
WET 27	PEM1/POW	--	0.1	0.1	0.2	0.2	--		--	--
WET 28	PEM1/POW*	--	0.6	0.6	0.6	0.6	--	--	--	--
WET 49	PEM1	--	0.1	0.2	0.2	0.1	--		--	--
WET 52**	PFO1	--	0.5	0.7	0.7	0.5	--		--	--
Piscataway Creek Subwatershed 02140203-0803 Watershed (Piscataway Creek Mainstem)						--				
WET 29	PEM1	--		<0.1	<0.1	<0.1	--	--	--	--
WET 30	PFO1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	
WET 31	PEM1*	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	
WET 32	PEM1	--					<0.1	<0.1	--	
WET 34	PEM1	--					<0.1	--		--
WET 35	PEM1/PSS1	--						0.1	--	
WET 36	PEM1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	
WET 37	PFO1	0.4	0.4	0.4	0.4	0.4	--	--	--	0.4
WET 38	PFO1	0.4	0.4	0.4	0.4	0.4	--	--	--	0.3
WET 39	PFO1	--	--	--	--			--	--	<0.1
WET 40	PFO1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	<0.1	<0.1

Wetland Number	Cowardin Classification	Alt 3 Upgrade South of MD 223	Alt 4 Upgrade Entire Corridor	Alt 5 Reversible Price-Managed Lanes	Alt 6 One to Two Price-Managed Lanes	Alt 8 HOV	Surratts Rd Option A	Surratts Rd Option B	Moores/Earnshaw/ Burch Hill Option A	Moores/Earnshaw/ Burch Hill Option B
WET 41	PFO1	--						--		<0.1
WET 42	PEM1	0.1	0.1	0.1	0.1	0.1	--	--	<0.1	0.1
WET 43	PEM1*	--						--	0.1	<0.1
WET 44	PFO1	--						--	<0.1	--
WET 45	PEM1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	0.1	0.1
WET 46	PEM1	--					--	--	<0.1	<0.1
WET 47	PFO1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	--
WET 51	PFO1	--					--	--	<0.1	--
WET 53	PFO1	1.6	1.6	1.6	1.6	1.6	--	--	--	1.6
WET 54	PEM1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	<0.1
WET 55	PEM1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	<0.1
WET 56	PEM1	--	--				--	--	<0.1	0.1
WET 57	PEM1/PFO1	0.3	0.3	0.3	0.3	0.3	--	--	--	
WET 58	PFO1/PEM1	0.2	0.2	0.2	0.2	0.2	--	--	--	
WET 59	PFO1	0.8	0.8	0.8	0.8	0.8	--	--	--	
WET 60	PFO1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	
WET 62	PEM1/PFO1	0.3	0.3	0.3	0.3	0.3	--	--	--	
WET 63	PEM1/PFO1	--	--				0.1	0.1	--	
WET 64	PFO1	0.1	0.1	0.1	0.1	0.1	--	--	--	
WET 65	PFO1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	
WET 66	PEM1/PSS1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--	
Total PFO		**3.5**	**4.4**	**5.1**	**5.1**	**4.4**	**0.0**	**0.0**	**0.0**	**2.3**
Total PEM or POW		**0.8**	**4.7**	**5.6**	**5.3**	**5.3**	**0.2**	**0.3**	**0.2**	**0.3**
Total Wetlands		**4.3**	**9.1**	**10.7**	**10.4**	**9.7**	**0.2**	**0.3**	**0.2**	**2.6**

* Stormwater facility

**The extent of these wetlands was not fully delineated, due to access restrictions on Andrew's Air Force base. Therefore, the impact numbers only reflect the portion of the wetlands systems that were delineated.

4. Floodplains

There are four areas of Federal Emergency Management Agency (FEMA) designated 100-Year floodplains within the study-area. From north to south, they are associated with Henson Creek, Meetinghouse Branch, an unnamed tributary of Piscataway Creek at the MD5/Surratts Road interchange, and Piscataway Creek (**Figure III-8).**

Floodplains provide important functions that are vital to the natural environment and human safety, including flood storage, pollutant attenuation, wildlife habitat, recreational opportunities, open space, and groundwater recharge. For the most part, development within the study-area floodplains has been minimized through land ownership or special designation. Consequently, they retain all of the potential functions discussed above and have a high value in the landscape.

Impacts

Each of the build alternatives would impact floodplains to some degree. **Table III-11** summarizes the maximum potential floodplain encroachment for each build alternative. Potential impacts would occur primarily at the existing stream crossings. Floodplain impacts would range from 14.9 acres to 20.4 acres for the build alternatives. An additional 0.7 to 9.2 acres of impact to floodplain would be added for the interchange options.

Table III-11: Direct Impacts to 100-Year Floodplains

Alternative or Option	Impact (acres)	Affected Stream(s)
Alt 3 - Upgrade South of MD 223	14.9	Piscataway Creek, unnamed tributary to Piscataway Creek
Alt 4 - Upgrade Entire Corridor	19.8	Meetinghouse Branch, unnamed tributary to Piscataway Creek, Piscataway Creek
Alt 5 - Two-Lane Reversible Price-Managed Lanes	20.3	Henson Creek, Meetinghouse Branch, unnamed tributary to Piscataway Creek, Piscataway Creek
Alt 6 - One to Two Price-Managed Lanes	20.4	Henson Creek, Meetinghouse Branch, unnamed tributary to Piscataway Creek, Piscataway Creek
Alt 8 - HOV	20.1	Meetinghouse Branch, unnamed tributary to Piscataway Creek, Piscataway Creek
Surratts Rd Interchange Option A	4.6	Unnamed tributary to Piscataway Creek
Surratts Rd Interchange Option B	4.6	Unnamed tributary to Piscataway Creek
Moores Rd/Earnshaw Dr/Burch Hill Rd Interchange Option A	0.7	Piscataway Creek
Moores Rd/Earnshaw Dr/Burch Hill Rd Interchange Option B	9.2	Piscataway Creek

Approximately 80 percent of the floodplain impacts are attributable to large bump-out areas identified for potential SWM facilities, which are generally located in low-lying areas where floodplains are most common.

Avoidance, Minimization, and Mitigation

In general, stream crossings and associated floodplains cannot be completely avoided because most of the proposed improvements would involve existing roadway crossings of these floodplains. Floodplain impacts will be re-evaluated as the project progresses to more detailed design phases, at which time avoidance and minimization measures will be identified and evaluated. An MDE Non-tidal Wetlands and Waterways Construction Permit would require hydrologic and hydraulic studies on the final alignment to assess effects of any proposed roadway fill on floodplain elevations. Any adverse effects would be avoided through adherence to the approved permit.

5. Vegetation and Wildlife

The northern portion of the MD 5 corridor above MD 223 is surrounded by intensely developed land, including residential, commercial, and institutional uses. Vegetation is typical of urban and suburban landscaping except along riparian zones of perennial streams. The southern portion of the corridor is less intensively developed with some scattered deciduous and mixed forest stands, but is still predominantly a suburban area. Existing forested areas primarily consist of mixed oak/hickory, mixed deciduous, and stands dominated by Virginia Pine, tulip tree, or red maple.

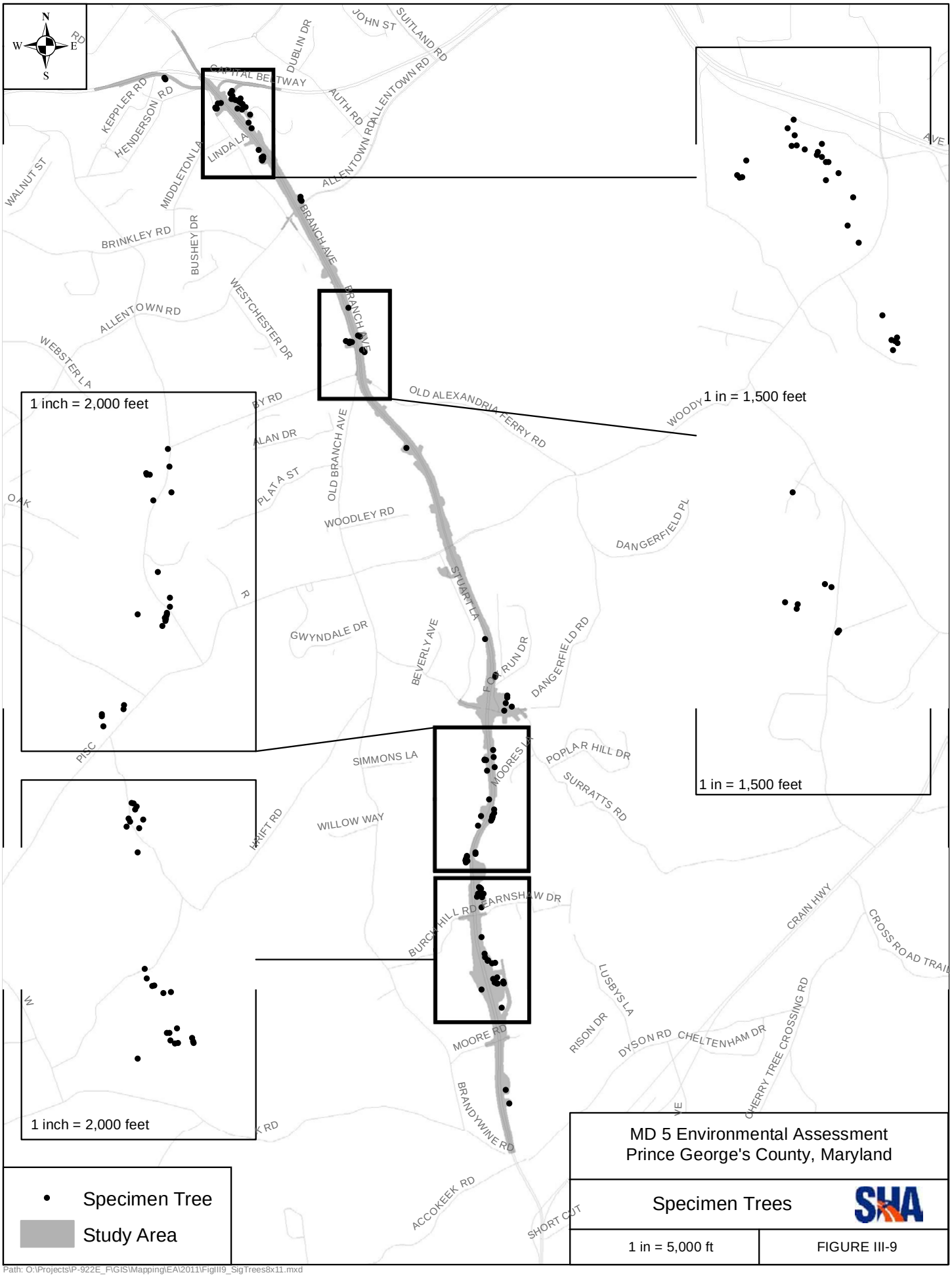
The study-area was surveyed for specimen trees, which are defined as trees having a diameter of 30 inches or greater, measured 4.5 feet above the ground, or a diameter 75 percent or more of the diameter of the current state champion tree. A total of 112 specimen trees were identified in and immediately adjacent to the study-area (**Figure III-9**).

The study-area was also reviewed for forest stands (**Figure III-10**) and potential habitat for bird species that are considered Forest Interior Dwelling Species (FIDS; **Figure III-11**). The largest area of potential FIDS habitat, which is large contiguous stands of forest, lies within the study-area in Piscataway Creek Stream Valley Park.

The study-area contains wildlife typical of urban-suburban settings. Mammals in the study-area include typical edge-dwelling species and species adapted to disturbed habitats such as whitetail deer, opossums, and raccoons. Typical avian species include songbirds and small birds of prey. Several of the potential avian species within the study-area include forest interior dwelling species, particularly at the area of Piscataway Stream Valley Park. Other vertebrates common to the study-area include reptiles and amphibians, such as frogs, painted and snapping turtles, and snakes such as the eastern ratsnake and eastern gartersnake.

Impacts

The build alternatives would convert varying amounts of forest, old field, and commercial/industrial land uses into transportation land uses. Existing wildlife habitat within the project area is currently small and fragmented, typical of disturbed and developed land. Consequently, project impacts on wildlife through habitat loss or conversion are anticipated to be minor.



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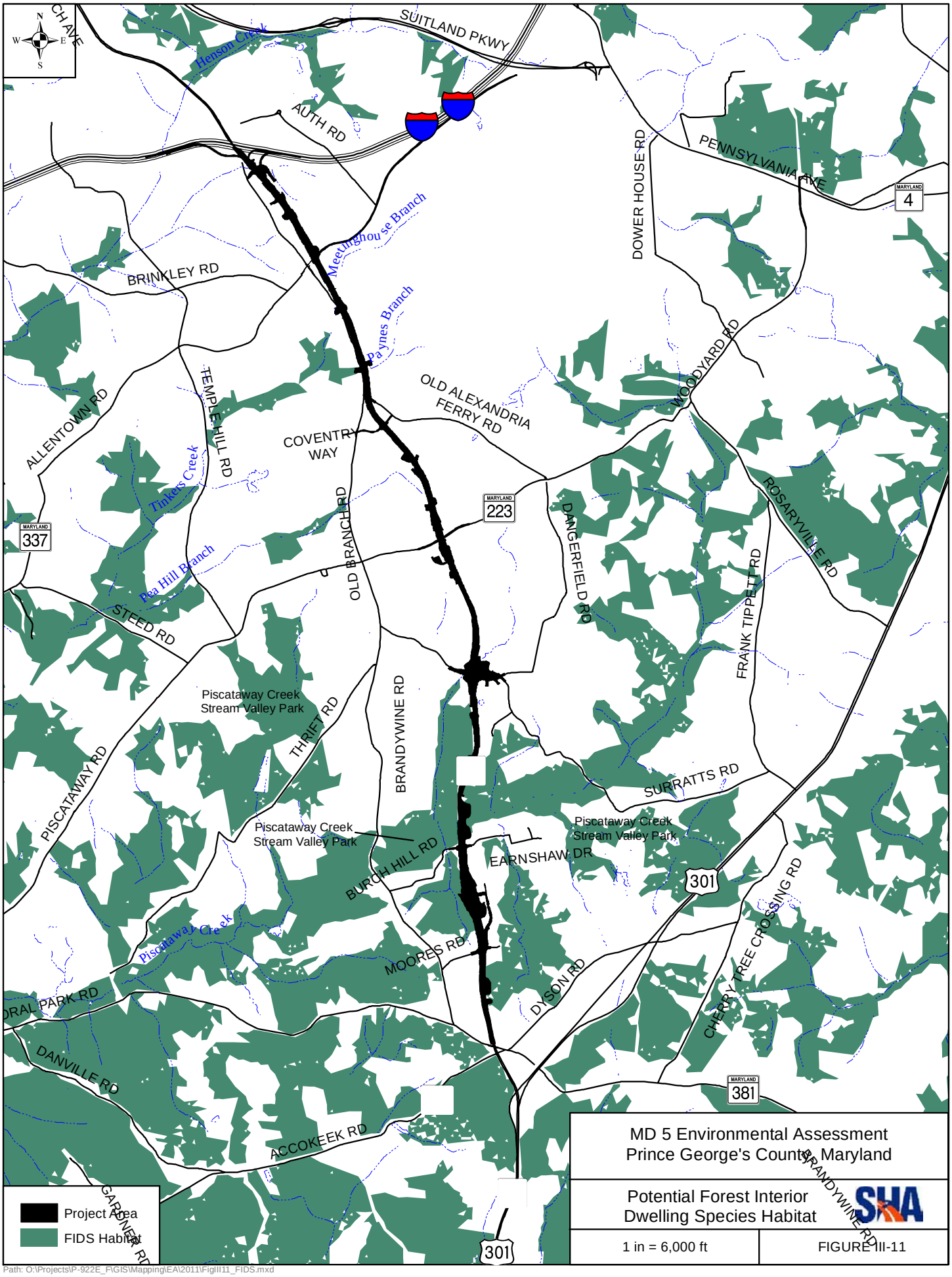
Path: O:\Projects\P-922E_F\GIS\Mapping\EA\2011\FigIII10_TreeCnpy.mxd


SUITLAND PKWY
Henson Creek
AUTH RD
PENNSYLVANIA AVE
DOWER HOUSE RD
MARYLAND 4
Meetinghouse Branch
BRINKLEY RD
Paynes Branch
WOODYARD RD
OLD ALEXANDRIA FERRY RD
ALLENTOWN RD
TEMPLE HILL RD
COVENTRY WAY
Tinkers Creek
MARYLAND 223
ROSARYVILLE RD
MARYLAND 337
OLD BRANCH RD
DANGERFIELD RD
Pea Hill Branch
FRANK TIPPETT RD
STEED RD
Piscataway Creek Stream Valley Park
THRIFT RD
BRANDYWINE RD
SURRATTS RD
PISCATAWAY RD
Piscataway Creek Stream Valley Park
Piscataway Creek Stream Valley Park
EARNSHAW DR
BURCH HILL RD
301
Piscataway Creek
MOORES RD
CHERRY TREE CROSSING RD
DYSON RD
DANVILLE RD
MARYLAND 381
ACCOKEEK RD
BRANDYWINE RD
GARDINER RD
301
Project Area
FIDS Habitat
MD 5 Environmental Assessment
Prince George's County, Maryland
Potential Forest Interior Dwelling Species Habitat
SHA
1 in = 6,000 ft
FIGURE III-11
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Conversion of existing terrestrial land cover types to transportation alternatives would result in the clearing of vegetative cover and replacement of existing vegetative surfaces with impervious surfaces. Impacts to forested canopy would range from 51.8 to 73.5 acres depending on the build alternative. The Surratts Road Interchange Options would affect an additional 11.4 to 11.6 acres, and the Burch Hill Road Interchange Options would affect an additional 26.0 to 32.8 acres of canopy cover. Impacts to potential FIDS habitat ranges from 20.3 to 20.7 acres for the build alternatives. The Surratts Road Option B would affect less than 0.1 acre. Option A would not have any additional impact to potential FIDS habitat. The Moores Road/Earnshaw Drive/Burch Hill Road Options would impact an additional 8.9 to 11.9 acres of potential FIDS habitat. Nearly all the FIDS impacts would be to edges, the outermost 300 feet, of patches, rather than to forest interior habitats. Impacts to tree canopy cover and potential FIDS habitat are summarized in **Table III-12**.

Table III-12: Direct Impacts to Tree Canopy Cover and Potential FIDS Habitat

Alternative or Option	Canopy Cover (acres)	FIDS Habitat (acres)
Alt 3 - Upgrade South of MD 223	51.8	20.3
Alt 4 - Upgrade Entire Corridor	65.6	20.7
Alt 5 - Two-Lane Reversible Price-Managed Lanes	73.5	20.7
Alt 6 - One to Two Price-Managed Lanes	70.7	20.7
Alt 8 - HOV	65.7	20.7
Surratts Rd Interchange Option A	11.6	0.0
Surratts Rd Interchange Option B	11.4	<0.1
Moores Rd/Earnshaw Dr/Burch Hill Rd Interchange Option A	26.0	8.9
Moores Rd/Earnshaw Dr/Burch Hill Rd Interchange Option B	32.8	11.9

The build alternatives that would upgrade the entire MD 5 corridor (Alternatives 4, 5, 6, and 8) would result in the loss of 30 to 43 specimen trees. These alternatives would also affect the Critical Root Zone (CRZ), the area of roots that must be maintained/protected for optimum tree survival) of an additional 30 to 34 specimen trees within the study-area. The Surratts Road Options would directly impact three to four additional specimen trees, while the Moores Road/Earnshaw Drive/Burch Hill Road Options would directly impact an additional seven to nine specimen trees.

Depending on the alternative, approximately 70 to 80 percent of the tree canopy impacts, and 70 to 75 percent of FIDS impacts are attributable to large bump-out areas identified for potential SWM facilities, which are generally located in undeveloped areas where forests are present.

Avoidance, Minimization, and Mitigation

The Maryland Department of Natural Resources (MD DNR) provides guidelines and recommendations to avoid and minimize impacts to forests and potential FIDS habitat. These include limiting roadway construction to non-forested areas, minimizing fragmentation of large, wide forests (greater than 50 acres and wider than 300 feet), limiting impacts to the edges in high

quality forests, and limiting the forest edge-to-area ratio. Additional measures to avoid impacts to FIDS in particular include not removing or disturbing forest habitat during April to August (the breeding season for most FIDS), maintaining forest habitat as close as possible to the road, maintaining canopy closure wherever possible, and maintaining grass height at least 10 inches during the April to August breeding season. These guidelines would be incorporated into the project design as it progresses to the extent practicable.

The principle means of avoiding direct and indirect impacts on specimen trees is through the adjustment of proposed alignments and limits of disturbance to avoid individual trees and reduce CRZ encroachment. The feasibility of avoidance and minimization strategies will be evaluated on a case by case basis as the project progresses to more advanced design phases.

After all avoidance and prudent minimization efforts have been considered, acreage of cleared forest cover would need to be replaced at a 1:1 mitigation ratio within a year of project completion in accordance with the Maryland Reforestation Law. Reforestation sites within the same county or watershed would be given the first priority. Reforestation should be concentrated in riparian zones that lack adequate forested buffers and in open areas within or adjacent to existing FIDS habitat. If local reforestation sites cannot be identified, SHA would be required to deposit $4,356 per cleared acre into the Reforestation Fund.

6. Rare, Threatened, and Endangered Species

The MD DNR Wildlife and Heritage Service and the U.S. Fish and Wildlife Service (USFWS) were contacted to determine if any rare, threatened or endangered species are located within the study-area. No federally-listed rare, threatened, or endangered species are known to occur within the study-area, except for the occasional transient individual. Two state threatened fish species have been recorded in Piscataway Creek, the American brook lamprey (*Lampetra appendix*) and comely shiner (*Notropis amoenus*). Piscatway Creek watershed streams also support rosyside dace (*Clinostomus funduloides*) and least brook lamprey (*L. aepyptera*) that, although not listed, are considered species in Greatest Conservation Need (GCN) in the state. Copies of the agency correspondence are included in Section IV Comments and Coordination.

Impacts

The state-listed threatened and GCN species should be adequately protected by the Use I in-stream work restriction period of March 1 through June 15, and strict adherence to an approved sediment and erosion control plan and associated BMPs. No direct impacts are anticipated.

7. Green Infrastructure

Green infrastructure (GI) is a network of forests, wetlands, and other undeveloped lands that provide a broad range of ecological services and marketable goods (DNR 2003). The MD DNR has identified and delineated hubs, corridors, and gaps to help set priorities for strategic land conservation. Green infrastructure within and surrounding the project area is shown on **Figure III-12**. The largest hub area within the study-area is roughly associated with Piscataway Creek and its tributaries in the vicinity of Earnshaw Drive. A GI corridor is located further south along the east side of MD 5, in the vicinity of Brandywine.

Impacts

The build alternatives would impact 25.3 to 26.4 acres of GI hub, and 3.1 acres of GI corridor. The Surratts Road Interchange Options would affect an additional 5.1 to 5.6 acres of hub, and the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Options would affect an additional 9.6 to 18.5 acres of hub. Please see **Table III-13** for a summary of impacts to GI.

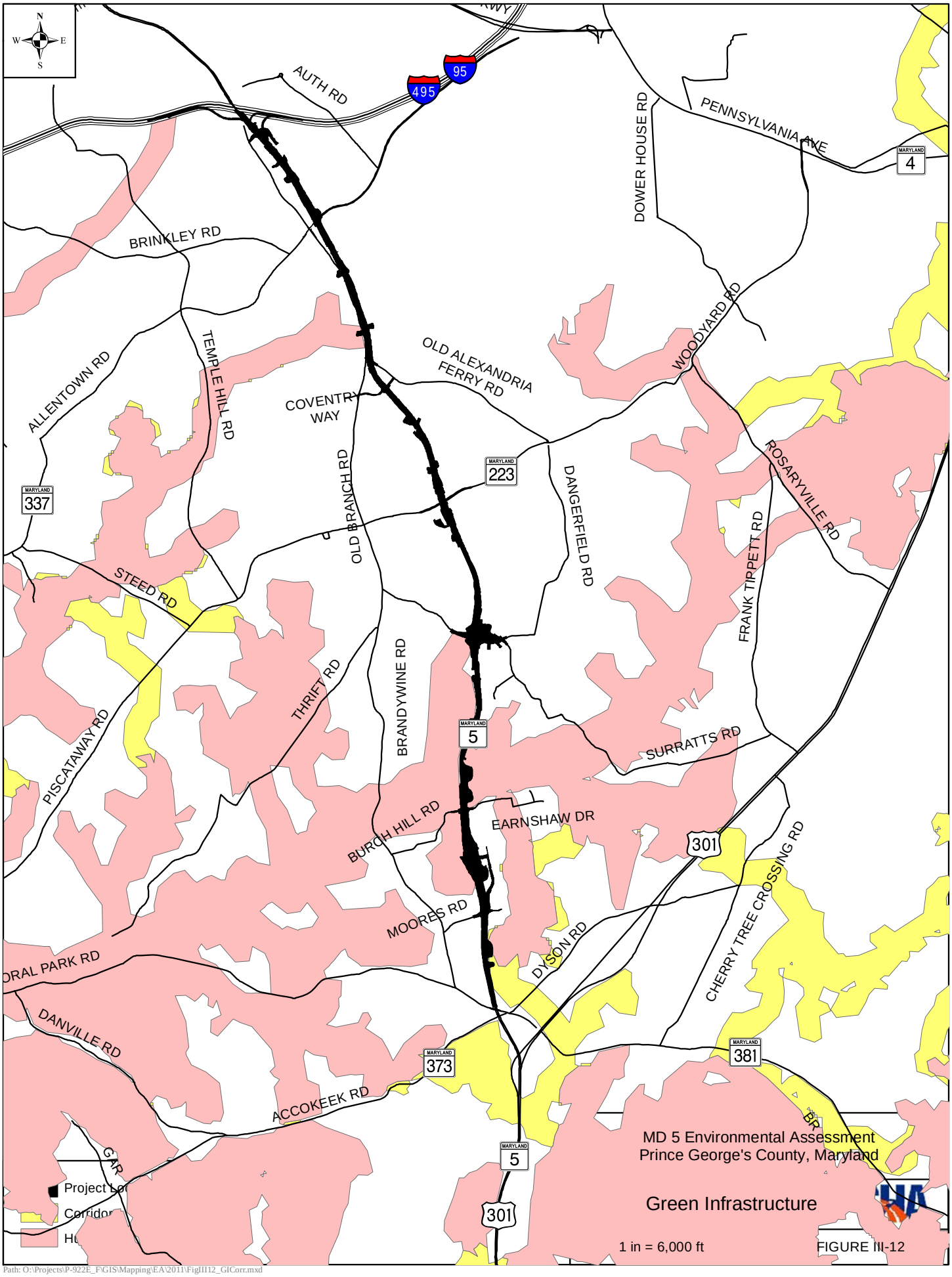
Table III-13: Direct Impacts (acres) to Green Infrastructure Hubs and Corridors

Alternative or Option	GI Hubs (acres)	GI Corridors (acres)
Alt 3 - Upgrade South of MD 223	25.3	3.1
Alt 4 - Upgrade Entire Corridor	26.4	3.1
Alt 5 - Two-Lane Reversible Price-Managed Lanes	26.4	3.1
Alt 6 - One to Two Price-Managed Lanes	26.4	3.1
Alt 8 - HOV	26.4	3.1
Surratts Rd Interchange Option A	5.1	0
Surratts Rd Interchange Option B	5.6	0
Moores Rd/Earnshaw Dr/Burch Hill Rd Interchange Option A	9.6	0
Moores Rd/Earnshaw Dr/Burch Hill Rd Interchange Option B	18.5	0

Depending on the alternative, approximately 80 to 85 percent of the GI hub, and 85 to 90 percent of the GI corridor impacts are attributable to large bump-out areas identified for potential SWM facilities, which are generally located in undeveloped areas where GI hubs and corridors are present.

Avoidance, Minimization, and Mitigation

Avoidance and minimization strategies for GI would be the same as those described for tree canopy cover and FIDS in Section III.E.5, with an emphasis on preservation of existing hubs and corridors. Gaps are disturbed lands that create corridor breaks or reduce forest interior habitat in the GI network. The restoration of GI gaps can result in multiple ecological benefits, and SHA would consider restoring gaps to maximize the ecological benefits of the project mitigation package.



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F. Air Quality

The project-level air quality analysis was conducted in accordance with the Environmental Protection Agency (EPA), FHWA, and SHA guidelines. Refer to the *Air Quality Technical Report* (*SHA 2011a in Section V. References*) for details on the technical analysis and its components.

The EPA has established National Ambient Air Quality Standards (NAAQS) for seven pollutants, five of which are considered pollutants of concern for transportation air quality analyses. Two of them (ozone and nitrogen dioxide) are considered only as "regional pollutants," whereas the other three must be considered at the project level. Those three pollutants are: carbon monoxide (CO), "coarse" particulate matter of 10 microns or less in size (PM_{10}), and "fine" particulate matter of 2.5 microns or less in size ($PM_{2.5}$). CO impacts are typically analyzed as the accepted indicator of vehicle-generated air pollution. In addition, EPA has identified 21 toxic air pollutants that the agency considers to have mobile source origins. These pollutants are referred to collectively as "Mobile Source Air Toxics" or MSATs. Six out of the 21 MSATs are considered by EPA to be transportation's "priority toxics," although that list is subject to change in the future. The six priority MSATs are: benzene, acrolein, formaldehyde, 1,3-butadiene, acetaldehyde, and diesel exhaust.

Prince George's County is currently listed by the EPA as a non-attainment area for ozone and $PM_{2.5,}$ a maintenance area for CO, and not in non-attainment for nitrogen dioxide and PM_{10}.

1. Carbon Monoxide Screening Analysis

A CO micro-scale analysis was performed for this project given that Prince George's County is listed as a "maintenance" area for CO. Typically signalized intersections with a future build condition level of service (LOS) of D, E, or F would be a trigger for micro-scale analysis. The existing signal at Surratts Road and MD 5 would become an overpass in every build alternative. However, a signal would be added to allow a left turn lane movement onto Surratts Road from MD 5 in both the northbound and southbound directions. Thus, the emissions associated with idling at these two signals have been modeled in the future build conditions (Surratts Road Options A and B).

The future build traffic data does not show any of the improved signalized intersections operating with a Future Build LOS of 'D' or lower within the project area. However, given the status of the county as a maintenance area for CO, a micro-scale evaluation was performed at the Surratt's Road intersection. Additionally, an analysis of CO emissions adjacent to the free flow sections of the roadway containing the highest traffic volume was also performed to demonstrate due diligence analysis.

The CO modeling analyses for the project area evaluated traffic conditions for the existing roadways in Base Year 2008 and for the No-Build and Build Alternatives in the Design Year 2030. The analyses indicate that the eight-hour concentration of CO at each of the analyzed sites within the project area would be less than the NAAQS 1-hour standard (35 ppm – parts per million) and 8-hour standard (9.0 ppm) under existing roadway conditions and under all of the study alternatives.

The maximum calculated eight-hour CO concentrations at project intersections for each scenario are as follows:

2.7 ppm for the Existing Roadway
2.5 ppm for Alternative 1 No Build
2.2 ppm for Alternative 3: Expressway Upgrade South of MD 223
2.2 ppm for Alternative 4: Expressway Upgrade Entire Corridor
2.2 ppm for Alternative 5: Two Reversible Price-Managed Lanes
2.2 ppm for Alternative 6: One to Two Price-Managed Lanes
2.2 ppm for Alternative 8: Non Price-Managed Lanes (HOV)

A background value of 3.0 ppm in the project area was provided by MDE staff for use in this analysis. Please note that the calculated concentrations (with the 8-hour persistence factor applied) all fall below the background concentration of 3.0 ppm. Therefore, the actual eight-hour CO level would be equal to the background levels at all locations within the project area.

Free-flow analysis of the mainline indicates slightly elevated build condition CO emissions concentrations relative to those at the signalized ramps. However, 8-hour free-flow emissions levels all fall below the background concentration of 3.0 ppm, similar to the levels calculated at the intersections.

No exceedance has been noted for either the 1-hour or 8-hour emissions standards, as shown in **Tables III-14** through **III-16**. As such, based on the improved traffic flow for the re-designed roadway coupled with emissions reductions through EPA-mandated fuel and vehicle inspection programs, it can be assumed that the project would not substantially impact air quality for CO nor would it cause or contribute to an exceedance of the NAAQS for CO.

Table III-14: Queuing Analysis – Surratts Road Interchange Option A

Receptor	2030 Alternative 3		2030 Alternative 4		2030 Alternative 5		2030 Alternative 6		2030 Alternative 8	
	1-hour	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*
1	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
2	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
3	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
6	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
7	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0	3.1	3.0
8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
9	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
10	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
11	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
12	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
13	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.0
14	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.0
15	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.0
16	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Table III-14: Continued

Receptor	2030 Alternative 3		2030 Alternative 4		2030 Alternative 5		2030 Alternative 6		2030 Alternative 8	
	1-hour	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*
17	3.1	3.0	3.0	3.0	3.1	3.0	3.1	3.0	3.1	3.0
18	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
19	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
20	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0
21	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
22	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
23	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0
24	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
25	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
26	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0
27	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
28	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
29	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
30	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
31	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
32	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0
33	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
34	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
35	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
36	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
37	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
38	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
39	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
40	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Maximum Value	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0

Table III-15: Queuing Analysis – Surratts Road Interchange Option B

Receptor	2030 Alternative 3		2030 Alternative 4		2030 Alternative 5		2030 Alternative 6		2030 Alternative 8	
	1-hour	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*
1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
4	3.0	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
5	3.0	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0
6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
10	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
11	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Table III-15: Continued

Receptor	2030 Alternative 3		2030 Alternative 4		2030 Alternative 5		2030 Alternative 6		2030 Alternative 8	
	1-hour	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*
12	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
13	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
14	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
15	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
16	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
17	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
18	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
19	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
20	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
21	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
22	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
23	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
24	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
25	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
26	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0
27	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0
28	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
29	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
30	3.2	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0
31	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
32	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
33	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
34	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
35	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
36	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
37	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
38	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
39	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
40	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Maximum Value	3.2	3.0	3.1	3.0	3.1	3.0	3.1	3.0	3.1	3.0

Table III-16: Free-Flow Analysis

Receptor	2008 Existing		2030 No-Build		2030 Alternative 3		2030 Alternative 4		2030 Alternative 5		2030 Alternative 6		2030 Alternative 8	
	1-hour	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*	*1-hour*	*8-hour*
NB1	3.6	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.4	3.0	3.4	3.0	3.5	3.0
NB2	3.4	3.0	3.3	3.0	3.3	3.0	3.3	3.0	3.2	3.0	3.2	3.0	3.3	3.0
NB3	3.3	3.0	3.2	3.0	3.2	3.0	3.3	3.0	3.2	3.0	3.2	3.0	3.2	3.0
NB4	3.2	3.0	3.2	3.0	3.2	3.0	3.2	3.0	3.1	3.0	3.1	3.0	3.2	3.0
SB1	3.6	3.0	3.4	3.0	3.5	3.0	3.5	3.0	3.4	3.0	3.4	3.0	3.5	3.0
SB2	3.5	3.0	3.3	3.0	3.3	3.0	3.4	3.0	3.2	3.0	3.2	3.0	3.4	3.0
SB3	3.3	3.0	3.2	3.0	3.2	3.0	3.3	3.0	3.2	3.0	3.2	3.0	3.2	3.0
SB4	3.3	3.0	3.2	3.0	3.2	3.0	3.2	3.0	3.2	3.0	3.2	3.0	3.2	3.0
Maximum Value	3.6	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5	3.0

2. PM2.5 Conformity

The preliminary Air Quality $PM_{2.5}$ Report serves to evaluate the local and regional air quality effects for all proposed project alternatives and provides a qualitative assessment of potential $PM_{2.5}$ impacts associated with the project.

Table III-17 provides a summary of available traffic information used in this analysis. Annual Average Daily Traffic (AADT) reported in the table is for the highest-volume segment of the roadway, located in the northern portion between Allentown Road and I-95/I-495, including the Linda Lane shifted traffic. Changes to traffic volumes over time reflect growth and development in the surrounding area.

Table III-17: AADT and Truck Percentages

Alternative	2015 AADT	2015 Diesel Truck Percentage (%)	Diesel Trucks	2030 AADT	2030 Diesel Truck Percentage (%)	Diesel Trucks
Alternative 1: No-Build	136,500	8	10,920	149,700	8	11,976
Alternative 3: Expressway Upgrade South of MD 223	140,300	8	11,224	153,700	8	12,296
Alternative 4: Expressway Upgrade Entire Corridor	144,700	8	11,576	159,100	8	12,728
Alternative 5: Two Reversible Price-Managed Lanes	144,700	8	11,576	159,100	8	12,728
Alternative 6: One to Two Price-Managed Lanes	144,700	8	11,576	137,415	8	10,993
Alternative 8: Non Price-Managed Lanes (HOV)	142,100	8	11,368	154,800	8	12,384

The Linda Lane/Deerpond Lane to I-95 interchange segment of the roadway has the highest AADT volumes for the corridor in the No-Build Alternative. This same roadway segment consistently ranks in the top two highest segments for AADT in the Build Alternatives (the highest volumes occur between the Allentown Road Interchange and the Old Alexander Ferry Road access point). The difference in AADT between the two highest volume segments is less than one percent of overall AADT and does not represent a substantial deviation.

The traffic data indicates that truck percentages south of MD 223 are predicted to be 11 percent of total AADT. North of MD 223 the truck percentage is predicted to be eight percent of total AADT. Although there are higher truck percentages in the southern portion of the project area, the difference in percentage is off-set by the substantially lower traffic volumes south of MD 223. Therefore, the selected roadway segment between Allentown Road and I-95/ I-495, including the Linda Lane shifted traffic (as reflected in **Table III-17**) is appropriate for use as the worst-case project roadway section as it provides the highest volume of truck traffic in the corridor.

The projected traffic indicates no increase in truck percentages between the Existing, Interim, and No-Build conditions. Additionally, there is no change in the ratio of gasoline-powered vs. diesel-powered truck ratios between the Existing, Interim, and Design Year. From this data it can be concluded that although growth is anticipated in the regional demand models, there will not be a substantial change in heavy truck user demand. This could be attributed to a variety of factors, most notably the lack of increased manufacturing or other development linked to increased use of diesel trucks in the vicinity of the project area. Additionally, alternative routes for heavy trucks (and other vehicles) are not attractive to motorists utilizing this corridor since similar or worse congestion issues exist on alternative routes during peak-hour travel times. Traffic currently using the alternative routes is anticipated to maintain its off-facility route preferences due to route familiarity and safety concerns regarding a high-speed facility such as MD 5.

The MD 5 Corridor Transportation Study is located in Prince George's County, which is in the Washington, DC-MD-VA $PM_{2.5}$ nonattainment area that was designated a nonattainment for $PM_{2.5}$ on January 5, 2005 by the EPA. This designation became effective on April 5, 2005, 90 days after EPA's published action in the Federal Register. Transportation conformity for the $PM_{2.5}$ standards applied on April 5, 2006, after the one-year grace period provided by the Clean Air Act.

Projects that require hotspot analysis for $PM_{2.5}$ are those projects that are Projects of Air Quality Concern as enumerated in 40 CFR 93.123(b)(1):

(i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
(ii) Projects affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
(v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM_{10} or $PM_{2.5}$ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

As discussed in the examples to the preamble to the March 10, 2006 Final Rule for $PM_{2.5}$ and $PM_{2.5}$ Hot-Spot Analyses in Project-Level Transportation Conformity Determinations (71FR12491), for projects involving the expansion of an existing highway, 40 CFR 93.123(b)(1)(i) has been interpreted as applying only to projects that would involve a significant increase in the number of diesel transit buses and diesel trucks on the existing facility. This has been further clarified in a proposed rule amendment which stated: "*EPA is proposing to clarify this provision as "New highway projects that have a significant number of diesel vehicles, and expanded projects that have a significant increase in the number of diesel vehicles."*

SHA has prepared the following analysis of the proposed improvements:

- The projected 2030 No-Build and Build AADT for MD 5 represent the unconstrained user demand. Based on regional travel demand models, travel demand forecasts were developed for the No-Build and Build conditions in the MD 5 Transportation Corridor Study project area. The differences in AADT between the Build and No-Build were not found to be substantial for several reasons. With the lack of functionally comparable parallel facilities to draw traffic from, and with capacity constraints remaining at either end of the project area (I-95 to the north and the US 301/MD 5 interchange to the south) that serve to constrain traffic on the Build section, AADT is anticipated to remain relatively unchanged. The capacity improvements along this section of MD 5 are designed to accommodate future peak period demand within the project area. They are not anticipated to induce traffic in the uncongested off-peak periods.

  This lack of a "significant increase" between No-Build and Build volumes is further supported by the following:
  - Users will take the shortest origin-destination path. In addition, unfamiliarity with the local alternative routes and conditions will encourage drivers to remain on MD 5 despite the level of congestion and delay.
  - During peak traffic periods, diversion from what is the shortest path of travel between origin/destination points to alternative routes would not be attractive to the majority of drivers. Traffic conditions on alternative routes would be as bad or worse than conditions occurring on MD 5 during peak travel periods, with the additional inconvenience of substantial congestion, slower speeds, and numerous traffic lights, all of which would increase travel time. During off-peak periods, MD 5 would be equally attractive to users for either the No-Build or Build alternatives.
  - Trucks, which are the primary emitter of mobile source $PM_{2.5}$, will tend to stay on MD 5 since alternative routes would require frequent stop/start conditions due to traffic signals, and may not have sufficient clearance, grading or curve design to suit these larger vehicles. Similarly, other users primarily travelling other routes in the No-Build condition will tend to remain on these alternative routes for local trip use for reasons unrelated to congestion, such as route familiarity and avoidance of aggressive driving associated with limited access facilities such as is proposed for the Build Alternatives.
  - With the proposed changes to the MD 5 corridor, roadway safety would improve; however, the roadway would continue to be congested during peak periods even though the length and time of the congestion would be reduced.

- Barring the introduction of substantial truck land use generators to the traffic influence area (e.g., sizable increases to industrial employment projections adjacent to the project corridor, which would be reflected in the traffic data), truck percentages would remain unchanged between the No-Build and Build conditions. As previously indicated, Build improvements would add capacity to MD 5 and relieve peak-period congestion. A large volume of truck traffic on MD 5 occurs during off-peak periods, where the addition of peak period capacity would have no bearing on truck travel route selection. Current truck

traffic origin-destination patterns will dictate future patterns, unless changes are made to policy or there is a substantial influx in truck use generators. Neither of these conditions has been assumed by the approved Regional transportation model developed by the MWCOG. The MWCOG Regional transportation model shows consistent truck percentages between the No-Build and Build conditions, supporting this assertion. This analysis was refined with the project-level traffic model results for this study.

- The project does not meet the criteria set forth in 40 CFR 93.123(b)(1)(ii), as amended, to be considered a project of air quality concern because it affects intersections that would not "change to LOS D, E, or F because of increased traffic volumes from a substantial increase in number of diesel vehicles related to the project." The project would only require physical changes to signalized intersections at Surratts Road, and these changes would enhance the operation and safety of the intersection, improving intersection operations from a LOS F in the 2030 No Build condition to a predicted LOS B in the Build condition. Given the LOS summary data provided by SHA's Travel Forecasting Division, it can be assumed that these safety improvements would not adversely affect LOS. Additionally, two closely spaced signalized at-grade intersections in the southern portion of the project corridor are being replaced with grade-separated interchanges in a separate break-out project (MD 5/Brandywine Road/MD 373 Interchange Project) that will improve traffic flow through the corridor. In summary, five at-grade intersections would be replaced by three limited access interchanges, improving LOS through the corridor.

- The project proposes to accommodate express bus lanes in the inside lanes of the design alternatives. This feature does not adversely affect $PM_{2.5}$ issues associated with the project given that the volume of buses is inconsequential relative to overall traffic volumes and their location would be at a substantial distance from abutting sensitive land use. Additionally, these buses would not incorporate new transfer points or terminals for diesel vehicles nor would they cause a substantial number of diesel vehicles to congregate at a single location. The origin and destination of these buses is outside of the project area. The presence of these express buses would also serve to improve level-of-service through the corridor by eliminating utilization of the facility by low-occupancy vehicles.

- Section 176(c) of the Clean Air Act and the Federal Conformity Rule require that transportation plans and programs conform to the intent of the state implementation plan (SIP) through a regional emissions analysis in $PM_{2.5}$ nonattainment areas. The 2010 update to the National Capital Region Constrained Long Range Transportation Plan (CLRP) and the 2011-2016 Metropolitan Transportation Improvement Program (TIP) have been determined to conform to the intent of the SIP. The CLRP is a comprehensive plan of transportation projects and strategies that the Transportation Planning Board realistically anticipates can be implemented over the next 30 years. The TIP is a 6-year program that describes the time-frame for the federal funds to be obligated to state and local projects. Both the 2010 update to the CLRP and the 2011-2016 TIP were adopted by the National Capital Regional Transportation Planning Board (TPB) on November 17, 2010. Thus there is a currently conforming transportation plan and TIP in accordance

with 40 CFR 93.114. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. The MD 5 Corridor Transportation Study was included in the regional emissions analysis. There have been no substantial changes in the project's design concept or scope from that used in the conformity analysis. Therefore, the project comes from a conforming plan and program in accordance with 40 CFR 93.115. Conformity to the purposes of the SIP means that the transportation activity would not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant national ambient air quality standards (NAAQS or "standards").

Based on the preceding preliminary review and analysis, the MD 5 Corridor Transportation Study should meet the Clean Air Act and 40 CFR 93.109 requirements. These requirements are met for particulate matter without a project-level hot-spot analysis, since the project should **not be found to be a project of air quality concern** as defined under 40 CFR 93.123(b)(1). Since the project should meet the Clean Air Act and 40 CFR 93.109 requirements, the project should not cause or contribute to a new violation of the $PM_{2.5}$ NAAQS, or increase the frequency or severity of a violation.

3. Mobile Source Air Toxics Analysis

The MD 5 Corridor Transportation Study is considering the alternatives and interchange options as described in Section II.B. FHWA *Guidance on Air Toxic Analysis in NEPA Documents* requires analysis of Mobile Source Air Toxics (MSAT) under specific conditions. The EPA has designated six prioritized MSATs, which are known or probable carcinogens or can cause chronic respiratory effects. The six prioritized MSATs are: Benzene; Acrolein; Formaldehyde; 1,3-Butadiene, Acetaldehyde; and Diesel Exhaust (Diesel Exhaust Gases and Diesel Particulate Matter. Within approximately half of the project corridor (south of Woodyard Road), the additional travel lane is fully accommodated in the median and therefore does not bring additional vehicles closer to air sensitive receptors. More importantly, despite projected ADT volumes in excess of 150,000 vehicles, the proposed improvements do not add substantial capacity to an urbanized highway. Therefore, this project would be considered in the category, "**Projects with Low Potential MSAT Effects**", as described in the referenced guidance. Projects in this category may require a qualitative MSAT analysis.

The MD 5 Corridor Transportation Study project would not result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts. As such, FHWA has determined that this project would generate minimal air quality impacts for the Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. However, since the previously prepared environmental studies for the MD 5 Corridor Transportation Study did not include a discussion of MSAT, a qualitative MSAT analysis is necessary.

Included herein is a basic analysis of the likely MSAT emission impacts of this project. However, available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with the Build Alternative. Due to these limitations, the following discussion is included in accordance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information:

Evaluating the environmental and health impacts from MSATs on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project.

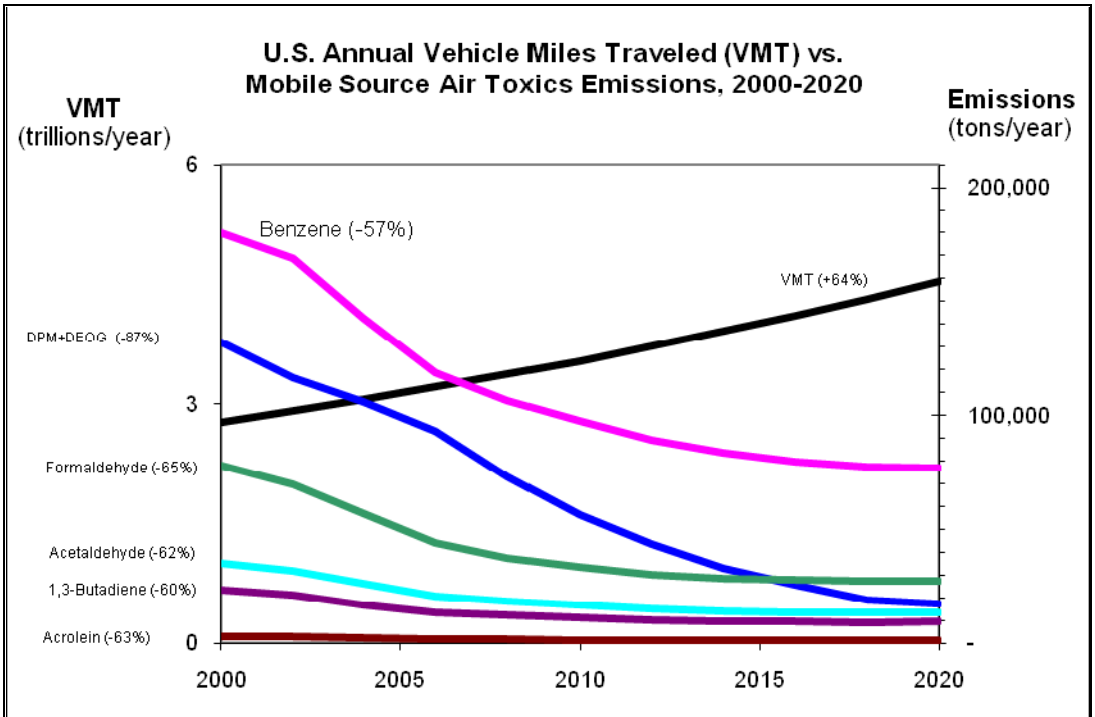
The EPA tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions of MSATs in the context of highway projects. The tools to predict how MSATs disperse are also limited. Even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude reaching meaningful conclusions about project-specific health impacts. Research into the health impacts of MSATs is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses. The EPA is in the process of assessing the risks of various kinds of exposures to these pollutants.

As discussed above, technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions - if any - from the Build Alternative.

For each alternative (No-Build and Build), the amount of MSATs emitted would be proportional to the vehicle miles traveled, or VMT. Although the traffic data provided by SHA does not indicate a substantial difference between the Build traffic volumes (ADT) and truck percentages and the No-Build traffic volumes (ADT) and truck percentages, the VMT within the entire study-area for the Build Alternative may be slightly greater than that of the No-Build, because the Build Alternative would reduce congestion and increase efficiency of the roadway, and may serve to attract additional trips from elsewhere in the transportation network. This slight increase in VMT may lead to slightly higher MSAT emissions along the MD 5 Corridor Transportation Study project corridor for the Build Alternative. The emissions increase due to increased VMT is offset by lower MSAT emission rates due to increased speeds, since according to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs, except for diesel particulate matter, decrease as speed increases. The extent to which these speed-related emissions decreases would offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

The additional lanes of the Build Alternative would be shifted towards the median and would therefore not move traffic closer to nearby homes and businesses; however, there is a slight increase in total vehicles under the Build condition. Therefore, there may be localized areas where ambient concentrations of MSATs could be higher under the Build Alternative than the No-Build Alternative. However, as discussed above, the magnitude and the duration of these potential increases compared to the No-Build alternative cannot be accurately quantified due to the inherent deficiencies of current models.

In summary, given the relatively minor increase in ADT between the No-Build and Build conditions, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSATs would be lower in other locations where traffic shifts away from them due to dispersion of total vehicles over an increased number of travel lanes. Furthermore, at the project location and regionally, MSAT concentrations will decrease in future years due to EPA's vehicle emission and fuel regulations. Refer to the following graph.



Notes: For on-road mobile sources. Emissions factors were generated using MOBILE6.2. MTBE proportion of market for oxygenates is held constant, at 50%. Gasoline RVP and oxygenate content are held constant. VMT: *Highway Statistics 2000*, Table VM-2 for 2000, analysis assumes annual growth rate of 2.5%. "DPM + DEOG" is based on MOBILE6.2-generated factors for elemental carbon, organic carbon and SO4 from diesel-powered vehicles, with the particle size cutoff set at 10.0 microns.

G. Noise

A project-level traffic noise analysis has been completed for the MD 5 Corridor Transportation Study in accordance with FHWA and SHA guidelines, including Title 23 of the Code of Federal Regulations Part 772 (23 CFR 772), *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, and the FHWA report FHWA-HEP-10-025, *Highway Traffic Noise: Analysis and Abatement Guidance*. The SHA *Highway Noise Policy* (July 2011) and *Highway Noise Policy Implementation Guidelines* (August 2011) also provides guidance for the evaluation of highway traffic noise impacts and criteria for consideration of noise abatement measures for communities adjacent to the study area. Refer to the MD 5 Corridor Transportation Study Type I Noise Analysis Report (*SHA 2011g in Section V. References*) for details on the technical analysis and its components.

The MD 5 project is classified as a Type I noise analysis, because it proposes the physical alteration of an existing highway which would substantially change either the horizontal or vertical alignment, or increase the number of through-traffic lanes. FHWA regulations require the evaluation of highway traffic noise impacts and consideration of abatement when certain highway improvements are being proposed. The purpose of the Type I noise analysis is to predict worst-case existing no-build and build alternative traffic noise levels, and to determine where noise barriers are warranted, feasible and reasonable within the project area.

1. Noise Abatement Criteria

Noise Abatement Criteria (NAC) for various land activity categories have been established by FHWA in 23 CFR 772. These categories and criteria are presented in **Table III-18**. The NAC establish noise levels and impact criteria for each land use type. The A-weighted hourly equivalent sound level (Leq) is the descriptor used most frequently in highway noise analyses. The A-weighted decibel scale dB(A) is generally used in assessing community noise exposure because this scale closely approximates the frequency response of the human ear. SHA has defined impact criteria at one (1) dB(A) less than the FHWA's NAC for each category.

A total of 75 Noise Sensitive Areas (NSAs) were identified within the study area, based on the land use activity categories in **Table III-18** (see **Appendix A**, Alternatives Mapping). Thirty-two (32) NSAs were determined to be Category B (residential), six (6) were Category C (areas such as parks or active sports areas), 14 were Category D (involving interior activities), and 23 were Category E (exterior developed lands that are sensitive to noise).

The determination of traffic noise impacts is based on the relationship between the ambient noise levels, the predicted future loudest-hour traffic noise levels, and the NAC for each land use in the project area.

Table III-18: FHWA Noise Abatement Criteria

Activity Category	Activity Criteria[1] Leq(h)[2]	Maryland SHA Approach Criteria	Evaluation Location	Description of Activity Category
A	57	56	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	66	Exterior	Residential
C	67	66	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	71	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	--	--	--	Undeveloped lands that are not permitted

1 The Leq(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.
2 The equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period, with Leq(h) being the hourly value of Leq.
3 Includes undeveloped lands permitted for this activity category.

2. Evaluation Methodology and Impact Analysis

All impact analyses were performed in conformance with 23 CFR Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise,* the FHWA report FHWA-HEP-10-025, *Highway Traffic Noise: Analysis and Abatement Guidance*, and the SHA's *Highway Noise Policy* (July 2011), and *Highway Noise Policy Implementation Guidelines* (August 2011). Each NSA was analyzed to determine potential impacts from each of the project alternatives.

Prediction modeling was performed to assess projected 2030 design year noise levels for each of the proposed alternatives to determine if noise abatement is warranted. All prediction modeling

was performed using FHWA's Traffic Noise Model v2.5 (TNM). The TNM seeks to simulate the noise environment by considering variable inputs for traffic (including cars, medium trucks, heavy trucks, buses, and motorcycles), variable inputs of traffic speed for each vehicle type, variable inputs for roadway design, (including roadway width, horizontal and vertical alignment), variable inputs for terrain lines and propagation features (such as building rows, ground zones, and tree zones), and inclusion of traffic control measures including stop lights and stop signs.

An area was determined to be impacted if projected 2030 design year noise levels approach or exceed the FHWA Noise Abatement Criteria for the intended land use, or if the predicted noise levels constituted a substantial increase (exceed existing noise levels by 10 dB(A) or more).

3. Results

Based on the findings of the analysis, noise impacts would occur in 13 NSAs under Alternative 3, 37 NSAs under Alternative 4; 36 NSAs under Alternative 5; 37 NSAs under Alternative 6; and 37 NSAs under Alternative 8. These impacted NSAs were therefore considered for noise abatement. Predicted future noise levels for each Alternative are shown in **Table III-19**.

A maximum of 37 NSAs would be impacted under the build alternatives. Barrier analysis was determined to be warranted at 24 of these NSAs, as indicated on **Table III-20**. The remaining 13 impacted NSAs do not warrant barrier analysis because they are Category E land uses (commercial) that lack frequent exterior usage, or a Category C land use (Piscataway Creek Stream Valley Park) that has no current or planned outdoor use.

At each of the 24 locations where barrier analysis was warranted, optimized noise barriers were designed in conformance with SHA design goals, and evaluated for feasibility and reasonableness in accordance with SHA standards.

Table III-19: Predicted Future Noise Levels by Alternative

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
01-B	01a	69	69	67	67	67	67	67
	01b	63	63	68	68	68	68	68
	01c	63	62	68	68	68	68	68
02-D	02a	68	68	68	68	68	68	68
03-B	03a	66	67	68	68	68	68	68
	03b	64	64	64	64	64	64	64
	03c	63	64	63	63	63	63	63
04-E	04a	68	69	69	69	69	69	69
05-C	05a	60	61	64	64	64	64	64
	05b	55	56	59	59	59	59	59
06-B	06a	65	66	69	69	69	69	69
	06b	53	54	58	58	58	58	58

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
	06c	60	61	65	65	65	65	65
07-B (BHA Option)	07a	45	46	51	51	51	51	51
	07b	49	50	58	58	58	58	58
	07c	52	53	55	55	55	55	55
	07d	59	60	58	58	58	58	58
	07e	59	60	68	68	68	68	68
	07f	54	55	64	64	64	64	64
	07g	58	59	67	67	67	67	67
	07h	58	60	66	66	66	66	66
	07i	66	68	71	71	71	71	71
	07j	55	56	62	62	62	62	62
	07k	54	56	60	60	60	60	60
	07l	57	59	62	62	62	62	62
	07m	51	53	58	58	58	58	58
07-B (BHB Option)	07a	45	46	49	49	49	49	49
	07b	49	50	53	53	53	53	53
	07c	52	53	54	54	54	54	54
	07d	59	60	58	58	58	58	58
	07e	59	60	66	66	66	66	66
	07f	54	55	64	64	64	64	64
	07g	58	59	66	66	66	66	66
	07h	58	60	66	66	66	66	66
	07i	66	68	72	72	72	72	72
	07j	55	56	60	60	60	60	60
	07k	54	56	61	61	61	61	61
	07l	57	59	63	63	63	63	63
	07m	51	53	60	60	60	60	60
08-B	08a	48	48	54	54	54	54	54
09-E	09a	70	69	73	73	73	73	73
10-C	10a	63	63	68	68	68	68	68
	10b	62	61	66	66	66	66	66
11-E	11a	64	66	70	70	70	70	70
12-B	12a	61	62	64	64	64	64	64
	12b	70	71	72	72	72	72	72
	12c	53	54	58	58	58	58	58
	12d	67	68	72	72	72	72	72
	12e	47	49	57	57	57	57	57
	12f	61	62	66	66	66	66	66
	12g	60	61	65	65	65	65	65

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
	12h	66	67	69	69	69	69	69
	12i	56	57	63	63	63	63	63
	12j	61	62	66	66	66	66	66
	12k	59	60	64	64	64	64	64
	12l	65	66	69	69	69	69	69
	12m	63	64	67	67	67	67	67
	12n	63	64	68	68	68	68	68
	12o	66	67	70	70	70	70	70
	12p	55	57	61	61	61	61	61
13-B	13a	72	73	74	74	74	74	74
	13b	74	75	76	76	76	76	76
	13c	71	72	73	73	73	73	73
	13d	62	63	66	66	66	66	66
	13e	63	65	67	67	67	67	67
	13f	63	64	66	66	66	66	66
	13g	63	64	66	66	66	66	66
14-E	14a	63	64	65	65	65	65	65
15-C	15a	63	64	65	65	65	65	65
16-E	16a	63	64	65	65	65	65	65
17-D	17a	63	64	65	65	65	65	65
18-E	18a	65	66	*	68	68	68	68
	18b	64	65	*	67	67	67	67
19-B	19a	64	65	*	71	70	70	71
	19b	69	69	*	74	72	72	74
	19c	68	68	*	75	73	73	75
	19d	73	74	*	79	**	**	**
	19e	55	56	*	63	64	64	63
	19f	57	58	*	66	66	66	66
	19g	58	60	*	65	64	64	65
20-D	20a	61	62	*	68	66	66	68
21-E	21a	72	73	*	76	75	76	75
22-E	22a	72	73	*	76	76	76	76
23-B	23a	62	63	*	66	66	66	66
24-E	24a	72	73	*	75	75	75	75
	24b	60	62	*	65	65	65	65
25-E	25a	61	62	*	65	65	65	65
26-D	26a	66	67	*	70	70	70	70
27-E	27a	68	69	*	71	71	71	71
	27b	63	64	*	67	67	67	67

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
28-D	28a	71	72	*	75	75	75	75
29-E	29a	73	74	*	76	76	76	76
30-B	30a	59	60	*	62	62	62	62
	30b	58	59	*	61	61	61	61
	30c	57	58	*	62	62	62	62
	30d	57	58	*	63	63	63	63
	30e	58	59	*	65	65	65	65
31-B	31a	*69*	*70*	*	*75*	*75*	*75*	*75*
	31b	*57*	*58*	*	*61*	*61*	*61*	*61*
	31c	*71*	*72*	*	*76*	*76*	*76*	*76*
	31d	*61*	*62*	*	*66*	*66*	*66*	*66*
	31e	*69*	*70*	*	*73*	*73*	*73*	*73*
	31f	*63*	*64*	*	*70*	*70*	*70*	*70*
	31g	*66*	*67*	*	*72*	*72*	*72*	*72*
	31h	*66*	*67*	*	*73*	*73*	*73*	*73*
	31i	*64*	*66*	*	*71*	*71*	*71*	*71*
	31j	*64*	*66*	*	*71*	*71*	*71*	*71*
	31k	*63*	*66*	*	*71*	*71*	*71*	*71*
	31l	*62*	*65*	*	*67*	*67*	*67*	*67*
32-C	32a	56	57	*	60	60	60	60
33-D	33a	62	63	*	66	66	66	66
34-B	34a	59	60	*	62	62	62	62
	34b	59	60	*	62	62	62	62
	34c	57	58	*	59	59	59	59
35-B	35a	76	76	*	77	**	77	77
	35b	76	76	*	77	**	77	77
36-D	36a	67	68	*	68	68	68	68
37-B	37a	71	72	*	74	74	74	74
	37b	67	68	*	70	70	70	70
	37c	63	64	*	66	66	66	66
	37d	65	66	*	68	68	68	68
	37e	67	68	*	70	70	70	70
	37f	61	62	*	63	63	63	63
38-B	38a	60	61	*	60	60	60	60
	38b	59	61	*	57	57	57	57
39-E	39a	66	67	*	68	67	67	68
40-B	40a	66	67	*	67	66	66	67
	40b	69	70	*	70	69	69	70
	40c	64	66	*	67	65	65	67

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
	40d	66	67	*	67	67	67	67
	40e	61	62	*	62	61	61	62
	40f	62	64	*	64	61	61	64
41-B	41a	60	61	*	62	61	61	62
42-D	42a	73	74	*	73	73	73	73
43-B	43a	71	72	*	74	74	74	74
	43b	72	73	*	75	75	75	75
	43c	64	65	*	68	68	68	68
	43d	59	60	*	60	60	60	60
44-D	44a	74	77	*	77	77	77	77
45-D	45a	75	77	*	78	78	78	78
46-B	46a	63	64	*	65	65	65	65
	46b	74	75	*	76	76	76	76
	46c	68	69	*	71	71	71	71
47-D	47a	68	69	*	71	71	71	71
48-D	48a	70	71	*	72	72	72	72
49-B	49a	64	65	*	67	67	67	67
50-E	50a	71	73	*	72	72	72	72
51-D	51a	73	75	*	74	74	74	74
52-E	52a	67	68	*	69	69	69	69
53-D	53a	68	69	*	70	70	70	70
54-E	54a	58	59	*	61	61	61	61
55-E	55a	70	71	*	73	73	73	73
56-B	56a	66	67	*	72	72	72	72
	56b	69	70	*	73	73	73	73
	56c	64	65	*	68	68	68	68
	56d	63	64	*	69	69	69	69
57-C	57a	60	61	*	63	63	63	63
	57b	60	61	*	64	64	64	64
58-B	58a	59	60	*	66	66	66	66
	58b	71	72	*	76	76	76	76
	58c	66	67	*	73	73	73	73
	58d	70	72	*	75	75	75	75
	58e	70	71	*	74	74	74	74
	58f	69	70	*	73	73	73	73
	58g	66	67	*	70	70	70	70
	58h	59	60	*	64	64	64	64
	58i	59	60	*	67	67	67	67
	58j	60	61	*	63	63	63	63

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
	58k	56	57	*	59	59	59	59
59-E	59a	66	68	*	71	71	71	71
60-B	60a	65	67	*	70	70	70	70
	60b	69	72	*	75	75	75	75
	60c	64	66	*	70	70	70	70
	60d	63	64	*	66	66	66	66
	60e	57	58	*	63	63	63	63
61-E	61a	71	72	*	75	75	75	75
62-E	62a	71	72	*	72	72	72	72
63-E	63a	67	68	*	71	71	71	71
64-E	64a	63	64	65	65	65	65	65
	64b	63	65	65	65	65	65	65
	64c	65	67	68	68	68	68	68
	64d	66	69	69	69	69	69	69
65-B	65a	74	75	76	76	76	76	76
	65b	66	68	71	71	71	71	71
	65c	65	66	64	64	64	64	64
66-B	66a	57	59	64	64	64	64	64
	66b	59	61	66	66	66	66	66
	66c	56	58	61	61	61	61	61
67-B	67a	58	58	62	62	62	62	62
	67b	52	53	58	58	58	58	58
	67c	54	55	55	55	55	55	55
	67d	57	58	63	63	63	63	63
	67e	59	60	65	65	65	65	65
68-B	68a	61	62	65	65	65	65	65
	68b	65	66	71	71	71	71	71
	68c	61	59	64	64	64	64	64
69-B	69a	57	58	65	65	65	65	65
	69b	55	56	63	63	63	63	63
	69c	54	55	61	61	61	61	61
	69d	50	50	59	59	59	59	59
70-C	70a	64	65	68	68	68	68	68
71-B	71a	57	58	63	63	63	63	63
	71b	57	59	62	62	62	62	62
72-B	72a	64	66	68	68	68	68	68
	72b	60	62	65	65	65	65	65
73-E	73a	66	66	66	66	66	66	66
74-B	74a	62	62	64	64	64	64	64

NSA	Receptor	Existing dB(A)	Alternative 1 (No Build) dB(A)	Alternative 3 dB(A)	Alternative 4 dB(A)	Alternative 5 dB(A)	Alternative 6 dB(A)	Alternative 8 dB(A)
75-B	75a	63	62	64	64	64	64	64
	75b	60	60	61	61	61	61	61
	75c	58	58	59	59	59	59	59
	75d	60	59	60	60	60	60	60
	75e	59	59	60	60	60	60	60

* Alternative 3 only covers the portion south of Woodyard Road; therefore this NSA was not impacted
** Noise level was not calculated because potential receptors would be displaced under this alternative.
Note: The levels for NSA 31-B are italicized because this data is tentative and based on the 2009 study. There was insufficient data to conduct an updated barrier analysis due not being granted access to Joint Base Andrews during the study.

Table III-20: NSA Impact Assessment and Barrier Warrants

NSA	Land Use Activity Category	Impact Determination of Future Noise Levels		Traffic Noise Impact	Exterior Noise Use of Sufficient Frequency and Duration [For C and E only]	Barrier Analysis Warranted	NSA Requiring Barrier Analysis	Notes
		Approach or Exceed Noise Abatement Criteria (NAC)	Result in Substantial Increase over Existing					
01-B	B	Y	N	✓		✓	01-B	
02-D	D	N	N	✗	N	✗		
03-B	B	Y	N	✓		✓	03-B	
04-E	E	N	N	✗	N	✗		
05-C	C	N	N	✗	Y	✗		
06-B	B	Y	N	✓		✓	06-B	
07-B	B	Y	N	✓		✓	07-B	1
08-B	B	N	N	✗		✗		
09-E	E	Y	N	✓	N	✗		
10-C	C	Y	N	✓	Y	✓	10-C	
11-E	E	N	N	✗	Y	✗		
12-B	B	Y	N	✓		✓	12-B	2
13-B	B	Y	N	✓		✓	13-B	2
14-E	E	N	N	✗	N	✗		
15-C	C	N	N	✗	Y	✗		
16-E	E	N	N	✗	N	✗		
17-D	D	N	N	✗	N	✗		
18-E	E	N	N	✗	N	✗		
19-B	B	Y	N	✓		✓	19-B	3
20-D	D	N	N	✗	N	✗		
21-E	E	Y	N	✓	N	✗		
22-E	E	Y	N	✓	N	✗		

NSA	Land Use Activity Category	Impact Determination of Future Noise Levels		Traffic Noise Impact	Exterior Noise Use of Sufficient Frequency and Duration [For C and E only]	Barrier Analysis Warranted	NSA Requiring Barrier Analysis	Notes
		Approach or Exceed Noise Abatement Criteria (NAC)	Result in Substantial Increase over Existing					
23-B	B	Y	N	✓		✓	23-B	
24-E	E	Y	N	✓	N	✗		
25-E	E	N	N	✗	N	✗		
26-D	D	N	N	✗	N	✗		
27-E	E	Y	N	✓	N	✗		
28-D	D	N	N	✗	N	✗		
29-E	E	Y	N	✓	N	✗		
30-B	B	N	N	✗		✗		
31-B	B	Y	N	✓		✓	31-B	4
32-C	C	N	N	✗	Y	✗		
33-D	D	N	N	✗	N	✗		
34-B	B	N	N	✗		✗		
35-B	B	Y	N	✓		✓	35-B	
36-D	D	N	N	✗	N	✗		
37-B	B	Y	N	✓		✓	37-B	
38-B	B	N	N	✗		✗		
39-E	E	N	N	✗	N	✗		
40-B	B	Y	N	✓		✓	40-B	5
41-B	B	N	N	✗		✗		
42-D	D	N	N	✗	N	✗		
43-B	B	Y	N	✓		✓	43-B	
44-D	D	N	N	✗	N	✗		
45-D	D	Y	N	✓	N	✓	45-D	6
46-B	B	Y	N	✓		✓	46-B	6
47-D	D	N	N	✗	N	✗		
48-D	D	N	N	✗	N	✗		
49-B	B	Y	N	✓		✓	49-B	
50-E	E	Y	N	✓	N	✗		
51-D	D	N	N	✗	N	✗		
52-E	E	Y	N	✗	N	✗		
53-D	D	N	N	✗	N	✗		
54-E	E	Y	N	✗	N	✗		
55-E	E	Y	N	✓	N	✗		
56-B	B	Y	N	✓		✓	56-B	7

NSA	Land Use Activity Category	Impact Determination of Future Noise Levels		Traffic Noise Impact	Exterior Noise Use of Sufficient Frequency and Duration [For C and E only]	Barrier Analysis Warranted	NSA Requiring Barrier Analysis	Notes
		Approach or Exceed Noise Abatement Criteria (NAC)	Result in Substantial Increase over Existing					
57-C	C	N	N	✗	Y	✗		7
58-B	B	Y	N	✓		✓	58-B	7
59-E	E	Y	N	✓	N	✗		
60-B	B	Y	N	✓		✓	60-B	
61-E	E	Y	N	✓	N	✗		
62-E	E	Y	N	✓	N	✗		
63-E	E	Y	N	✓	N	✗		
64-E	E	N	N	✗	Y	✗		
65-B	B	Y	N	✓		✓	65-B	8
66-B	B	Y	N	✓		✓	66-B	8
67-B	B	N	N	✗		✗		
68-B	B	Y	N	✓		✓	68-B	
69-B	B	N	N	✗		✗		
70-C	C	Y	N	✓	N	✗		
71-B	B	N	N	✗		✗		
72-B	B	Y	N	✓		✓	72-B	
73-E	E	N	N	✗	N	✗		
74-B	B	N	N	✗		✗		
75-B	B	N	N	✗		✗		

1. NSA 07-B is impacted and warrants a barrier analysis under both Option A and B for the Burch Hill Road Interchange. However, each option requires a different barrier analysis due to substantial changes in the roadway geometry
2. Both NSAs 12-B and 13-B were studied together during the barrier analysis.
3. NSA 19-B is impacted and warrants a barrier analysis under Alternatives 4, 5, 6, and 8. However, Alt 4 and 8 require a different barrier analysis than what is needed for Alt 5 and 6 due to substantial changes in the roadway geometry.
4. Due to access restrictions for NSA 31-B, located on Joint Base Andrews, SHA was unable to conduct an accurate barrier analysis.
5. NSA 40-B is impacted and warrants a barrier analysis under Alternatives 4, 5, 6, and 8. However, Alt 4 and 8 require a different barrier analysis than what is needed for Alt 5 and 6 due to substantial changes in the roadway geometry.
6. Both NSAs 45-D and 46-B were studied together during the barrier analysis.
7. Both NSAs 56-B and 58-B were studied together during the barrier analysis. NSA 57-C was also investigated for benefits, since it lies between the two NSAs.
8. Both NSA 65-B and 66-B were studied together during the barrier analysis.

4. Noise Abatement

According to the SHA *Highway Noise Policy* (July 2011), decisions concerning the provision of sound barriers will be made after evaluation of the feasibility and reasonableness criteria. The determination of sound barrier feasibility is dependent upon the relationship of the highway to the adjacent community: elevations of the highway and of the development, whether a barrier of reasonable height can provide desirable noise reduction to first row residences, available ROW constructability, and safety are considered. A reasonableness determination is based upon a combination of social, economic and environmental factors associated with the proposed noise

abatement. These factors include the viewpoints of benefited property owners and residents, the number of benefited residences, the proposed acoustical effectiveness of the abatement, and the cost effectiveness of the proposed abatement.

Feasibility of noise abatement is defined as the engineering and acoustical ability to safely provide effective noise reduction. The following criteria will be used in determining if noise abatement is feasible:

- A modeled reduction of projected noise levels by at least 5 dB(A) at 50 percent of impacted sites, in any given noise sensitive area. Reduction of noise levels may be limited in areas where external noise sources exist, such as aircraft flight paths.
- Noise abatement may not be feasible in areas where driveway access needs to be maintained, where local street access exists, or if pedestrian access would be restricted.
- Noise abatement measures that would create adverse safety conditions, such as limiting sight distance or reduction of a vehicle recovery area, will not be considered feasible.
- A Site Constraint Assessment may be conducted when additional engineered elements, such as extensive fill or excavation, substantial utility relocations, major drainage system implementation, or the introduction of structural elements are required. This assessment is not required for every project, and is generally reserved for application during final design where required on a case-by-case basis. The assessment may include alternative engineering solutions to avoid or minimize the additional cost elements.

A reasonableness decision is based upon a combination of social, economic and environmental factors. Noise abatement will be considered reasonable if the following criteria are met:

- if less than 50 percent of benefited residents in the NSA oppose the noise barrier,
- if at least 50 percent of impacted and benefited residences receive at least a 7 dB(A) reduction from the proposed abatement,
- if the area of wall provided per benefited residence is equal to or less than 2,700 square feet,
- when NSAs with square footage per residence between 2,700 and 3,700 square feet within a common noise environment are averaged and result in an average value per benefited residence of less than 2,700 square feet, and
- when higher absolute noise levels are predicted (i.e., future noise levels reach 75 dB(A) or above within the subject NSA), the allowable square footage for the subject noise barrier can exceed 2,700 up to a maximum of 3,700 square feet, if required.

A review of noise barriers designs found that all feasibility and reasonableness criteria were met for 15 barriers, at 13 separate areas (some areas had more than one barrier option). The proposed barriers would provide traffic noise abatement to 18 separate NSAs. The proposed barrier locations are depicted on **Figure III-13**, tiles 1 through 11. The technical criteria used to determine barrier feasibility and reasonableness are summarized on **Table III-20**.

Despite meeting the impact warrants for barrier analysis, a barrier at NSA 70-C was not evaluated because there are no existing or planned outdoor uses associated with this NSA. Seven (7) other barriers were found to <u>not</u> satisfy the necessary merits, including: a barrier at NSA-01B that was not reasonable because it exceeded the square-foot per benefited residence limits; a barrier at NSA 03-B that was not feasible due to direct driveway access requirements; a barrier at

NSA 06-B that was not reasonable because it exceeded the square-foot per benefited residence limits; a barrier at NSA 23-B that was not feasible due to traffic influence from local roads; a barrier at NSA 40-B under Alternatives 5 and 6, that was not reasonable because it exceeded the square-foot per benefited residence limits (under Alternatives 3 and 4 this limit would not be exceeded, and the barrier was reasonable); a barrier at NSA 49-B, that was not reasonable because it exceeded the square-foot per benefited residence limits; and a barrier at NSA 72-B that was not reasonable because it exceeded the square-foot per benefited residence limits . Additionally, due to access restrictions for NSA 31-B, located on AAFB, SHA was unable to conduct an accurate barrier analysis. This area will need to be investigated further in any subsequent reevaluations and/or during final design.

A discussion of the proposed impacts and barriers, by Alternative, is provided below. For additional information on each barrier, please refer to **Tables III-21** and **III-22**, and **Figure III-13**, Tiles 1 through 11.

Alternative 1 – No-Build Alternative

No abatement consideration has been investigated for the No Build alternative as this serves as a baseline for future project development.

A comparison of the modeled results determined that the future predicted No Build noise levels were an average of 1 dB(A) higher than the Existing Worst Case noise levels throughout the corridor.

Alternative 3 – Expressway Upgrade South of MD 223

It should be noted that because Alternative 3 only proposes improvements south of MD 223, only 29 of the 75 NSAs were studied for this alternative. The projected 2030 Build noise levels would approach or exceed the NAC for 13 of the 29 NSAs identified along this alternative (NSAs 01-B, 03-B, 06-B, 07-B, 09-E, 10-C, 12-B, 13-B, 65-B, 66-B, 68-B, 70-C, and 72-B).

Five (5) noise barriers were found to be feasible and reasonable. These barriers would provide noise abatement to seven (7) NSAs. These include three separate barriers along NSAs 07-B, 10-C, and 68-B, and two combined barriers along NSAs 12-B and 13-B, and NSAs 65-B and 66-B. The noise barrier at NSA 07-B includes two separate designs, one that considers the design elements associated with the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A, and one that considers the design elements presented in Option B.

The remaining impacted NSAs were not recommended for a barrier because either the noise barrier did not meets feasibility and reasonableness criteria, or the impacted NSA was a Category E land use with no exterior use.

Alternative 4 – Expressway Upgrade Entire Corridor

The projected 2030 Build noise levels would approach or exceed the established NAC for 37 of the 75 NSAs identified along this alternative (NSAs 01-B, 03-B, 06-B, 07-B, 09-E, 10-C, 12-B, 13-B, 19-B, 21-E, 22-E, 23-B, 24-E, 27-E, 29-E, 31-B, 35-B, 37-B, 40-B, 43-B, 45-D, 46-B, 49-B, 50-E, 55-E, 56-B, 58-B, 59-E, 60-B, 61-E, 62-E, 63-E, 65-B, 66-B, 68-B, 70-C, and 72-B).

Thirteen barriers were found to be feasible and reasonable. These barriers would provide noise abatement to 18 NSAs. These include 10 separate barriers along NSAs 07-B, 10-C, 19-B, 35-B, 37-B, 40-B, 43-B, 46-B, 60-B, and 68-B. Three combined barriers were also found to be feasible and reasonable: one along NSAs 12-B and 13-B, another barrier along NSAs 56-B, 57-C, and 58-B, and the third one along NSAs 65-B and 66-B. The noise barrier at NSA 07-B includes two separate designs, one that considers the design elements associated with the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A, and one that considers the design elements presented in Option B.

The remaining impacted NSAs were not recommended for a barrier because either the noise barrier did not meet feasibility and reasonableness criteria, or the impacted NSA was a Category E land use with no exterior use.

Alternative 5 – Two Reversible Price-Managed Lanes

The projected 2030 Build noise levels would approach or exceed the established NAC for 36 of the 74 NSAs identified along this alternative (NSAs 01-B, 03-B, 06-B, 07-B, 09-E, 10-C, 12-B, 13-B, 19-B, 21-E, 22-E, 23-B, 24-E, 27-E, 29-E, 31-B, 37-B, 40-B, 43-B, 45-D, 46-B, 49-B, 50-E, 55-E, 56-B, 58-B, 59-E, 60-B, 61-E, 62-E, 63-E, 65-B, 66-B, 68-B, 70-C, and 72-B). The reason there is one less NSA impact under Alternative 5 is that proposed property acquisitions along Deer Pond Lane would eliminate the residential receptors at NSA 35-B. Only Alternative 5 proposes the relocation of these homes.

Eleven barriers were found to be feasible and reasonable. These barriers would provide noise abatement to 16 NSAs. These include eight separate barriers along NSAs 07-B, 10-C, 19-B, 37-B, 43-B, 46-B, 60-B, and 68-B. Three combined barriers were also found to be feasible and reasonable: one along NSAs 12-B and 13-B, another barrier along NSAs 56-B, 57-C, and 58-B, and the third one along NSAs 65-B and 66-B. The noise barrier at NSA 07-B includes two separate designs, one that considers the design elements associated with the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A, and one that considers the design elements presented in Option B.

The remaining impacted NSAs were not recommended for a barrier because either the noise barrier did not meet feasibility and reasonableness criteria, or the impacted NSA was a Category E land use with no exterior use.

Alternative 6 – One to Two Price-Managed Lanes

The projected 2030 Build noise levels would approach or exceed the established NAC for 37 of the 75 NSAs identified along this alternative (NSAs 01-B, 03-B, 06-B, 07-B, 09-E, 10-C, 12-B, 13-B, 19-B, 21-E, 22-E, 23-B, 24-E, 27-E, 29-E, 31-B, 35-B, 37-B, 40-B, 43-B, 45-D, 46-B, 49-B, 50-E, 55-E, 56-B, 58-B, 59-E, 60-B, 61-E, 62-E, 63-E, 65-B, 66-B, 68-B, 70-C, and 72-B).

Twelve barriers were found to be feasible and reasonable. These barriers would provide noise abatement to 17 NSAs. These include nine separate barriers along NSAs 07-B, 10-C, 19-B, 35-B, 37-B, 43-B, 46-B, 60-B, and 68-B. Three combined barriers were also found to be feasible and reasonable: one along NSAs 12-B and 13-B, another barrier along NSAs 56-B, 57-C, and 58-B, and the third one along NSAs 65-B and 66-B. The noise barrier at NSA 07-B includes two

separate designs, one that considers the design elements associated with the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A, and one that considers the design elements presented in Option B.

The remaining impacted NSAs were not recommended for a barrier because either the noise barrier did not meet feasibility and reasonableness criteria, or the impacted NSA was a Category E land use with no exterior use.

Alternative 8 – Non- Price- Managed Lanes (HOV)

The projected 2030 Build noise levels would approach or exceed the established NAC for 37 of the 75 NSAs identified along this alternative (NSAs 01-B, 03-B, 06-B, 07-B, 09-E, 10-C, 12-B, 13-B, 19-B, 21-E, 22-E, 23-B, 24-E, 27-E, 29-E, 31-B, 35-B, 37-B, 40-B, 43-B, 45-D, 46-B, 49-B, 50-E, 55-E, 56-B, 58-B, 59-E, 60-B, 61-E, 62-E, 63-E, 65-B, 66-B, 68-B, 70-C, and 72-B).

Thirteen barriers were found to be feasible and reasonable. These barriers would provide noise abatement to 18 NSAs. These include ten separate barriers along NSAs 07-B, 10-C, 19-B, 35-B, 37-B, 40-B, 43-B, 46-B, 60-B, and 68-B. Three combined barriers were also found to be feasible and reasonable: one along NSAs 12-B and 13-B, another barrier along NSAs 56-B, 57-C, and 58-B, and the third one along NSAs 65-B and 66-B. The noise barrier at NSA 07-B includes two separate designs, one that considers the design elements associated with the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A, and one that considers the design elements presented in Option B.

The remaining impacted NSAs were not recommended for a barrier because either the noise barrier did not meet feasibility and reasonableness criteria, or the impacted NSA was a Category E or C land use with no exterior use.

Table III-21: Summary of Barriers that Meet Technical Eligibility Criteria

Barrier Name Based on NSA	Number of NSAs per Barrier	Alternative				
		3	4	5	6	8
07-B	1	✓	✓	✓	✓	✓
10-C	1	✓	✓	✓	✓	✓
12-B 13-B	2	✓	✓	✓	✓	✓
19-B	1	✗	✓	✓	✓	✓
35-B	1	✗	✓	✗	✓	✓
37-B	1	✗	✓	✓	✓	✓
40-B	1	✗	✓	✗	✗	✓
43-B	1	✗	✓	✓	✓	✓
45-D 46-B	2	✗	✓	✓	✓	✓
56-B (57-C) 58-B	3	✗	✓	✓	✓	✓
60-B	1	✗	✓	✓	✓	✓
65-B 66-B	2	✓	✓	✓	✓	✓
68-B	1	✓	✓	✓	✓	✓
Number of Barriers		5	13	11	12	13
Total Barrier Square-Footage		245,280	498,190	449,330	467,720	498,190
Number of NSAs Protected		7	18	16	17	18
Total Number of Benefits		142	272	256	262	272

- NSA 31-B was excluded from this tableper previous discussions.
- Alternatives 3 only pertains to the portion of the corridor south of MD 223. Therefore, only five of the 13 barriers are applicable.
- In Alternative 5, NSA 35-B is no longer noise sensitive due to proposed house takes.
- NSA 40-B in both Alternative 5 and 6 failed cost reasonableness.

✓ NSA qualified for a Noise Barrier

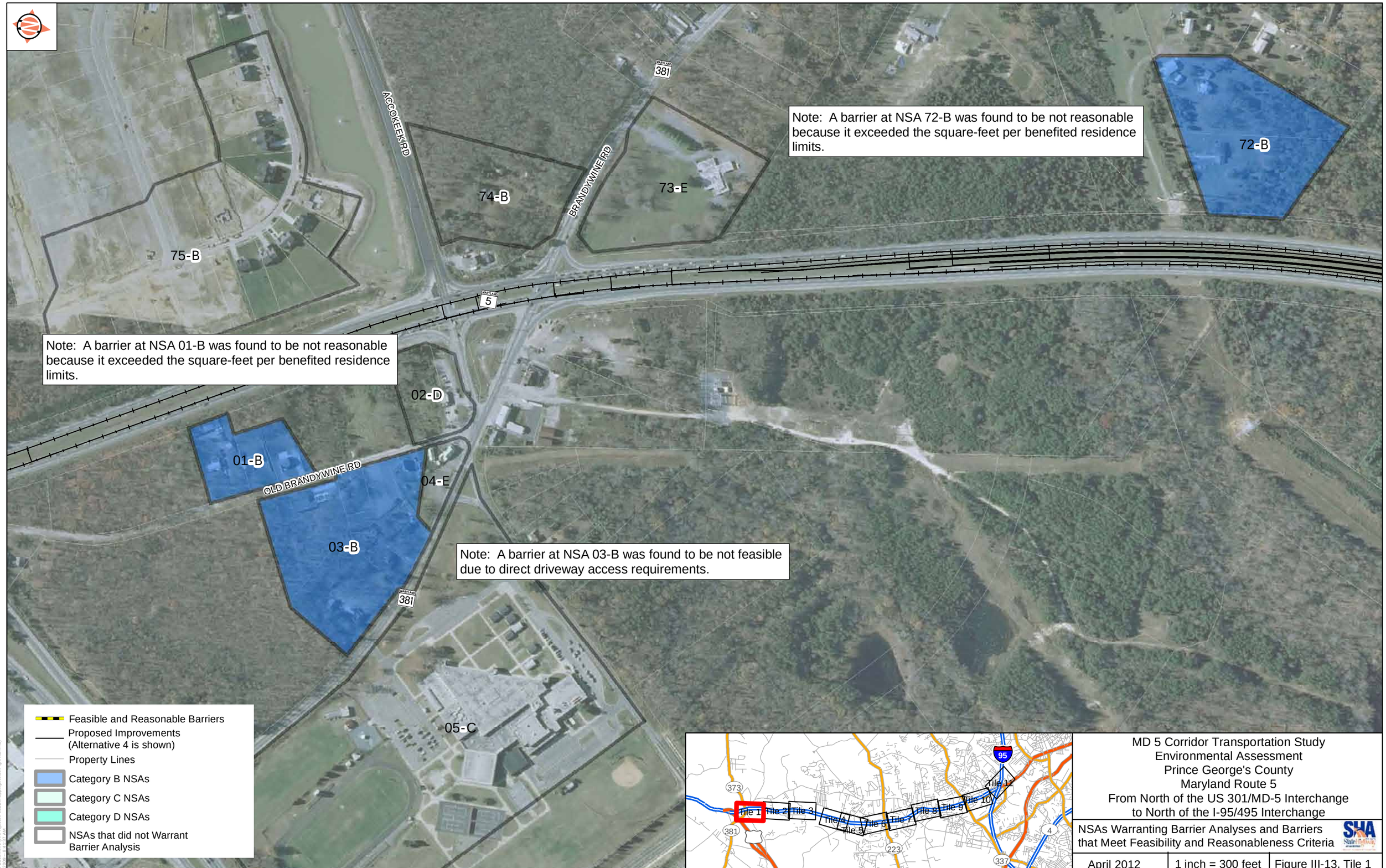
✗ NSA did not qualify for a sound barrier

Table III-22: Barrier Feasibility and Reasonableness Checklist

Barrier Name based on NSA	**01-B**	**03-B**	**06-B**	**07-B**	**07-B**	**10-C**	**12-B_13-B**	**19-B**	**19-B**	**23-B**	**31-B**	**35-B**	**37-B**	**40-B**	**40-B**	**43-B**	**45-D_46-B**	**49-B**	**56-B (57-C) 58-B**	**60-B**	**65-B_66-B**	**68-B**	**72-B**
Number of NSAs per barrier	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	1	3	1	2	1	1
Analysis applies to the following alternatives/options	3,4,5,6,8	3,4,5,6,8	3,4,5,6,8	3,4,5,6,8 BHA	3,4,5,6,8 BHB	3,4,5,6,8	3,4,5,6,8	4,8	5,6	4,5,6,8	4,5,6,8	4,6,8	4,5,6,8	4,8	5,6	4,5,6,8	4,5,6,8	4,5,6,8	4,5,6,8	4,5,6,8	3,4,5,6,8	3,4,5,6,8	3,4,5,6,8
Feasibility (Acoustic)	✓		✓	✓	✓	✓	✓	✓	✓	✗	**Note 1**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Provides Effective Abatement [min. 5-dB(A) noise reduction at 50% of impacted sites]	Y		Y	Y	Y	Y	Y	Y	Y		?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Non-highway noise sources do not limit effectiveness	Y	?	Y	Y	Y	Y	Y	Y	Y	N	?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Feasibility (Safety & Access)	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	**Note 1**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Access Issues	Y	N	Y	Y	Y	Y	Y	Y	Y	N	?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
No Safety or Maintenance Issues	Y		Y	Y	Y	Y	Y	Y	Y		?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Feasibility (Site Constraints)	✓		✓	✓	✓	✓	✓	✓	✓		**Note 1**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Constructible given drainage topography, utilities, etc.	Y		Y	Y	Y	Y	Y	Y	Y		?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Reasonableness (Viewpoints)	✓		✓	✓	✓	✓	✓	✓	✓		**Note 1**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<50% of Benefited Residences OPPOSE the noise abatement [TRUE until proven otherwise]	TBD		TBD	TBD	TBD	TBD	TBD	TBD	TBD		TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Reasonableness (Design Goal)	✓		✓	✓	✓	✓	✓	✓	✓		**Note 1**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Provides Reasonable Abatement [≥ 50% of Benefiting IMPACTED Residences receive min. 7-dB(A) noise reduction]	Y		Y	Y	Y	Y	Y	Y	Y		?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Reasonableness (Cost Effectiveness)	✗		✗	✓	✓	✓	✓	✓	✓		**Note 1**	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✗
≤ Square Footage Threshold	N		N	Y	Y	Y	Y	Y	Y		?	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	N
≤ 3700 SF-p-r [Common Noise Environment (CNE)]											?			Y									
Barrier Area (SF)	15,522		9,432	41,990	41,700	19,030	109,820	22,450	21,370		?	18,390	34,950	29,390	28,730	11,340	25,860	14,060	100,670	9,860	53,160	21,280	21,260
Total Number of Benefited Residences	3		2	16	16	8	74	10	8		?	6	23	8	6	5	13	2	60	5	30	14	2
Square Footage per Benefited Residence (SF-p-r)	5,174		4,716	2,624	2,606	2,379	1,484	2,245	2,671		?	3,065	1,520	3,674	4,788	2,268	1,989	7,030	1,678	1,972	1,772	1,520	10,630
Higher Absolute Noise Levels 75-dB(A) Impacts	N		N	N	N	N	Y	Y	N		?	Y	N	N	N	Y	Y	N	Y	Y	Y	N	N
Square Footage Threshold [< 75 dB(A): 2700 SF-p-r; ≥75 dB(A): 3700 SF-p-r]	2,700		2,700	2,700	2,700	2,700	3,700	3,700	2,700		?	3,700	2,700	2,700	2,700	3,700	3,700	2,700	3,700	3,700	3,700	2,700	2,700
Eligible for Square Foot Averaging within CNE	N		N	Y	Y	Y	Y	Y	Y		?	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N
Meets Technical Eligibility Criteria				**07-B**	**07-B**	**10-C**	**12-B_13-B**	**19-B**	**19-B**		?	**35-B**	**37-B**	**40-B**		**43-B**	**45-D_46-B**		**56-B (57-C) 58-B**	**60-B**	**65-B_66-B**	**68-B**	

BHA = Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A; BHB = Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option B; TBD = To Be Determined,at a meeting with the affected owners - has not yet occurred

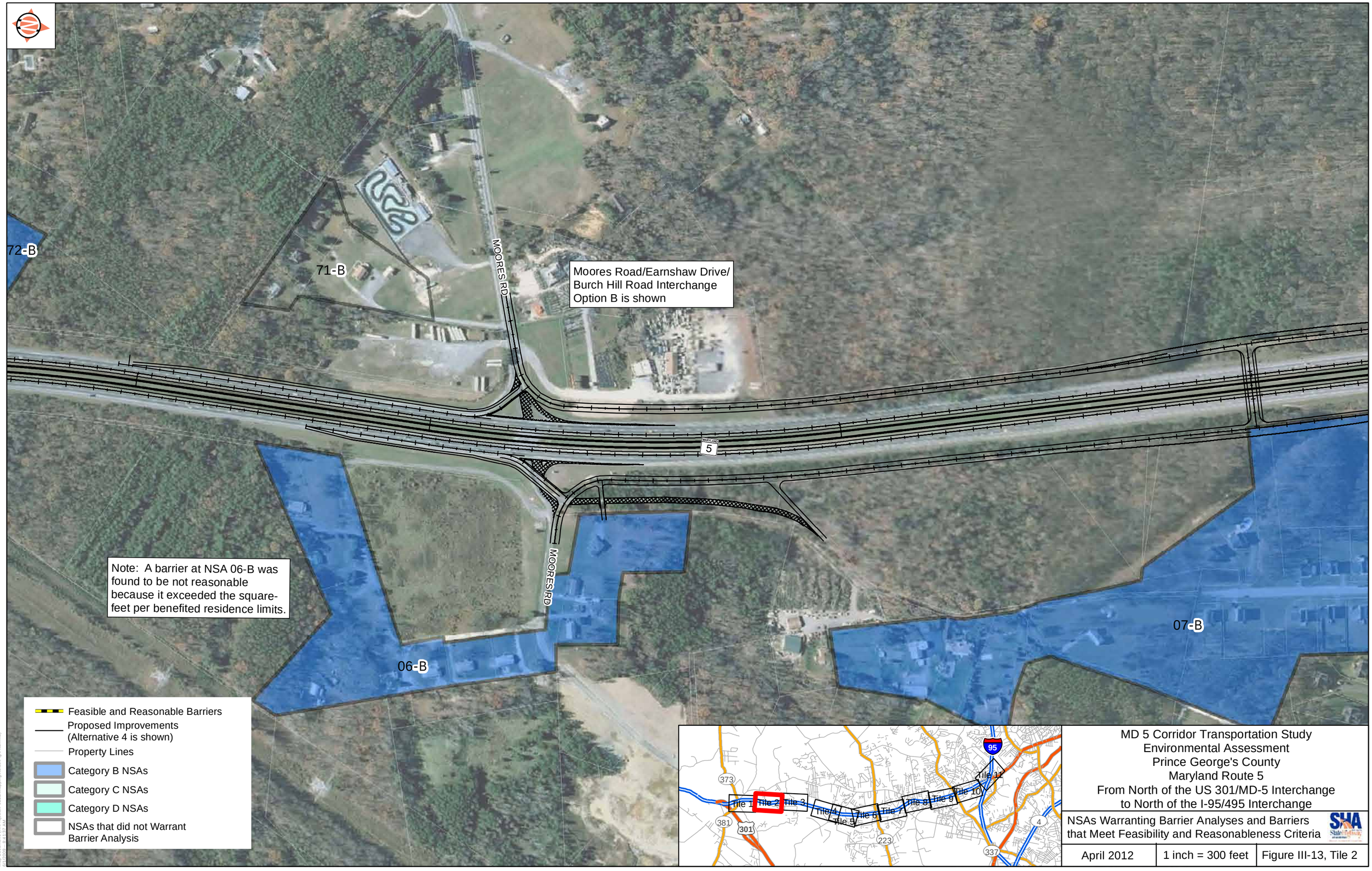
Note 1: *NSA 31-B is located on AAFB. Access to the base was not permitted during this analysis and visual evidence (from the shoulder) suggests that the residences are partially protected by berms and the available topography for modeling was out of date. Therefore, a barrier analysis could not be conducted at this NSA. In the 2009 study a barrier to protect this area met the feasibility and reasonableness criteria. Those values were excluded from this table due their potential uncertainty, since the area was reconstructed after the original analysis. This area will need to be investigated further in any subsequent reevaluations and/or during final design.*



MD 5 Corridor Transportation Study
Environmental Assessment
Prince George's County
Maryland Route 5
From North of the US 301/MD-5 Interchange
to North of the I-95/495 Interchange

NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 1



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NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 2

Moores Road/Earnshaw Drive/
Burch HillRoad Interchange
Option B is shown

70-C

MARYLAND 5

CRESTWOOD TN

07-B

CRESTWOOD AVE S

EARNSHAW DR

CRESTWOOD AVE N

CRESTWOOD TLEN

Note: The proposed barrier at NSA 07-B has the same horizontal alignment for the Moores Road/Earnshaw Drive/Burch Hill Road Interchange Options A and B (shown on this map), however, the square footage and average height are different.

Feasible and Reasonable Barriers
Proposed Improvements (Alternative 4 is shown)
Property Lines
Category B NSAs
Category C NSAs
Category D NSAs
NSAs that did not Warrant Barrier Analysis

Tile 1 Tile 2 Tile 3 Tile 4 Tile 5 Tile 6 Tile 7 Tile 8 Tile 9 Tile 10 Tile 11

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April 2012	1 inch = 300 feet	Figure III-13, Tile 3

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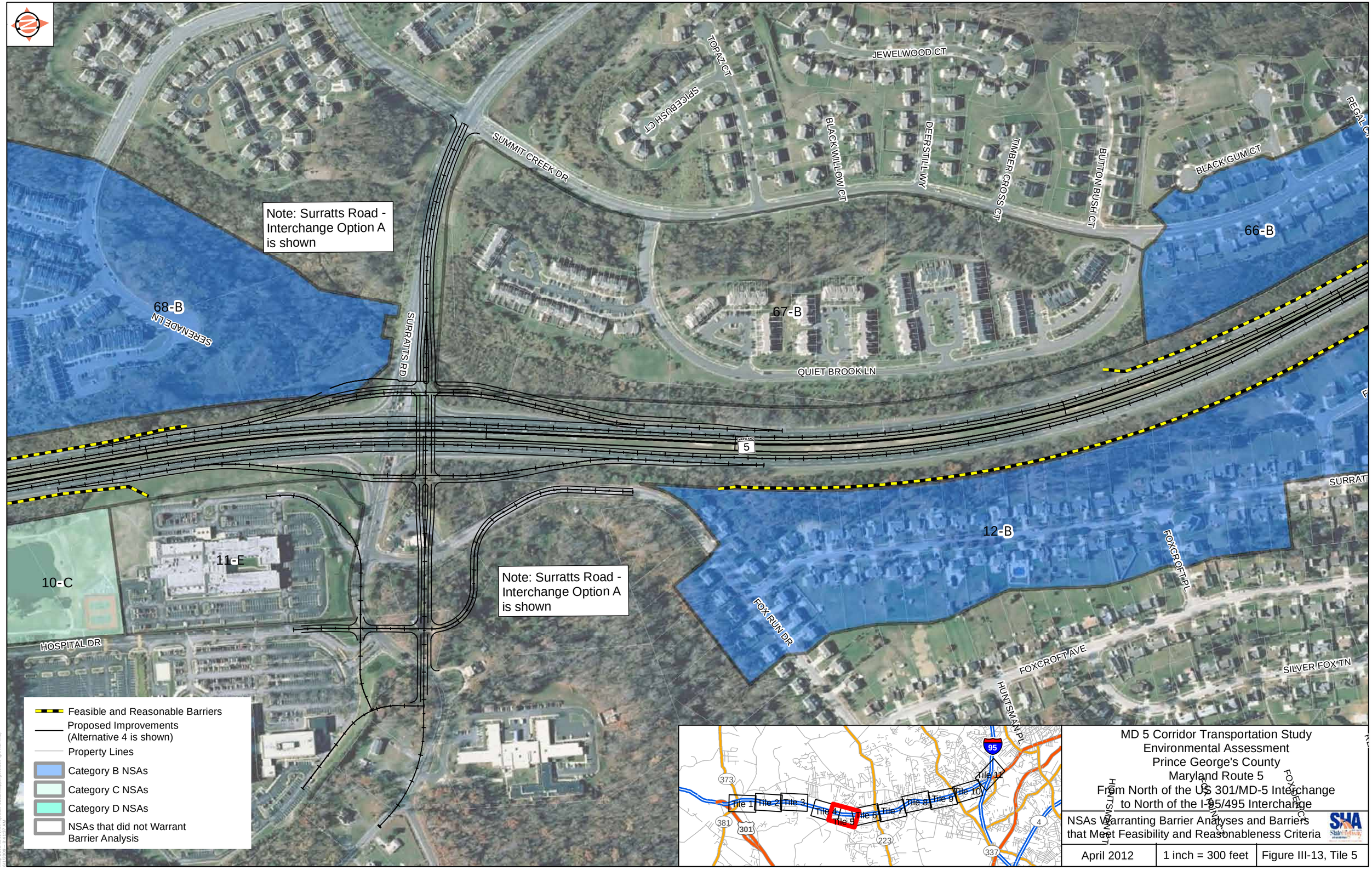
NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 4



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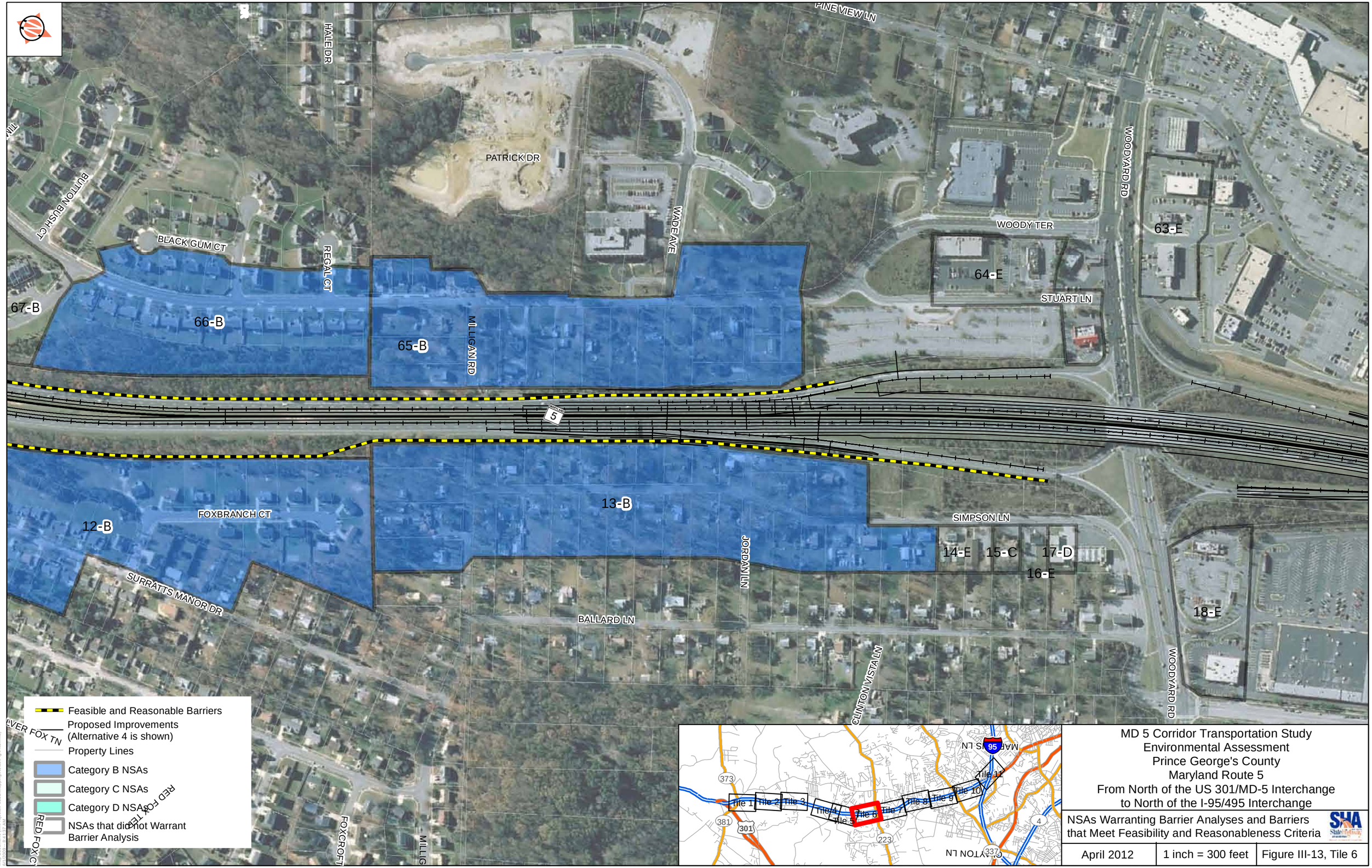
NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 5



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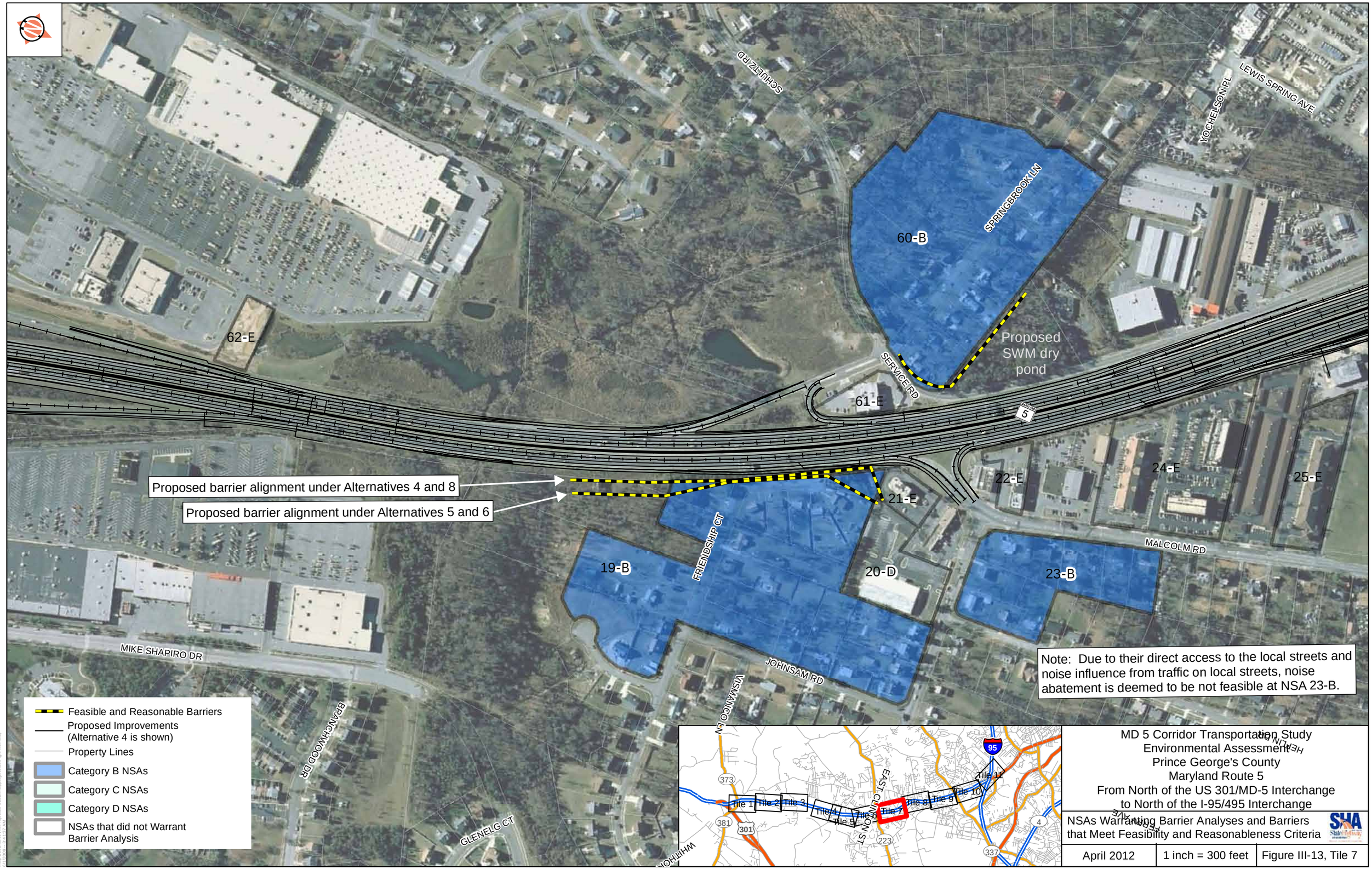
NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 6



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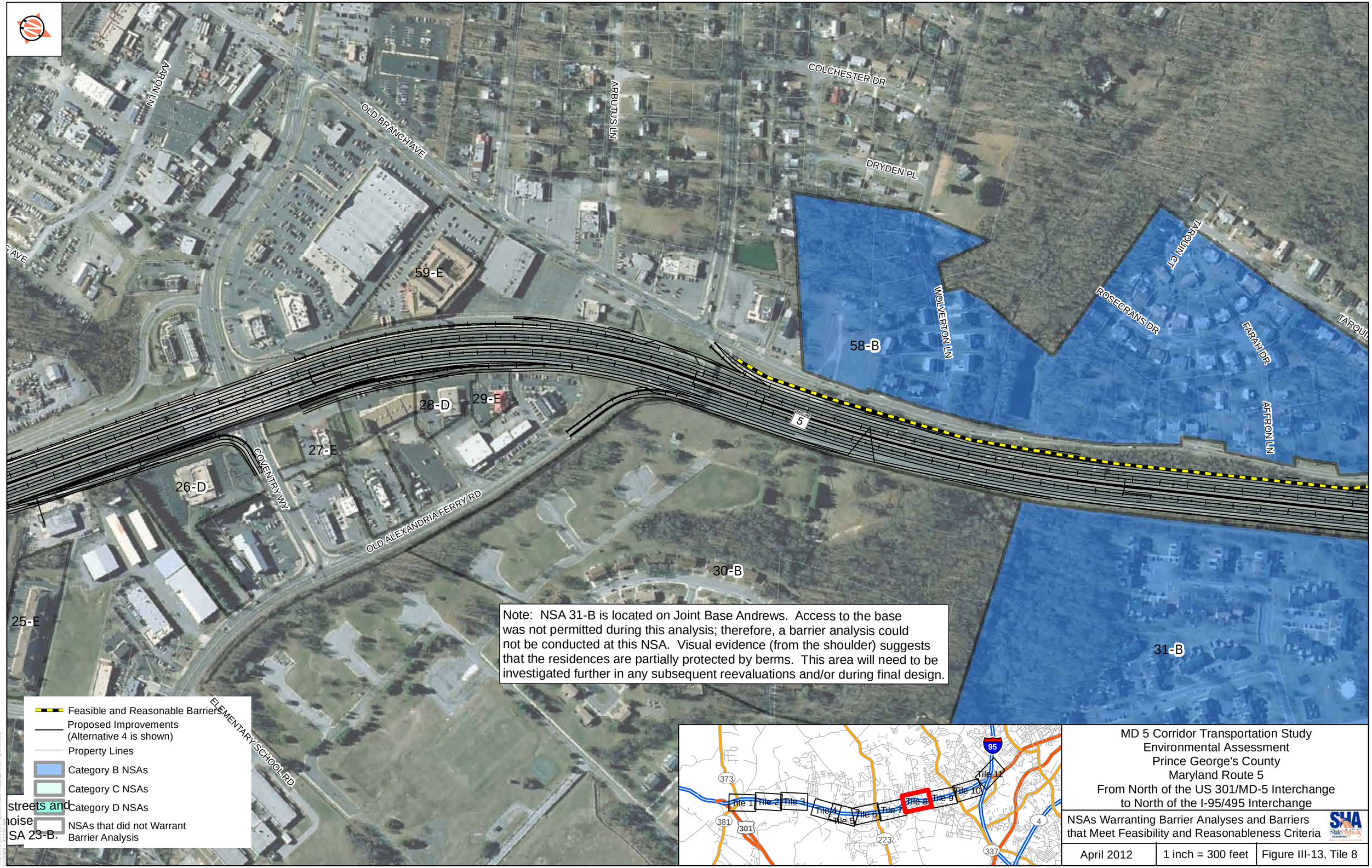
NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 7



Note: NSA 31-B is located on Joint Base Andrews. Access to the base was not permitted during this analysis; therefore, a barrier analysis could not be conducted at this NSA. Visual evidence (from the shoulder) suggests that the residences are partially protected by berms. This area will need to be investigated further in any subsequent reevaluations and/or during final design.

streets and
noise
SA 23-B.

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NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 8

Note: Although NSA 57-C is not considered impacted, it is benefited from the barrier protecting NSAs 56-B and 58-B.

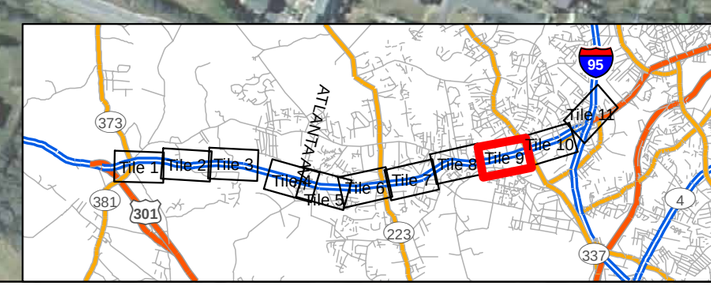
Note: A barrier at NSA 49-B was found to be not reasonable because it exceeded the square-feet per benefited residence limits.

Note: NSA 31-B is located on Joint Base Andrews. Access to the base was not permitted during this analysis; therefore, a barrier analysis could not be conducted at this NSA. Visual evidence (from the shoulder) suggests that the residences are partially protected by berms. This area will need to be investigated further in any subsequent reevaluations and/or during final design.

COOLRIDGE DR
BIRCH LN
BEECHWOOD DR
ALLENTOWN WY
CAMP SP
TARQUIN AVE
ALEY RD
OLD BRANCH AVE
SAN ANTONIO BL
WEST PERIMETER RD
MARYLAND 5

58-B
57-C
56-B
55-E
54-E
53-D
52-E
51-D
50-E
49-B
31-B
32-C

Feasible and Reasonable Barriers
Proposed Improvements (Alternative 4 is shown)
Property Lines
Category B NSAs
Category C NSAs
Category D NSAs
NSAs that did not Warrant Barrier Analysis



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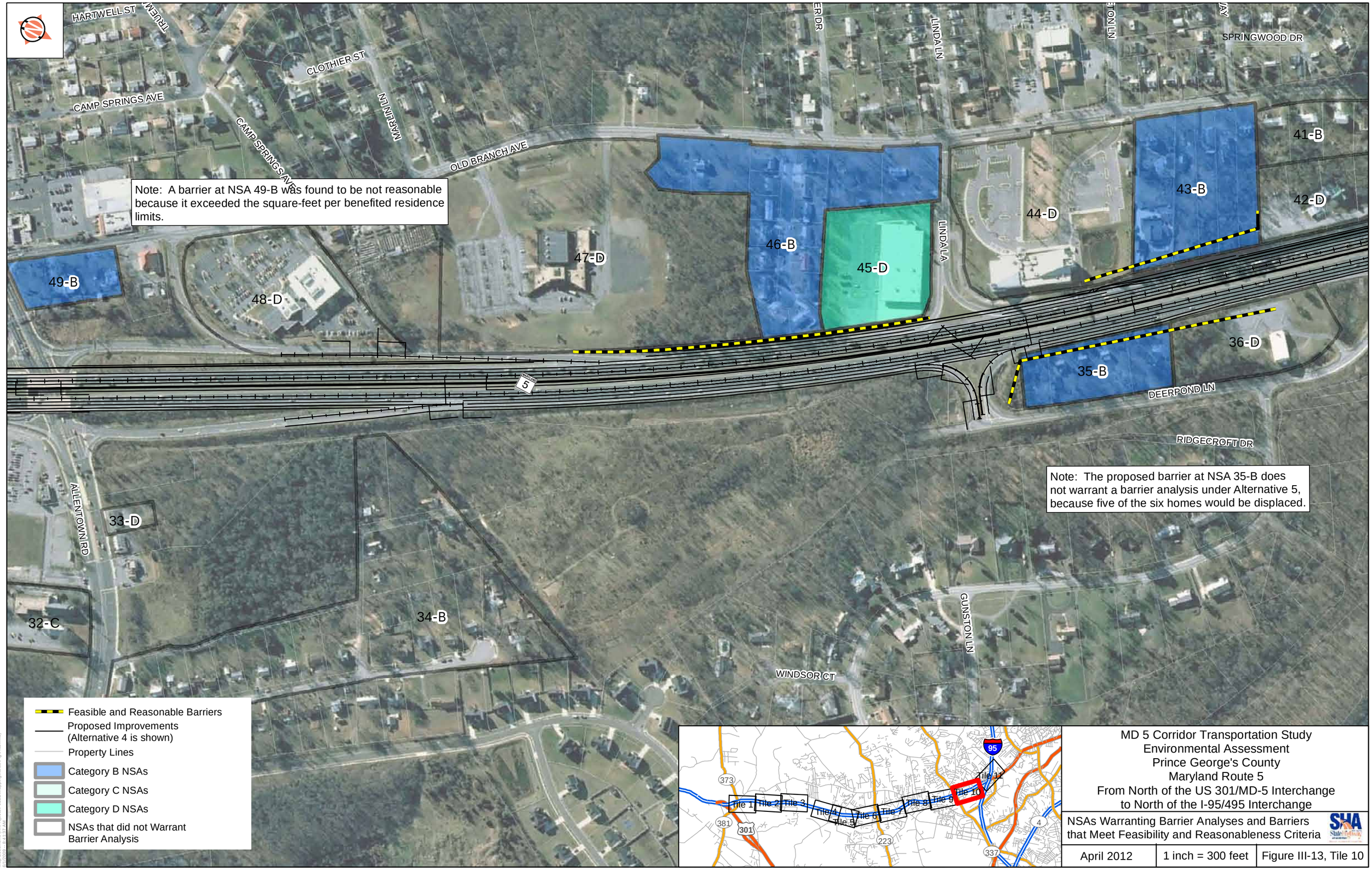
NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 9



MD 5 Corridor Transportation Study
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NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 10

Note: The barrier at NSA 40-B only applies to Alternatives 4 and 8. Under Alternatives 5 and 6, it was found to be not reasonable because it exceeded the square-feet per benefited residence limits.

Note: A tri-barrier system was needed at NSA 37-B to maintain the access of Old Branch Avenue with MD 5.

SHARON RD
WOOD ST
YORKVILLE RD
YORKFIELD DR
HENDERSON RD
TOLSON RD
BRENTLEY RD
APPLE DR
495
KEPPLER RD
BRADDOCK RD
LONG VIEW RD
WOOD RD
OLD BRANCH AV
AUTH WAY
MANCHESTER DR
38-B
40-B
41-B
39-E
42-D
37-B
5

Feasible and Reasonable Barriers
Proposed Improvements (Alternative 4 is shown)
Property Lines
Category B NSAs
Category C NSAs
Category D NSAs
NSAs that did not Warrant Barrier Analysis

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NSAs Warranting Barrier Analyses and Barriers that Meet Feasibility and Reasonableness Criteria

April 2012	1 inch = 300 feet	Figure III-13, Tile 11

H. Hazardous Materials

To identify and account for the municipal, industrial, and residual waste materials within the project corridor, an Initial Site Assessment was conducted for the study-area. The following narrative is a summary of this assessment. For details, please refer to the *Initial Site Assessment* (*SHA 20011e in Section V. References*).

1. Existing Conditions and Impacts

A total of 92 sites with potential hazardous materials were identified within and surrounding the study-area. Sixteen of these sites are recommended for further investigation. Among the build alternatives, Alternatives 5 and 6 would affect the highest number of sites warranting further investigation (12) and Alternative 3 would affect the lowest number of sites warranting further investigation (zero).

2. Avoidance, Minimization, and Mitigation

Depending on the area required for acquisition, further investigations of up to 16 sites may be required prior to acquisition activities. Twelve properties would be completely displaced by one or more build alternatives and options (**Table III-23**). Consequently, a Phase I Preliminary Site Investigation (PSI) and an asbestos and lead-based paint inspection of their structures is recommended prior to any deconstruction. Nine of the properties contain a residential home and three contain a commercial business (auto repair shop, convenience store) or shopping complex.

Table III-23: Properties Recommended for PSI and/or Building Inspection

Property Name	Property Address	Alternative within which Property is Affected
Residential Home	5501 Deer Pond Lane	Alternative 5
Residential Home	5505 Deer Pond Lane	Alternative 5
Residential Home	5509 Deer Pond Lane	Alternative 5
Residential Home	5513 Deer Pond Lane	Alternative 5
Residential Home	5517 Deer Pond Lane	Alternative 5
7-11 Convenience Store	10175 Fox Run Drive	Surratts Road Option A
Residential Home	6800 Friendship Court	Alternatives 5 and 6
Residential Home	6903 Friendship Court	Alternatives 5 and 6
Clinton Square	6415-6455 Old Alexandria Ferry Road	Alternatives 4, 5, 6, and 8
Young's Auto Repair	7807 Old Alexandria Ferry Road	Alternatives 4, 5, 6, and 8
BN Enterprise property	7508 Surratts Road	Surratts Road Option A
Residential Home	7517 Surratts Road	Surratts Road Option B

Of the four sites from which partial ROW may be required, two (Clinton Transmission; and BP Gas Station) are recommended for limited soil sampling along the limit of disturbance; and two (Kirkland Memorial Church of God; and BP gas station) are recommended for ground-penetrating radar surveys. Should contaminated soil be present within any of these sites, excavation and proper removal/disposal of the material would be required. An additional site (Southern Maryland Hospital Center) is recommended for further coordination based on a large

number of current and historic underground storage tanks on the property, and large construction impacts associated with Surratts Road Options A and B.

Additionally, several existing overpasses of MD 5 along the corridor may require widening and/or additional support piers as part of the project construction. The existing overpasses spanning Allentown Road and Coventry Road are located within close proximity of properties documented with current or former underground storage tanks, leaking underground storage tanks and/or documented soil and groundwater contamination. Due to the close proximity of the overpasses to these sites of concern, groundwater sampling should be considered if the groundwater tables would be encountered during any overpass enhancements. The groundwater sampling should be analyzed for volatile and semi-volatile organic compounds associated with petroleum products.

I. Indirect and Cumulative Effects (ICE) Analysis

The following information is summarized from the *Indirect and Cumulative Effects Analysis* (*SHA 2011d in Section V. References*).

1. ICE Analysis Objective and Scoping

An ICE Analysis was conducted in compliance with the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations [40 CFR 1508.25(c)], and SHA guidelines (SHA 2007), which require that the indirect and cumulative effects of a project be evaluated along with direct impacts.

Indirect Impacts are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the patterns of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Cumulative Impacts are defined as impacts on the environment that result from the incremental impact of the action when added to past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions. ICE scoping involved identifying environmental resources in the project area and ICE issues for consideration, such as data availability, geographic boundaries and time frames for analysis.

Resources and Methodology

In order to determine which environmental resources to consider in the ICE analysis, resources that would be directly impacted by the proposed alternatives were identified. Any resources that may experience indirect effects were also considered in the ICE analysis. **Table III-24** summarizes the resources analyzed, the rationale for their inclusion in the analysis, and their representative sub-boundaries. These sub-boundaries were used to form the overall ICE boundary.

The ICE analysis methodology is summarized in **Table III-25**. The table describes the socioeconomic, cultural, and natural environmental resources that were incorporated into the ICE

analysis and identifies the data sources that were used to determine the indirect and cumulative effects.

Geographic Boundary

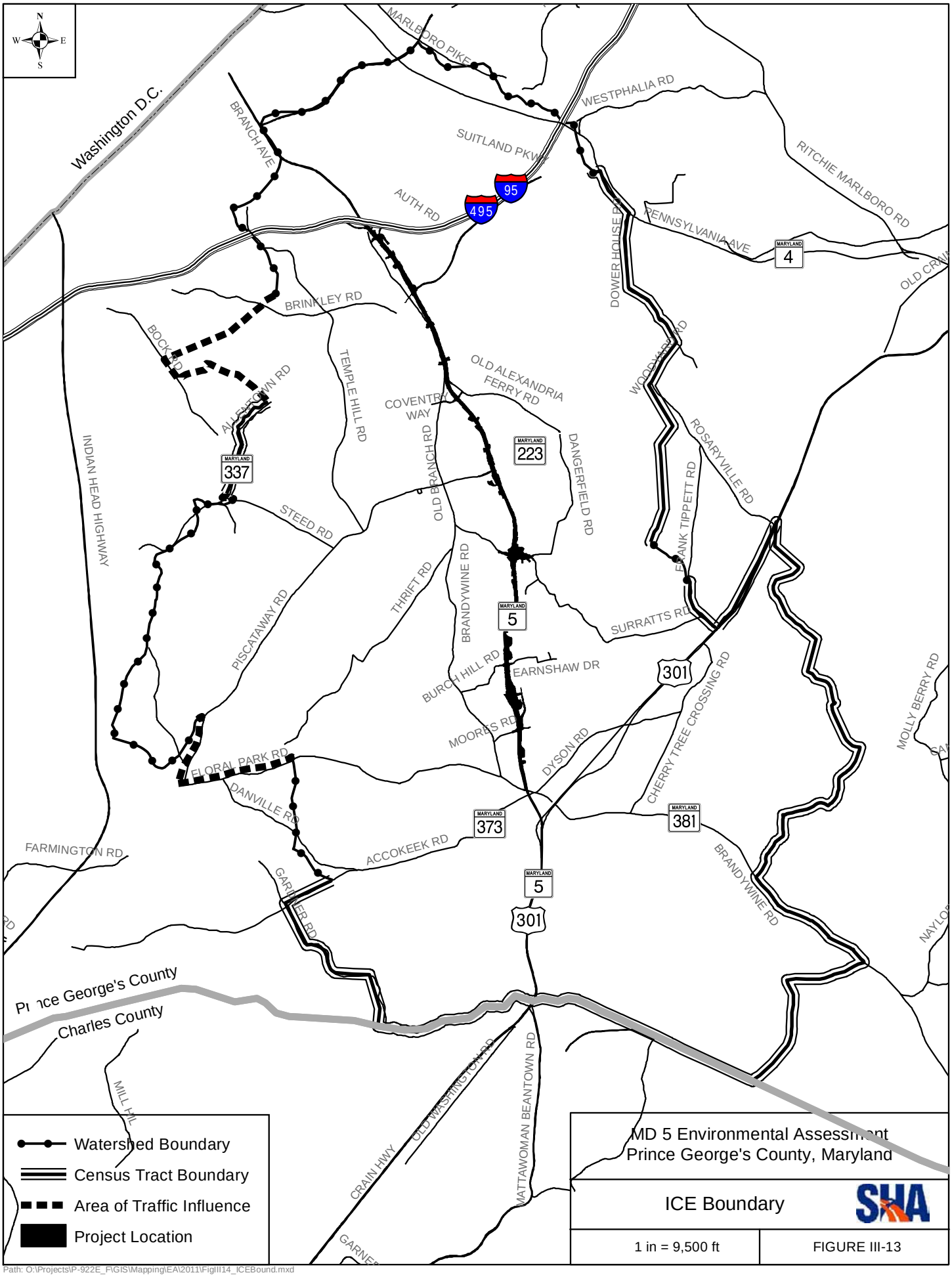
Using the environmental resources that would be affected by direct and indirect impacts of the project as a guide, multiple resource boundaries were reviewed to determine appropriate ICE sub-boundaries that would be used to create a single ICE boundary. These sub-boundaries included the area of traffic influence and traffic analysis zones, census tracts, county planning areas, and watersheds. The ICE area is approximately 92 square miles in size and is located within Prince George's County; not extending into Washington D.C., Montgomery County or Charles County (**Figure III-14**).

Table III-24: Summary of Potential ICE Resources

Resource	Incorporation into ICE	Rationale	Representative Sub-Boundary
Socioeconomic Resources			
Community (cohesion, linkages, services, labor)	Yes	Direct and/or indirect effects	Area of Traffic Influence; Census Tracts; Planning Areas
Cultural Resources			
Historic Structures	No	No direct and/or indirect effects	--
Archeological Sites	No	No direct and/or indirect effects	--
Natural Environmental Resources			
Wetlands	Yes	Direct and/or indirect effects	Watersheds
Surface Waters/Streams	Yes	Direct and/or indirect effects	Watersheds
Groundwater	Yes	Potential for indirect effects	Watersheds
Floodplains	Yes	Direct and/or indirect effects	Watersheds
Prime Farmland Soil	Yes	Direct and/or indirect effects	Watersheds
Forests	Yes	Direct and/or indirect effects	Planning Areas
Rare, Threatened, and Endangered Species	No	No direct and/or indirect effects	--

Time Frame

A period of 60 years, from 1970 to 2030, was selected to represent the ICE time frame. This time frame was chosen after reviewing historical events that took place within the study-area, changes in population growth, availability of data, and the design year of the project. Based on population trends, development activity, and the general lack of available data prior to 1970,



Path: O:\Projects\P-922E_F\GIS\Mapping\EA\2011\FigIII14_ICEBound.mxd

1970 was chosen as the past time frame. The year 2000 was selected as the present time frame based on available census and land use data. Because Census 2010 data was not available at the time the ICE was prepared, the analysis was completed using the Census 2000 data. When the Census 2010 data did become available, it was determined that the changes in the data were not significant enough to warrant a re-analysis, and therefore the present time frame did not change for this analysis. The future time frame was determined from the project's design year, 2030, and was evaluated based on available projections of land use and population. In addition, population and employment projections are available through 2030, allowing a more accurate depiction of future conditions within the ICE boundary.

Table III-25: ICE Methodology

Resource	Data	Data Sources	Analysis Methodology
Socioeconomic Resources			
Community (cohesion, linkages, services)	Aerial photos; historic maps; census records; land use maps	Maryland-National Capital Park and Planning Commission (M-NCPPC); Maryland Department of Planning (MDP); U.S. Census data	Overlay historic aerial photographs; analyze trends in population and housing growth; availability of services
Natural Environmental Resources			
Surface Water/ Floodplains	Stream quality records; stream mapping; aerial photos; NPDES permit data	Maryland Department of Natural Resources (MD DNR); U.S. Geological Survey; U.S. Environmental Protection Agency (EPA); Maryland Department of the Environment (MDE); M-NCPPC; Federal Emergency Management Agency	Impervious surface trend analysis; analysis of in-stream flow and discharge; quality comparison
Groundwater	Historic records; well data; land use data	EPA; MDE; M-NCPPC; MDP Maryland Geological Survey	Quality comparisons among wells over time; trend analysis of land use; review of potential effects to aquifers
Wetlands/Aquatic Habitat	Large-scale wetlands maps; land use maps; macroinvertebrate data	National Wetlands Inventory; MD DNR mapping; U.S. Army Corps of Engineers; MDE, EPA; MD DNR Maryland Biological Stream Survey	Trends analysis of wetland acreage; land uses comparison using overlays; water quality trends analysis
Farmlands	USDA Soil Surveys; land use data; land use plans	MDP; Montgomery and Prince George's County Soil Conservation Districts; M-NCPPC	Land use trends
Forests	Current and historic aerial photographs; land use data; land use plans	Natural Resources Conservation Service; MDP; M-NCPPC; MD DNR	Land use trends

Land Use Summary

In order to evaluate the potential effects of the proposed transportation alternatives, it is useful to identify the pattern, intensity, and pace of development in the area. Past, present and future land uses within the ICE Analysis boundary were evaluated.

Table III-26 summarizes trends in land use/land cover throughout Prince George's County from 1973 (land use data prior to 1973 was not readily available) to 2020 (land use predictions beyond 2020 were not available). The county is 318,779 acres (498 square miles) in size. In 2000, the county consisted of 40 percent forest, 13.6 percent agriculture, and 44 percent developed land. From 1973 to 2000, total developed land increased by 47.8 percent (43,357 acres), while total resource land declined by 15.9 percent (48,418 acres). Institutional/open urban land exhibited the largest increase (15,346 acres), and forest and agriculture declined by 28,751 acres and 20,037 acres, respectively. From 2000 to 2020, developed land is forecast to increase 13.4 percent compared to 47.8 percent from 1973 to 2000. The largest increase would be low-density residential, from 22,604 acres to 42,840 acres. From 2000 to 2020, forest is forecast to decline 14,491 acres, whereas agricultural lands are forecast to increase by 1,634 acres.

Table III-26: Prince George's County Land Use / Land Cover, 1973 – 2020

Land Use	1973 (acres)	1973% of Total Land	2000 (acres)	2000% of Total Land	2020 (acres)	2020% of Total Land	1973-2000 Change (acres)	1973-2000 % Change	2000-2020 Change (acres)	2000-2020 % Change
Low Density Residential	11,470	3.7%	22,604	7.4%	42,840	13.8%	10,912	95.1%	20,236	89.5%
Medium/High Density Residential	45,926	14.8%	59,162	19.4%	71,992	23.2%	13,200	28.7%	12,830	22.8%
Commercial / Industrial	13,451	4.3%	17,092	5.6%	20,641	6.7%	3,611	27.1%	3,549	20.8%
Institutional / Open Urban	19,927	6.4%	35,273	11.6%	19,649	6.3%	15,346	77.0%	-15,624	-44.3%
Total Development	**90,774**	**29.3%**	**134,131**	**44.0%**	**152,122**	**49.1%**	**43,357**	**47.8%**	**17,991**	**13.4%**
Agriculture	61,406	19.8%	41,369	13.6%	43,003	13.9%	-20,037	-32.6%	1,634	3.9%
Forest	150,775	48.6%	122,024	40.0%	107,533	34.7%	-28,751	-19.1%	-14,491	-11.9%
Extractive/Barren	3,976	1.3%	4,749	1.6%	4,232	1.4%	773	19.4%	-517	-10.9%
Wetland	3,172	1.0%	2,769	0.9%	3,147	1.0%	-403	-12.7%	378	13.7%
Total Resources	**219,329**	**70.7%**	**170,911**	**56.0%**	**157,915**	**50.9%**	**-48,418**	**-15.9%**	**-12,996**	**-7.6%**
Total Land	**310,104**	**100%**	**305,041**	**100%**	**310,037**	**100%**	**-5,063**	**-1.6%**	**5,966**	**2.0%**
Water	8,675	--	13,738	--	8,747	--	5,063	58.4%	-4,991	-36.3%
Total	**318,779**	**--**	**318,779**	**--**	**318,779**	**--**	**0**	**0%**	**0**	**0%**

Source: MDP, 2001; MDP Land Use Layers, 1973 and 2002

Past and Present Land Use

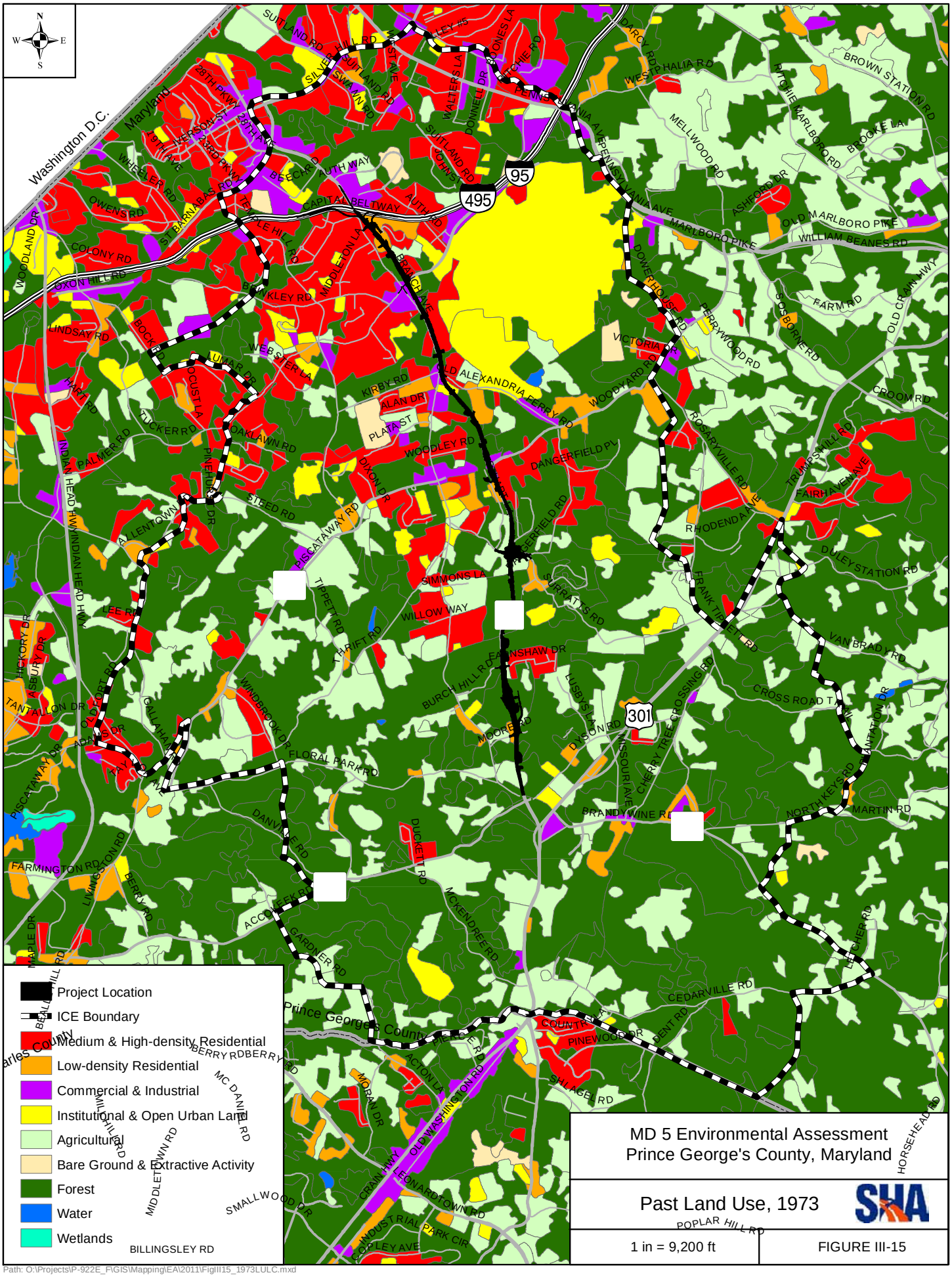
As mentioned previously, 1973 land use data was used to represent the past timeframe, because 1970 data was not readily available. Similarly, 2002 land use data was used to represent the present timeframe because it represents the most recent readily available land use data available. Past (1973) and present (2002) land use within the ICE boundary is summarized in **Table III-27**, and illustrated in **Figures III-15** and **III-16**, respectively. The predominant land uses in 1973 were forest (56.9 percent), agriculture (16.6 percent), medium/high density residential (12.7 percent), and institutional/urban 8.0 percent). In 1973, 25.8 percent of the ICE area consisted of developed land and 74.2 percent consisted of resource land. Developed land, primarily commercial/industrial and medium/high-density residential, was most concentrated north of I-495 and immediately to the west of AAFB. Forest and agricultural lands were most predominant south of Piscataway Road, although one area of forest and agriculture also existed in the western half of the ICE area between Allentown Road and MD 223.

Table III-27: Land Use / Land Cover within the ICE boundary, 1973 – 2002

Land Use	1973 (acres)	1973 % of Total Land	2002 (acres)	2002 % of Total Land	1973-2002 Change (acres)	1973-2002 Change (percent)
Low Density Residential	1,418	2.4%	3,672	6.2%	2,254	158.9%
Medium/High Density Residential	7,492	12.7%	10,064	17.1%	2,572	34.3%
Commercial / Industrial	1,544	2.6%	2,297	3.9%	753	48.7%
Institutional / Open Urban	4,711	8.0%	5,901	10.0%	1,191	25.3%
Total Development	**15,165**	**25.8%**	**21,934**	**37.3%**	**6,769**	**44.6%**
Agriculture	9,769	16.6%	7,503	12.7%	-2,266	-23.2%
Forest	33,497	56.9%	28,047	47.6%	-5,449	-16.3%
Extractive/Barren	435	0.7%	1,269	2.2%	834	192.0%
Wetland	0	0%	15	<0.1%	15	--
Total Resources	**43,701**	**74.2%**	**36,834**	**62.7%**	**-6,867**	**-15.7%**
Water	42	--	114	--	72	173.6%
Total	**58,907**	**--**	**58,882**	**--**	**-25**	**<0.1%**

Source: Source: MDP Land Use Layers, 1973 and 2002

From 1973 to 2002, developed land increased 44.6 percent (6,769 acres). The absolute increase was greatest for medium/high density residential (2,572 acres), whereas the greatest percent increase occurred in low density residential (158.9 percent). This growth was most apparent around Floral Park Road and MD 373 in the area west of MD 5 and Brandywine. Considerable residential growth also occurred south of MD 373 around Piscataway, Clinton, and Rosaryville. Resource land declined 15.7 percent (6,867 acres) from 1973 to 2002. Forest and agriculture declined by 5,499 acres and 2,266 acres, respectively. Conversion of resource land to developed land was most prevalent west of MD 5 between the Capital Beltway and MD 223, and surrounding the communities of Clinton, Brandywine, and Rosaryville.



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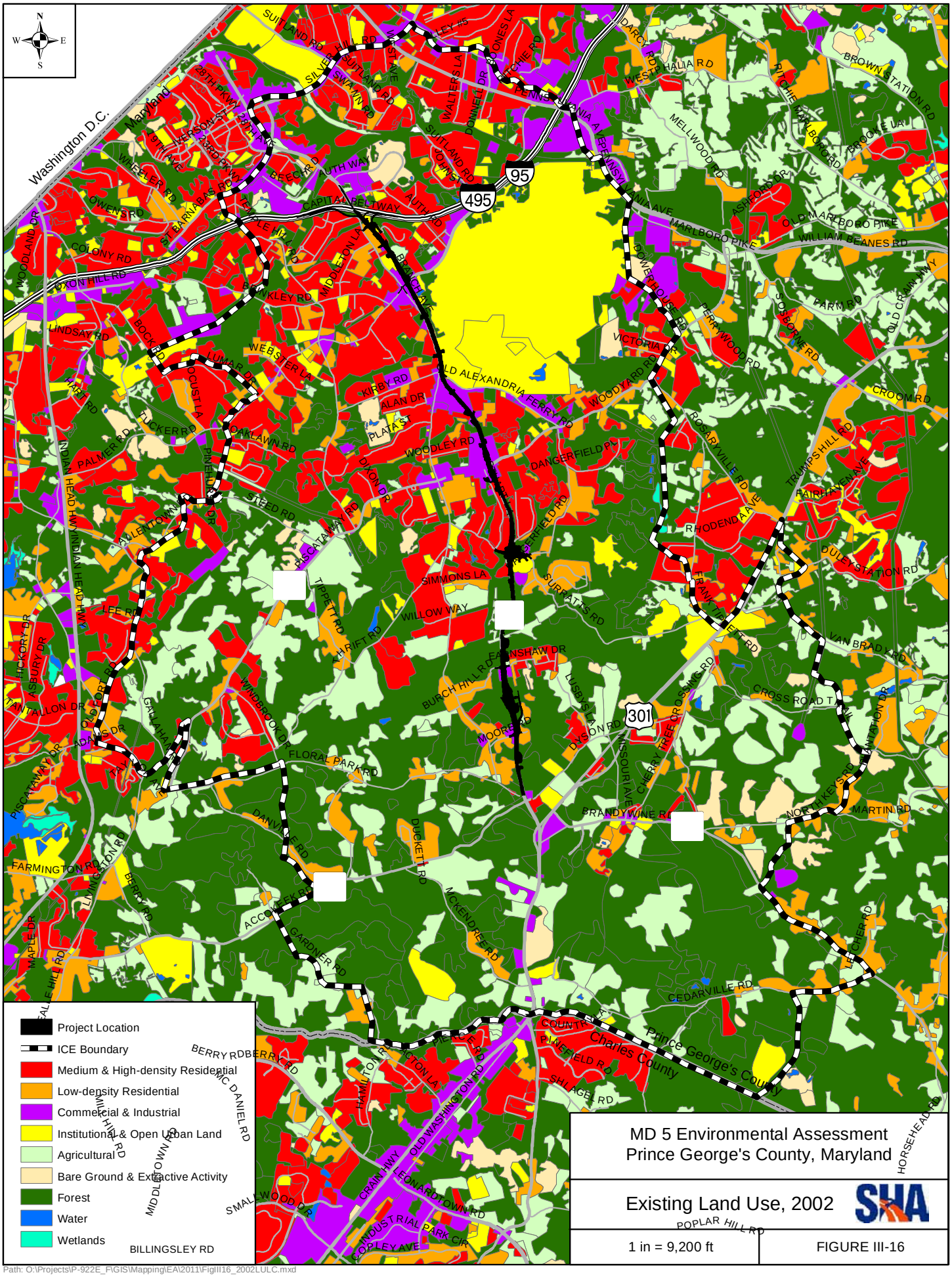

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The growth in developed land within the ICE boundary reflected the growth trend throughout the metropolitan Washington region, when employment growth within the District of Columbia and Prince George's County attracted new residents and fueled demand for new housing (MWCOG 2007). Major roadway and institutional projects within that time period included the upgrade of MD 5 to a divided highway between US 301 and the Capital Beltway in 1975, the opening of the Southern Maryland Hospital Center in Clinton in 1977, the widening of the Capital Beltway from four to eight lanes in 1997, and the opening of the Branch Avenue Metro Station in 2001.

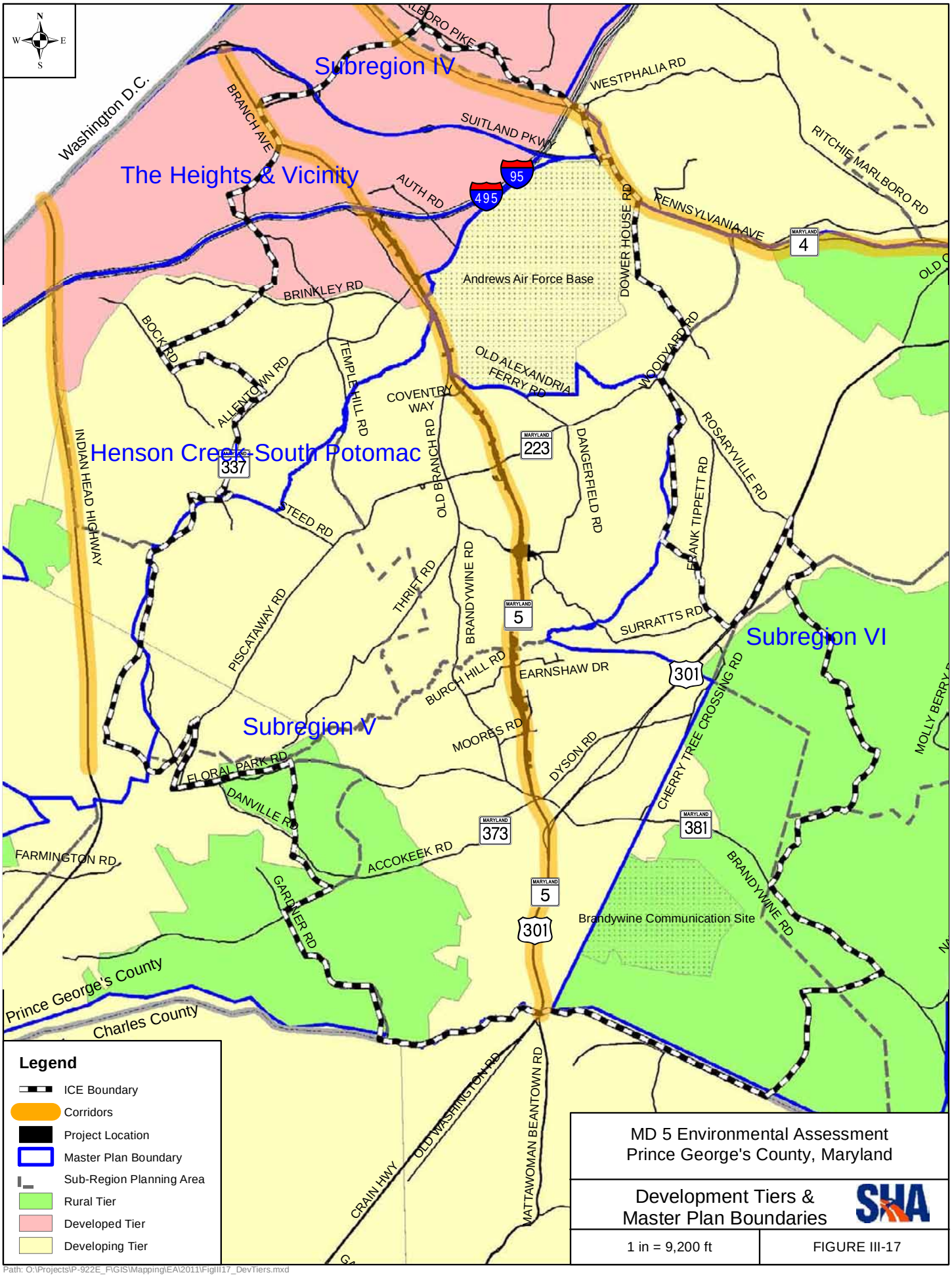
At 4,346 acres in size, AAFB was and remains the single largest institutional use within the ICE boundary. Other large institutional areas include the Brandywine Communication Site (1,635 acres) for which AAFB is responsible, the Federal Law Enforcement Training Center in Cheltenham (372 acres), and the Suitland Federal Center (226 acres).

Future Land Use

Future land use in the ICE area will be shaped by general land use recommendations contained in the Prince George's County Approved General Plan (M-NCPPC 2002b), and specific land use and zoning recommendations in the smaller community-level master plans.

The General Plan divides the county into broad growth areas, the Developed, Developing and Rural Tiers (**Figure III-17**), each with distinct growth management policies. The extent and density of existing development is greatest in the Developed Tier and lowest in the Rural Tier. The Developed Tier currently contains approximately half of the county's households and employment. The area is characterized by high levels of impervious surface, severely impacted water resources, and small amounts of remaining forest cover. According to the General Plan, 33 percent of the county's future residential growth will be directed to the Developed Tier, with future development consisting of medium to high density infill and redevelopment. The Developing Tier consists of a patchwork of low to medium density residential subdivisions, employment parks, auto-oriented commercial centers, and some resource lands (farms and forests). The General Plan directs 66 percent of the county's future residential growth to the Developing Tier. The Rural Tier contains most of the county's remaining agricultural and forest land. Developed lands are primarily limited to gravel mining operations and widely dispersed large-lot residential sites. One percent of the county's future residential growth will be directed to the Rural Tier.

Each development tier is overlaid by designated Transportation Corridors and Metropolitan, Regional, and Community Centers. The General Plan stresses intensive, transit-oriented development and/or redevelopment in existing and planned Centers and Corridors in the Developed and Developing Tiers. The ICE boundary encompasses portions of two Corridors: all of the Branch Avenue Corridor except for the portion between Silver Hill Road and the District of Columbia boundary; and the Pennsylvania Avenue Corridor from Silver Hill Road to Dower House Road in the northeast portion of the ICE area.


Subregion IV
The Heights & Vicinity
Washington D.C.
Henson Creek-South Potomac
Subregion V
Subregion VI
Andrews Air Force Base
Brandywine Communication Site
Prince George's County
Charles County
WESTPHALIA RD
SUITLAND PKWY
RITCHIE MARLBORO RD
BRANCH AVE
AUTH RD
DOWER HOUSE RD
PENNSYLVANIA AVE
BRINKLEY RD
BOCK RD
ALLENTOWN RD
TEMPLE HILL RD
COVENTRY WAY
OLD ALEXANDRIA FERRY RD
WOODYARD RD
ROSARYVILLE RD
INDIAN HEAD HIGHWAY
STEED RD
OLD BRANCH RD
DANGERFIELD RD
FRANK TIPPETT RD
THRIFT RD
BRANDYWINE RD
PISCATAWAY RD
SURRATTS RD
BURCH HILL RD
EARNSHAW DR
CHERRY TREE CROSSING RD
MOORES RD
DYSON RD
MOLLY BERRY
FLORAL PARK RD
DANVILLE RD
ACCOKEEK RD
FARMINGTON RD
GARDNER RD
BRANDYWINE RD
CRAIN HWY
OLD WASHINGTON RD
MATTAWOMAN BEANTOWN RD
MARYLAND 4
MARYLAND 223
MARYLAND 337
MARYLAND 5
MARYLAND 373
MARYLAND 381
301
95
495
Legend
ICE Boundary
Corridors
Project Location
Master Plan Boundary
Sub-Region Planning Area
Rural Tier
Developed Tier
Developing Tier
MD 5 Environmental Assessment
Prince George's County, Maryland
Development Tiers &
Master Plan Boundaries
SHA
1 in = 9,200 ft
FIGURE III-17
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Future land use and zoning in areas surrounding AAFB will also be guided by an Air Installation Compatible Use Zone (AICUZ) Study (M-NCPPC 2009a). The study is a joint effort between the county and AAFB to ensure that land use and zoning in areas surrounding the base are compatible with military operations, particularly noise contours and accident potential associated with flight tracks.

Population and Employment

County-wide population and employment data from 1970 to 2030 was obtained from the MDP (MDP 2009). MWCOG data from 2000 to 2030 (MWCOG 2005a; 2005b) was used to analyze current and future trends within an area that closely corresponds to the ICE boundary.

Table III-28 summarizes the 10-year growth rate in population for the county and the ICE area. The county-wide population increased at a rate of approximately 10 percent from 1980 to 2000. The population is expected to continue to grow from 2000 to 2030. The projected rate of increase from 2000 to 2030 (22.5 percent) is similar to the rate of increase from 1970 to 2000 (21.3 percent). The population in the ICE area increased at a rate of 7.5 percent from 1990 to 2000. Future population growth is expected to increase at a rate of 9.4 percent from 2000 to 2010, 2.3 percent from 2010 to 2020, and 13.5 percent from 2020 to 2030. From 2000 to 2030, the population within the ICE boundary is forecast to increase by 27.0 percent.

Table III-28: Population Trends, 1970 – 2030

Year	Prince George's County	10-Year Rate of Change	ICE Area	10-Year Rate of Change
1970	660,567	--	NA	--
1980	665,071	0.7%	NA	--
1990	728,553	9.5%	94,866	--
2000	801,515	10.0%	102,014	7.5%
2010	883,750	10.3%	111,560	9.4%
2020	950,250	7.5%	114,125	2.3%
2030	981,550	3.3%	129,543	13.5%

Sources: 1970-2030 County (MDP 2009); 1990 ICE Area (1990 US Census); 2010-2030 ICE Area (MWCOG 2005a)

The population within the ICE area is forecast to increase by 27,537 people (27 percent) from 2000 to 2030. However, there are differences in where the growth will occur (**Table III-29**). The population in the southern portion of the ICE area from MD 223 to the Charles County boundary is expected to grow by more than 17,000 people (76 percent). Most of the growth will occur in the southwest quadrant of the ICE area. The regions north of I-495 and between I-495 and MD 223 are each expected to increase by approximately 5,000 people (11 to 15 percent). In terms of land area, the portion north of I-495 is 4,985 acres, the portion between I-495 and MD 223 is 19,590 acres, and the portion south of MD 223 is 34,751 acres. In both 2000 and 2030, population density (people/acre) within the ICE boundary is greatest in the area north of I-495 (6.8 and 7.9 people/acre), intermediate from I-495 to MD 223 (2.3 and 2.6 people/acre), and lowest south of MD 223 (0.7 and 1.2 people/acre).

Table III-29: Future Population Growth within the ICE Area by Region, 2000 – 2030

ICE Region	2000	2030	Change	Percent Change
North of I-495				
Population	33,945	39,192	5,226	15%
People per acre	6.81	7.86	1.05	15%
I-495 to MD 223				
Population	45,336	50,305	4,969	11%
People per acre	2.31	2.57	0.26	11%
South of MD 223				
Population	22,733	40,067	17,334	76%
People per acre	0.65	1.15	0.50	77%
Total ICE Area				
Population	102,014	129,543	27,527	27.0%
People per acre	1.72	2.18	0.46	27.0%

Source: MWCOG, 2005a

Table III-30 summarizes the 10-year growth rate in employment for the county and the ICE area. County-wide employment increased at a rate of approximately 22 to 24 percent from 1970 to 1990. Employment decreased slightly from 1990 to 2000, but is forecast to increase from 2000 to 2030 at a much slower rate than prior to 1990. Employment growth in the ICE area from 2000 to 2030 is expected to greatly exceed the county-wide growth rate during the same period. Employment within the ICE boundary is forecast to grow 54 percent from 2000 to 2030, compared to 13.5 percent county-wide during the same period.

Table III-30: Employment Trends, 1970 – 2030

Year	Prince George's County	10-Year Rate of Change	ICE Area	10-Year Rate of Change
1970	292,812	--	NA	--
1980	362,356	23.7%	NA	--
1990	441,800	21.9%	NA	--
2000	431,120	-2.4%	49,751	--
2010	458,900	6.4%	57,471	15.5%
2020	484,370	5.6%	65,494	14.0%
2030	489,280	1.0%	76,610	17.0%

Sources: 1970-2030 (MDP 2009); 2000-2030 ICE Area (MWCOG 2005b)

Future Development in the ICE Boundary

Table III-31 summarizes the size (acres), zoning, and the number and type of housing units, where applicable, for the largest (greater than 50 acres) developments within the ICE boundary. Most of the projects are residential subdivisions that are either planned or under construction.

Table III-31: Largest (> 50 acres) Developments within the ICE Boundary

Map ID No.	Planning Area	Case No.	Project Name	Description, Zoning, and Status	Acres	Attached Units	Detached Units	Multi-Family	Total Units
1	76A	4-90037	Capital Gateway	Preliminary plan of subdivision in Rural Residential zone; Status - Approved	227.1	NA	NA	NA	NA
2	76A	CSP-01015	Town Center at Camp Springs	Conceptual site plan for Retail, Office, and Residential Core Area in Mixed-Use Transportation Zone; Status - Approved	106.4	NA	NA	NA	2,500
3	76B	5-0638- & 5-0639-	Stonegate Estates Cluster	Final plats of subdivision in Rural Residential zone; Status - Approved	50.0	0	51	0	72
4	81A	4-88223	Cheltenham Park Cluster	Preliminary plan of subdivision in Rural Residential zone; Status - Approved	70.0	NA	NA	NA	129
5	81A	DDS-504	Clinton Plaza	Commercial Shopping Center; Status - Approved	64.1	NA	NA	NA	NA
6	81A	4-95117	Piscataway Creek Estates	Preliminary plan of subdivision in Residential Estate zone; Status - Approved	97.6	NA	NA	NA	92
7	81A	DSP-04074	Simmons Ridge	Detailed site plan in Rural Residential zone; Status - Approved	54.3	NA	NA	NA	85
8	81A	ROSP-3949/01	Southern Maryland Health Campus	Revised site plan in Reserved Open Space zone; Status - Approved	61.1	NA	NA	NA	NA
9	81A	DSP-03055	Timber Ridge	Detailed site plan in Rural Residential and Residential Agricultural zones; Status - Approved	254.6	NA	NA	NA	289
10	81A	4-03014	White Property	Preliminary plan of subdivision in One-Family Detached Residential zone; Status - Approved	91.8	0	112	0	112
11	81B	A-9967	Bevard East	Final plats of subdivision in Residential Low Development zone; Status - Approved	562.0	169	676	0	845
12	81B	4-05049	Bevard North	Retirement community in Residential Estate zone; Status - Approved	275.8	270	197	351	818
13	81B	DSP-06036	Bevard West	Detailed site plan in Residential Estate zone; Status - Approved	410.5	0	240	0	240
14	81B	4-03108	Branch Hill	Preliminary plan of subdivision in Residential Estate zone; Status - Approved	53.0	0	44	0	44
15	81B	DSP-93030/15	Hillantrae	Detailed site plan in Rural Residential zone; Status - Approved	242.8	NA	NA	NA	NA
16	81B	A-10009	Hyde Field	Rezone from Employment and Institutional Area to Local Activity Center (Mixed Commercial, Service, and Residential) ; Status - Pending	423.9	NA	NA	NA	NA
17	81B	5-0307_	Indian Ridge	Final plats of subdivision in Residential Agricultural zone; Status - Approved	133.0	NA	NA	NA	34

Map ID No.	Planning Area	Case No.	Project Name	Description, Zoning, and Status	Acres	Attached Units	Detached Units	Multi-Family	Total Units
18	81B	4-02015	Meinhardt Property	Preliminary plan of subdivision in Residential Agricultural zone; Status - Approved	82.8	NA	NA	NA	NA
19	81B	4-92110	Parker Meadows	Preliminary plan of subdivision in Rural Residential zone; Status - Approved	242.8	NA	NA	NA	NA
20	81B	4-01049	Piscataway Estates	Preliminary plan of subdivision in Residential Estate zone; Status - Approved	95.3	NA	NA	NA	NA
21	81B	5-0211_	Rivergate Estates	Final plats of subdivision in Residential Estate zone; Status - Approved	95.1	NA	NA	NA	76
22	81B	DSP-01018	Rose Valley Cluster	Detailed site plan in Rural Residential zone	84.8	NA	NA	NA	120
23	81B	5-0302_	Steed Estates	Preliminary plan of subdivision in Residential Estate zone; Status - Approved	119.7	NA	NA	NA	91
24	81B	4-03137	Thrift Manor	Preliminary plan of subdivision in Residential Estate zone; Status - Approved	54.3	0	35	0	35
25	81B	4-04099	Wolfe Farm	Preliminary plan of subdivision in Residential Estate and Residential Agricultural zones; Status - Approved	333.6	0	156	0	156
26	81B	4-04016	Woodburn Estates	Preliminary plan of subdivision in Rural Residential zone; Status - Approved	86.3	0	122	0	122
27	85B	SE-4194	A.H. Smith Property	Special exemption for surface mining in Open Space zone; Status - Approved	62.2	NA	NA	NA	NA
28	85B	SE-4485	Bowie Pit (Phase VI)	Special exemption for surface mining in Open Space zone; Status – Pending	54.5	0	0	0	0
29	85B	S-07018	Brandywine Woods	Conservation subdivision in Rural Residential zone – Status - Certified	97.0	0	132	0	132
30	85B	V-02003	Keller's Subdivision	Vacation of subdivision in Rural Residential zone; Status - Approved	57.5	NA	NA	NA	81
31	85B	5-00096	PEPCO Brandywine Fly Ash Facility	Six preliminary parcels in Open Space zone; Status - Approved	225.4	NA	NA	NA	0
32	85B	SE-4556	Reeder Corporation	Special exemption for surface mining in Open Space zone; Status - Pending	103.8	NA	NA	NA	NA

Figure III-18 shows the location of these projects by map ID number overlaid on MDP generalized zoning. The residential projects are most concentrated in the western and southwest portions of the ICE area, particularly along Piscataway, Thrift, and Brandywine Roads. Another smaller concentration, along with several exemptions for surface mining, is located southeast of Brandywine in the vicinity of the Brandywine Road and North Keys Road. As described in Section III.C, approval of these development projects is not dependent upon the MD 5 Corridor Transportation Study since future transportation projects must be funded for construction for consideration in the development review process. If the county planning board determines that existing access to the proposed subdivision is inadequate or that the subdivision will generate traffic exceeding the minimum peak-hour service levels, the applicant would be required to provide the needed improvements or proffer a mitigation plan (i.e., trip reduction programs, or a pro rata share of the cost of improvements) as a condition of approval (M-NCPPC 2002a).

Future development in the ICE area will continue according to the land use and zoning recommendations in county, sub-region, and sector plans. According to the 2002 Prince George's County General Plan, future growth in the Developed Tier will involve infill and redevelopment for commercial/employment and high-density residential uses. Future growth in the Developing Tier primarily will consist of low-density residential and employment, with consequent loss of resource lands. Major growth is not expected in the Rural Tier areas, and will be limited to very low-density residential.

Transportation Projects

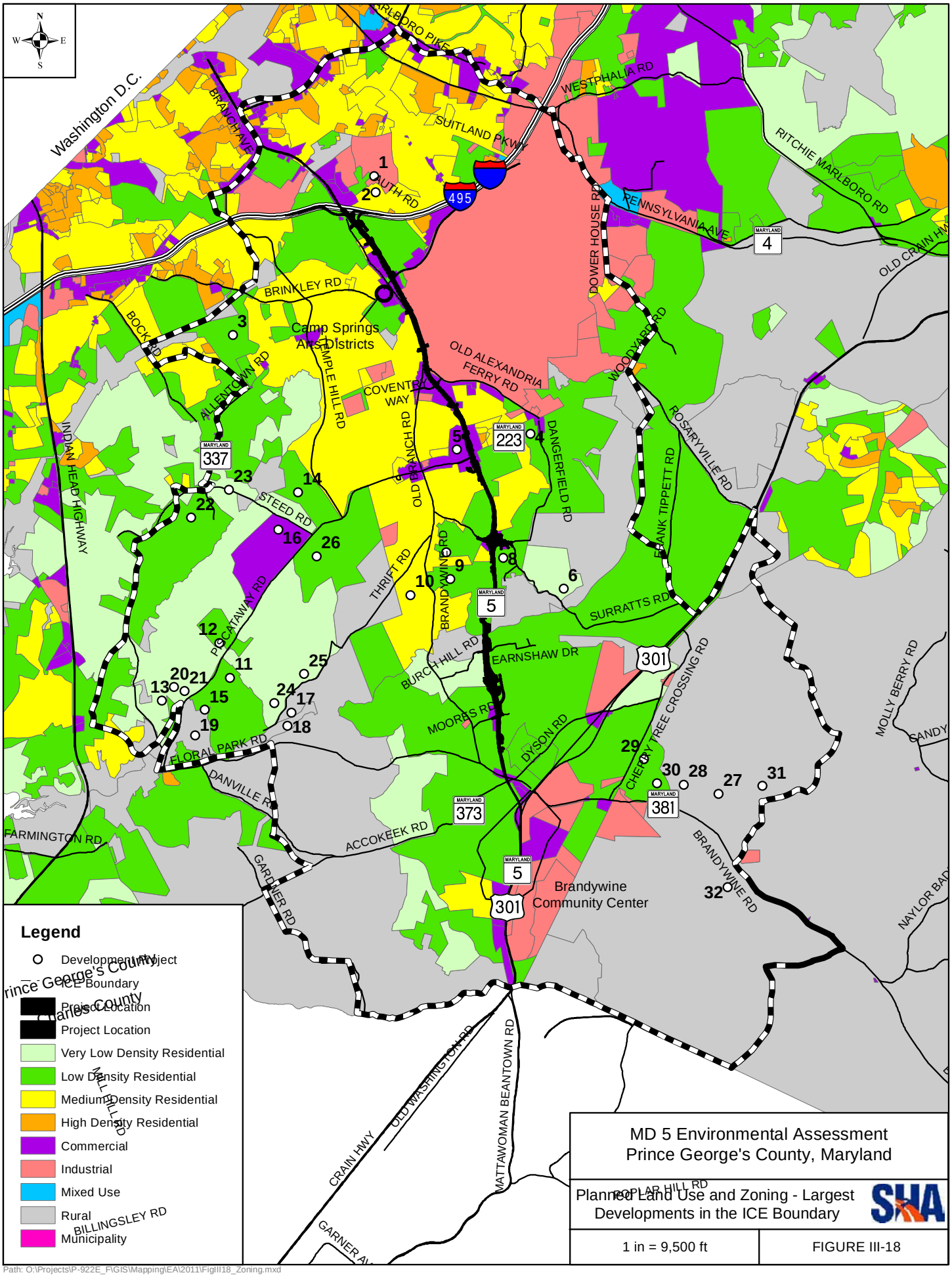
According to the current Maryland Department of Transportation (MDOT) Consolidated Transportation Program (MDOT 2009), major transportation projects within or adjacent to the ICE boundary that have been programmed for Fiscal Years 2009 to 2014 are listed below. Project locations are identified by the Map ID number on **Figure III-19**.

Construction Program

- Map ID 1A. *MD 5, Branch Avenue* – Widen existing MD 5 from four to six lanes for 1.07 miles from north of MD 373 to US 301 (1.07 miles) - Completed in fall, 2011
- Map ID 1B. *MD 5, Branch Avenue* – Reconstruct MD 5 and I-95/I-495 interchange to improve access to the Branch Avenue Metro Station – Project is currently on hold.

Development and Evaluation Program

- Map ID 2. *MD 5, Branch Avenue* – Construct a new interchange at MD 5, MD 373, and Brandywine Road Relocated
- Map ID 3. *Southern Maryland Transit Corridor Preservation Study* – Planning analysis to identify and protect an alignment for future mass transit improvements, including light rail transit, in the US 301/MD 5 corridor from Waldorf to the Branch Avenue Metrorail Station
- Map ID 4. *US 301, Waldorf Area Project* – Examine alternatives to upgrade and widen US 301 through Waldorf and/or construct an access controlled bypass of Waldorf from Turkey Hill Road / Washington Avenue in Charles County to north of the US 301/MD 5 interchange in Prince George's County; Project on Hold



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- Map ID 5. *I-95/I-495, Capital Beltway* – Study to widen I-495 and determine the feasibility of managed lanes from the American Legion Bridge to the Woodrow Wilson Bridge (42.2 miles); Project on hold
- Map ID 6. *MD 4, Pennsylvania Avenue* – Construct a new interchange at MD 4 and Suitland Parkway
- Map ID 7. *MD 4, Pennsylvania Avenue* – Upgrade existing MD 4 to a multi-lane freeway from MD 223 to I-95/I-495 (3.08 miles)
- Map ID 8. *MD 223, Piscataway Road* – Reconstruct MD 223 from Steed Road to MD 5

Not included among these are potential SHA Park & Ride facilities. Prince George's County has proposed widening some of its existing roads, as well as constructing several new roadways within the ICE boundary, in its community-level plans (M-NCPPC 2006; 2009a; 2009b; 2009c). Most of the new county roadways will be located in Sub-Region V between Clinton and Brandywine, and surrounding the future Brandywine Community Center. The general location of new county roadways is shown on **Figure III-19**. The anticipated timeframe and alignments for these projects have yet to be determined, and some may not be constructed by the future timeframe of 2030.

The direct effects of the SHA transportation projects on environmental resources are summarized in **Table III-32**. In general, the future transportation projects would benefit communities by enhancing traffic operations, access, and/or safety, and reducing congestion and travel time. The transportation improvements would also increase imperviousness and potentially alter surface runoff and infiltration patterns at local levels. Over time, these changes may affect groundwater and surface water quantity and/or quality, and exacerbate impairments in stream habitat and biotic communities.

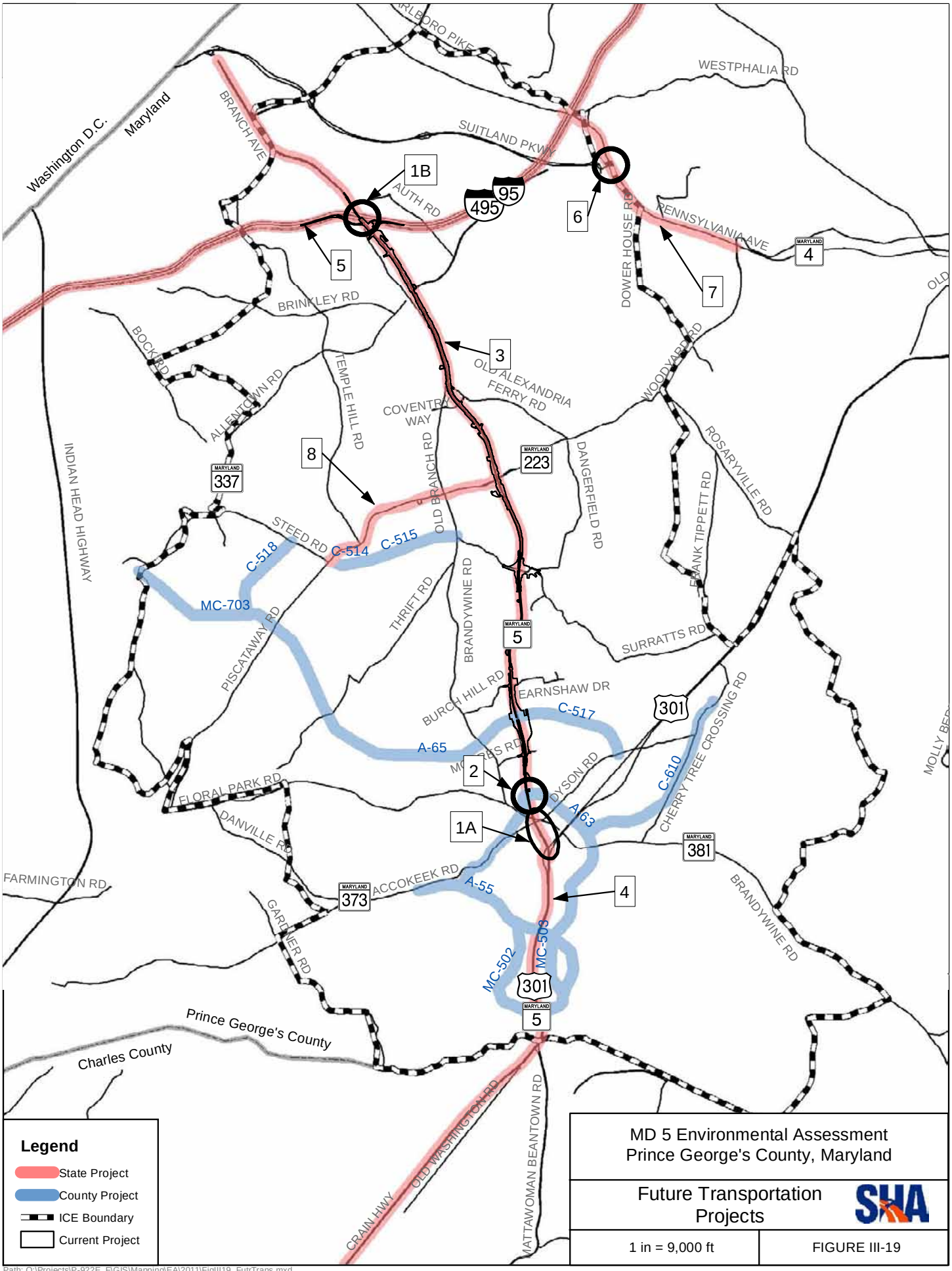

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Table III-32: Direct Effects of Future Transportation Projects

Resource	MD 5 (current project)	MD 5 Brandywine Widening[1]	MD 5 Brandywine Interchange[1]	MD 5 I-95/I-495 Interchange[2]	US 301 Waldorf[3]	I-95/I-495 Widening[4]	MD 4 Widening/ Interchange[5]
Displacements (number)							
Residential	8	2	2	5	10 - 108	NA	5
Commercial/Industrial	3	1	1	0	1- 146	NA	7
Historic/Archeological	0	0	0	0	4 - 6	NA	1/0
Total	11	3	3	5	15-260	NA	13
Right of Way Fee and Easement Required (acres)							
Residential	45.5	17.5	18.0	NA	NA	NA	NA
Commercial/Industrial	27.7	0.4	0.3	NA	NA	NA	NA
Park	0	0	0	0	NA	NA	8.8
Historic	0	0	0	0	NA	NA	NA
Total	117.5	17.9	18.3	29.12	NA	NA	50.1
Natural Resources							
Wetlands (acres)	13.7	0	<0.1	<0.1	1.4 – 37.0	NA	1.3
Streams (linear feet)	27,429	182	210	1,742	3,187 – 13,624	NA	1,770
Floodplains (acres)	34.2	0	0	0	0 – 2.4	NA	0
Prime Farmland Soils (acres)	101.8	0	1.3	0	NA	NA	NA
Forest (acres)	118.0	0.3	21.6	15.7	NA	NA	65.4
New Impervious Surface (acres)	93.8	5.3	NA	NA	NA	NA	NA

Note: Impacts represent the maximum among the alternatives under consideration for each project.
NA = Data not available

Sources:
[1] MD 5 Brandywine Community Effects Assessment and Natural Environmental Technical Report (July, 2008);
[2] SHA Project Planning Division Personal Communication, Karen Arnold (July 24, 2008);
[3] Preliminary impact matrix from U.S. 301 Waldorf Area Public Workshop (May 20, 2008);
[4] Impact information is out of date and project is on hold;
[5] MD 4/Suitland Parkway Interchange Draft Environmental Reevaluation (May 19, 2000)

2. Analysis

This section summarizes the direct impacts of the proposed project, followed by a summary and evaluation of any indirect and cumulative effects for each category of environmental resource. The impacts and effects primarily were analyzed for the alternative and interchange options that would have the greatest direct environmental impacts on particular resources. Consequently, the analysis was limited to considering the worst case scenario for implementing the project.

This analysis indicates that the indirect effects would not induce changes in land use, population density, or growth rate. According to the Prince George's County Approved General Plan (M-NCPPC, 2002), 99 percent of future growth will be directed to the county's Developed and Developing Tiers, which encompass the MD 5 project. The plan also designates the MD 5 corridor for further residential and employment growth. Therefore, the MD 5 project would not result in any indirect effects.

While some future transportation projects are planned to connect with MD 5, none of the future projects are solely dependent upon the MD 5 project. For a list and maps of future planned county road improvements, see the Approved Countywide Master Plan of Transportation (M-NCPPC 2009).

a. Socioeconomic Impacts

Direct and Indirect Effects

The MD 5 mainline alternatives would displace two to seven residential and zero to two commercial properties, and the interchange options would displace up to one additional residential property and one commercial property (**Table S-1**). The ROW fee and easements required for MD 5 mainline alternatives range from 9.1 to 21.1 acres of residential properties and 1.4 to 16.9 acres from commercial properties. The interchange options would require an additional 4.2 to 20.2 acres of residential and 0.1 to 9.9 acres of commercial ROW fee and easements. These property impacts are relatively moderate considering the 10-mile length of the project and extensive SWM requirements for this project. The fact that a majority of the mainline improvements would be constructed in the existing median limits the number of displacements and ROW requirements.

In general, community cohesion, isolation, and accessibility would not be affected, with the exception of one street (Deer Pond Lane) that would be impacted by the Capital Beltway ramps proposed in Alternative 5. These ramps would displace five residences at one location along Deer Pond Lane and would have a negative impact on community cohesion in this particular area. Also, the Surratts Road Interchange Option A would result in the displacement of the 7-Eleven convenience store on Surratts Road, which is a resource to the local community. Although the impact would inconvenience local residents, similar facilities are nearby and remain accessible by car. Thus, the overall impact would be minor and SHA anticipates no change in community cohesion.

Visual impacts would result from each of the build alternatives through the introduction of additional pavement, stormwater facilities, service roads to connect to new interchanges, and new ramps. Each of the Surratts Road and Moores Road/Earnshaw Drive/Burch Hill Road interchange options would require new ramps and/or service roads. In the case of the Moores

Road/Earnshaw Drive/Burch Hill Road Interchange Option A, a new grade-separated interchange would be constructed at a location where none currently exists.

Overall, the project would enhance quality of life for area residents by providing reduced congestion, and safer, more-efficient travel, and would have only minor visual impacts, resulting from partial views of new roadway features (the majority of the proposed ramps and service roads would be obstructed by remaining forested areas, and only partially visible). No significant adverse effects on community facilities and services are anticipated.

Four Census Tracts within the study-area were identified as containing potential Environmental Justice populations. Of these, only Census Tract 8019.04 would be directly impacted by the project. Alternative 5 would result in five residential displacements along Deer Pond Lane in Census Tract 8019.04; however, no disproportionately high or adverse impacts on the community would result. SHA would continue its outreach to residents of the potentially affected portion of Deer Pond Lane to inform them of the project's status and provide opportunities for comment.

No major negative indirect effects on socioeconomic resources are anticipated as a result of any of the build alternatives. The Moores Road/Earnshaw Drive/Burch Hill Road options would change local access and travel patterns that may be viewed positively or negatively by particular residents, business owners, and patrons. However, these changes would also improve safety and traffic operations by managing access to MD 5. The area surrounding the proposed interchange is currently zoned for low-density (one to two units per acre) residential development. Since this development can occur with or without the interchange improvements, the interchange would not affect the future development pattern. Over time, the project may indirectly improve quality of life and the regional economy by reducing congestion and travel time for residents, commuters, and delivery-related businesses. The effects of the project alternatives on socioeconomic resources are discussed more fully in Sections III.A. and III.B.

Cumulative Effects

The county's general plan designates MD 5 as a transportation and development corridor (M-NCPPC, 2002). The corridor includes several well established development centers and one planned center at Brandywine. The corridor and surrounding land use pattern is well established, although that pattern has been characterized by a high rate of residential growth due the area's proximity to Washington D.C. and location in the county's Developing Tier. While the master plan and associated sub-region plans do not call for any major changes in the land use along the corridor, they do advocate continued residential and employment growth, particularly in the middle and southern portions of the corridor. However, none of the planned development projects depends upon a MD 5 build alternative for access.

Future growth in the ICE area and further south in Charles County will increase traffic volumes on MD 5 and connecting roads. The MD 5 project and other transportation projects would reduce travel time and delays, and enhance safety by increasing capacity, limiting access, and promoting future expansion of mass transit options. Thus, the MD 5 project combined with other future transportation projects listed in **Table III-31** would provide an overall benefit to local communities by providing reduced congestion, and safer, more-efficient travel.

SHA conducted research to determine the project's potential cumulative effects on EJ communities, using the Maryland Department of Taxation and Assessments' Real Property Search Database. Research revealed that most houses between I-495 and AAFB were built after AAFB was constructed in 1945. The Capital Beltway was completed in 1964. Some residences were constructed as early as 1960, after construction on the beltway had begun, and no disproportionately high or adverse cumulative impacts on EJ communities are anticipated from the MD 5 project plus other anticipated projects in the study-area.

b. Natural Resources

1. Wetlands

Direct and Indirect Effects

The build alternatives would impact a maximum of 10.7 acres of wetlands, and the interchange options would impact up to 2.9 acres of wetlands, combined. Direct impacts to wetlands would be regulated by the USACE and the MDE. The required permitting process would identify avoidance, minimization, and mitigation for unavoidable impacts to offset wetland losses. After mitigation, direct impacts of the project on wetlands would be relatively minor.

Indirect impacts to wetlands may result from roadway runoff, sedimentation, and alterations to hydrology. These impacts may lead to a decrease in the extent or quality of available wetland habitat, which may ultimately reduce the diversity of plant and wildlife species that occupy these habitats.

Cumulative Effects

An incremental adverse impact of the MD 5 project on wetlands, when added to past, present, and future actions would be associated with past and present land use practices and future development projects. The rate of wetland loss as a result of development-related conversion to uplands has greatly declined during the past ICE time frame due to protective regulations enacted during the past 40 years. From 1991 through 2004, there was a relatively small net loss of 4.32 acres of wetlands throughout the Potomac River Upper Tidal watershed, and a slight gain of 7.91 acres within the Piscataway Creek watershed (Walbeck 2005). Any wetland impacts associated with proposed public or private development would require permitting by the USACE and MDE, as well as review and approval by the county and M-NCPPC to ensure consistency with environmental protection guidelines. Associated measures to avoid, minimize, and/or mitigate impacts should minimize cumulative impacts to wetlands within the ICE area.

2. Surface Waters/Streams

Direct and Indirect Effects

The MD 5 mainline alternatives would impact a maximum of 20,153 linear feet of perennial, intermittent, and ephemeral streams, and 5,385 linear feet of culverted waterways. The Surratts Road interchange options would impact a maximum of 3,410 linear feet of non-culverted streams, and 1,048 linear feet of culverted channels. The Moores Road/Earnshaw Drive/Burch Hill Road interchange options would impact up to 3,866 linear feet of non-culverted streams, and 273 linear feet of culverted channels.

Direct impacts would be associated with construction-related loss or alteration of aquatic habitats, soil compaction, sediment and erosion, accidental spills, and conversion of resource lands to transportation use. Impacts would be avoided and minimized through implementation of an approved erosion and sediment control plan, and SWM plan, utilizing ESD techniques to replicate natural drainage patterns. Unavoidable impacts to surface waters would be mitigated as part of a joint permit by the U.S. Army Corps of Engineers (USACE) and MDE. Impacts would also be subject to county and M-NCPPC planning goals, policies, and related guidelines for regulatory review of proposed projects. After mitigation, direct impacts of the project on streams would be relatively minor.

Indirect impacts of the MD 5 project would be associated with facility use following construction, including effects related to changes in facility-related run-off quality and quantity associated with changes in drainage patterns and imperviousness. These changes may lead to increased erosive stream flows or reduced infiltration and stream base flows over time.

Both indirect and direct project-related impacts could affect aquatic habitat and biota in the immediate project area, as well as upstream or downstream of the project. Indirect impacts would be minimized through the development and application of approved erosion and sediment control plans and stormwater-related BMPs.

Cumulative Impacts

Some minor cumulative adverse effects on surface water are anticipated as a result of the MD 5 project combined with other transportation and development projects within the ICE area. Within the ICE area and throughout the region, the relative health of surface waters has continued to decline due to past and current land use practices and development, despite existing regulations, plans and policies. Of particular concern to surface waters are the interrelated effects of loss of native vegetative cover and increased stormwater flows, flooding, land surface and stream channel erosion, and sediment deposition during and after development. These combined negative effects typically accompany increases in land surface imperviousness over time.

An incremental adverse impact of the MD 5 project on surface waters, when added to past, present, and future actions, is likely to occur to the extent that existing resource lands are converted to developed land uses, with the associated increase in imperviousness over time. Most of the planned development would occur in the central and southern portions of the ICE area. Consequently, cumulative impacts would be greatest in the Mattawoman Creek watershed and southern portion of the Piscataway Creek watershed.

Cumulative effects from the build alternatives would be minimized through strict compliance with SWM requirements. Implementation of an approved sediment and erosion control plan during construction would limit the amount of sediment reaching waterways, and long-term SWM facilities would control runoff from new development. Additionally, federal state, and local stormwater regulations require BMPs that would help improve the quality of stormwater runoff.

3. Groundwater

Direct and Indirect Effects

The MD 5 project would have no direct impacts on groundwater resources. Indirect effects to groundwater as a result of the proposed improvements may occur over time as a result of increased imperviousness, altered patterns of surface water flow, reduced infiltration, and increased contaminants in surface run-off that could impact groundwater and aquifers. Indirect effects resulting from other planned development within the ICE boundary would occur regardless of implementation of any of the No-Build or build alternatives and are therefore independent of the MD 5 project. Additionally, the majority of land within the ICE area is served, or will be served by a public water supply, and future planned development would have no impact on groundwater drinking supplies.

Cumulative Effects

There is potential for cumulative effects on groundwater resources within the ICE area as a result of development-related increases in stormwater runoff and decreased infiltration due to additional impervious surface. However, the incremental impact of the MD 5 project on groundwater quality, when added to past, present, and future actions, is expected to be minimal because there are no aquifer recharge areas within the ICE boundary. Additionally, the SWM facilities constructed with any of the build alternatives would control groundwater pollution.

Cumulative effects are more likely to affect quantity, as water levels in the confined aquifers of southern Maryland have declined over the last 50 years. In 2004, it was determined that portions of several southern Maryland aquifers were reaching levels low enough to cause MDE to prohibit additional withdrawals by major water users. Consequently, some cumulative adverse effects to groundwater quantity may occur as a result of continued residential and commercial development, particularly in the southern portion of the ICE area. However, much of this area is currently, or will be served by a public water supply.

Cumulative effects on the quality and quantity of groundwater resources would be minimized through existing anti-degradation laws and regulations. Any effects to groundwater resources would be monitored by MDE under the regulation of the Safe Drinking Water Act.

4. Floodplains

Direct and Indirect Impacts

The mainline alternatives would encroach on a maximum of 20.4 acres of floodplains, and the interchange options would encroach on a maximum of 13.8 acres, combined. Direct impacts would primarily be associated with bridge and road construction at existing stream crossings. Actual impacts would be determined when structure designs have been completed, and coordination with MDE and the county would be required to ultimately determine impacts to regulated floodplains, as well as identify avoidance and minimization measures. SHA would prepare a detailed hydrologic and hydraulic study for the selected alternative during final design. SWM would be provided and all hydraulic structures would be designed to accommodate the 100-year flood. A floodplain finding, if required, would be presented in the final environmental document. State and local authorization of construction in the 100-year floodplain would be

achieved through issuance of an approved nontidal wetlands and waterways permit, the permitting process, confirming that impacts have been minimized and no mitigation is required.

Indirect impacts to floodplains may include sedimentation from bridge or roadway construction being conveyed outside the project area to streams that flow through the affected floodplains. An increase in imperviousness associated with a widened roadway profile through and the associated increase in impervious surface may alter local drainage patterns, resulting in increased runoff volumes during storm events that could erode adjacent floodplains.

Cumulative Effects

Disturbances in floodplains can reduce their capability to provide ecological services associated with flood control, maintenance of stream flow, stream bank and channel stabilization, and wildlife habitat. Loss of these services may result in increased flooding, erosion and sedimentation, and damage to channel morphology. Most of these development-related disturbances occurred prior to the past ICE timeframe, and protective regulations enacted during the past 40 years have greatly reduced these impacts. Existing floodplains within the ICE boundary are primarily located within areas that are already built-up or in areas protected from development through zoning, land use regulations, or ownership, such as existing parklands. The incremental impact of the MD 5 project on floodplains when added to past, present, and future actions is expected to be moderate, with adherence to existing controls and regulatory requirements.

5. Prime Farmland

Direct, Indirect and Cumulative Effects

The MD 5 mainline alternatives could impact up to 89.7 acres of prime farmland soils, and the interchange options would impact an additional 12.1 acres, combined. Most of the impacts would occur within the MD 5 ROW or at the proposed interchanges, and the impact would not represent a loss of existing or future agricultural land use. In accordance with the Farmland Protection Policy Act (FPPA), the SHA has completed and submited a Farmland Conversion Impact Rating Form AD-1006 to the NRCS office in Prince George's County.

Approximately 33 percent of agricultural land has been converted to developed land county-wide during the past time frame (**Table III-26**). Additional loss of some scattered farmlands in the central portion of the ICE area is likely to occur due to future growth in the Developing Tier. However, most of the remaining farms in the ICE area and county-wide are located in the Rural Tier, and should be adequately protected from future development by zoning and land use plans (M-NCPPC, 2002). The Rural Tier occupies a relatively small portion of the ICE area in the southeast and southwest portions. An incremental adverse impact of the MD 5 project on farmlands when added to past, present, and future actions, is not anticipated in the Rural Tier.

6. Forests

Direct and Indirect Effects

Maximum potential direct impacts to tree canopy cover would be 73.5 acres for the mainline alternatives, and 44.4 acres for the interchange options, combined. Impacted areas primarily consist of small, isolated stands of trees in or adjacent to residential or commercial

developments, and larger areas along MD 5 mainline and interchange ramps; primarily for constructing SWM facilities. The project would have a minor impact on FIDS habitat, but this would be limited to forest edges and would not affect any interior habitats. Impacts to forest land would be regulated under the Natural Resources Article Section 5-103, known as the Maryland Reforestation Law. Under this law, any highway project that impacts at least one acre of forest requires a strict 1:1 mitigation ratio, if the highway project uses state funds.

Indirect impacts on forests may include changes in surface drainage patterns, moisture regimes, and pollutants in runoff that could affect species composition and relative health of individual trees adjacent to the corridor ROW. Additionally, disturbance and land conversion along the edges of forest stands may facilitate immigration, establishment, and/or spread of invasive plant species over time. However, these indirect effects are expected to be minor because MD 5 is an established corridor with very little undisturbed, undeveloped land along its length.

Cumulative Effects

Approximately 19 percent of forest land has been converted to developed land county-wide during the past time frame (**Table III-26**). Additional loss of some scattered forest stands in the central portion of the ICE area is likely to occur due to future growth in the Developing Tier. Future impacts to forests as a result of non-transportation development would be regulated and minimized by the Maryland Forest Conservation Act of 1991 (FCA) and local non-regulatory environmental protection measures. The FCA requires the preparation of a forest conservation plan for projects of 40,000 square feet and larger. The FCA sets forth reforestation and a aforestation threshold percentages for any land undergoing development, and also protects high priority forests, such as large contiguous stands and riparian forests.

Nevertheless, small amounts of isolated forested lands are likely to be lost as a result of some future development projects, and some adverse cumulative effects are likely to occur as a result of future growth and development. An incremental adverse impact of the MD 5 project on forestlands, when added to past, present, and future actions, may occur as a result of continued loss of forest cover. However, impacts would be minimized by existing regulatory protective measures and strict development requirements requiring evaluation and protection of existing forest stands by the county and M-NCPPC. Some cumulative effects on potential FIDS habitat are also anticipated. Most FIDS habitat in the ICE area is located in existing stream valley parks and other public land that would afford additional protection and minimize future impacts.

3. Conclusions

Some degree of indirect and cumulative impacts on environmental resources are likely to occur within the ICE boundary in the future; however, no significant adverse impacts are anticipated. Indirect impacts would range from beneficial effects on communities and businesses, to deleterious effects on natural resources and habitats. However, no growth-inducing effects or other effects related to induced changes in land use, population density, or growth rate would result from the MD 5 project.

Continued growth in population, housing, and employment is forecast for much of the ICE area, consistent with the county-wide and sub-region master plans. Growth will increase need and demand for community facilities and services, such as parks, schools, health and emergency

services, and utilities. Nevertheless, marked cumulative impacts on community facilities and services are not expected based on a thorough review of future land-use changes proposed in the area master plans. Indirect and cumulative effects of the MD 5 project combined with future transportation projects are likely to enhance quality of life and regional economy in the ICE area by reducing congestion and travel time and improving access and safety.

Natural resources throughout the ICE area have been adversely affected by land-use changes and development in the past. These impacts include quantitative effects such as loss of forest, agriculture, and other resource lands, and qualitative effects such as impaired water quality and health of aquatic resources. Adverse effects are likely to continue in the future, but to a much lesser extent than in the past, due to strengthened resource protection measures, existing zoning and land-use plans, and substantially lower rates of development forecast for the area.

Throughout the ICE area, adverse indirect and cumulative impacts will be minimized to the extent that protective laws and guidelines are enforced and approved land-use plans and zoning regulations are adhered to. These measures will facilitate avoidance of sensitive resources and provide for county acquisition of high-priority resource lands. Any unavoidable impacts would be mitigated through existing protective guidelines and regulations. Nevertheless, some adverse indirect and cumulative effects on natural environmental resources are anticipated, particularly in the southern half of the ICE area. These impacts would be at least partially mitigated by county acquisition of resource lands, particularly contiguous forest stands, wetlands, floodplains and riparian zones, and RTE habitats.

The county's Developing Tier is expected to experience continued population growth and new development within designated growth areas, regardless of the improvements associated with this project. The proposed improvements to MD 5 are consistent with objectives outlined in the Prince George's County Approved General Plan and sub-region master plans relevant to the ICE area.

In conclusion, direct impacts on environmental resources associated with the MD 5 project and other foreseeable projects would be regulated by applicable local, state, and federal laws requiring avoidance, minimization, and/or mitigation. In the future, some beneficial indirect and cumulative effects on socioeconomic resources are likely, as are some adverse indirect and cumulative effects on natural environmental resources. However, impacts on resources resulting from future growth and development and from other transportation projects would occur independent of the planned improvements to MD 5.

IV. Comments and Coordination

IV. COMMENTS AND COORDINATION

Coordination with regulatory agencies, environmental resource agencies, organizations, community associations, and the public has been an important component of the MD 5 Corridor Transportation Study. This section summarizes all inter-agency and public coordination efforts.

Section IV.A includes summaries of streamlined process coordination related to agency feedback on the Purpose and Need and Alternatives Retained for Detailed Study (ARDS), followed by and regulatory and general agency coordination. Section IV.B summarizes public comments and coordination. Copies of all listed correspondence and documentation are provided beginning on page IV-7. The correspondence is organized chronologically by topic, as presented in the following sections; Purpose and Need, ARDS, Regulatory Agency Coordination, and Project Scoping and Other Meetings.

A. Streamlined Process Coordination

1. Purpose and Need

The Purpose and Need Statement for the MD 5 Corridor Transportation Study was presented to the agencies for review and comment in January 2006. Seven agencies concurred without comment and four agencies concurred with comments provided. Most of the comments encouraged greater consideration for mass transportation. **Table IV-1** provides a list of the agency correspondence regarding the statement of Purpose and Need.

Table IV-1: Purpose and Need Coordination

Correspondence	To	From	Date
Concurrence with No Comments on Purpose and Need	SHA	FWS	1/11/06
Concurrence with No Comments on Purpose and Need	SHA	MPO	1/17/06
Concurrence with Comments on Purpose and Need	SHA	NMFS	1/19/06
Concurrence with Comments on Purpose and Need	SHA	EPA	2/14/06
Concurrence with Comments on Purpose and Need	SHA	USACE	3/02/06
Concurrence with Comments on Purpose and Need	SHA	MDP	3/02/06
Concurrence with No Comments on Purpose and Need	SHA	FHWA	3/08/06
Concurrence with Comments on Purpose and Need	SHA	MD DNR	3/09/06
Concurrence with No Comments on Purpose and Need	SHA	MHT	3/09/06
Concurrence with No Comment on Purpose and Need	SHA	MDE	8/14/09

2. Alternatives Retained for Detailed Study

The Alternatives Retained for Detailed Study (ARDS) were presented to the agencies for review and comment in October 2006. Seven agencies concurred without comments and two agencies concurred with minor comments primarily related to provision of mass transportation options. NMFS subsequently concurred after SHA revised the ARDS so that the median shoulder would be adequate for Bus Rapid Transit use. **Table IV-2** provides a list of the agency correspondence regarding the ARDS.

Table IV-2: Alternatives Retained for Detailed Study Coordination

Correspondence	To	From	Date
Concurrence with No Comments on ARDS	SHA	MPO	11/10/06
Concurrence with No Comments on ARDS	SHA	MPO	2/06/07
Concurrence with No Comments on ARDS	SHA	FWS	11/13/06
Comments on ARDS	SHA	M-NCPPC	11/28/06
Concurrence with No Comments on ARDS	SHA	MHT	12/13/06
No Concurrence on ARDS	SHA	NMFS	12/19/06
Concurrence with No Comments on ARDS	SHA	NMFS	9/04/07
Concurrence with No Comments on ARDS	SHA	MHT	1/05/07
Concurrence with Comments on ARDS	SHA	MDP	1/19/07
Concurrence with No Comments on ARDS	SHA	FHWA	1/30/07
Concurrence with No Comments on ARDS	SHA	MD DNR	2/20/07
Concurrence with Comments on ARDS	SHA	USACE	2/25/07
Concurrence with No Comments on ARDS	SHA	EPA	3/05/07
Concurrence with No Comments on ARDS	SHA	MDE	3/08/07

3. Regulatory Agency Coordination

SHA coordinated with regulatory agencies regarding potential project effects on rare, threatened, and endangered species, cultural resources, farmland impacts, schools, parks, wells and emergency services. The associated regulatory agency correspondence is listed in **Table IV-3**.

Table IV-3: Agency Correspondence

Correspondence	To	From	Date
Park Information Response	SHA	M-NCPPC	1/31/06
Public Schools Information Response	SHA	Prince George's Co. Public Schools	2/3/06
Correspondence on APE and Resources Within (includes MHT concurrence)	MHT	SHA	9/19/06
Letter of Eligibility (includes MHT concurrence with Eligibility Table)	MHT	SHA	4/18/08
Letter on Effects (includes MHT Concurrence with Section 4(f) temporary use finding and no adverse effect of MD 5 Brandywine project)	MHT	SHA	8/8/08
Updated Letter on Effects (includes MHT Concurrence on "No properties or archeological resource sites affected")	MHT	SHA	9/30/09

Correspondence	To	From	Date
Updated Letter of Effects for LOD changes associated with environmental site design (includes MHT Concurrence on "No Properties Affected")	MHT	SHA	4/20/11
Farmland Protection Policy Act Initial Coordination	NRCS	SHA	10/7/09
Farmland Protection Policy Act Response	SHA	NRCS	11/6/09
Farmland Protection Policy Act Update to include new LOD associated with Environmental Design	NRCS	SHA	11/16/11
Farmland Protection Policy Act Update Response and Clearance	SHA	NRCS	2/9/12
Wellhead Protection Information Response	A.D. Marble & Company	MDE	12/9/08
Effects on Emergency Services	SHA	Prince George's Co. Dept. of Fire/EMS	5/21/09
Effects on Emergency Services	SHA	Prince George's Co. Dept. of Fire/EMS	6/5/09
Effects on Emergency Services	SHA	Prince George's Co. Police Dept.	5/27/09
Federal Rare Species Response	SHA	USFWS	4/28/09
State Rare Species Response	SHA	MD DNR - Wildlife & Heritage	5/15/09
State Updated Rare Species Response	SHA	MD DNR - Wildlife & Heritage	6/23/09
State Fisheries Response	SHA	MD DNR - Env. Review Unit	6/12/09

4. Project Scoping and Other Meetings

Meetings were held with local, state, and federal agencies at critical points in the project planning process to keep the involved parties informed and solicit feedback. These meetings are listed in **Table IV-4.** Some meetings coincided with milestones such as the Purpose and Need field review and the Alternates Public Workshop, while others addressed specific topics such as mobility enhancements, transit service, and coordination with AAFB regarding the ARDS package and the effects of the Base Realignment and Closure Act (BRAC). AAFB expressed concerns about closing Malcolm Road which was proposed as an option in the Transportation Systems Management/Transportation Demand Management alternative. That option was subsequently dropped from consideration. SHA will continue to coordinate with AAFB as the design for the project progresses.

Table IV-4: Project Scoping and Other Meetings

Meeting	Purpose	Date	Agencies in attendance
Team Scoping Meeting	Discuss the scope of the MD 5 Project Planning Study and to serve as a kick-off for partnering efforts for the study	6/21/05	SHA, MdTA, FHWA, M-NCPPC, MDOT, Prince George's County (DPW&T)
Purpose and Need Field Review	Discuss the project's draft Purpose and Need, receive informal agency comments, discuss various project issues, and conduct a site visit	2/21/06	SHA, FHWA, USACE, MDE, MDOT, MDP, MdTA, MTA, and Prince George's County
Conceptual Alternatives Agency Field Meeting	Discuss the project's conceptual alternatives, receive informal agency comments, and discuss ICE scoping	4/14/06	USACE, SHA, FHWA, MD-DNR, MDE, MDP, MdTA, MHT, MTA, M-NCPPC, NMFS, FWS, DPW&T
AAFB Meeting	Brief AAFB staff on the current status of the project, Purpose and Need, preliminary conceptual alternatives, and next steps	6/06/06	SHA, AAFB
Prince George's County BRAC Outreach	Discuss BRAC effects on Prince George's County, in relation to current and planned projects	8/14/06	SHA, MDOT, M-NCPPC, MTA, MWCOG, DPW&T
MDOT BRAC Outreach	Discuss the MD 5 project, BRAC projects, and current and proposed projects surrounding AAFB.	11/28/06	SHA, MDOT, MTA, AAFB, M-NCPPC, MWCOG, DPW&T
Transit Meeting	Discuss the existing and future transit needs of the MD 5 corridor and determine how these needs can be incorporated into the MD 5 Corridor Transportation Study	6/19/06	SHA, MTA, Andrew's Air Force Base (AAFB), MdTA, DPW&T, Washington Metropolitan Area Transit Authority (WMATA)
Team Meeting	Discuss alternatives presented at the Alternatives Public Workshop and to develop a recommendation for the Alternatives Retained for Detailed Study (ARDS)	8/14/06	SHA, MDOT, DPW&T
Director's Review Meeting	Discuss alternatives presented at the Alternatives Public Workshop and to determine the ARDS	9/15/06	SHA, FHWA, MdTA, M-NCPPC, DPW&T
Emergency Services Meeting	Discuss the ARDS and solicit feedback on the alternatives from the Maryland State Police (MSP) and Prince George's County Fire/EMS.	12/19/06	SHA, MSP, Prince George's County Fire/EMS
Project Coordination Meeting - Prince George's County (DPW&T)	Brief Prince George's County Department of Public Works (DPW&T) on the MD 5 Study	1/08/07	SHA, DPW&T

Meeting	Purpose	Date	Agencies in attendance
Project Coordination Meeting - MTA	Discuss coordination efforts between MTA and SHA for the MD 5 Corridor Study	3/16/07	SHA, MTA
Project Coordination Meeting - MTA	Discuss the coordination efforts between SHA's MD 5 Corridor Transportation Study and MTA's Southern Maryland Transit Corridor Preservation (SMTCP) Study	04/19/07	SHA, MTA
Project Coordination Meeting - MTA	Discuss continued coordination efforts between SHA's MD 5 Corridor Transportation Study and MTA's Southern Maryland Transit Corridor Preservation (SMTCP) Study	3/10/08	SHA, MTA
Team Meeting	Update the team on the progress	6/01/09	SHA, MdTA, M-NCPPC, MTA
Smart Growth	Discussion of Origin/Destination study and confirmation that the project meets "connecting PFA" criteria	7/31/09	SHA, MDP

B. Public Involvement Coordination/Comments

1. Public Workshop

SHA held an Alternates Public Workshop on June 15, 2006, at Surrattsville High School, in Clinton. At the workshop, residents and other community representatives had an opportunity to ask questions and review and comment on the conceptual designs of the proposed alternatives. The meeting was attended by 120 people, most of whom were concerned about congestion and traffic problems along MD 5. Below is a list of the types of public comments received at the 2006 workshop:

- Several individuals commented about the previous study, stating that nothing has changed since the late 1980s.
- Several attendees asked about the status of the US 301 Waldorf Area Project plans for the T.B. area.
- Some attendees stressed the importance of coordinating the MD 5 Project, the US 301 Waldorf Project, and the Dyson Road/MD 373/MD 381 Interchange Projects to so that one project does not force alternatives on another project.
- Many attendees expressed cooncerns about noise along MD 5.
- Attendees indicated that the MD 223 intersection area is too congested, especially with the shopping center on one corner.
- Drivers attempting to make left turns at Surratts Road into the hospital will turn right onto Surratts Road and make U-turns instead of waiting for a left-turn arrow at the stoplight.
- Emergency response officials requested that SHA look into having an emergency-only median break at Earnshaw Drive/Burch Hill Road/Moores Road so emergency vehicles could access the neighborhood more directly.
- Individuals identified MD 373/MD 381/Dyson Road as the biggest bottleneck on MD 5 and stated that it is in need of an immediate fix.

- Attendees indicated that SHA needs to meet with the local Maryland State Police to discuss the alternatives. An attendee asked if the mapping and alternatives would be available on the website.

At this public workshop, SHA asked eight questions on a Comment Card to gather information about the public's interest in the project and identify needs related to congestion management, including express toll lanes and HOV lanes. SHA used this information to help define and recommend the ARDS. SHA received 94 responses, which are summarized in **Table IV-5**.

Table IV-5. Summary of MD 5 Alternates Public Workshop Comment Cards

Question	Highest Response (percentage, %) and Answer
Where do you live?	29 responses (31%): Location D (SW quadrant)
If your travel time could be faster would you pay to use MD 5?	68 responses (72%): No
What alternative do you like the most?	33 responses (35%): Alternative 4
What alternative do you like the least?	29 responses (31%): Alternative 7
When using MD 5 where are you traveling?	49 responses (52%): Charles County
If you do use transit, what mode do you use?	78 responses (83%): No
Are you willing to participate in future surveys?	31 responses (33%): Yes
Do you use transit or ridesharing?	90 responses (96%): METRO

As a result of public information from the workshop, five build alternatives (Alternatives 3, 4, 5, 6, and 8), the No-Build Alternative (Alternative 1), and all interchange options were retained for detailed study. Two build alternatives (Alternatives 2 and 7) were dropped from further consideration.

2. Open House

More than 100 people attended an Open House on February 24, 2009, at Surrattsville High School. Many of the attendees expressed the conviction that something must be done to improve traffic operations on MD 5. The types of public comments received at the 2009 Open House included:

- Some said that merging onto MD 5 from Manchester Drive is difficult and cars do not observe the speed limit in that area.
- Attendees expressed general concern about lack of traffic enforcement in the corridor.
- Attendees said that commuter traffic backs up for miles behind the lights at MD 373 and MD 381.
- Some participants cited a need for light rail to ease gridlock on MD 5 and Woodyard Road and on Dower House and Rosaryville Road.
- Some favored light rail from the Branch Avenue Metro along MD 5 to Waldorf. Individuals requested phasing the alternatives to work closer with the Maryland Transit Administration on light rail and park-and-ride efforts.

- A number of persons said they have been waiting since 1989 for an overpass at the Surratts Road and T.B. junction.
- Participants want the MD 5/MD 373 overpass now.
- Some asked that the US 301 overpass be included in study.
- In general, most favored the mainline alternatives (Alternatives 3 and 4).
- Some preferred Alternative 4. They believe it is the best alternative for building the maximum number of lanes in the shortest amount of time and omits managed lanes.
- Several indicated that they did not like Alternatives 5, 6, and 8 (managed lanes) because they already pay enough in property taxes, and not all agreed with toll options.
- The nursery located on the corner of Burch Hill Road and Branch Avenue favors Burch Hill Road Option B, which provides direct access to the nursery along the service road. .
- Some individuals believed that the Burch Hill Road options have the least impact on the environment.
- Participants said they preferred Surratts Road Option A because it disrupts route traffic the least, is better for the environment, and is less expensive.
- Some asked SHA to consider a sound barrier between MD 5 and Center Drive.
- One individual suggested that SHA create a plan that increases MD 5 south and north to four lanes and creates a ramp that accommodates traffic heading to Waldorf. Direct access from the Beltway to dedicated lanes for Waldorf will eliminate stress for traffic on Woodyard/Surratts Road and Brandywine Road.

3. Other Outreach

SHA sent a letter, dated October 20, 2009, to each resident and business owner who might be displaced by one or more of the project alternatives. The letter invited the recipients to a meeting with SHA to ask questions and express concerns. The meeting was held from 6:00 PM to 8:00 PM on November 19, 2009, at the New Chapel Baptist Church, 5601 Old Branch Avenue, in Temple Hills. Only the franchise owner and a corporate representative from the 7-Eleven store located on Surratts Road (opposite the Southern Maryland Hospital Center) attended the meeting. The Surratts Road Interchange Options A and B were discussed with the 7-Eleven representatives. The representatives favored Surratts Road Interchange Option B as it did not directly impact or displace the store. Their comments were noted by the team.

Another comment was received by email after the meeting on November 23, 2009, from a potentially displaced residential owner on Deer Pond Lane. He expressed concerns over traffic noise, particularly that of trucks decelerating to access the I-95/495 on-ramps. A response email was sent on December 7, 2009 indicating that based on the current noise analysis being conducted, the subject property would qualify for a noise barrier under any of the proposed alternatives. The updated noise analysis report prepared in December 2011 confirms that a noise barrier is warranted for the subject property under each of the build alternatives with the exception of Alternative 3 that does not propose improvements in this area, and Alternative 5 which would result in the displacement of this and four other houses along Deer Pond Lane.

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration
___ Environmental Protection Agency
X Corps of Engineers
X Fish and Wildlife Service

X **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment
___ MD Department of Planning
___ MD Historical Trust
___ Metropolitan Planning Org.

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: William Schafer Date: 01/11/06

6/3/00

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service

___ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment
___ MD Department of Planning
___ MD Historical Trust
✓ Metropolitan Planning Org.

___ **Provides Comments (below or attached)** ✓ **Has No Comments**

Comments:

Additional Information Needed:

Signature: Kenneth A Kirby Date: 1/17/06
Director, Department of
Transportation Planning
Metropolitan Washington
Council of Governments

6/3/00

01/20/2006 17:34 FAX 410 226 5705 NOAA FISHERIES 002

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration ___ Corps of Engineers
___ Environmental Protection Agency ___ Fish and Wildlife Service

___ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ National Park Service ___ MD Dept. of the Environment ___ MD Historical Trust
✓ National Marine Fisheries Service ___ MD Department of Planning ___ Metropolitan Planning Org.
___ MD Dept. of Natural Resources

✓ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: John S. Gilbert Date: 1/19/06

8/8/00

01/20/2006 17:34 FAX 410 226 5705 NOAA FISHERIES 003

SUPPLEMENTAL COMMENTS TO PURPOSE & NEED CONCURRENCE
NATIONAL MARINE FISHERIES SERVICE
JANUARY 19, 2006

MARYLAND 5 CORRIDOR TRANSPORTATION STUDY

Resources Concerns
The project corridor will affect the Piscataway Creek watershed by crossing the mainstem, as well as several tributary systems. Piscataway Creek is a high quality spawning ground for several species of anadromous fish, including alewife, blueback herring, white perch, and yellow perch. Within the creek mainstem, spawning activity by alewife and blueback herring has been documented a short distance downstream from the existing Route 5 crossing. Alewife and blueback herring spawning has also been documented in lower Tinkers Creek, and migratory runs of these species may ascend into Pea Hill Branch, and Meeting House Branch (O'Dell, Geber, and Dinsmore, 1975, Maryland Department of Natural Resources). Our agency staff will be conducting additional field investigations of these tributaries within the project corridor to evaluate their potential to support river herring spawning.

Primary issues pertaining to protection of migratory fish and their habitat that should be addressed during this project review include:

1) Avoidance and minimization of impacts to instream habitat, riparian habitats, and nontidal wetlands through bridging/spanning corridor crossings, and reducing spatial extent of fill and impervious surface.
2) Application of Best Management Practices during construction activities to minimize water quality impacts on instream systems
3) Restricting instream work during the anadromous fish spawning period (i.e., February 15 – June 15) within perennial nontidal streams
4) Compensating (i.e., within the Piscataway Creek watershed) for unavoidable impacts to instream and riparian habitats, and nontidal wetlands
5) Where needed, pursuing opportunities for improving fish passage at existing and planned corridor crossings

Secondary & Cumulative Impacts
The Piscataway Creek watershed is a rapidly developing region. Impacts associated with this development are gradually compromising the quality of this watershed as habitat for migratory finfish. Although the current project, to some degree, will be responding to increased traffic problems within the corridor, to a significant degree, Route 5 Corridor improvements will also contribute to increasing development pressures within the watershed. Consequently, proponents for corridor improvements (Federal Highways and State Highways) should address the secondary and cumulative impacts of this project during its review, and provide opportunities for protecting the Piscataway Creek watershed, either through project design, and/or through a broad-scale mitigative actions.

Incorporating transit opportunities into project design (e.g., light rail, rapid bus transit) are mechanisms for minimizing future traffic problems that the region will experience through growth, and of controlling the need for continual highway improvements. Therefore, transit options for the Maryland 5 Corridor should be fully incorporated into the design package.

1/19/06

MAR-29-2006 10:54 P.02/02

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence package and the summary presented above, the following agency (by signing this document):

__ Federal Highway Administration
__ Environmental Protection Agency
__ Corps of Engineers
__ Fish and Wildlife

___ Concurs (without comment)
___ Does not Concur
X Concurs (with comments)

Comments/Reasons for Non-Concurrence

EPA concurs with comments. EPA considers the "cost-effective transportation infrastructure" provision of the Purpose and Need statement to include multimodal transportation solutions. Those transportation solutions may include mass transit facilities.

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

__ National Park Service
__ National Marine Fisheries Service
__ Metropolitan Planning Org.
__ MD Dept. of the Environment
__ MD Department of Planning
__ MD Dept. of Natural Resources
__ MD Historical Trust

___ Provides Comments (below or attached) ___ Has No Comments

Comments:

Additional Information Needed:

Signature: /S/ Kevin Magerr Date: 2/14/06

rec'd 3/29/06

TOTAL P.2

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

__ Federal Highway Administration
__ Environmental Protection Agency
✓ Corps of Engineers
__ Fish and Wildlife Service

___ Concurs (without comments) ✓ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence: (SAME COMMENTS ASSENT FOR DRAFT PN)

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

__ National Park Service
__ National Marine Fisheries Service
__ MD Dept. of Natural Resources
__ MD Dept. of the Environment
__ MD Department of Planning
__ MD Historical Trust
__ Metropolitan Planning Org.

___ Provides Comments (below or attached) ___ Has No Comments

Comments:

Additional Information Needed:

Signature: Steve Hamm Date: 3/2/06

6/9/00

Response to Agency Comments on Draft Purpose and Need
MD 5 Corridor Transportation Study

Original Page Number	Revised Page Number	Commenting Agency	Original Agency Comment	Revised Text and Response
Page 1	See Response	ACOE	The Purpose and Need Statement should describe the need for a new NEPA study for MD 5 if improvements recommended in the 1988 FEIS have not been implemented. If these recommendations do not address year 2030 traffic volumes, describe how it was determined that these recommendations were determined to be insufficient.	The recommendations in the 1988 FEIS have not been determined to be insufficient, and no analysis of any alternatives (even those from 1988) has been done for this new project. Since the data in the previous document (traffic, transit, environmental, land use, etc.) is outdated and the 2030 traffic volumes show a need for improvement within the entire MD 5 corridor including the sections that were improved as a result of the FEIS, the project team felt that it would be best to address the project area from a clean slate. During the alternative development phase, the project team will re-evaluate alternatives that were approved in the 1988 FEIS and determine whether some or all of them are still viable.

2/6/2006 2

Response to Agency Comments on Draft Purpose and Need
MD 5 Corridor Transportation Study

Original Page Number	Revised Page Number	Commenting Agency	Original Agency Comment	Revised Text and Response
General	Pages 2 and 3	ACOE	The Purpose and Need Statement should summarize the Independent Utility Report prepared for FHWA documenting how MD 5 has independent utility from the US 301 study. The statement should document how the upgrade of MD 5 would affect traffic volumes in the US 301 corridor, particularly southbound flows during the peak PM rush hour. The statement should document the coordination between the MD 5 and MD 301 Waldorf Corridor teams pertaining to traffic modeling, highway design, and documentation and minimization of environmental resources.	The Logical Termini (LT) report referenced in the Purpose and Need ("MD 5 and US 301 – Non-Segmentation Analysis: Logical Termini and Independent Utility for the MD 5 Corridor and the US 301 Waldorf Corridor") provides information on rational end points, consideration of environmental issues, independent utility, and consideration of other projects and avoidance of restricting alternatives for other future projects. The evaluation of exactly how specific alternatives for each project will impact the traffic volumes of the other project will be documented in detail when the two projects proceed through the alternative development stage. This subject is discussed broadly in the LT report. We discuss the contents of the LT report in the last paragraph of the Project Background section "The MD 5 corridor was separated from the US 301 Southern Corridor project through the Logical Termini report mentioned previously. The MD 5 planning team will closely coordinate with the US 301/Waldorf planning team to address common issues due to the projects' close proximity to each other. Such issues could include travel demand model assumptions and traffic forecasts, land use and environmental data, alignment engineering, SCEA, etc. The Logical Termini report provides information for why the chosen project endpoints are considered rational based on changes in traffic volumes and roadway characteristics, why the termini are of sufficient spacing to allow environmental issues to be addressed on a broad scale, why the project has independent utility based on the unique characteristics of the project area, and why the project would not restrict the alternatives evaluation for other projects (such as US 301/Waldorf)."

2/6/2006 1

Response to Agency Comments on Draft Purpose and Need
MD 5 Corridor Transportation Study

Original Page Number	Revised Page Number	Commenting Agency	Original Agency Comment	Revised Text and Response
Page 11	Pages 2 and 13	ACOE	The Purpose and Need Statement should provide a more detailed explanation on how MD SHA will coordinate with MTA to give equal weight to other forms of transit, such as bus and rail transit. Transit should be an integral component of this project. Merely providing intermodal connections to park-and-ride lots is not sufficient. It is noted that of the three options MTA is considering for transit service in this corridor, two of them could be accommodated on the highway. Upgrading highways can serve as a disincentive to other forms of transit as highway bottlenecks are removed but only for the short term. The opportunity exists in the MD 5 corridor to develop either a dedicated bus way or HOV/bus lane. The Master Plan also recommends either HOV lanes or a busway with no more than six general purpose lanes. Additionally the opportunity exists for MD SHA to provide bus service to Prince George's County where no MTA service currently exists.	While specific alternatives are not typically addressed in the Purpose and Need Statement, SHA can confirm that they are planning to work closely with MTA, WMATA, and Prince George's County transit staff to develop options that incorporate transit modes as either stand alone options or as part of larger transportation solutions. The last paragraph of the Project Background section (now the second to last) has the following additional language added "...SHA's MD 5 planning team will be working closely with other transportation agencies (MTA, MdTA, WMATA, Prince George's County, etc.) to develop a full range of alternatives to investigate."
Pages 14-15	See Response	ACOE	The Purpose and Need Statement should incorporate, where available, more detailed resource (waters and wetland) County resource maps. Coordination with local and other State agencies should be conducted to identify environmental problems in the MD 5 watershed to identify opportunities to retrofit and protect aquatic resources as part of compensatory mitigation of project impacts.	An additional paragraph has also been added to the end of the Intermodal Connectivity section, and reads "SHA is committed to working with the pertinent transportation agencies in the area (including those mentioned in this section) to develop alternatives which will take advantage of the current intermodal resources, and look to enhance those capabilities. Such alternatives could include stand alone transit options, or transit improvements as part of larger transportation improvement packages." Readily available digital data on environmental features was obtained and presented in the Purpose and Need document. Additional detailed resource maps have been requested for use during the next stage in the project development process. With regard to compensatory mitigation site searches, such a search is typically conducted at later stages in the project development process after the natural environmental investigations are completed. The identification of potential mitigation opportunities will be completed, just not this early in the study.

03/03/2008 08:32 FAX 002/002

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration ___ Corps of Engineers
___ Environmental Protection Agency ___ Fish and Wildlife Service

___ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ National Park Service ___ MD Dept. of the Environment ___ MD Historical Trust
___ National Marine Fisheries Service ✓ MD Department of Planning ___ Metropolitan Planning Org.
___ MD Dept. of Natural Resources

✓ Provides Comments (below or attached) ___ Has No Comments

Comments: Please note that the Purpose and Need Report that MTP reviewed is dated February 2, 2006

Additional Information Needed:

Signature: _____ Date: 3/3/06

David T. Whitaker, AICP
Maryland Dept. of Planning

8/8/00

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

✓ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service

✓ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

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___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment
___ MD Department of Planning
___ MD Historical Trust
___ Metropolitan Planning Org.

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: Denise F. King Date: 3/8/06

6/9/00

FROM : ENVIRONMENTAL REVIEW UNIT PHONE NO. : 1 410 260 8339 Mar. 09 2006 11:31AM P4

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service

___ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ National Park Service
___ National Marine Fisheries Service
✓ MD Dept. of Natural Resources
___ MD Dept. of the Environment
___ MD Department of Planning
___ MD Historical Trust
___ Metropolitan Planning Org.

✓ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: Roy C. Dittmann Date: March 9, 2006

6/9/00

FROM : ENVIRONMENTAL REVIEW UNIT PHONE NO. : 1 410 260 8339 Mar. 09 2006 11:30AM P2

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*
C. Ronald Franks, *Secretary*

March 9, 2006

Mr. Joseph Kresslein
Maryland Department of Transportation
State Highway Administration
Project Planning Division
P.O. Box 717
Baltimore MD 21203-0717

Dear Mr. Kresslein:

This letter is in response to the February 15, 2006 State Highway Administration letter of request for Department of Natural Resources comments on the **Purpose and Need Statement for the MD 5 Corridor Transportation Study South of the US 301/MD 5 Interchange to North of the I-95/I-495 Interchange, Prince George's County, Project No. PG391A16.** The Department has had staff review the subject Purpose and Need Statement, and also plans to have staff participate in the continued interagency review process for this document and subsequent planning efforts.

The Department has the following minor comments on the Purpose and Need Statement:

We advocate and support the consideration and optimized protection of natural resources within the project study area during planning and any implementation of this project. The project's study area is known to support several natural resources of special interest, including tributaries to estuarine portions of the Potomac River and various forested tracts of land, so we advocate early coordination on these issues through the normal natural resource coordination process for projects of this type.

It seems that many of the sections in the document focus mostly on Prince George's County. Some limited references are made to Charles County and southern Maryland. We realize that there may be various planning reasons for focusing mostly on Prince George's County, but we consider the densely populated areas around Waldorf and the rapidly growing suburban areas throughout Southern Maryland to be major factors in the purpose and need for this project, given that there are such significant sources of jobs and cultural amenities at the north end of the project (Washington, D.C. Metropolitan Area). Given the heavy concentration of population at the southern end of the project, the heavy concentration of jobs and cultural opportunities at the northern end, the presence of a convenient commuter rail station at the northern end, and the heavy use of MD 5 as a commuter route, this is a project with great opportunity for mass transit components, especially commuter busses and carpooling.

Tawes State Office Building • 580 Taylor Avenue • Annapolis, Maryland 21401
410.260.8DNR or toll free in Maryland 877.620.8DNR • www.dnr.state.maryland.gov • TTY users call via Maryland Relay

FROM : ENVIRONMENTAL REVIEW UNIT PHONE NO. : 1 410 260 8339 Mar. 09 2006 11:31AM P3

We support careful consideration during this project study of all feasible opportunities to encourage commuter bus use and carpooling in this area. Such opportunities can provide significant natural resource protection benefits related to issues such as air quality, impervious surfaces and road runoff, and fuel consumption. Full consideration of these opportunities may involve promotion of centralized facilities on the southern end (including in Charles County) where transit opportunities can be easily accessed by commuters (i.e. commuter bus stations and park and ride lots).

If you have any questions concerning these comments, you may contact Greg Golden of my staff at 410-260-8334.

Sincerely,

Ray C. Dintaman, Jr.

Ray C. Dintaman, Jr., Director
Environmental Review Unit

2

Project Name & Limits: MD 5 Corridor Transportation Study

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration ___ Corps of Engineers
___ Environmental Protection Agency ___ Fish and Wildlife Service

___ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ National Park Service ___ MD Dept. of the Environment X MD Historical Trust
___ National Marine Fisheries Service ___ MD Department of Planning ___ Metropolitan Planning Org.
___ MD Dept. of Natural Resources

___ Provides Comments (below or attached) X Has No Comments

Comments:

Additional Information Needed:

Signature: Andrew Lewis Date: 3/9/06

6/9/00

Project Name & Limits: MD 5 Corridor Transportation Study

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___ Environmental Protection Agency ___ Fish and Wildlife Service

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Comments / Reasons for Non-Concurrence:

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___ National Park Service X MD Dept. of the Environment ___ MD Historical Trust
___ National Marine Fisheries Service ___ MD Department of Planning ___ Metropolitan Planning Org.
___ MD Dept. of Natural Resources

___ Provides Comments (below or attached) X Has No Comments

Comments:

Additional Information Needed:

Signature: Date: 8/14/09

6/9/00

NOV14'06 Fri 2:15 PM

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service
___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

___ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ✓ Metropolitan Planning Organization

___ Provides Comments (below or attached) ✓ Has No Comments

Comments:

Additional Information Needed:

Signature: Ronald F. Kirby Date: 11/10/06

Ronald F. Kirby
Director, Department of
Transportation Planning
Metropolitan Washington Council of Governments

6/9/00

02/06/2007 16:08 FAX 202 962 3202 MWCOG TRANS DEPT 003

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service
___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

___ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ MD Historical Trust ___ MD Department of Planning X Metropolitan Planning Organization

___ Provides Comments (below or attached) X Has No Comments

Comments:

Additional Information Needed:

Signature: Michael J. Walsh Date: 2-6-07

6/9/00

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

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___ Environmental Protection Agency
___ Corps of Engineers
X Fish and Wildlife Service
___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

X **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: William Schultz Date: 11/13/06

6/9/00

Donna

The draft ARDS document appears to be a logical continuation and update of the analysis presented in the Subregion V Transportation Technical Bulletin in 1992. There are some comments that I would offer at this point from the staff level concerning the proposed ARDS and further review of the ARDS:

1 General

A The Council directed us to begin the preparation of the update to Subregion V Master Plan in our FY 2007 Planning Department work program. The MD 5 Study evaluation of the ARDS appears to be concurrent with the master update work, and I would suggest that the Subregion V study team be briefed as soon as possible so that the efforts can be coordinated to the extent possible.

B This is a major project located entirely within Prince George's County. The MD 5 study team may wish to consider a briefing of the County Council's THE (Transportation, Housing, Environment) Committee.

2 ARDS Alt #3 - although it was the preferred alt from the1988 MD 5 study, the travel demand analysis that was used for the 1988 MD 5 study is now way out of date. We do not believe that this option will be able to provide an overall satisfactory LOS in the corridor under a 2030 scenario.

3 1993 master plan concept--the 1993 Subregion V master plan envisioned MD 5 as a 6-lane freeway with a dedicated separated reversible roadway in the median. Initially, the reversible roadway would be open to all traffic and oriented to the peak direction of traffic on weekdays. Later, HOV restrictions would be instituted (still allowing buses and vanpools), beginning with HOV 2 and increased as needed over time to maintain an overall average LOS D in the MD 5 corridor. Bus service frequency would be increased in response to demand over this period. When the criteria for fixed-guideway transit were met still later on, the reversible roadway would be converted to a fixed-guideway transit line. This approach should be used in staging improvements to the MD 5 corridor over time.

4 Surratts Road interchange--the need for this is current, as the areas to the west (Clinton and Tippett) have experienced significant residential development over the past five years and the limit of feasible at-grade improvements at the existing intersection has apparently been reached.

5 Moores Road/Earnshaw interchange--the location which allows the proposed A-65 arterial on the Subregion V Master Plan to tie in to MD 5 (alignment A1 on Figure 14) should be retained, as the approved developments along A-65 are either providing right-of-way dedication or are required to construct segments of this road between Old Fort Road on the west and Brandywine Road on the east. Prince George's County DPW&T has been actively reviewing the preliminary line and grade plans for this

roadway and coordinating right-of-way and construction activities along A-65. The grade separation shown in Figure 15 for Option B should be moved to the same location as Option A to preserve the interchange location for A-65 at MD 5. The connection of A-65 to MD 5 is needed to relieve MD 223 and Surratts Road by providing an alternative route to MD 5 for developing areas of Clinton and Tippett.

6 Comment card survey--Why was Prince George's County not listed as an answer option for Question 5?

Thanks for pulling this together and giving us an opportunity to comment. Hopefully, this will be timely for tomorrow's meeting. There will no doubt be addtional comments later on.

Eric J. Foster, P.E.
Supervisor, Transportation Planning Section
Countywide Planning Division
Prince George's County Planning Department
M-NCPPC
County Administration Building
Upper Marlboro, MD 20772-3037
(301) 952-3117
Fax (301) 952-3799

Donna and Nicole,

Just a few brief comments. The Prince George's County Department of Public Works and Transportation (DPW&T) appreciates the advancement of the MD 5 study and in so doing supports Alternative 4 - Expressway Upgrade Entire Corridor, as the top priority of the options under consideration. As an interim, moving forward with the elements of the transportation system management alternative (previous alternative 2) is encouraged. In addition, the Department supports continued investigation of HOV alternate 8. However, DPW&T does not support either ETL option retianed for detailed study, Alternative 5 or Alternative 6. Thank you for the opportunity to comment, please let me know if you have any questions.

Vic Weissberg

FILE COPY

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service
___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

___ Concurs (without comments) **___ Concurs (w/ minor comments)** **___ Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

X MD Historical Trust
___ MD Department of Planning
___ Metropolitan Planning Organization

___ Provides Comments (below or attached) **X Has No Comments**

Comments:

Additional Information Needed:

Signature: Jim [illegible] Date: 12/13/00

8/2/00

12/19/2006 18:00 FAX 410 226 5706 NOAA FISHERIES 002

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

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___ National Park Service
✓ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

___ Concurs (without comments) ___ Concurs (w/ minor comments) ✓ Does Not Concur

Comments / Reasons for Non-Concurrence:
See attached comments

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) ___ Has No Comments

Comments:

Additional Information Needed:

Signature: J.S. Nichols Date: 12/19/06

6/9/06

12/19/2006 10:01 FAX 410 226 5706 NOAA FISHERIES 003

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Habitat Conservation Division
Chesapeake Bay Program Office
410 Severn Ave., Suite 107A
Annapolis, MD 21403

December 19, 2006

MEMORANDUM TO: Nicole Washington, Project Manager
Donna Buszeni, Environmental Manager

FROM: John Nichols, Officer in Charge JSN

SUBJECT: Maryland Route 5, Alternatives Retained for Detailed Study

National Marine Fisheries Service (NMFS) has reviewed the draft Alternatives Retained for Detailed Study (ARDS) package, dated October 30, 2006, for the Maryland Route 5 Corridor Transportation Study in Prince Georges County. NMFS continues to have concerns with transit-related opportunities for this study, and cannot provide its concurrence on the ARDS package at this time. We have provided the following comments and recommendations relative to our agency position.

In our comments on the Purpose and Need Statement for this project, dated January 19, 2006, we stressed the need for fully incorporating more advanced transit options into the MD 5 design package. We view an improved transit system in southern Maryland as a preferred means of minimizing secondary and cumulative impacts on migratory fish resources using tributaries to the middle Potomac River watershed by controlling the need for continual expansion of arterial highway systems. One form of transit suggested in our comments for design consideration was Rapid Bus Transit (BRT).

NMFS has also strongly expressed the need for incorporating more advanced transit options, including BRT, into the on-going U.S. 301 – Waldorf Corridor Study in Charles County. While the MD 5 and U.S. 301 – Waldorf Studies are separate projects, they are also invariably linked through the need for improved transit options to address burdening contribution of Washington D.C. commuters to traffic congestion on arterial highways in southern Prince Georges and Charles Counties. If options for incorporating improved transit are not maintained for the MD 5 corridor, capability for improved transit options in the Waldorf area will also fade away.

Because funding and government initiative for implementing advanced transit along MD 5 and other areas in southern Maryland are currently lacking, NMFS is not recommending that the MD 5 project include a BRT system in its design. We are recommending, however, that the capability for constructing BRT along MD 5 in the future be retained by this project by incorporating design elements that will allow for significant improvement in transit opportunities. Retention of the capability for a future BRT system can be accomplished by upgrading of the current express bus service along the existing MD 5 corridor as a precursor to BRT.

While transit and park & ride considerations are mentioned in ARDS package, little detail has been provided on transit design considerations. For example, the package refers to potential use of shoulders by bus service, however, typical cross-sections for each alternative do no indicate potential bus lanes, and depict shoulders of inadequate width (i.e., 4 to 10 feet) for express bus use.

NMFS does wish to move forward with the streamlined review of this project. However, secondary and cumulative impacts issues (i.e., as related to transit) must be fully addressed for our agency to provide concurrence on the MD 5 ARDS package. We recommend that the following elements be incorporated into the ARDS package and project study.

1) A more detailed description of options for an upgraded transit system along MD 5 should be included as part of each alternative retained in this study (excluding the No Build Alternative). Upgraded transit should include more than simply adding to current service (e.g., increasing park & ride lot capacity); but, should include new elements in the service that improve speed and reliability in transit vehicles moving passengers from starting point to destination along the project corridor.

2) We strongly recommend consideration of exclusive lanes for express bus service along the MD 5 corridor for both north and south directions in one or more of the retained alternatives. Both median and right-shoulder lanes should be considered, as well as separated exclusive bus lanes. As additional features of bus lanes, queue jumps or bypasses should be incorporated to improve bus performance at intersections and other areas of traffic congestion. Additionally, bus pull-offs and/or shoulder space for parking are essential for safety purposes.

3) Regardless of whether your agency considers exclusive bus lanes, or shoulders with potential for conversion to exclusive express bus use in the future, the width of lanes/future lanes is a critical design element for study alternatives. Minimal lane widths of 12 to 13 feet are desirable for express bus use. Furthermore, if the capability is to be retained for future establishment of BRT, the potential for increasing lane width must also be retained. For example, a minimum width of 22 feet is recommended for arterial median BRT.

Reference Material:

Transit Cooperative Research Program, 2003. Bus Rapid Transit, Vol. 2: Implementation Guidelines. TCRP Report 90. Transportation Research Board of the National Academies.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Habitat Conservation Division
Chesapeake Bay Program Office
410 Severn Ave., Suite 107A
Annapolis, MD 21403

September 4, 2007

MEMORANDUM TO: Karen Arnold
Environmental Manager, Planning Division
MD State Highway Administration

FROM: John Nichols

SUBJECT: NMFS concurrence on the MD 5 ARDS Package

National Marine Fisheries Service has reviewed the revised Alternatives for Detailed Study package, which includes the Errata on NMFS comments and SHA response, and revised Typical Sections of retained alternates, received August 31, 2007. Based on the revisions to the package, and discussions during our meeting with MD Transit Administration and SHA staff on July 30, 2007, we provide our concurrence on the ARDS package.

All alternates retained for this study will result in an upgrade to the MD 5 crossing of Piscataway Creek, a documented anadromous fish spawning ground. We, therefore, recommend at this time that instream work within the Piscataway Creek mainstem be restricted from February 15 through June 15, during the anadromous fish spawning period, for construction of the selected build alternate.

If you have any questions, please contact me at (410) 267-5675; or, John.Nichols@NOAA.GOV.

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

___ Federal Highway Administration ___ Fish and Wildlife Service ___ MD Dept. of Natural Resources
___ Environmental Protection Agency ✓ National Park Service ___ MD Dept. of the Environment
___ Corps of Engineers ✓ National Marine Fisheries Service

✓ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Concur with comments previously submitted. SHA should address mass transportation concerns expressed by other federal agencies.

Additional Information Needed:

Signature: J.S. Jiel Date: 9/4/09

8/9/00

FILE COPY

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

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___ Environmental Protection Agency ___ National Park Service ___ MD Dept. of the Environment
___ Corps of Engineers ___ National Marine Fisheries Service

___ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

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X MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** X **Has No Comments**

Comments:

Additional Information Needed:

Signature: Elain Tarlumis Date: 1/5/07

8/9/00

FILE COPY

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

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___ Environmental Protection Agency ___ National Park Service ___ MD Dept. of the Environment
___ Corps of Engineers ___ National Marine Fisheries Service

___ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

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X MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) X Has No Comments

Comments:

Additional Information Needed:

Signature: Jim Foulcuude Date: 12/13/06

6/9/00

05/27/2008 14:18 FAX 002/004

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

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Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust √ MD Department of Planning ___ Metropolitan Planning Organization

√ Provides Comments (below or attached) ___ Has No Comments

Comments:

Our Comments are attached.

Additional Information Needed:

Signature: [illegible] Date: 1/19/07

6/9/00

05/27/2008 14:20 FAX 003/004

January 18, 2007

MDP Comments on the Alternatives Retained for Detailed Study
— The MD 5 Corridor Transportation Study

We support the recommendation of retaining Alternative 1, 3, 4, 5, 6, and 8 for detained study. Among these alternatives, we believe that the managed-lane alternatives, i.e., alternative 5, 6 and 8 would not only be more cost-effective over the long term but also provide a means to manage travel demand along the MD 5 corridor. In the detailed study phase, the evaluation of the managed-lane alternatives should focus on strategies that promote transit usage and reduce single-occupancy vehicle travel. In coordination with MTA and other state and local agencies, the study team should further evaluate strategies including but not limited to (1) ETL, HOV, or HOT lanes; (2) expansion of park and ride lots at strategic locations with direct links to ETL, HOV, or HOT lanes; (3) transit elements linking planned transit-supportive land uses, Metro stations, and employment/commercial centers along the MD 5/US 301 corridor including locations beyond the project study limits. In addition, the study team should evaluate bicycle and pedestrian facility improvements on crossing highways in interchange areas.

We will continue working with SHA and MDOT to address issues related to the priority funding area (PFA) law. In coordination with SHA and MDOT, we are currently evaluating whether the project serves to "connect PFAs," a potential exception defined in the PFA law for a growth-related transportation project outside PFAs.

One issue to be addressed for the exception is whether adequate access control or other measures in place to prevent development that is inconsistent with the State's growth policies. As compared to a highway with uncontrolled or partially controlled access, a fully access controlled highway will help manage growth more effectively if access points are carefully selected based on the land uses planned along the highway corridor. The build alternatives retained for detailed study would upgrade the project section of MD 5 to a fully access controlled expressway so as to not only improve traffic operation and safety but also help to manage land development more effectively in the corridor. However, due to the existence of the existing intersection at Moores Road, the proposed Moores Road/Earnshaw Drive/Burch Hill Road Interchange is outside PFAs. Improving access capacity to Non-PFAs could generate secondary land use impacts in Non-PFAs. If providing an interchange outside PFAs is unavoidable at this location, we prefer Option B since Option B may have less secondary land use effects outside PFAs as compared to Option A.

Another issue to be addressed for the exception under the PFA law is whether alternative transportation modes, such as transit and transportation demand management provide a reasonable alternative to the project. Alternative 2, which includes mainly transit components and transportation system management improvements, was studied as an alternative for the project, but it is not recommended as a stand-alone alternative for the

1

05/27/2008 14:20 FAX 004/004

MDP Comments on the ARDS - the MD 5 Corridor Transportation Study
Page 2

next stage's detailed study. To fully justify the recommendation, the study team should provide a traffic impact analysis to explain why the proposed at-grade intersection improvements and the transit components will not fully meet the purpose and need of the project.

As recommended by the study team, various elements of Alternative 2 would be either part of the alternatives retained for detailed study or strategies for staged implementation prior to any build-alternative construction. Considering as interim or staged implementation strategies, we suggest the study team evaluate signal prioritization for buses traveling along MD 5/US 301 or on its shoulders, and other transit related strategies to improve transit service to meet the increasing demand for transit in the southern Maryland and to build a strong transit user basis for the provision of a high quality transit improvement in the future.

The build alternatives retained for detailed study could encourage more developments in the southern Maryland since they will shorten commuting time for southern Maryland residents. In the detailed study stage, secondary land use effects of build alternatives should be evaluated to determine whether the potential land use effects would be consistent with the local and State's Smart Growth policies.

2

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

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✓ Federal Highway Administration
___ Environmental Protection Agency
___ Corps of Engineers
___ Fish and Wildlife Service
___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
___ MD Dept. of the Environment

✓ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) ___ Has No Comments

Comments:

Additional Information Needed:

Signature: [illegible] Date: 1/30/07

original Sent to Joseph (Joe)
faxed Nicole Washington

6/8/00

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

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___ National Park Service
___ National Marine Fisheries Service
✓ MD Dept. of Natural Resources
___ MD Dept. of the Environment

✓ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) ___ Has No Comments.

Comments:

Additional Information Needed:

Signature: [illegible] Date: 2-20-07

6/8/00

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

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_✓_ Corps of Engineers ___ National Marine Fisheries Service

_x_ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) ___ Has No Comments

Comments:

Concur with comments previously submitted. SHA should address mass transportation concerns expressed by other federal agencies.

Additional Information Needed:

Signature: Steven Harman Date: 25 Feb 2007

6/9/00

ALTERNATIVES RETAINED FOR DETAILED STUDY MD 5 - SOUTH OF US 301/MD5 TO NORTH OF I-95/I-495

Nicole Washington
Donna Duscemi

The Corps comments are as follows:

1) We recommend a discussion of how light rail would be possibly precluded or not precluded in the future by each of the alternatives.

2) Table 5. This table should express express the impact to residential and commercial buildings based upon the proposed right-of-way width in addition to listed acreage figures.

3) Alternate 3. The alternates retained for detailed study section states "This alternative has the lowest costs and fewest impacts of the build alternatives". However this alterat've according to Table 5 has similar right-of-way impacts as Alternative 2 but has much higher wetland and forest impacts than this alternative.

4) Alternate 6 shows two express toll lanes and two general use lanes in each direction. The alternative has a right-of-way width of 160 feet. There are no Jersey barriers separating the express toll lanes from the general use lanes. My recommendation is that there should be Jersey barriers separating the express toll lanes from the general use lanes, and interchange ramps from the express toll lanes. If you do not have ramps from the express toll lanes, the express toll users will have to merge to the right, through two lanes of general use traffic, in order to exit at an interchange. The folks in the general use lanes are not likely to be hospitable to the express toll users as they try to merge into the already-congested general use lanes. This lack of cooperation in merging will have ramifications on the express toll lanes, causing back-ups, and eliminating the time savings that the express lanes are supposed to provide.
The provision of Jersey barriers with a 4-foot shoulder on either side will add only 12 additional feet to the total cross section, for a total of 162 feet, which is comparable to the width of Alternative 5. (Paul Wettlaufer made this comment via email, 11/6/06)

FW: MD 5 Alternatives Retained for Detailed Study (ARDS) Page 1 of 1

Donna Buscemi

From: Wettlaufer, Paul NAB02 [PAUL.WETTLAUFER@nab02.usace.army.mil]
Sent: Monday, November 06, 2006 4:45 PM
To: Donna Buscemi
Subject: FW: MD 5 Alternatives Retained for Detailed Study (ARDS)

Donna, Steve Harman will be forwarding comments by separate submission, and I asked him to include this in his submission. Please ensure that this comment doesn't get lost in the paperwork. Thanks. Paul

---

Alternate 6 shows two express toll lanes and two general use lanes in each direction. The alternative has a right-of-way width of 150 feet. There are no Jersey barriers separating the express toll lanes from the general use lanes. My recommendation is that there should be Jersey barriers separating the express toll lanes from the general use lanes, and interchange ramps from the express toll lanes. If you do not have ramps from the express toll lanes, the express toll users will have to merge to the right, through two lanes of general use traffic, in order to exit at an interchange. The folks in the general use lanes are not likely to be hospitable to the express toll users as they try to merge into the already-congested general use lanes. This lack of cooperation in merging will have ramifications on the express toll lanes, causing back-ups, and eliminating the time savings that the express lanes are supposed to provide.

The provision of Jersey barriers with a 4-foot shoulder on either side will add only 12 additional feet to the total cross section, for a total of 162 feet, which is comparable to the width of Alternative 5.

11/15/2006

KRR-05-2007 11:46

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

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___ Corps of Engineers ___ National Marine Fisheries Service

✓ **Concurs (without comments)** ___ **Concurs (w/ minor comments)** ___ **Does Not Concur**

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ **Provides Comments (below or attached)** ___ **Has No Comments**

Comments:

Additional Information Needed:

Signature: [signature] Date: 3/05/07

6/8/00

ALTERNATIVES RETAINED FOR DETAILED STUDY

Project Name & Limits: MD 5 Corridor Transportation Study from south of US 301/MD 5 to north of I-95/I-495

Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document):

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___ Corps of Engineers
___ Fish and Wildlife Service
___ National Park Service
___ National Marine Fisheries Service
___ MD Dept. of Natural Resources
✓ MD Dept. of the Environment

✓ Concurs (without comments) ___ Concurs (w/ minor comments) ___ Does Not Concur

Comments / Reasons for Non-Concurrence:

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___ MD Historical Trust ___ MD Department of Planning ___ Metropolitan Planning Organization

___ Provides Comments (below or attached) ___ Has No Comments

Comments:

Additional Information Needed:

Signature: Ella A. Ulrich-Coulbourn Date: 3/8/07

6/9/00

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THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Department of Parks and Recreation
6600 Kenilworth Avenue Riverdale, Maryland 20737

301-699-2582
TTY 301-699-2544
FAX 301-864-6941

January 31, 2006

Mr. Bruce M. Grey, Deputy Director
State Highway Administration
Maryland Department of Transportation
Office of Planning and Preliminary Engineering
707 North Calvert Street
Baltimore, Maryland 21202

Re: Project No.: PG391A16
MD 5 Corridor Transportation Study
Prince George's County, Maryland

Dear Mr. Grey:

This is in response to your recent letter dated January 9, 2006, requesting assistance with the planning studies for the MD 5 Corridor Transportation Study in Prince George's County. The Maryland-National Capital Park and Planning Commission, Department of Parks and Recreation, appreciates the opportunity to provide input regarding our parkland ownership within the study area. The following is a list of park facilities that fall within the study area:

- Andrews Manor Neighborhood Playground (Q39)
- Auth Village Neighborhood Park/School (Q41)
- Brandywine Area Community Park (Q58)
- Cambridge Estates Neighborhood Playground (Q76)
- Camp Springs Neighborhood Park (Q17)
- Camp Springs Senior Center (W04)
- Cheltenham Acres Community Park (Q18)
- Cheltenham Conservation Area (R63)
- Connemara Neighborhood Playground (Q05)
- Cosca Regional Park (Q83)
- Crotona Park Community Park (R56)
- Dyson Road Community Park (R19)
- Fox Run Community Park (Q59)
- Fox Run North Neighborhood Park (Q62)
- Heatherwick Neighborhood Park (Q07)
- Henson Creek Neighborhood Park (Q22)

Mr. Bruce M. Grey, Deputy Director
January 31, 2006
Page 2

- Killiecrankie Neighborhood Playground (Q15)
- Manchester Estates Neighborhood Park (Q24)
- Middleton Valley Neighborhood Park/School (W25)
- Pea Hill Branch Stream Valley Park (W78)
- Piscataway Creek Stream Valley Park (Q81, R81)
- Police Fire Arms Range Dyson Road (R92)
- Pleasant Springs Community Park (W07)
- Rose Creek Connector Trail (W08)
- Stephen Decatur Community Center Park (Q70)
- Surratt House Historic Site (Q84)
- Tanglewood Community Park School (Q71)
- Temple Hills Community Center Park (Q67)
- Tinkers Creek Stream Valley Park (Q82)
- Woodberry Forest Neighborhood Park (Q35)

Enclosed is a copy of the Summary of Parkland Data spreadsheet for the recreational facilities listed above. Additionally, we are transmitting a CADD file, which depicts the park boundaries for each of the facilities.

Thank you for your inquiry. If you have any further questions, please feel free to contact the area park planner, Don Herring, at 301-699-2574.

Sincerely,

Marye Wells-Harley, Director
Department of Parks and Recreation

c: Jacqueline S. Gilbert, Park Planning and Development, Chief
Charles J. Montrie, Park Planning and Development, Planning Supervisor
Donald R. Herring, Park Planning and Development, Park Planner

Park ID	Park/Recreation Area	Ownership (Jurisdiction)	Existing or Proposed Park	Master Plan Available (Y/N)	Size (Acres)	Location	Amenities Available*	Parking	Funding Sources	Frequency of Use	Significant (Y/N)	Comments
R56	Corona Park Community Park	M-NCPPC	Existing	No	39.0523	8615 Bainbridge Court Clinton, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
R19	Dyson Road Community Park	M-NCPPC	Existing	No	50.8660	8700 blk Dyson Road Brandywine, Maryland	Undeveloped		POS, Mandatory Dedication	Low	Yes	Active Farm Lease
Q59	Fox Run Community Park	M-NCPPC	Existing	No	21.3825	Drum Point Lane, Fox Run Drive Clinton, Maryland	FB/Sc, SB, Sitting Area, PKG (8)	8	Mandatory Dedication	High	Yes	
Q62	Fox Run North Neighborhood Park	M-NCPPC	Existing	No	7.0584	7917 Canberra Place, Royal Pam Court Clinton, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
Q27	Heatherwick Neighborhood Park	M-NCPPC	Existing	No	5.0384	8100 Heatherwick Drive Brandywine, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
Q22	Henson Creek Neighborhood Park	M-NCPPC	Existing	No	10.020	5601 Temple Hill Road Oxon Hill, Maryland	Pavilion, BiB wER/SC Overlay & BC Overlay, SB w FB/SC Overlay, Trail		POS	High	Yes	
Q35	Kilbournicle Neighborhood Playground	M-NCPPC	Existing	No	4.6520	8610 Kilbournicle Drive Clinton, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
Q24	Manchester Estates Neighborhood Park	M-NCPPC	Existing	No	6.0067	5200 Manchester Drive Camp Springs, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
W25	Middleton Valley Neighborhood Park/School	M-NCPPC	Existing	No	9.1530	4600 blk Walden Lane Temple Hills, Maryland	Undeveloped		POS	Low	Yes	
W18	Pea Hill Branch Stream Valley Park	M-NCPPC	Existing	No	25.5623	9000 blk Temple Hill Road Clinton, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	

2

MD 5 CORRIDOR TRANSPORTATION STUDY
Summary of Parkland Data

Park ID	Park/Recreation Area	Ownership (Jurisdiction)	Existing or Proposed Park	Master Plan Available (Y/N)	Size (Acres)	Location	Amenities Available*	Parking	Funding Sources	Frequency of Use	Significant (Y/N)	Comments
Q39	Andrews Manor Neighborhood Playground	M-NCPPC	Existing	No	4.0100	5600 blk Medford Ave. Suitland, Maryland	Undeveloped		Local	Low	Yes	
Q42	Auth Village Neighborhood Park/School	M-NCPPC	Existing	No	11.5340	6211 Beatty Drive Suitland, Maryland	PA, 2TC, BS, FB/SCL, SB with FB/SC Overlay, PE, PKG (58 + 1)	59	POS	High	Yes	
Q58	Brandywine Area Community Park	M-NCPPC	Existing	No	62.3627	13500 Missouri Avenue Brandywine, Maryland	Undeveloped		Local	Low	Yes	
Q16	Cambridge Estates Neighborhood Playground	M-NCPPC	Existing	No	1.8993	8310 Mayfield Drive Clinton, Maryland	PE, Playfield		Mandatory Dedication	High	Yes	
Q17	Camp Springs Neighborhood Park	M-NCPPC	Existing	No	15.7956	7001 Robbins Road Temple Hills, Maryland	2TC, BB, SB, PE, Asphalt Trail, PKG (14)	14	POS, Mandatory Dedication	High	Yes	
W14	Camp Springs Senior Center	County	Existing	No	0.000	6920 Allentown Road Camp Springs, Maryland	Harriet L. Hunter Senior Center			High	Yes	M-NCPPC operates recreation programs
Q18	Cheltenham Acres Community Park	M-NCPPC	Existing	No	36.1047	12950 East Selby Lane Brandywine, Maryland	Undeveloped		Local, Mandatory Dedication, Donation	Low	Yes	
R65	Cheltenham Conservation Area	County	Existing	No	193.7200	9020 Cosmos Road Cheltenham, Maryland	Nature Trail, Boardwalks, Wetlands, PA, Beaver Pond			High	Yes	M-NCPPC operates recreation programs
Q03	Commerce Neighborhood Playground	M-NCPPC	Existing	No	2.1522	6910 Dunigan Drive; 6910 blk Killarney Drive Clinton, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
Q83	Cosca Regional Park	M-NCPPC	Existing	No	390.0710	1300 Thrift Road Clinton, Maryland	8Pen, Group Picnic Area, Trim Trail, 4TCL, 2TC, Tennis Bubble (WSTCL), Field House, Lake, 3PE, Nature Trail, SB, 28BL, 2BaBl., 5 CSs, Equestrian Trail, Sand VB, Boat Rentals, 25 campsites, PKG (347)	347	POS, Local, Mandatory Dedication, Donation	High	Yes	

1

Park ID	Park/Recreation Area	Ownership (Jurisdiction)	Existing or Proposed Park	Master Plan Available (Y/N)	Size (Acres)	Location	Amenities Available*	Parking	Funding Sources	Frequency of Use	Significant (Y/N)	Comments
Q82	Tinkers Creek Stream Valley Park	M-NCPPC	Existing	No	304.4564	Temple Hills, Maryland; Clinton, Maryland	Undeveloped		POS, Mandatory Dedication, Local, Donation	Low	Yes	
Q53	Woodbury Forest Neighborhood Park	M-NCPPC	Existing	No	14.0800	6313 Summerhill Road, Camp Springs, Maryland	2TC, BB, Trail, Sliding Area		Local	High	Yes	

*Key to Amenities:
BsB = Baseball Field
BB = Basketball Court
CS = Comfort Station
FB = Football Field
L = Lighted
PA = Picnic Area
PE = Play Equipment
PKG = Parking Lot (# of spaces + accessible spaces)
SB = Softball Field
SC = Soccer
TC = Tennis Court
VB = Volleyball

4

MD 5 CORRIDOR TRANSPORTATION STUDY
Summary of Parkland Data

Park ID	Park/Recreation Area	Ownership (Jurisdiction)	Existing or Proposed Park	Master Plan Available (Y/N)	Size (Acres)	Location	Amenities Available*	Parking	Funding Sources	Frequency of Use	Significant (Y/N)	Comments
Q81	Piscataway Creek Stream Valley Park	M-NCPPC	Existing	No	256.22	12025 blk Birchdale Dr Clinton, Maryland; 11500 blk Bennett St Clinton, Maryland	Undeveloped		POS, Local, Mandatory Dedication, Donation	Medium	Yes	CIP project calls for the initial construction of a hike/bike/equestrian trail
R81	Piscataway Creek Stream Valley Park II	M-NCPPC	Existing	No	541.5350	9300 blk Dyson Road Brandywine, Maryland; 11700 blk Crestwood Avenue, Clinton Maryland	Undeveloped		POS, Local, Mandatory Dedication, Donation	Medium	Yes	
W07	Pleasant Springs Community Park	M-NCPPC	Existing	No	48.8018	7400 blk Auckland Rd Brandywine, Maryland	Undeveloped		POS	Low	Yes	
X92	Police Fire Arms Range Dyson Road	M-NCPPC	Existing	No	30.0	9500 Dyson Road Brandywine, Maryland	Classrooms, Administrative Offices, Trap and Skeet Range, Shooting Stations, PKG (3) – Gravel Lot	5	POS, Donation	High	Yes	Fire Arms Training Facility for County, State and Park Police
W08	Rose Creek Connector Trail	M-NCPPC	Existing	No	12.7778	16500 blk McKendree Road, Brandywine, Maryland	Undeveloped		Mandatory Dedication	Low	Yes	
Q75	Stephen Decatur Community Center Park	M-NCPPC	Existing	No	26.4093	8200 Pinewood Drive Clinton, Maryland	School Community Center (Stephen Decatur Middle School), 2TC, 2BB, SB, BsB, PA/PE, PKG (60)	40	Local	High	Yes	
Q84	Surratt House Historic Site	M-NCPPC	Existing	No	5.4897	9110 Brandywine Road Clinton, Maryland	Historic House, PA, Visitor Center, Museum, Gift Shop, Admin. Offices, Springhouse, John C. Hall Research Center, 3 PKG (50, 33)	83	POS, Local	High	Yes	
Q71	Tanglewood Community Park School	M-NCPPC	Existing	No	33.1357	8538 Woodyard Road Clinton, Maryland	PA, 2TCL, BBL, SB w/FB/SC Overlay, Picnic Shelter, 2PE, Trail w/Exercise Stations, PKG (65)	65	Mandatory Dedication, POS	High	Yes	
Q67	Temple Hills Community Center Park	M-NCPPC	Existing	No	21.5789	5300 Temple Hill Road Temple Hills, Maryland	Community Center, 2TC, PE, PA, PKG (32)	32	POS, Local	High	Yes	

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PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS
DIVISION OF SUPPORTING SERVICES
13300 Old Marlboro Pike
Upper Marlboro, MD 20772

Read to Lead

Don Lee
Acting Chief Administrator
for Supporting Services
Phone: 301-952-6520
FAX: 301-952-6933

February 3, 2006

Mr. Joseph R. Kresslein
Assistant Division Chief
Project Planning Division
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Re: Your Project No. PG391A16,
MD 5 Corridor Transportation Study
Prince George's County, Maryland

Dear Mr. Kresslein:

This is in response to your January 9, 2005, letter, (received January 13, 2006) to Howard A. Burnett, Interim Chief Executive Officer, Prince George's County Public Schools, regarding Project Planning Studies for the MD 5 Corridor Transportation Study, which is intended to improve mobility along the corridor. The letter has been forwarded to me for response.

Your letter requested information regarding the presence of any existing or proposed public schools, and associated publicly owned recreational facilities, located within the study area. In this regard I would like to offer the following.

As indicated in your letter, there area a number of public school facilities within the study area, all of which are identified on the enclosed Study Area Map. Two of the schools on the list, Boys Village of Maryland and St. Phillip's School, are non-public. There are no future public schools proposed within the study area at this time.

- We do not have a mapping or CADD system showing school boundaries for the schools in the study area. I have enclosed a copy of the study area map highlighted to show the location of all the schools.
- Also enclosed is a chart listing the schools and the outdoor recreational facilities associated with each school. The facilities are typical for each of the three type of public schools; elementary, middle and high.

Board of Education of Prince George's County

Mr. Joseph R. Kresslein
February 3, 2006
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- The recreational facilities referenced here are used basically during regular school hours, five days a week, with occasional use by the public in the evening and weekend hours. In certain cases the fields may be used under our "Facility Use Program," which allows use by any County non-profit organization, through an application process, and on a first-come-first-served basis.
- We believe that these recreational facilities serve a significant function in providing the recreational needs of both the school children and the communities surrounding each school.

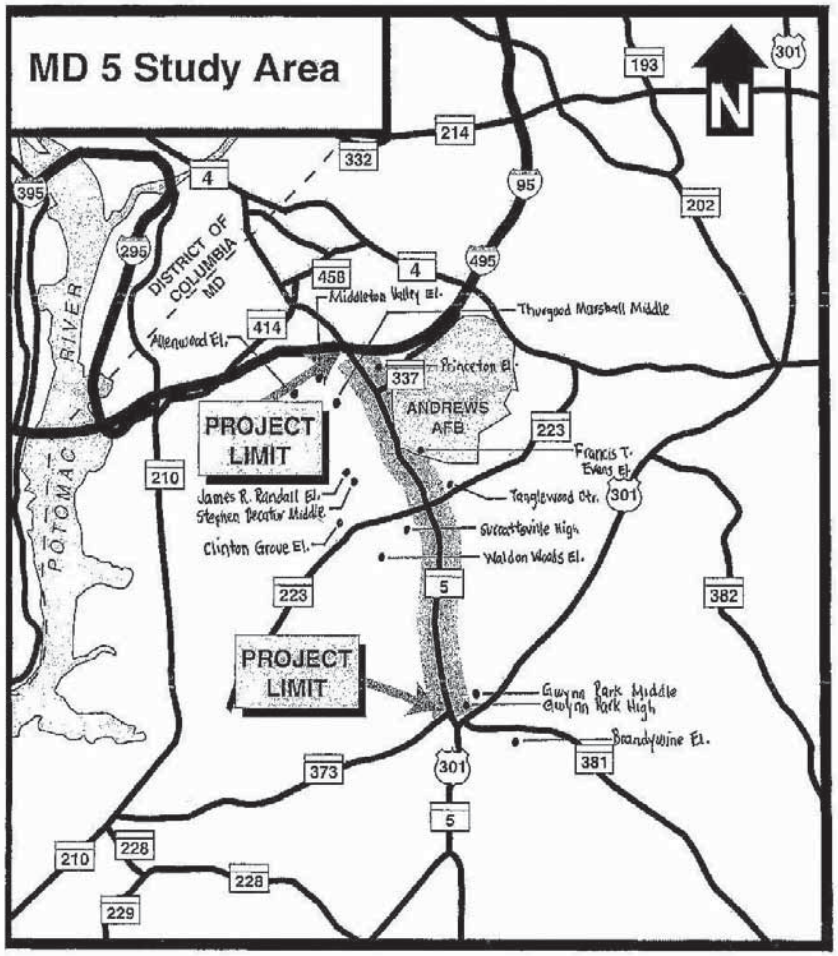
I hope this information is helpful. If you have any questions, or require additional information, please feel free to give me a call at 301-952-6520.

Sincerely,

Don Lee
Acting Chief Administrator
for Supporting Services

Enclosures

cc: Mr. Howard A. Burnett



Public Schools Outdoor Recreational Facilities

	Football/ Track	Soccer Field/ Playground	Baseball Diamond	Softball Field	Basketball Courts	Playground Equipment	Blacktop/Tennis Court
ELEMENTARY SCHOOLS							
Allenwood	0	1	0	2	2	1	1
Brandywine	0	1	0	0	2	1	1
Clinton Grove	0	1	0	2	2	1	1
Francis T. Evans	0	1	0	2	2	1	1
James R. Randall	0	1	0	2	2	1	1
Middleton Valley	0	1	0	2	2	1	1
Princeton	0	1	1*	2	2	1	1
Waldon Woods	0	1	0	2	2	1	1
MIDDLE SCHOOLS							
Gwynn Park	0	1	1	2	0	0	1
Stephen Decatur	0	1*	1*	1*	4*	0	2
Thurgood Marshall	0	1	1	2	0	0	0
HIGH SCHOOLS							
Gwynn Park	1	1	1	1	4	0	2
Surratsville	1	1	1	1	4	0	2
SPECIAL CENTERS							
Tanglewood	0	1	0	0	0	1	0

*Recreational facilities located on M-NCPPC property

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

September 19, 2006

Re: Project No. PG391A16
MD 5: US 301 to I-495
Prince George's County, Maryland
USGS *Anacosta and Piscataway* 7.5" Quadrangles

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) proposed Project No. PG391A16, a project planning study for MD 5 from US 301 to I-495 in Prince George's County. SHA seeks to establish the project's Area of Potential Effects (APE) and to provide information about the National Register of Historic Places (NRHP) eligibility of historic standing structures within the APE. SHA's assessment of archeological potential is also provided.

A project location map is included as Attachment 1 and conceptual project plans for eight alternatives and six interchange options are included as Attachment 2.

The purpose of this project is to facilitate safe and efficient traffic flow while providing cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts, while enhancing and facilitating transit services. In order to maintain the integrity of the interstate system, the study must also consider the potential impacts to I-95/I-495 when improving traffic operations along northbound MD 5.

MD 5 is a heavily traveled commuter corridor connecting southern Maryland and Virginia in the south, to Washington, D.C. in the north. It provides community access to southern Prince George's County. It also operates as a major commuter route into the suburban and urban areas of Washington, D.C. Following is a description of the alternatives currently under consideration.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com

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ALTERNATIVE 1 – No-Build

No major improvements are proposed under Alternative 1, the No Build Alternative. Minor short term improvements would occur as part of normal maintenance and safety projects. This alternative serves as a baseline for judging the impacts and benefits associated with other alternatives.

ALTERNATIVE 2 – Transportation Systems Management/Transportation Demand Management (TSM/TDM) Alternative

The TSM/TDM Alternative consists of a series of modest improvements throughout the corridor to address the areas with greatest need at specific locations or segments of the roadway. TSM/TDM improvements generally could be implemented with relatively low costs and impacts. These improvements may include the following:

- Combine acceleration and deceleration lanes into auxiliary lanes northbound (NB) and southbound (SB) between MD 223 and Coventry Way
- Construct two-lane exit ramps on MD 5 SB at Coventry Way and MD 223 (Woodyard Road)
- Construct a two-lane NB entry ramp on MD 5 NB at MD 223
- Close the ramps at Shultz Road and Malcolm Road
- Allow inside shoulder use to provide enhanced bus service
- Provide a four-way continuous flow intersection (CFI) at Surratts Road
- Provide four through lanes at the Burch Hill/Earnshaw signalized intersection
- Provide four through lanes at a new Moores Road signalized intersection
- Park & ride and transit considerations

ALTERNATIVE 3 – Expressway Upgrade South of MD 223

Alternative 3 would convert the remaining at-grade intersections into grade-separated interchanges, and provide three through lanes in each direction throughout the entire corridor. This alternative would also provide the two missing movements to and from MD 5 and US 301.

ALTERNATIVE 4 – Expressway Upgrade Entire Corridor

Alternative 4 would incorporate all of the improvements from Alternative 3. This alternative would also have four through lanes in each direction from north of Coventry Way to I-95/I-495.

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MANAGED LANES ALTERNATIVES

In addition to evaluating traditional widening alternatives, the MD 5 Corridor Transportation Study is also investigating Express Toll Lanes (ETL) and High Occupancy Vehicle (HOV) alternatives.

ALTERNATIVE 5 – Two-Lane Reversible ETL Alternative

This alternative would convert the remaining at-grade intersections into grade-separated interchanges. In addition, two new reversible express toll lanes (ETL) would be provided in the median, with access only allowed at select locations.

ALTERNATIVE 6 – One to Two Lane ETL Alternative

This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, this alternative would provide one additional ETL per direction, and it would convert one existing general purpose lane in each direction to an ETL. South of MD 223, this alternative would provide one additional ETL in each direction, and keep the existing two lanes in each direction as general purpose lanes.

ALTERNATIVE 7 – Movable Barrier ETL Alternative

This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, in the morning this alternative would provide one additional northbound ETL and convert one existing general purpose lane to an ETL. Southbound traffic would continue to have three general purpose lanes. In the evening, this alternative would provide one additional southbound ETL and convert one existing general purpose lane to an ETL. Northbound traffic would continue to have three general purpose lanes. The transition from the morning period to the evening period would be made with a movable barrier. South of MD 223, one reversible ETL would be added in the median.

ALTERNATIVE 8 – HOV Alternative

This alternative would widen MD 5 with one additional lane to the inside in each direction along the entire corridor. This additional lane would be designated as a HOV lane. The remaining at-grade intersections would be converted into grade-separated interchanges.

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INTERCHANGE OPTIONS

Capital Beltway (MD 5/ I-495) Access Ramps

This interchange would provide direct access ramps from the ETL/ HOV/General Purpose lanes to MD 5 and the Capital Beltway. The design of these ramps takes into consideration the future plans of the Capital Beltway as well as the interchange modifications currently under design for the MD 5/ Capital Beltway interchange.

Woodyard Road (MD 223) Direct Access Ramps

This interchange would provide direct access ramps between the MD 5 lanes and MD 223. One ramp would be provided for the southbound MD 5 traffic to access MD 223. A second ramp would be provided for traffic to access MD 5 northbound from MD 223. Access to the parking lot at MD 5/ MD 223 would also be provided.

Surratts Road Interchange – OPTION A

The intersection of Surratts Road and MD 5 is currently an at-grade intersection with traffic signals. This option would create a grade-separated interchange slightly to the north of the existing intersection. Surratts Road would bridge over MD 5. Option A is a Modified Diamond Interchange similar to what was selected from the 1988 FEIS. Surratts Road would be slightly shifted to the north of the existing intersection. Ramps would be included for each movement to and from MD 5. Other improvements include removing the existing "S" curve on Surratts Road and also providing a second entrance to the Southern Maryland Hospital Center.

Surratts Road Interchange – OPTION B

Option B is a Diamond Interchange with Surratts Road bridging over MD 5. The bridge would be placed where the existing intersection is located. Ramps would be included for each movement to and from MD 5. Other improvements include removing the existing "S" curve on Surratts Road, and providing a second entrance to the Southern Maryland Hospital Center.

Moores Road/Earnshaw Drive/Burch Hill Road Interchange – OPTION A

Today, Moores Road and Earnshaw Drive are both at-grade intersections with MD 5. Option A creates a single Modified Diamond Interchange between the two existing intersections. This new interchange would have a bridge over MD 5 with ramps to access all directions of MD 5.

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Moores Road/Earnshaw Drive/Burch Hill Road Interchange – OPTION B

Option B is also a grade separated interchange located between the two existing intersections. Two-way service roads would be constructed parallel to both northbound and southbound MD 5, between Moores Road and Earnshaw Drive. A bridge would be built over MD 5 connecting the two service roads. Vehicles would use the service roads and bridge to access both directions along MD 5.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered possible physical, visual, atmospheric, and audible impacts to historic properties. The proposed improvements for MD 5 include alternatives that would involve widening the existing roadway. North of MD 223 (Woodyard Road), the MD 5 corridor is characterized by dense development that is in close proximity to the roadway. South of MD 223, the corridor is characterized by a limited access dualized roadway separated by a wide median and flanked by a heavily vegetated right-of-way, which visually separates MD 5 from the surrounding area. The APE for historic standing structures includes the tax parcels adjacent to MD 5 between the project limits, as well as areas encompassing the proposed interchange options, and is depicted on the attached SHA quadrangle maps for the MD 5 corridor (Attachment 3). The APE for archeological resources was defined as the limits of proposed construction where ground disturbance would occur.

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the proposed project planning study.

Architecture: SHA Architectural Historian Melissa Hess consulted historic maps and atlases, county histories, the SHA-GIS Cultural Resources Database, and the Maryland Inventory of Historic Properties (MIHP), and conducted field visits on August 3, 2005, September 21, 2005, and October 21, 2005. SHA contracted Archaeological & Historical Consultants to help complete architectural identification and evaluation of properties within the APE.

The APE is located in southern Prince George's County and is characterized by dispersed and planned residential development, large-scale modern commercial development, and a portion of a military base.

Tobacco farming played a prominent role in the early settlement of Prince George's County. During the eighteenth century, settlers established farms near waterways, particularly along the Patuxent River and the Potomac River. Located approximately eight miles east of the

Mr. J. Rodney Little
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Potomac and ten miles west of the Patuxent, the APE was sparsely settled during the eighteenth century. By the end of the eighteenth century, a limited road network had begun to form in the area (Griffith 1794).

In the nineteenth century, a growing number of family farmsteads and dispersed community resources, which were connected by new roads, shaped the landscape within the APE. After the Civil War, county farmers diversified their crops to meet the demands of the growing urban centers of Washington D.C. and Baltimore, focusing on grains, dairy, and produce. Mills and general stores served the surrounding farming community. Martenet's 1861 map shows grist mills on Henson's Branch and on a tributary of Tinker's Creek in the vicinity of the APE. The map also shows the "J. Read Store" and the "G.M. Tenley Store" at present-day Camp Springs and the "J.H. Surratt Tavern & P.O" and a blacksmith shop at present-day Clinton. Other community resources in the vicinity of the MD 5 corridor included three schoolhouses and a Methodist Church, as well as the crossroads community of Tee Bee at the southern end of the APE. Family names along the corridor included Soper, Middleton, Paine, Murphy, Piles, Jenkins, Berry, Selly, Gwynn, Smallwood, Griffin, and Blanford (Martenet 1861). In 1878, the crossroads of present-day Old Branch Avenue and Allentown Road was known as Allentown, which was serviced by the Camp Spring post office. The crossroads of present-day Old Branch Avenue and Woodyard Road was known as Surratsville, which was serviced by the Clinton post office (G.M. Hopkins 1878).

In the early twentieth century, portions of the APE retained nineteenth-century land use patterns, particularly in the southern portion of the APE. The northern portion of the APE experienced the effects of the burgeoning growth of Washington D.C. Government workers seeking housing in close proximity to the city prompted much of the new residential development in the area (USGS Brandywine 15" quadrangles for 1911 and 1913).

During World War II, the introduction of a major military installation, the Andrews Air Force Base (AFB), dramatically changed the area. Beginning in 1942, the Army Corps of Engineers constructed four runways, 14 miles of taxiways, and supportive buildings and infrastructure at Camp Springs. The base was originally named the Camp Springs Army Air Field, but was later designed as the Andrews Army Air Field in honor of General Frank H. Andrews. Between 1943 and 1945, the base underwent a second building phase that provided more extensive operating facilities and base housing. In the 1950s, the base played a crucial role in air defense during the Korean War, which led to further expansion. After 1957, the special missions airlift operations of key U.S. government officials began at Andrews AFB, with the presidential air fleet, Air Force One, housed at the installation. During the 1960s, Andrews AFB began to oversee the arrival and departure of foreign dignities (Integrated Cultural Resources Management Plan, Andrews Air Force Base, Maryland, Pages 2-23 through 2-26).

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Along with the air force base, the nation-wide housing boom that followed World War II impacted the growth of the area. The 1957 quadrangle for Piscataway shows that the southern portion of the APE remained primarily rural, while the 1965 USGS map for Anacostia shows increasingly intense suburban development in the northern portion of the corridor.

Following World War II, transportation officials planned for a major freeway between Washington D.C. and T.B. to alleviate congestion along Branch Avenue (present-day Old Branch Avenue). In 1950, the Maryland State Roads Commission (SRC) constructed two sections of dual highway, one from the D.C. line to Woods Corner and one from T.B. to the Charles County line (Operating Report of the State Roads Commission 1949-1950). During 1953, SRC completed the reconstruction of the intersection of Branch Avenue and U.S. 301 and the relocation of Branch Avenue from Woods Corner to Clinton was under construction (Operating Report of the States Roads Commission 1953-1954). By 1957, the entire relocation of the Branch Avenue from the D.C. line to US 301 was completed. The relocated roadway was originally a single two-lane road, but designed to be dualized at a later point. The dualization did not occur until the late 1960s. The introduction of this limited access freeway divided some farmsteads and developments, and further opened the area to suburban growth. Beginning in the mid-1960s, spreading residential development covered much of the agricultural landscape in the southern portion of the APE. By the end of the twentieth century, large-scale shopping complexes, and highway facilities dominated the former crossroads communities in and near the APE.

The APE contains residential and commercial resources from the early and mid twentieth-century, along with several mid-twentieth century roadway structures. Portions of the corridor have been previously surveyed for historic standing structures as a part of other cultural resources investigations. To date, five resources located in the APE were determined eligible for the National Register of Historic Places (NRHP) including the Marlow/Huntt Store (PG:85A-14), the J. Eli Huntt Casket Shop (PG:85A-15), the Marlow-MacPherson House (PG:85A-16), the J. Eli Huntt House (PG:85A-17), and the T.B. "Colored" School (PG:85A-26). Field investigations revealed that Marlow-MacPherson House and its associated outbuildings have been demolished. A Maryland Inventory of Historic Properties (MIHP) addendum for the property is included as Attachment 4.

Twenty-three properties in the corridor are included in the Maryland Inventory of Historic Properties (MIHP), and have been previously determined not eligible for the NRHP. These properties include the Pyles Lumber Warehouse & Residence (PG:76A-8), the Thornton Wood Farm (PG:76A-24), L&R Lawnmower (PG:76A-25), Farm Housing/Andrews Air Force Base Building No. 04002 (PG:77-46), Farm Housing/Andrews Air Force Base Building No. 04242 (PG:77-47), Farm Housing/Andrews Air Force Base Building No. 04252 (PG:77-48), Farm Housing/Andrews Air Force Base Building No. 04261 (PG:77-49), Storage Shed/Andrews Air Force Base Building No. 4689 (PG:77-53), Storage Shed/Andrews Air Force Base Building

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No. 04690 (PG:77-54), Andrews Air Force Base Building No. 04691 (PG:77-85), the Tobacco Barn/Spring Lake Restaurant Advertisement (PG:85A-3), the Tee Bee Historic District (PG:85A-33), the Brandywine Patio Commercial Property (PG:85A-36), the William & Margaret Ellen Smoot Property (PG:85A-37), the Denise & Gregory Ally Property (PG:85A-38), the Vincent Commercial Property (PG:85A-39), the Dobson Property (PG:85A-40), the John Kran Property (PG:85A-41), the Charles W. & Velma B. Finch Property (PG:85A-42), the J. Henry & Margaret Murray Property (PG:85A-43), the Theron Morrow Property (PG:85A-54), the Huntt Luckett Property (PG:85A-55), and the Mary I. Huntt Property (PG:85A-56).

Intensive survey of the APE identified 48 previously unidentified resources that are at least fifty years old. The resources include a mid twentieth-century residential subdivision, 44 dispersed residential properties, one commercial property, and two bridges. None of these resources is recommendod eligible for the NRHP.

The residential subdivision of Ballard is located in the vicinity of Clinton. The majority of the residences in the neighborhood were constructed during the suburban housing boom that followed World War II. The neighborhood is located east of MD 5 (Branch Avenue) and south of MD 223 (Woodyard Road). Several parcels on the west side of MD 5 may have been part of the original development, but these properties are now physically and visually separated by MD 5. Simpson Lane and Ballard Lane run north-south and Jordan Lane and Milligan Lane run east-west through the division. The neighborhood is platted on a rectangular grid, with rectangular lots of approximately one-half acre fronting the streets. The terrain of the neighborhood is flat.

Ballard is an example of a planned suburban development, a residential development comprehensively planned and constructed by developers. Tax parcel maps indicate that James G. Ballard developed the Ballard neighborhood. Ballard consists of detached, single-family homes, primarily Cape Cod, early Ranch, and Minimal Traditional styles. There are dwellings of a non-descript style, as well as few contemporary dwellings. The majority of the dwellings in Ballard were built between 1946 and 1956. There are several nonhistoric commercial properties within the surveyed area of Ballard, but no community amenities, such as social halls, schools, parks, and community centers.

Ballard was evaluated in light of the *Suburbanization Context and Survey Methodology: I-495/I-95 Capital Beltway Corridor Transportation Study* (KCI Technologies, 1999). The Ballard neighborhood is not eligible for the NRHP. Ballard is not eligible under Criterion A. While the subdivision is associated with mid-twentieth-century suburbanization, the construction of this development does not represent a historic trend that made a significant contribution to the nation, state, or local community. Mid-twentieth-century planned developments are ubiquitous resources of the suburban landscape and must possess character-defining features of their property type to be considered significant and representative of the suburban movement. Ballard is not an early example and did not introduce innovative design principles, so is not significant

Mr. J. Rodney Little
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for its association and contribution to the suburban landscape. The development is not eligible under Criterion B as the community has no known association with persons who have made specific contributions to history. Ballard was not planned, designed, or constructed by persons who made significant contributions to the suburbanization movement. Ballard is not eligible under Criterion C. For a planned development to be eligible under Criterion C, the development must retain integrity of design, setting, materials, feeling, and association. The individual residences should retain excellent integrity to convey the original design concepts of the development. In addition, original landscape features and amenities such as roads, walkways, light fixtures, and public space should add to the overall design and significance of the development. While Ballard represents a concentration of historically and aesthetically cohesive buildings, the neighborhood lacks notable community design elements, such as planned landscapes and public amenities. The majority of dwellings are from a single period of construction, but they are not architecturally significant building types. The housing types represented in the neighborhood are found in abundance in suburban areas across the nation. Furthermore, many houses in Ballard have been modified or altered resulting in a loss of architectural integrity. Investigations have not been conducted to determine whether the community has the potential to yield information important in history or prehistory, therefore its eligibility under Criterion D can not be assessed at this time. A Determination of Eligibility (DOE) form for Ballard is included in Attachment 4.

The 44 residential properties within the APE are listed on the Eligibility/Status Table included as Attachment 5. The majority of these properties are single-family homes built in the early and mid-twentieth century. They are not associated with historic events (Criterion A) or significant persons (Criterion B), and they are not significant for their design or construction (Criterion C). The residential growth within the APE happened randomly over time and developed in a dispersed pattern. None of the 44 properties are part of a larger distinguishable entity that might constitute a historic district. The properties do not have historical significance and are not recommended as eligible for the NRHP as documented in the Short Forms for Ineligible Properties included in Attachment 4.

Built circa 1950, Camp Springs Auto Parts is a one-story commercial building located at 6516 Old Branch Avenue. The building is currently occupied by an auto parts store. The simple, one-story building has a flat roof, brick veneer, and aluminum storefront windows. The building is not associated with historic events (Criterion A) or significant persons (Criterion B), and it is not significant for its design or construction (Criterion C). The building is not likely to yield information important in prehistory or history (Criterion D). Camp Springs Auto Parts does not have historical significance and is not recommended as eligible for the NRHP as documented in the Short Form for Ineligible Properties included in Attachment 4.

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Bridge No. 1601300 carries MD 5 (Branch Avenue) southbound over the Piscataway Creek in the vicinity of Brandywine. Built in 1956, the bridge is three-span steel girder bridge with two concrete abutments and two concrete piers. The bridge has a total span width of approximately 90 feet and a roadway width of 52 feet six inches. The concrete deck has a bituminous wearing surface and solid concrete parapets topped with standard w-beam guardrail. The bridge deck and piers were entirely replaced in 1989. Bridge No. 1601300 is not eligible for listing in the NRHP. The bridge is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). The bridge is not associated with the lives of persons significant in our past (Criterion B). The bridge is not eligible under Criterion C due to a loss of historic integrity and a lack of architectural or engineering significance. Bridge No. 1601300 is not likely to yield information important in prehistory or history (Criterion D) (Attachment 4).

Bridge No. 1605600 carries US 301 southbound over MD 5 in the vicinity of TB. Built in 1950, the bridge is two-span steel girder bridge with two concrete abutments and one concrete pier faced with stone masonry. The bridge has a total span width of approximately 154 feet and a roadway width of 30 feet. The concrete deck has a bituminous wearing surface and solid concrete parapets topped with chain-link safety fences. The bridge deck was replaced in 1984. Bridge No. 1605600 is not eligible for listing in the NRHP. The bridge is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). The bridge is not associated with the lives of persons significant in our past (Criterion B). The bridge is not eligible under Criterion C due to a lack of architectural or engineering significance. Bridge No. 1605600 is not likely to yield information important in prehistory or history (Criterion D) (Attachment 4).

SHA concludes that the Marlow/Huntt Store (PG:85A-14), the J. Eli Huntt Casket Shop (PG:85A-15), the J. Eli Huntt House (PG:85A-17), and the T.B. "Colored" School (PG:85A-26) are the only NRHP eligible or listed architectural properties within the APE for this project.

Archeology: SHA Archeologist Gregory Katz assessed the archeological potential of the project area based on a review of the SHA-GIS Cultural Resources Database, historic maps, site file data, and available photography of the project area. A field visit was conducted on August 31, 2006.

A portion of the APE near T.B. was surveyed archeologically in by Evans (1979), and another segment of the APE crossing Piscataway Creek was examined by Wesler et al. (1981). Large parts of the APE were surveyed by Ballweber (1989), who examined the MD 5 mainline corridor including some intersection areas. Additional surveys have been conducted close to but outside the APE (Curry 1978, Gibb 1991, Moeller et al. 1995).

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The previous surveys identified three archeological sites in or near the APE. One site within the APE is known as the Surratts Site (18PR315) and is described as a possible prehistoric camp site. While a full evaluation was not conducted, the Surratts Site was not considered a significant resource at the time of its identification (Ballweber 1989). Another identified site is located adjacent to the APE on Andrews Air Force Base and is known as "Bldg. 4261" (18PR446); this site is a 20th-century farmstead associated with a standing farmhouse structure. The Wise Site, 18PR314, is a historic period site of unknown age located close to but outside the APE, and was considered a potentially significant resource at the time of its identification (Ballweber 1989).

The project area is located in the Coastal Plain physiographic province in Archeological Research Unit 11, the Riverine Potomac Drainage. The APE drains to the west into the Potomac River, through tributaries of Henson Creek and Tinkers Creek, and through Piscataway Creek and its tributaries. Soils in the APE are generally deep, with compact silts, and have varying gravel content. Tidal marsh sediments have been identified along Piscataway Creek and Piscataway Creek (USDA 1967).

The APE is surrounded by extensive modern development (residential and commercial). Development is particularly dense north of MD 223 along the MD 5 corridor. However, parts of the APE, particularly the proposed intersection improvements, are undeveloped parcels.

Examination of the historic maps and atlases indicates that there was isolated 18th century settlement of the project vicinity followed by progressively more intensive settlement in the 19th century. An early road stretched from Piscataway (at the mouth of Piscataway Creek) to Upper Marlborough (Griffith 1794), traversing the project area along the route of present-day MD 223. A rudimentary road, a precursor to Branch Avenue, is also evident on the Griffith map of 1794. Known 18th century residences near the APE include the Woodyard property and an unknown residence of one of the Calvert family located near Woodyard (Griffith 1794). The community of T.B. (also known as 'Tee Bee'), at the southern terminus of the APE, developed in the early 1800s at the junction of several early roadways. An 18th-century church also was once extant in this village location (Griffith 1794).

In the 19th century crossroads communities developed throughout the project vicinity, including T.B. and Surrattsville, which later became known as Clinton. Allentown also developed at a minor road junction, and later became known as Camp Springs. Branch Road developed into a major transportation route in the county during the early to mid-19th century. Scattered residential and commercial structures were built along the roadway at this time. Other 19th century roads along the MD 5 corridor include Old Alexander Ferry Road and Surratts Road.

Mr. J. Rodney Little
MD 5: US 301 to I-495
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Modern MD 5 follows the older alignment of Branch Avenue in the northern portion of the study corridor. To the south, MD 5 swings to the east of the older roadway, and traverses what were generally farm fields and woodlots in the 19th century.

The project has no potential to impact archeological resources within the existing improved right-of-way. The landscape is heavily modified within developed areas, and these parts of the APE are therefore unlikely to contain significant archeological resources. Outside of improved areas, the APE has high archeological sensitivity for both prehistoric and historic era sites. Prehistoric site potential is highest at several stream crossings that would be impacted by intersection improvements and ramp construction, and most notably by the relocation of Burch Hill Road on new alignment near Piscataway Creek. Historic era site potential is highest surrounding the communities of T.B. and Jenkins Corner, and along the older roadways that intersect the MD 5 corridor, including MD 223, Old Alexander Ferry Road, and Surratts Road. One site (18PR446) located within the APE may require additional work.

SHA anticipates that archeological survey will be required as project planning progresses, and we will continue to coordinate with your office regarding these investigations.

Review Request

Please examine the attached maps, plans, forms, and Eligibility/Status Table. We request your concurrence by October 25, 2006 that the APE is appropriate and that the Marlow/Huntt Store (PG:85A-14), the J. Eli Huntt Casket Shop (PG:85A-15), the J. Eli Huntt House (PG:85A-17), and the T.B. "Colored" School (PG:85A-26) are the only NRHP eligible or listed architectural resources within the APE. Once the archeological studies are completed, SHA will provide MHT with the opportunity to comment on the undertaking's effects. By carbon copy, we invite the Prince George's County Historic Preservation Commission, Prince George's Heritage, Inc., and the Andrews Air Force Base to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR 800.2 (c) (4) and (6), and 800.3 (f) for information regarding the identification and participation of consulting parties, and 800.4, and 800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by October 25, 2006, we will assume that these offices decline to participate. Please call Ms. Melissa Hess at 410-545-8560

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(or via email at mhess@sha.state.md.us) with questions regarding standing structures for this project. Mr. Gregory Katz may be reached at 410-545-5793 (or via email at gkatz@sha.state.md.us) with concerns regarding archeology.

Very truly yours,

Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

by: Mary F. Barse
Mary F. Barse
Assistant Division Chief
Project Planning Division

Attachments:
1) Project Location Map
2) Project Concept Plans
3) Area of Potential Effects Map
4) Determination of Eligibility Forms
5) Eligibility/Status Table

cc: Ms. Mary F. Barse, SHA-PPD
Ms. Donna Buscemi, SHA-PPD (w/Attachments 3 and 5)
Mr. Richard Ervin, SHA-PPD
Mr. Bruce Grey, SHA-OPPE
Ms. Melissa Hess, SHA-PPD (w/Attachments 3 and 5)
Mr. Gregory Katz, SHA-PPD (w/Attachments 3 and 5)
Mr. Doug McElrath, Prince George's Heritage, Inc. (w/Attachments)
Ms. Susan Ridenour, SHA-OED
Ms. Gail Rothrock, Prince George's County Historic Preservation Commission (w/Attachments)
Mr. Scott J. Spencer, Andrews Air Force Base (w/Attachments 1, 2, 3, and 5)
Ms. Nicole Washington, SHA-PPD

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: PG391A16 **MHT Log No.** 200603106
Project Name: MD 5: US 301 to I-495
County: Prince George's
Letter Date: September 19, 2006

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 5]):
[X] Concur
[ ] Do Not Concur

Effect (as noted in the Effect Table [N/A]):
[ ] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):
[ ] Agree

Comments:

By: Tom Vansuma
MD State Historic Preservation Office/
Maryland Historical Trust

11/13/06
Date

Return by U.S. Mail or Facsimile to:
Ms. Mary F. Barse, Assistant Division Chief, Project Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-2883 and Facsimile: 410-209-5004

cc: Ms. Julie Schablitsky
~~Mr. Richard Ervin~~, SHA

(PG:85A-37)			12/08/1998		
Denise & Gregory Ally Property (PG:85A-38)	S		X 12/08/1998		
Vincent Commercial Property (PG:85A-39)	S		X 12/08/1998		
Dobson Property (PG:85A-40)	S		X 12/08/1998		
John Kran Property (PG:85A-41)	S		X 12/08/1998		
Charles W. & Velma B. Finch Property (PG:85A-42)	S		X 12/08/1998		
J. Henry & Margaret Murray Property (PG:85A-43)	S		X 10/14/1999		
Theron Morrow Property (PG:85A-54)	S		X 12/08/1998		
Hunit Luckett Property (PG:85A-55)	S		X 12/08/1998		
Mary I. Hunit Property (PG:85A-56)	S		X 12/08/1998		
Ballard	**HD**	X	Requested 09/2006	4	
Barbara Washington Residence 5400 Old Branch Avenue	S	X	Requested 09/2006	4	
Mary Alexander Residence I 5418 Old Branch Avenue	S	X	Requested 09/2006	4	
Mary Alexander Residence II 5500 Old Branch Avenue	S	X	Requested 09/2006	4	
Ronald Troup Residence 5506 Old Branch Avenue	S	X	Requested 09/2006	4	
Gary Gray Residence 5510 Old Branch Avenue	S	X	Requested 09/2006	4	
Central Baptist Church Property 5600 Old Branch Avenue	S	X	Requested 09/2006	4	
Lawrence Prevatte Residence 5501 Deerpond Lane	S	X	Requested 09/2006	4	
Pineda-Sanchez Residence 5505 Deerpond Residence	S	X	Requested 09/2006	4	
India Duprec Residence 5509 Deerpond Residence	S	X	Requested 09/2006	4	
Joseph and Florence Fitzpatrick Residence 5513 Deerpond Residence	S	X	Requested 09/2006	4	
Ingrid Lynch Residence 5517 Deerpond Lane	S	X	Requested 09/2006	4	
Solomon's Island Road Residence 5702 Old Branch Avenue	S	X	Requested 09/2006	4	

Eligibility/Status Table

Project Name: MD 5: US 301 to I-495

September 6, 2006

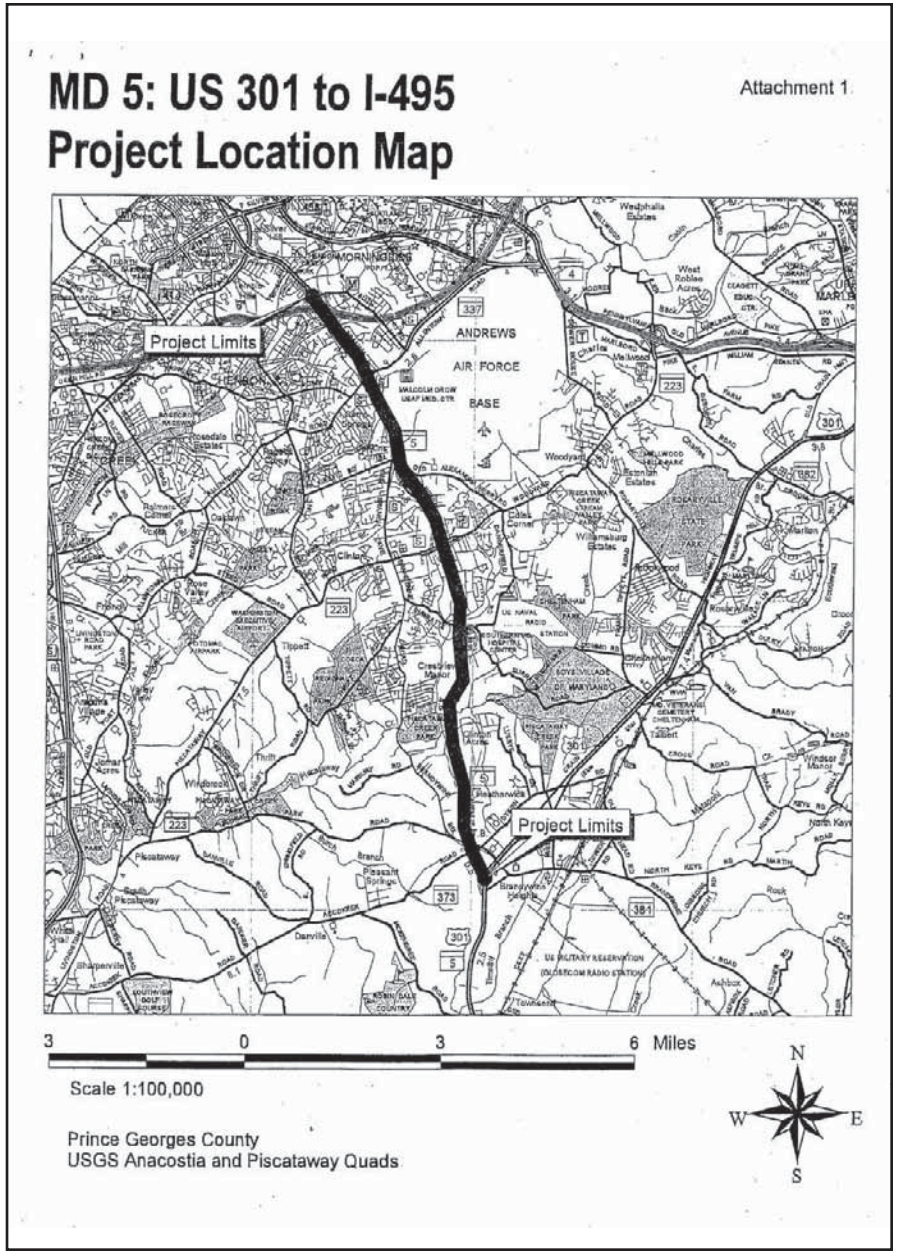
Resource	Type	SHA NR Determination	SHPO Opinion	Attachment	Remarks
Marlow/Hunit Store (PG:85A-14)	S		NRE 12/08/1998		
J. Eli Hunit Casket Shop (PG:85A-15)	S		NRE 07/21/1997		
Marlow-MacPherson House (PG:85A-16)	S	X	**Requested 09/2006**	4	**Demolished**
J. Eli Hunit House (PG:85A-17)	S		NRE 07/21/1997		
T.B. "Colored" School (PG:85A-26)	S		NRE 12/08/1998		
Pyles Lumber Warehouse & Residence (PG:76A-8)	S		X 07/21/1997		
Thornton-Wood Farmstead (PG:76A-24)	S		X 09/25/1997		
L&R Lawnmower (PG:76A-25)	S		X 09/25/1997		
Farm Housing/Andrews AFB Bldg. #04002 (PG:77-46)	S		X 02/29/2000		
Farm Housing/Andrews AFB Bldg. #04242 (PG:77-47)	S		X 02/29/2000		
Farm Housing/Andrews AFB Bldg. #04252 (PG:77-48)	S		X 02/29/2000		
Farm Housing/Andrews AFB Bldg. #04261 (PG:77-49)	S		X 02/29/2000		
Storage Shed/Andrews AFB Bldg. #04689 (PG:77-53)	S		X 02/29/2000		
Storage Shed/Andrews AFB Bldg. #04690 (PG:77-54)	S		X 02/29/2000		
Andrews AFB Bldg. #4691 (PG:77-85)	S		X 04/08/2003		
Tobacco Barn/Spring Lake Restaurant Advertisement (PG:85A-3)	S		X 07/21/1997		
Tee Bee Historic District (PG:85A-33)	HD		X 12/09/1998		
Brandywine Patio Commercial Property (PG:85A-36)	S		X 12/08/1998		
William & Margaret Ellen Smoot Property	S		X		

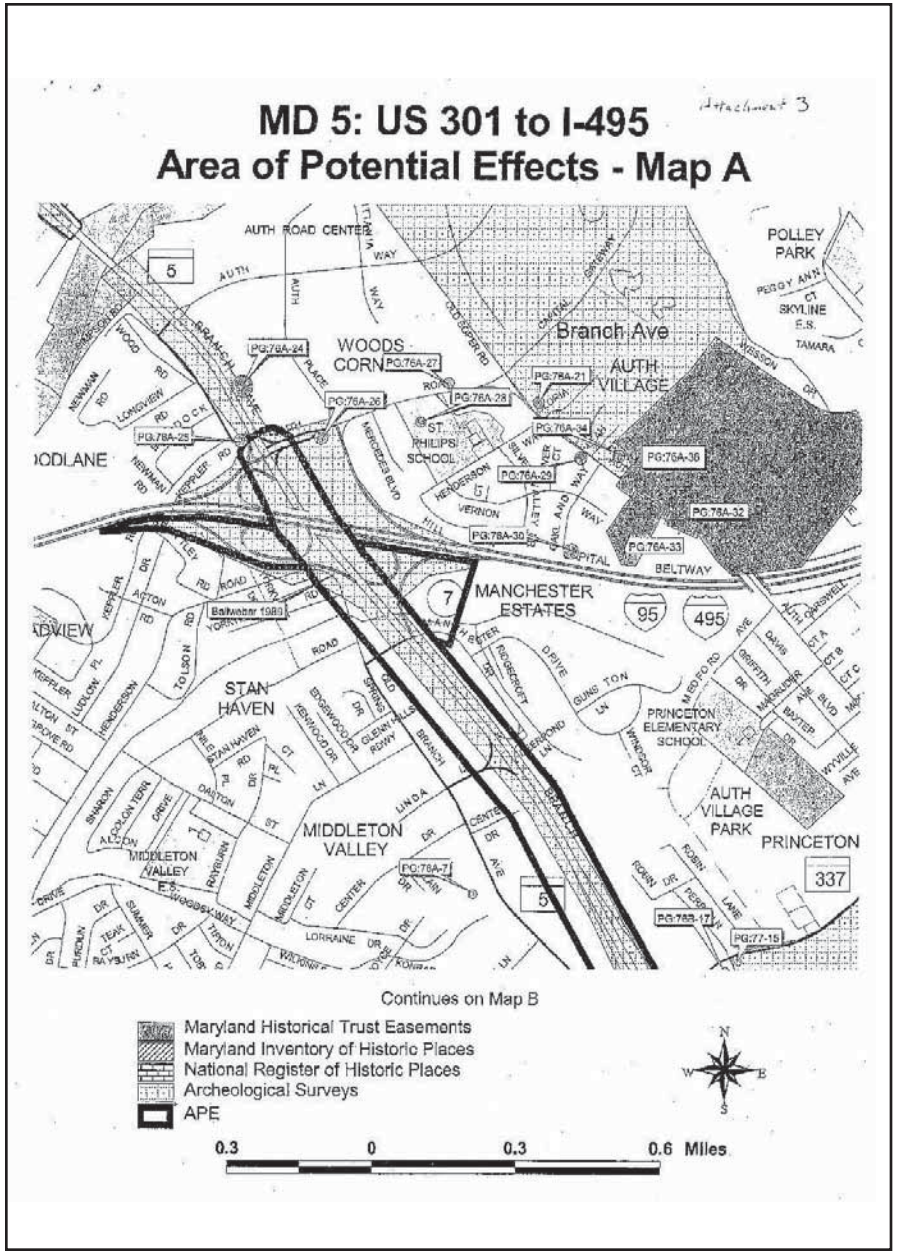
Robert Howard Residence 7201 Milligan Road	S	X	Requested 09/2006	4	
6800 Friendship Court	S	X	Requested 09/2006	4	
6802 Friendship Court	S	X	Requested 09/2006	4	
6804 Friendship Court	S	X	Requested 09/2006	4	
6806 Friendship Court	S	X	Requested 09/2006	4	
6808 Friendship Court	S	X	Requested 09/2006	4	
6810 Friendship Court	S	X	Requested 09/2006	4	
7805 Surratts Road	S	X	Requested 09/2006	4	
7812 Surratts Road	S	X	Requested 09/2006	4	
6901 Burch Hill Road	S	X	Requested 09/2006	4	
6907 Burch Hill Road	S	X	Requested 09/2006	4	
Bridge No. 1601300	S	X	Requested 09/2006	4	
Bridge No. 1605600	S	X	Requested 09/2006	4	

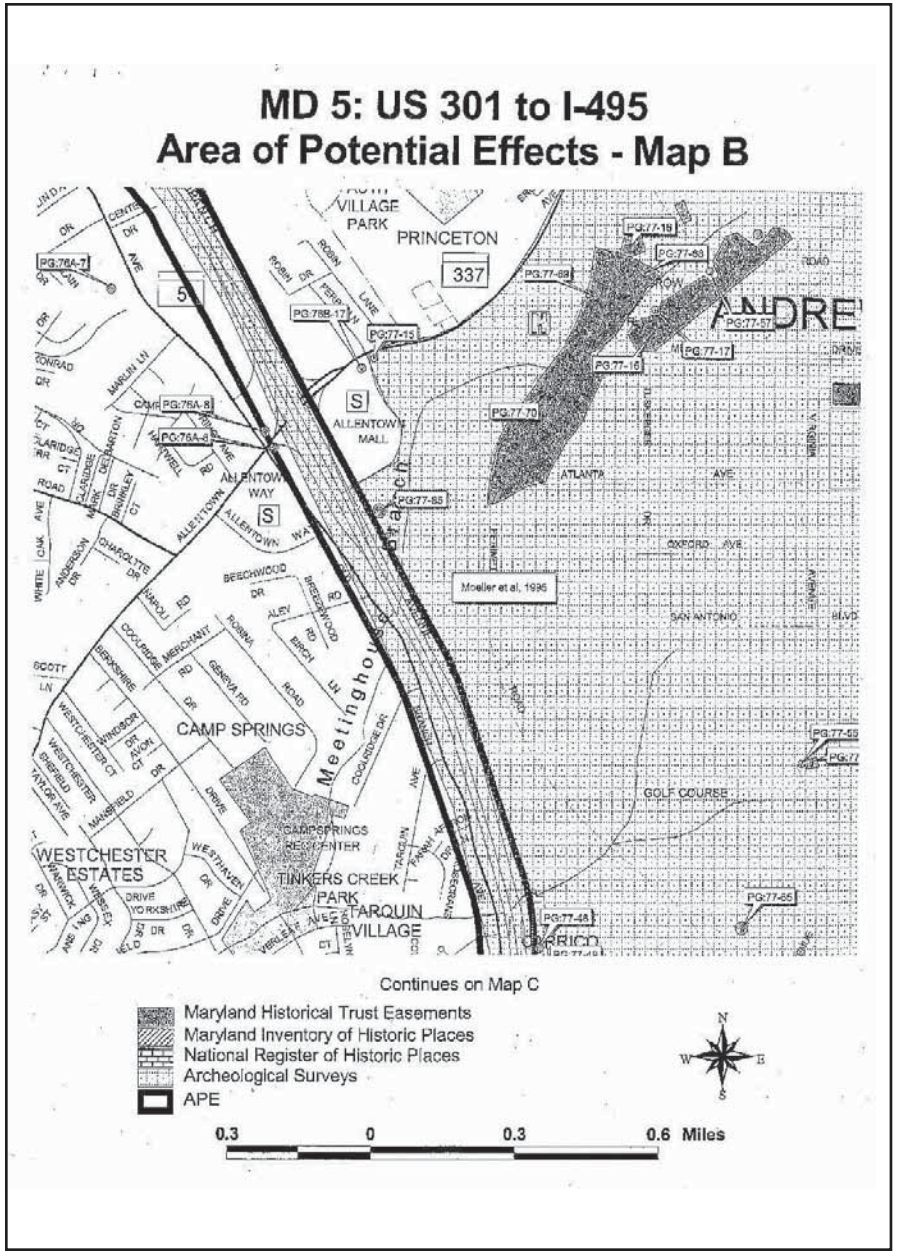
Codes:

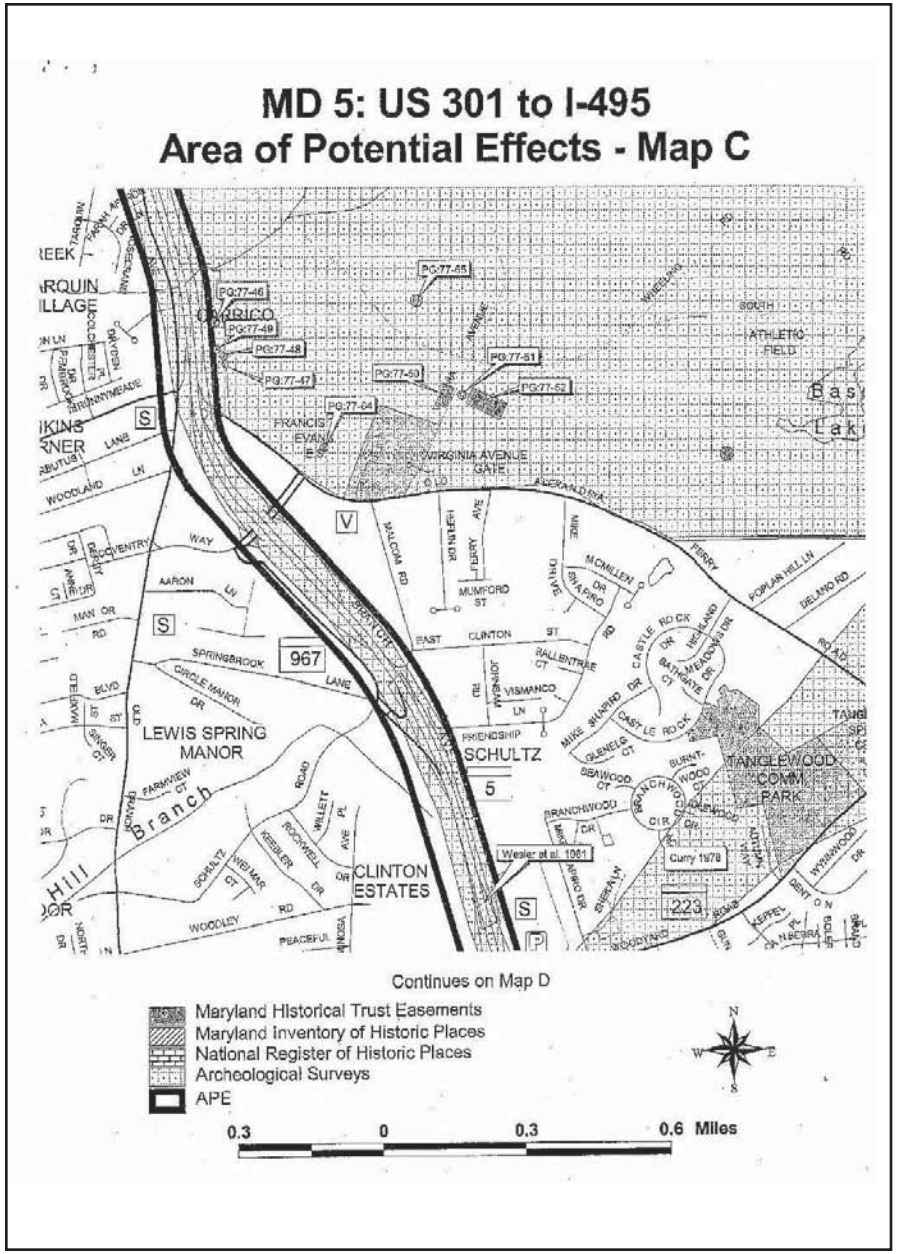
Resource Types: S (Structure), A (Archeological Site), HD (Historic District), NHL (National Historic Landmark)
NR Determination: ND (Not Determined), X (Not Eligible), NR (Eligible), NRL (Listed), NHL (Landmark)
SHPO Opinion: (B) designates opinion regarding boundary, Code following date signifies SHPO opinion
Bold rows indicate review action requested

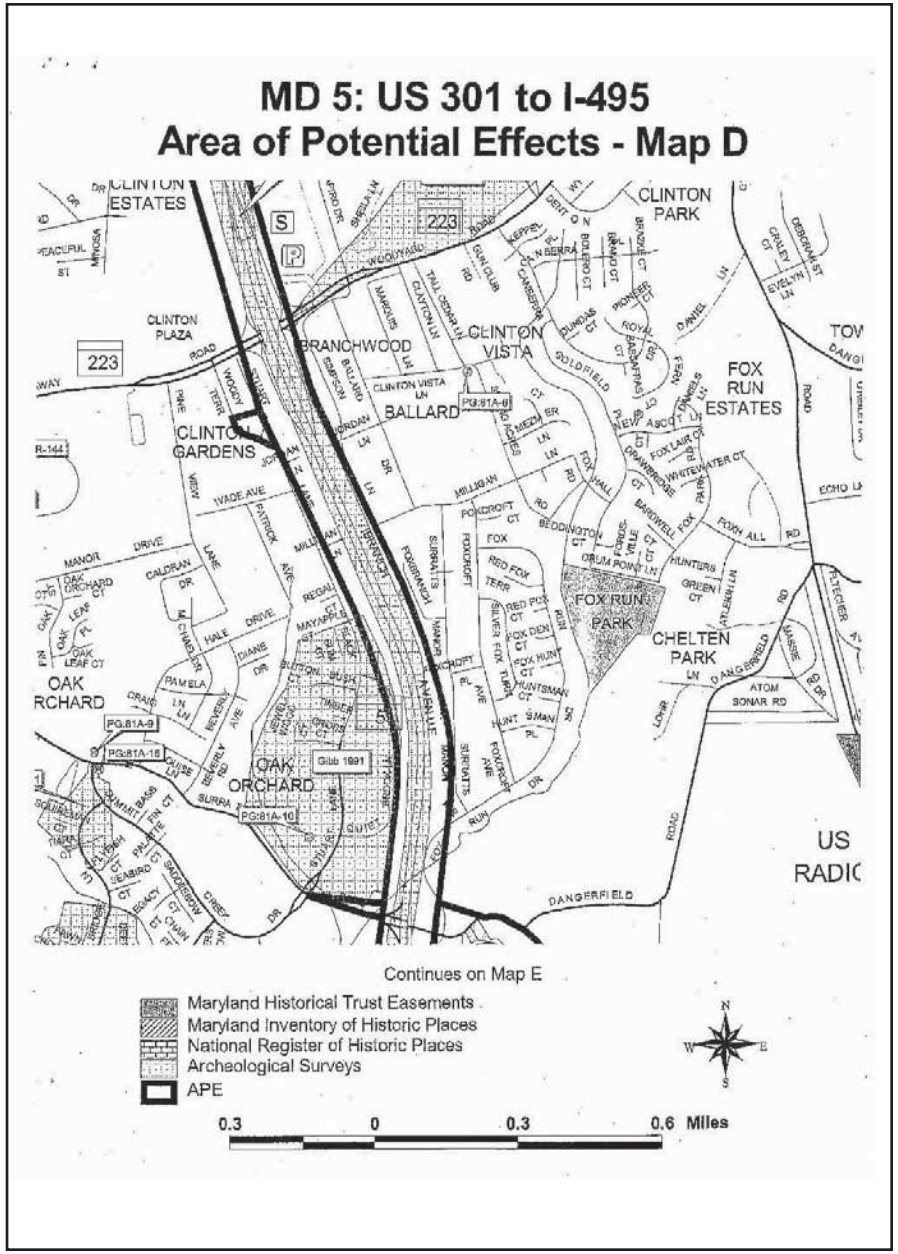
Curtis Properties Residence 5710 Old Branch Avenue	S	X	Requested 09/2006	4	
Robert and Gayle Jones Residence 5804 Old Branch Avenue	S	X	Requested 09/2006	4	
Scrio-Tillin Residence 6006 Old Branch Avenue	S	X	Requested 09/2006	4	
Alejandro and Elsa Aviles Reyes Residence 6116 Old Branch Avenue	S	X	Requested 09/2006	4	
Harvey and Glen Fyles Residence 6206 Old Branch Avenue	S	X	Requested 09/2006	4	
Camp Spring Auto Parts 6516 Old Branch Avenue	S	X	Requested 09/2006	4	
LaRah and Yvonne Payne Residence 6601 Old Branch Avenue	S	X	Requested 09/2006	4	
Ralph and Lillian Gran Residence 6605 Old Branch Avenue	S	X	Requested 09/2006	4	
Barbara Bach Residence 6611 Old Branch Avenue	S	X	Requested 09/2006	4	
Chester and Mary Affron Residence 7005 Old Branch Avenue	S	X	Requested 09/2006	4	
Ofelia Valentin Residence 7011 Old Branch Avenue	S	X	Requested 09/2006	4	
Demetris Goumis Residence 7201 Old Branch Avenue	S	X	Requested 09/2006	4	
Demetris and Eleanore Goumis Residence 7209 Old Branch Avenue	S	X	Requested 09/2006	4	
Michael Casey Residence 7105 Jordan Lane	S	X	Requested 09/2006	4	
Edward Pockey Residence 9200 Stuart Lane	S	X	Requested 09/2006	4	
Moore-Brooks Residence 9204 Stuart Lane	S	X	Requested 09/2006	4	
Libelo Residence 9208 Stuart Lane	S	X	Requested 09/2006	4	
Lenora Steven Residence 9210 Stuart Lane	S	X	Requested 09/2006	4	
Ginial and Miyoko Minor Residence 9216 Stuart Lane	S	X	Requested 09/2006	4	
Mark George Residence 9218 Stuart Lane	S	X	Requested 09/2006	4	
John and Mary Daye Residence 7205 Milligan Road	S	X	Requested 09/2006	4	
Thomas and Mary Murphy Residence 7203 Milligan Road	S	X	Requested 09/2006	4	

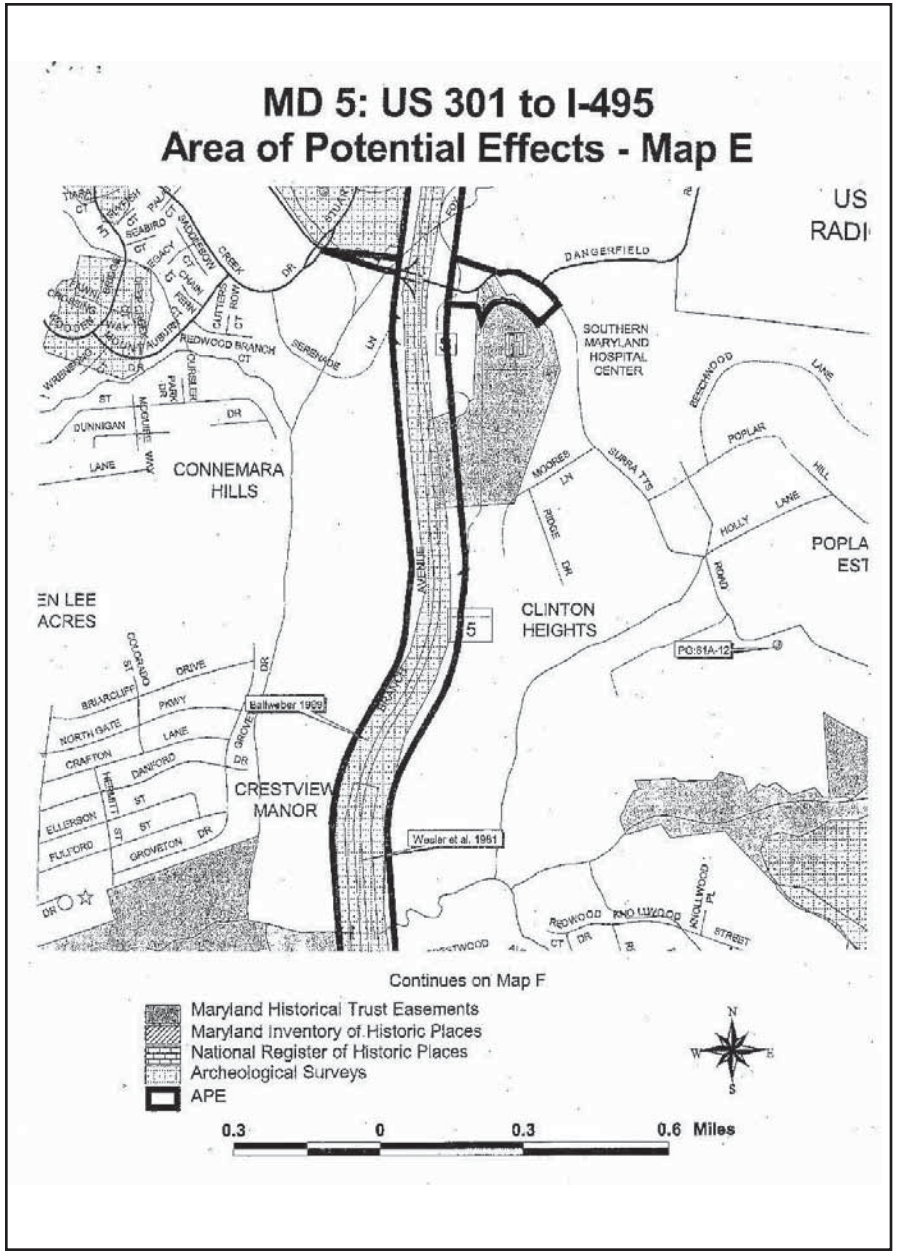

MD 5: US 301 to I-495
Project Location Map
Attachment 1
Project Limits
Project Limits
ANDREWS
AIR FORCE
BASE
3 0 3 6 Miles
Scale 1:100,000
Prince Georges County
USGS Anacostia and Piscataway Quads
N
W
E
S

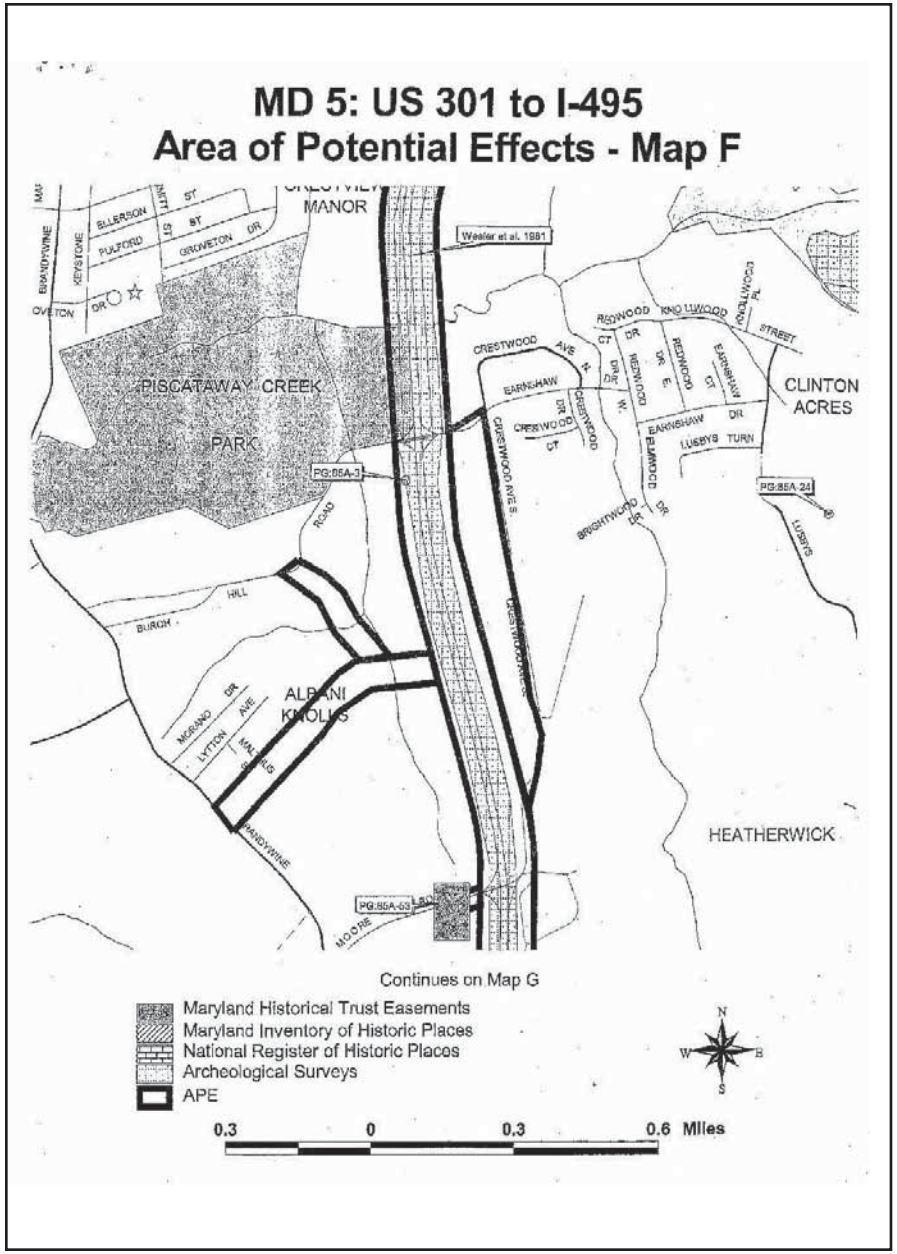

MD 5: US 301 to I-495
Area of Potential Effects - Map A
Attachment 3
AUTH ROAD CENTER
POLLEY PARK
Branch Ave
WOODS CORN
AUTH VILLAGE
ST. PHILIPS SCHOOL
MANCHESTER ESTATES
BELTWAY
STAN HAVEN
MIDDLETON VALLEY
PRINCETON ELEMENTARY SCHOOL
AUTH VILLAGE PARK
PRINCETON
Continues on Map B
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles
N
W
E
S

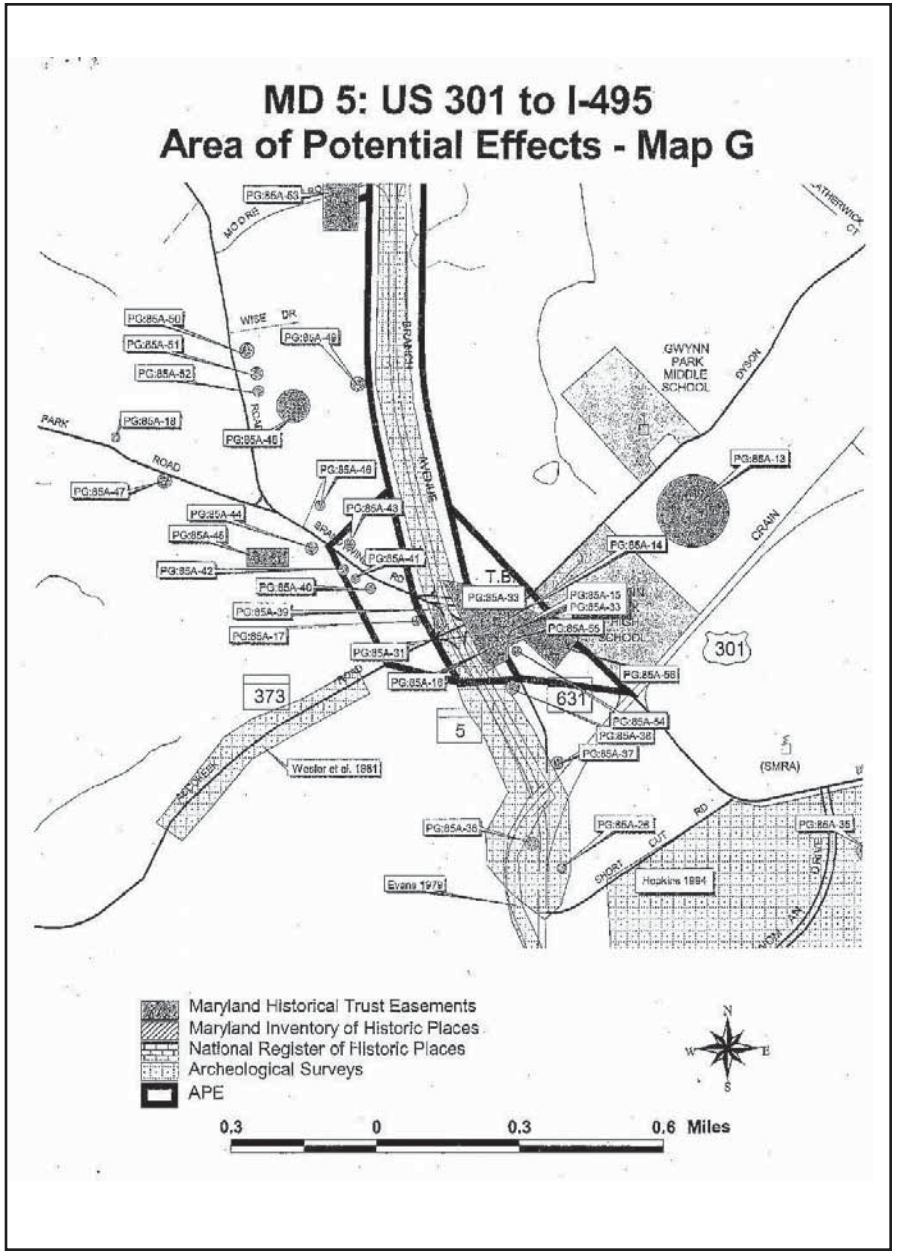

MD 5: US 301 to I-495
Area of Potential Effects - Map B
PRINCETON
337
5
ALLENTOWN MALL
ALLENTOWN WAY
ATLANTA
OXFORD AVE
SAN ANTONIO
Moeller et al, 1995
CAMP SPRINGS
Meetinghouse Branch
GOLF COURSE
WESTCHESTER ESTATES
TINKERS CREEK PARK
TARQUIN VILLAGE
Continues on Map C
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles


MD 5: US 301 to I-495
Area of Potential Effects - Map C
ATHLETIC FIELD
FRANCIS EVANS
VIRGINIA AVENUE GATE
967
LEWIS SPRING MANOR
SCHULTZ
5
TANGLEWOOD COMM. PARK
CLINTON ESTATES
Weeler et al. 1981
Curry 1978
223
Continues on Map D
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles


MD 5: US 301 to I-495
Area of Potential Effects - Map D
CLINTON ESTATES
CLINTON PARK
CLINTON PLAZA
BRANCHWOOD
CLINTON VISTA
FOX RUN ESTATES
CLINTON GARDENS
BALLARD
FOX RUN PARK
CHELTEN PARK
OAK ORCHARD
US RADIO
DANGERFIELD
Continues on Map E
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles


MD 5: US 301 to I-495
Area of Potential Effects - Map E
SOUTHERN MARYLAND HOSPITAL CENTER
CONNEMARA HILLS
CLINTON HEIGHTS
CRESTVIEW MANOR
DANGERFIELD
Continues on Map F
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles


MD 5: US 301 to I-495
Area of Potential Effects - Map F
MANOR
Weeler et al. 1981
PISCATAWAY CREEK
PARK
CLINTON
ACRES
ALBANI
KNOLLS
HEATHERWICK
Continues on Map G
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles


MD 5: US 301 to I-495
Area of Potential Effects - Map G
GWYNN
PARK
MIDDLE
SCHOOL
T.B.
373
631
5
301
Weeler et al. 1981
Evans 1979
Hopkins 1894
(SMRA)
Maryland Historical Trust Easements
Maryland Inventory of Historic Places
National Register of Historic Places
Archeological Surveys
APE
0.3 0 0.3 0.6 Miles

3022

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

April 18, 2008

Re: Project No. PG175B21
MD 5 at Brandywine Road
Prince George's County
USGS *Piscataway and Brandywine* 7.5'
Quadrangles

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) finding that the proposed Project No. PG175B21 will have no adverse effect on historic properties. The project involves transportation improvements on MD 5 at Brandywine Road and MD 373 (Accokeek Road) in Prince George's County. The project will be constructed in three phases, resulting in the elimination of an at-grade intersection and the construction of a limited-access interchange.

Phase 1 improvements consist of the addition of travel lanes along MD 5 in each direction, including the construction of associated turn lanes. This road widening will extend 2,000 feet north and 2,000 feet south of the MD 5/Brandywine Road intersection, with transitions for the turn lanes at Brandywine Road and MD 373.

Phase 2 improvements consist of extending road widening along MD 5 for an additional 1,700 feet to the north and the relocation of Brandywine Road to the north of its current location. The new alignment of Brandywine Road will be elevated and will have a full grade-separated interchange with MD 5. Roundabouts will be constructed on both the east and west sides of MD 5, connecting the new Brandywine Road with the entrance and exit ramps for MD 5. On the east side of MD 5, the existing Brandywine Road will terminate in a cul-de-sac and on the west side of MD 5 the existing Brandywine Road will be connected to MD 373.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com

Phase 3 improvements consist of the construction of a park-and-ride facility on the eastern side of MD, which will tie into the eastern roundabout of the new interchange. Sections of new roadways connecting the surrounding network of local roads to the roundabouts are to be built by Prince George's County and by developers at an undetermined time.

SHA previously corresponded with your office about the project in 1998 and 1999. Since our last correspondence, more detailed design alternatives have been developed and the project limits of work have been reduced.

Updated project plans are included as Attachment 1.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

During the previous coordination for this project, the Area of Potential Effects (APE) was defined as an area that extended 1,000 feet on either side of all roads which were to be directly affected by the improvements, including construction, widening, and relocation of traffic patterns. A map of the previously-coordinated APE is shown in Attachment 2.

Since our previous coordination, the APE has been refined based on the revised project plans. The APE is now defined as the tax parcels adjacent to the proposed improvements within the new project limits of work, as indicated on the attached SHA quadrangle map for Brandywine (Attachment 3). The project APE does not include the work that is to be constructed by Prince George's County or developers.

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the interchange project.

Architecture: SHA Architectural Historian Melissa Blair consulted the SHA-GIS Cultural Resources Database, historic maps, tax parcel maps, aerial photographs, and previous architectural investigations, and conducted a field visit on March 3, 2008.

In 1998, SHA submitted the MD 5 Brandywine Interchange Historic Resources Survey and Determination of Eligibility Report (P.A.C. Spero & Company) to MHT. The report included determinations of eligibility for 27 properties in the vicinity of the interchange. Of those properties, six were determined eligible for the National Register of Historic Places (NRHP) and the remaining 21 were determined not eligible. The eligible properties were Gwynn Park (PG:85A-13), the Marlow/Huntt Store (PG:85A-14), the J.E. Huntt Casket Shop/Tenant

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Three

House (PG:85A-15), the Marlow-MacPherson House (PG:85A-16), the J.E. Huntt Residence (PG:85A-17), and the T.B. "Colored" School (PG:85A-26). MHT concurred with these findings on December 8, 1998.

As part of the historic structures investigations for a separate project (the MD 5 Corridor Study), field investigations revealed that the Marlow-MacPherson House (PG:85A-16) had been demolished. In 2006, SHA prepared an addendum to the property's Maryland Inventory of Historic Properties (MIHP) form noting that the building was no longer extant and determined that the property was no longer eligible. On November 13, 2006, MHT concurred that the Marlow-MacPherson House was no longer eligible for the NRHP.

Gwynn Park (PG:85A-13), the Marlow/Huntt Store (PG:85A-14), the the J.E. Huntt Casket Shop/Tenant House (PG:85A-15), and the J.E. Huntt House (PG:85A-17) are located within the APE. The T.B. "Colored" School (PG:85A-26) is outside of the revised APE, as the property is approximately 1,000 feet from the southern terminus of the project. There are no additional historic standing structures located within the revised APE.

Gwynn Park (PG:85A-13) is an 1857 Georgian and Greek Revival-style brick house located within a recently constructed suburban development. SHA recommends that the property continues to be eligible for listing in the NRHP, but that boundary of Gwynn Park should be revised to reflect the recent substantial changes to the original agricultural parcel. SHA contracted with Parsons Brinckerhoff to prepare a MIHP addendum and an updated Determination of Eligibility (DOE) form for the property, which is included as Attachment 4. Upon your office's concurrence with this boundary revision, Gwynn Park will be outside of the project's APE.

Assessment of Impacts

On June 7, 1999, SHA determined that the project would have adverse impacts on Gwynn Park (PG:85A-13), the Marlow-MacPherson House (PG:85A-16), and the J.E. Huntt House (PG:85A-17) based on anticipated acquisition of historic property. On July 6, 1999, MHT responded to SHA's assessment of effects with a letter requesting additional information, including project plans and boundary information for Gwynn Park, prior to MHT's concurrence with SHA's effect finding.

As stated above, Gwynn Park is now anticipated to be outside of the project's APE, and the Marlow-MacPherson House is no longer eligible as a result of its demolition.

On March 3, 2008, Ms. Blair conducted a field visit to assess the project's impacts on the three NRHP eligible resources within the APE; the Marlow/Huntt Store, the J.E. Huntt Casket Shop/Tenant House, and the J.E. Huntt House.

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Four

Built in 1867, the Marlow/Huntt Store is eligible for listing in the NRHP under Criterion A for its association with the commercial development of the crossroads community of T.B. and under Criterion C as an excellent example of vernacular commercial architecture. Located at 13700 Old Brandywine Road, the store is approximately 400 feet away from the proposed roadway construction. No temporary or permanent easements or right-of-way acquisition will be needed and there will be no direct impacts to this historic property. SHA also considered potential indirect impacts. The store is readily visible from the existing intersection of MD 5 and Brandywine Road. Work items at the intersection include widening MD 5 and severing Brandywine Road's access to MD 5. These construction activities will be largely at-grade and will not introduce new elements into the area that will diminish the integrity of the Marlow/Huntt Store's significant historic features or alter characteristics that make the store eligible for listing in the NRHP. The proposed overpass that is to be constructed in Phase 2 of the project and the proposed park-and-ride facility that is to be constructed in Phase 3 will not be visible from the Marlow/Huntt Store. The project will have no adverse impacts on the Marlow/Huntt Store.

The J.E. Huntt Casket Shop/Tenant House occupies the same tax parcel as the Marlow/Huntt Store and is in similar proximity to the project area. Built in 1878, the J.E. Huntt Casket Shop/Tenant House is eligible for listing in the NRHP under Criterion A for its association with the commercial development of the crossroads community of T.B. and under Criterion C as an excellent example of vernacular commercial architecture. Located at 13702 Brandywine Road, the building is approximately 430 feet away from the proposed roadway construction. No temporary or permanent easements or right-of-way acquisition will be needed and there will be no direct impacts to this historic property. The building is readily visible from the existing intersection of MD 5 and Brandywine Road. As with the Marlow/Huntt Store, the work items in the vicinity of the MD 5/Brandywine Road intersection will not introduce new elements into the area that will diminish the integrity of the J.E. Huntt Casket Shop's significant historic features or alter characteristics that make the building eligible for listing in the NRHP. The proposed overpass and the park-and-ride facility will not be visible from the J.E. Huntt Casket Shop. The project will have no adverse impacts on the J.E. Huntt Casket Shop.

Built circa 1840, the J.E. Huntt House is eligible for listing in the NRHP under Criterion C as a significant example of a mid-twentieth-century vernacular house later enlarged and remodeled with Folk Victorian detailing. Located at 7500 Accokeek Road, the house is approximately 250 feet away from the proposed new roadway construction. No temporary or permanent easements or right-of-way acquisition will be needed and there will be no direct impacts to this historic property. The property is only marginally visible from the surrounding area due to dense vegetation on the property. Work items in the vicinity of the property include widening MD 5 and rerouting existing Brandywine Road directly to Accokeek Road. This work will impact the tax parcel located to the east of the J.E. Huntt House, but will have no adverse impacts on the historic property. The property will continue to be buffered from the surrounding area by substantial vegetation. The proposed overpass and the park-and-ride facility will not be

Mr. J. Rodney Little
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visible from the J.E. Huntt House. The project will not diminish the integrity of the J.E. Huntt House's significant historic features or alter characteristics that make the house eligible for listing in the NRHP. The project will have no adverse impacts on the J.E. Huntt House.

Condition photographs demonstrating the relationship of three historic properties and the area of proposed improvements are included in Attachment 5.

SHA concludes that the proposed interchange project will have no adverse impacts on historic standing structures.

Archeology: SHA Archeologist Gregory Katz reviewed the project, consulting site file data, the SHA-GIS Cultural Resources Database, still and video photography, and other archival information. A field visit was conducted on January 23, 2008. Line and grade plans were reviewed in the field. This plan set included anticipated limits-of-disturbance (LOD) for Phases 1, 2, and 3 of the project, but does not include stormwater management pond designs.

The LOD associated with construction of Phase 1 are within areas of previous archeological survey (Ballweber 1989; Barse et al. 1999). No archeological sites have been identified in the Phase 1 improvement area, and no additional archeological studies are recommended in the area.

The LOD associated with the Phase 2 improvements are largely within areas that have been previously surveyed for archeological resources (Barse et al. 1999). No archeological sites have been identified in the Phase 2 improvement area. The southwestern extent of the LOD (on Tax Parcel 48) extends slightly beyond the area of prior survey. Nonetheless, no additional archeological studies are recommended in the Phase 2 LOD area.

Phase 3 improvements consist of the construction of a park-and-ride facility on the eastern side of MD and tying the facility into the eastern roundabout. The LOD for the Phase 3 improvements is outside of the area previously surveyed for archeological resources. This area contains no recorded sites. A reconnaissance of the LOD area found the area visibly disturbed from sand and gravel quarrying. No archeological studies are recommended in the area.

To summarize, there are no identified archeological resources in the current archeological survey area and no additional studies are warranted. The local road construction is not included in this review and it is assumed that the county will make resource management decisions for this portion of the project. Additional coordination may be necessary for stormwater management facilities once they have been designed.

Mr. J. Rodney Little
MD 5 at Brandywine Road
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Review Request

Please examine the attached plans, maps, photographs, and Eligibility/Effects Table (Attachment 6). We request your concurrence by May 19, 2008 that there would be no adverse effect on historic properties by the proposed Project No. PG175B21. By carbon copy, we invite the Prince George's County Historic Preservation Commission and Prince George's Heritage, Inc. to provide comments and participate in the Section 106 process. Pursuant to the requirement of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR 800.2 (c) (4) and (6), and 800.3 (f) for information regarding the identification and participation of consulting parties, and 800.4, and 800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by May 19, 2008, we will assume that these offices decline to participate. Please call Ms. Melissa Blair at 410-545-8560 (or via email at mblair@sha.state.md.us) with questions regarding standing structures for this project. Ms. Carol Ebright may be reached at 410-545-2879 (or via email at cebright@sha.state.md.us) with concerns regarding archeology.

Very truly yours,

Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

by: Melissa Blair for
Dr. Julie M. Schablitsky
Cultural Resources Team Leader
Project Planning Division

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Seven

Attachments:
1) Project Plans
2) 1999 Area of Potential Effects Map
3) 2008 Revised Area of Potential Effects Map
4) MIHP Addendum and DOE Form for Gwynn Park
5) Condition Photographs
6) Eligibility/Effects Table

cc: Ms. Karen Arnold, SHA-PPD
Ms. Melissa Blair, SHA-PPD
Ms. Carol Ebright, SHA-PPD
Mr. Bruce Grey, SHA-OPPE
Mr. John Jenkins, SHA-OHD
Ms. Laura Mays, Property Owner, J.E. Huntt House
Mr. Doug McElrath, Prince George's Heritage, Inc. (w/Attachments)
Ms. Gail Rothrock, Prince George's County Historic Preservation Commission (w/Attachments)
Dr. Julie Schablitsky, SHA-PPD
Ms. Cheryl Watts, Property Owner, Marlow/Huntt Store and J.E. Huntt Casket Shop

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: PG175B21 **MHT Log No. 200801223**
Project Name: MD 5 at Brandywine Road
County: Prince George's County
Letter Date: April 18, 2008

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 6]):
[X] Concur
[ ] Do Not Concur

Effect (as noted in the Effects Table [Attachment 6]):
[ ] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):
[ ] Agree

Comments:

SEE ATTACHED CONTINUATION SHEET

By: _____ 7-2-08
MD State Historic Preservation Office/ Maryland Historical Trust — Date

Return by U.S. Mail or Facsimile to:
Dr. Julie Schablitsky, Cultural Resources Team Leader, Project Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5004

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

CONTINUATION SHEET #1
Maryland Historical Trust Comments

Project Number: PG175B21 **MHT Log No.** 200801223
Project Name: MD 5 at Brandywine Road

The Maryland Historical Trust (Trust) provides the following comments in addition to the concurrence indicated on the previous page:

- Gwynn Park (MIHP No. PG:85A-13): Due to the recent subdivision of the property and construction of a residential subdivision, we concur with the revised National Register boundary for Gwynn Park. We also agree that the property is outside the area of potential effects for this undertaking.

- J.E. Huntt House (MIHP No. 85A-17): We are unable to determine the effect of the undertaking on this resource at this time. We request additional information to illustrate the proximity of the proposed improvements to the National Register-eligible property. Please provide a graphic illustrating the Brandywine Road/Accokeek Road connection (Phase II) in relation to the J.E. Huntt House boundary. Please indicate areas of vegetation removal, grading and construction staging on the plans. For future effect assessments, please be sure to illustrate the location of historic properties on the project plans and graphics.

Once we receive the information requested above, the Maryland Historical Trust will continue its review of the undertaking and provide further comments regarding the effect of the project on historic properties.

Hybrid Eligibility/Effects Table

Attachment 6

Project Name: MD 5 at Brandywine Road **April 17, 2008**

Resource	Type	SHA NR/DOE	SHPO Opinion	Impact	SHPO Concur	Attachment	Remarks
Marlow/Huntt House (PG:85A-14)	S	NR	NR 12/08/1998	No Adverse	Requested 04/2008		
J.E. Huntt Cooler Shop/Tenant House (PG:85A-15)	S	NR	NR 12/08/1998	No Adverse	Requested 04/2008		
J.E. Huntt House (PG:85A-17)	S	NR	NR 12/08/1998	No Adverse	Requested 04/2008		
Gwynn Park (PG:85A-13)	S	NR	Requested 04/2008	None	Requested 04/2008	4	Boundary Revision. Outside the APE
T.B. "Colored" School (PG:85A-26)	S	NR	NR 12/08/1998	None	Requested 04/2008		Outside the APE
Marlow-MacPherson House (PG:85A-16)	S	X	X 11/13/2096	None	Requested 04/2008		Demolished
Effect				NAE	Requested 04/2008		

Codes:
Resource Types: S (Structure), A (Archeological Site), HD (Historic District), NHL (National Historic Landmark)
NR Determination: ND (Not Determined), X (Not Eligible), NR (Eligible), NRL (Listed), NHL (Landmark)
SHPO Opinion: (B) designates opinion regarding boundary. Code following date signifies SHPO opinion
Impact: None, No Adverse, Adverse
Effect: NPA (No Properties Affected), NAE (No Adverse Effect), AE (Adverse Effect)
Bold rows indicate review action requested

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

August 8, 2008

Re: Project No. PG175B21
MD 5 at Brandywine Road
Prince George's County
USGS *Piscataway and Brandywine* 7.5'
Quadrangles

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to provide the Maryland Historical Trust (MHT) with the additional information requested regarding the Maryland State Highway Administration's (SHA) proposed Project No. PG175B21. The letter also provides information about changes to the project's scope of work since our last coordination letter. The project involves transportation improvements on MD 5 at Brandywine Road and MD 373 (Accokeek Road) in Prince George's County, which will be constructed in three phases.

SHA previously corresponded with your office about the project in 1998 and 1999. Most recently, SHA submitted a letter to your office on April 18, 2008 requesting your concurrence that the project would have no adverse effect on historic properties. On July 2, 2008, SHA received your response requesting additional information.

In response to the request in your July 2, 2008 letter, SHA is providing project plans that illustrate the proposed connection of Brandywine Road and Accokeek Road, which will be constructed during Phase II of the project. These plans show the relation of the proposed improvements to the boundary of the J.E. Huntt House, which is eligible for listing in the National Register of Historic Places (NRHP). The limits of disturbance (LOD) delineated on the plans encompasses all areas of vegetation removal, grading, and construction staging in the vicinity of the J.E. Huntt House (Attachment 1).

Since our previous coordination, the project has been modified to include the acquisition of one property for use as a construction staging area. The property is located at 13701 Brandywine Road, on Prince George's County tax map 144, parcel 160. The scope of work has

also been revised to include the addition of a sidewalk that will connect MD 5 to the property at 13700 Old Brandywine Road, which contains the Marlow/Huntt Store (PG:85A-14) and the J.E. Huntt Casket Shop/Tenant House (PG:85A-15). Additional landscaping is also planned for this property. An aerial photograph showing the location of the additional work, project plans showing the new sidewalk location, and landscaping plans at the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House are included as Attachment 2.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered potential direct and indirect impacts to historic properties. In our last letter, the APE was defined as the tax parcels adjacent to the proposed improvements within the new project limits of work. The minor changes to the project's scope of work do not warrant a revision of the APE, which is indicated on the attached SHA quadrangle map for Brandywine (Attachment 3).

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the changes to the scope of work of the interchange project.

Architecture: SHA Architectural Historian Melissa Blair consulted the SHA-GIS Cultural Resources Database, historic maps, tax parcel maps, aerial photographs, and previous architectural investigations, and conducted a field visit on March 3, 2008.

There are three NRHP eligible resources within the APE; the Marlow/Huntt Store (PG:85A-14), the J.E. Huntt Casket Shop/Tenant House (PG:85A-15), and the J.E. Huntt Residence (PG:85A-17). The Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House occupy the same tax parcel.

The acquisition of the property at 13701 Brandywine Road as a staging area will not impact historic standing structures, as the parcel contains no standing structures.

The additional sidewalk and landscaping will have no adverse impacts on historic standing structures. The majority of the area around the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House is used for parking for the commercial business located in the Marlow/Huntt Store. The area where new sidewalk is proposed is currently paved. The construction activities needed to install the sidewalk will be largely at-grade and will not introduce new elements into the area that will diminish the integrity of significant historic features or alter characteristics that make the properties eligible for listing in the NRHP. The sidewalk will help to define the edge of the historic property, and provide a barrier between the

Mr. J. Rodney Little
MD 5 at Brandywine Road
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roadway and the property. The proposed landscaping will provide a buffer between the property and the roadway, which enhance the historic setting of the property. Sidewalk construction may require a minor amount of temporary easement, permanent easement or right-of-way acquisition from the historic property, which has yet to be determined. The project will have no adverse impacts on the Marlow/Huntt Store or the J.E. Huntt Casket Shop/Tenant House.

Upon your agreement that permanent easement or right-of-way acquisition would not adversely impact the historic properties, SHA intends to propose a *de minimis* impact finding to the Federal Highway Administration for Section 4(f) use of the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House.

If temporary construction easement are used instead of permanent easement or right-of-way, the requirements of Section 4(f) would not apply based on your agreement with the following criteria as the official with jurisdiction:

- The duration of the impact will be temporary, i.e., less that the time needed for construction of the project;
- There will be no change in the ownership of the land;
- The scope of the work will be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) resource are minimal;
- There are no anticipated permanent adverse physical impacts; and
- The land being used will be fully restored, i.e., the resource will be returned to a condition which is at least as good as that which existed prior to the project.

As stated in our previous letter, the J.E. Huntt House is approximately 250 feet away from the proposed new roadway construction. No temporary or permanent easements or right-of-way acquisition will be needed and there will be no direct impacts to this historic property. The property is only marginally visible from the surrounding area due to dense vegetation on the property. Work items in the vicinity of the property include widening MD 5 and rerouting existing Brandywine Road directly to Accokeek Road. This work will impact the tax parcel located to the east of the J.E. Huntt House, but will have no adverse impacts on the historic property. The property will continue to be buffered from the surrounding area by substantial vegetation. The proposed overpass and the park-and-ride facility will not be visible from the J.E. Huntt House. The project will not diminish the integrity of the J.E. Huntt House's significant historic features or alter characteristics that make the house eligible for listing in the NRHP. The project will have no adverse impacts on the J.E. Huntt House.

SHA concludes that the proposed interchange project will have no adverse impacts on historic standing structures.

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Four

Archeology: SHA Archeologist Carol A. Ebright assessed the archeological potential for a proposed sidewalk and staging area through consultation of the SHA-GIS Cultural Resources Database, aerial photographs, prior assessment data, and Preliminary Investigation (PI) plans. The proposed sidewalk location at the intersection of Brandywine and Old Brandywine Roads contains no recorded archeological sites, nor has it been previously surveyed. While the proposed sidewalks will be located on the margins of an historic structure (PG-85A-14) with a commercial function that may once have had streetfront features, the PI plans show that this area has been disturbed by major underground utilities.

The proposed staging area is a triangle isolated by MD 5, MD 373 (Dyson Road), and Brandywine Road. This area was partly included in prior surveys by Evans (1979), Ballweber (1988), and Barse et al. (1999). PI plans show the margins of the triangle to have been disturbed by utility installation, while aerial photos and Visidata video show the interior area to be disturbed by grading. The soil is poorly drained Leonardtown Silt Loam.

Neither the proposed sidewalk installation nor use of the proposed staging area are likely to impact any intact, significant archeological resources. No further archeological work is warranted.

Review Request

Please examine the attached plans, map, and Effects Table (Attachment 4). We request your concurrence by September 8, 2008 that there would be no adverse effect on historic properties by the proposed Project No. PG175B21 and that Section 4(f) would not apply to the above-described temporary construction easements. Based on your concurrence with our determination of no adverse effect, SHA intends to propose a de minimis impact finding to the Federal Highway Administration for Section 4(f) use of the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House should permanent easement or right-of-way be required. By carbon copy, we invite the Prince George's County Historic Preservation Commission and Prince George's Heritage, Inc. to provide comments and participate in the Section 106 process. Pursuant to the requirement of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR 800.2 (c) (4) and (6), and 800.3 (f) for information regarding the identification and participation of consulting parties, and 800.4, and 800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by September 8, 2008, we will assume that these offices decline to participate. Please call Ms. Melissa Blair at 410-545-8560 (or via email at mblair@sha.state.md.us) with questions regarding standing structures for this project. Ms. Carol Ebright may be reached at 410-545-2879 (or via email at cebright@sha.state.md.us) with concerns regarding archeology.

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Five

Very truly yours,

Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

by: _____
Dr. Julie M. Schablitsky
Assistant Division Chief
Project Planning Division

Attachments: 1) Project Plans – Brandywine/Accokeek Road connection
2) Project Plans – New Sidewalk Installation
3) Area of Potential Effects Map
4) Effects Table

cc: Ms. Karen Arnold, SHA-PPD
Ms. Melissa Blair, SHA-PPD
Ms. Carol Ebright, SHA-PPD
Mr. Bruce Grey, SHA-OPPE
Mr. John Jenkins, SHA-OHD
Ms. Laura Mays, Property Owner, J.E. Huntt House
Mr. Doug McElrath, Prince George's Heritage, Inc. (w/Attachments)
Ms. Gail Rothrock, Prince George's County Historic Preservation Commission (w/Attachments)
Dr. Julie Schablitsky, SHA-PPD
Ms. Cheryl Watts, Property Owner, Marlow/Huntt Store and J.E. Huntt Casket Shop

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: PG175B21 **MHT Log No.** 200802745
Project Name: MD 5 at Brandywine Road
County: Prince George's
Letter Date: August 8, 2008

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [N/A]):
[ ] Concur
[ ] Do Not Concur

Effect (as noted in the Effect Table [Attachment 4]):
[ ] No Properties Affected
[X] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):
[X] Agree

Comments:

By: _____ 8/22/08
MD State Historic Preservation Office/ Date
Maryland Historical Trust

Return by U.S. Mail or Facsimile to:
Dr. Julie Schablitsky, Assistant Division Chief, Project Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5004

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

August 8, 2008

Re: Project No. PG175B21
MD 5 at Brandywine Road
Prince George's County
USGS *Piscataway and Brandywine* 7.5'
Quadrangles

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to provide the Maryland Historical Trust (MHT) with the additional information requested regarding the Maryland State Highway Administration's (SHA) proposed Project No. PG175B21. The letter also provides information about changes to the project's scope of work since our last coordination letter. The project involves transportation improvements on MD 5 at Brandywine Road and MD 373 (Accokeek Road) in Prince George's County, which will be constructed in three phases.

SHA previously corresponded with your office about the project in 1998 and 1999. Most recently, SHA submitted a letter to your office on April 18, 2008 requesting your concurrence that the project would have no adverse effect on historic properties. On July 2, 2008, SHA received your response requesting additional information.

In response to the request in your July 2, 2008 letter, SHA is providing project plans that illustrate the proposed connection of Brandywine Road and Accokeek Road, which will be constructed during Phase II of the project. These plans show the relation of the proposed improvements to the boundary of the J.E. Huntt House, which is eligible for listing in the National Register of Historic Places (NRHP). The limits of disturbance (LOD) delineated on the plans encompasses all areas of vegetation removal, grading, and construction staging in the vicinity of the J.E. Huntt House (Attachment 1).

Since our previous coordination, the project has been modified to include the acquisition of one property for use as a construction staging area. The property is located at 13701 Brandywine Road, on Prince George's County tax map 144, parcel 160. The scope of work has

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com

also been revised to include the addition of a sidewalk that will connect MD 5 to the property at 13700 Old Brandywine Road, which contains the Marlow/Huntt Store (PG:85A-14) and the J.E. Huntt Casket Shop/Tenant House (PG:85A-15). Additional landscaping is also planned for this property. An aerial photograph showing the location of the additional work, project plans showing the new sidewalk location, and landscaping plans at the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House are included as Attachment 2.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered potential direct and indirect impacts to historic properties. In our last letter, the APE was defined as the tax parcels adjacent to the proposed improvements within the new project limits of work. The minor changes to the project's scope of work do not warrant a revision of the APE, which is indicated on the attached SHA quadrangle map for Brandywine (Attachment 3).

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the changes to the scope of work of the interchange project.

Architecture: SHA Architectural Historian Melissa Blair consulted the SHA-GIS Cultural Resources Database, historic maps, tax parcel maps, aerial photographs, and previous architectural investigations, and conducted a field visit on March 3, 2008.

There are three NRHP eligible resources within the APE; the Marlow/Huntt Store (PG:85A-14), the J.E. Huntt Casket Shop/Tenant House (PG:85A-15), and the J.E. Huntt Residence (PG:85A-17). The Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House occupy the same tax parcel.

The acquisition of the property at 13701 Brandywine Road as a staging area will not impact historic standing structures, as the parcel contains no standing structures.

The additional sidewalk and landscaping will have no adverse impacts on historic standing structures. The majority of the area around the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House is used for parking for the commercial business located in the Marlow/Huntt Store. The area where new sidewalk is proposed is currently paved. The construction activities needed to install the sidewalk will be largely at-grade and will not introduce new elements into the area that will diminish the integrity of significant historic features or alter characteristics that make the properties eligible for listing in the NRHP. The sidewalk will help to define the edge of the historic property, and provide a barrier between the

Mr. J. Rodney Little
MD 5 at Brandywine Road
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roadway and the property. The proposed landscaping will provide a buffer between the property and the roadway, which enhance the historic setting of the property. Sidewalk construction may require a minor amount of temporary easement, permanent easement or right-of-way acquisition from the historic property, which has yet to be determined. The project will have no adverse impacts on the Marlow/Huntt Store or the J.E. Huntt Casket Shop/Tenant House.

Upon your agreement that permanent easement or right-of-way acquisition would not adversely impact the historic properties, SHA intends to propose a *de minimis* impact finding to the Federal Highway Administration for Section 4(f) use of the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House.

If temporary construction easement are used instead of permanent easement or right-of-way, the requirements of Section 4(f) would not apply based on your agreement with the following criteria as the official with jurisdiction:

- The duration of the impact will be temporary, i.e., less that the time needed for construction of the project;
- There will be no change in the ownership of the land;
- The scope of the work will be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) resource are minimal;
- There are no anticipated permanent adverse physical impacts; and
- The land being used will be fully restored, i.e., the resource will be returned to a condition which is at least as good as that which existed prior to the project.

As stated in our previous letter, the J.E. Huntt House is approximately 250 feet away from the proposed new roadway construction. No temporary or permanent easements or right-of-way acquisition will be needed and there will be no direct impacts to this historic property. The property is only marginally visible from the surrounding area due to dense vegetation on the property. Work items in the vicinity of the property include widening MD 5 and rerouting existing Brandywine Road directly to Accokeek Road. This work will impact the tax parcel located to the east of the J.E. Huntt House, but will have no adverse impacts on the historic property. The property will continue to be buffered from the surrounding area by substantial vegetation. The proposed overpass and the park-and-ride facility will not be visible from the J.E. Huntt House. The project will not diminish the integrity of the J.E. Huntt House's significant historic features or alter characteristics that make the house eligible for listing in the NRHP. The project will have no adverse impacts on the J.E. Huntt House.

SHA concludes that the proposed interchange project will have no adverse impacts on historic standing structures.

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Four

Archeology: SHA Archeologist Carol A. Ebright assessed the archeological potential for a proposed sidewalk and staging area through consultation of the SHA-GIS Cultural Resources Database, aerial photographs, prior assessment data, and Preliminary Investigation (PI) plans. The proposed sidewalk location at the intersection of Brandywine and Old Brandywine Roads contains no recorded archeological sites, nor has it been previously surveyed. While the proposed sidewalks will be located on the margins of an historic structure (PG-85A-14) with a commercial function that may once have had streetfront features, the PI plans show that this area has been disturbed by major underground utilities.

The proposed staging area is a triangle isolated by MD 5, MD 373 (Dyson Road), and Brandywine Road. This area was partly included in prior surveys by Evans (1979), Ballweber (1988), and Barse et al. (1999). PI plans show the margins of the triangle to have been disturbed by utility installation, while aerial photos and Visidata video show the interior area to be disturbed by grading. The soil is poorly drained Leonardtown Silt Loam.

Neither the proposed sidewalk installation nor use of the proposed staging area are likely to impact any intact, significant archeological resources. No further archeological work is warranted.

Review Request

Please examine the attached plans, map, and Effects Table (Attachment 4). We request your concurrence by September 8, 2008 that there would be no adverse effect on historic properties by the proposed Project No. PG175B21 and that Section 4(f) would not apply to the above-described temporary construction easements. Based on your concurrence with our determination of no adverse effect, SHA intends to propose a de minimis impact finding to the Federal Highway Administration for Section 4(f) use of the Marlow/Huntt Store and the J.E. Huntt Casket Shop/Tenant House should permanent easement or right-of-way be required. By carbon copy, we invite the Prince George's County Historic Preservation Commission and Prince George's Heritage, Inc. to provide comments and participate in the Section 106 process. Pursuant to the requirement of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR 800.2 (c) (4) and (6), and 800.3 (f) for information regarding the identification and participation of consulting parties, and 800.4, and 800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by September 8, 2008, we will assume that these offices decline to participate. Please call Ms. Melissa Blair at 410-545-8560 (or via email at mblair@sha.state.md.us) with questions regarding standing structures for this project. Ms. Carol Ebright may be reached at 410-545-2879 (or via email at cebright@sha.state.md.us) with concerns regarding archeology.

Mr. J. Rodney Little
MD 5 at Brandywine Road
Page Five

Very truly yours,

Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

by: _____
Dr. Julie M. Schablitsky
Assistant Division Chief
Project Planning Division

Attachments: 1) Project Plans – Brandywine/Accokeek Road connection
2) Project Plans – New Sidewalk Installation
3) Area of Potential Effects Map
4) Effects Table

cc: Ms. Karen Arnold, SHA-PPD
Ms. Melissa Blair, SHA-PPD
Ms. Carol Ebright, SHA-PPD
Mr. Bruce Grey, SHA-OPPE
Mr. John Jenkins, SHA-OHD
Ms. Laura Mays, Property Owner, J.E. Huntt House
Mr. Doug McElrath, Prince George's Heritage, Inc. (w/Attachments)
Ms. Gail Rothrock, Prince George's County Historic Preservation Commission (w/Attachments)
Dr. Julie Schablitsky, SHA-PPD
Ms. Cheryl Watts, Property Owner, Marlow/Huntt Store and J.E. Huntt Casket Shop

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: PG175B21 **MHT Log No.** 200802745
Project Name: MD 5 at Brandywine Road
County: Prince George's
Letter Date: August 8, 2008

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [N/A]):
[ ] Concur
[ ] Do Not Concur

Effect (as noted in the Effect Table [Attachment 4]):
[ ] No Properties Affected
[X] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):
[X] Agree

Comments:

By: _____ 8/22/08
MD State Historic Preservation Office/ Date
Maryland Historical Trust

Return by U.S. Mail or Facsimile to:
Dr. Julie Schablitsky, Assistant Division Chief, Project Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5004

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

Beverley K. Swaim-Staley, *Secretary*
Neil J. Pedersen, *Administrator*

September 30, 2009

Re: Project No. PG391A16
MD 5 Corridor Study
Prince George's County, MD
USGS *Anacostia and Piscataway* 7.5'
Quadrangles

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) finding that there will be no historic properties affected by the proposed Project No. PG391A16, a project planning study on MD 5 from north of US 301 to I-495 in Prince George's County. South of MD 223 (Woodyard Road), the project corridor is a four-lane divided highway with limited access control while north of MD 223, the project corridor is a six-lane divided highway with full access control. There are six roadway improvement designs which have been retained for detailed studies. The build-alternatives are varied, adding one to two lanes of additional roadway in each direction to ease traffic flow and/or making these new lanes priced managed lanes. There are four options to upgrade two intersections to interchanges in the southern half of the project in each alternative. The fifth interchange improvement would reconfigure an existing interchange and is associated with the priced managed lane alternative only.

Alternatives Retained for Detailed Study include the following:

Alternative 1 – No-Build: Evaluation of the No-Build Alternative provides a benchmark that assists in comparing existing conditions against proposed build alternatives to more fully comprehend the potential benefits and impacts associated with proposed transportation improvements;

Alternative 3 – MD 5 upgrade south of MD 223 only: Widen MD 5 with one additional 12-foot wide through-lane and a 12-foot wide shoulder to the inside and convert remaining at-grade intersections to grade-separated interchanges;

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • *Phone* 410.545.0300 • www.sha.maryland.gov

Alternative 4 – MD 5 upgrade entire corridor: Incorporate all improvements from Alternative 3, add a fourth 12-foot wide through-lane and a 12-foot wide shoulder in each direction north of MD 223, and provide a direct-access ramp onto proposed Metro Access Road;

Alternative 5 – Two new reversible price-managed lanes in the MD 5 median: Convert remaining at-grade intersections to grade-separated interchanges; direct access ramps to/from price managed lanes at MD 223 and I-95/I-495 interchange; provides a direct access ramp onto proposed Metro Access Road;

Alternative 6 – MD 5 upgrade of the entire corridor with two priced managed lanes: One additional lane added in median as a priced-managed lane and one existing general purpose lane converted into the second price-managed lane north of MD 223; convert remaining at-grade intersections to grade-separated interchanges; direct access ramps to/from price managed lanes at MD 223 and I-95/I-495 interchange; provides a direct access ramp onto proposed Metro Access Road;

Alternative 8 – One additional inside lane along the entire corridor designated as High Occupancy Vehicle (HOV) lane: Convert remaining at-grade intersections to grade-separated interchanges; provide direct-access ramps to/from HOV lane at MD 223, and provide a direct-access ramp onto proposed Metro Access Road;

Surratts Road Interchange Option A – A grade-separated, modified diamond interchange with Surratts Road bridging MD 5: Remove existing "S" curve on Surratts Road, shift Surratts Road north of existing intersection; provide second entrance to Southern Maryland Hospital Center;

Surratts Road Interchange Option B – Diamond interchange with Surratts Road bridging MD 5: Interchange at existing intersection, remove existing "S" curve on Surratts Road, and provide second entrance to the Southern Maryland Hospital Center;

Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option A – Modified diamond grade-separated interchange between two existing unsignalized intersections of Moores Road and Earnshaw Drive with MD 5: Include a bridge over MD 5 at interchange; and

Moores Road/Earnshaw Drive/Burch Hill Road Interchange Option B – Same interchange proposed as for Option A: Construct two-way service roads parallel to MD 5 between Moores Road and Earnshaw Drive. Build bridge over MD 5 to connect the two service roads.

Mr. J. Rodney Little
MD 5 Corridor Study
Page Three

I-95/I-495 (Capital Beltway) Access Ramps – Direct access ramps between MD 5 and the Capital Beltway for the Priced/High Occupancy Lanes.

Project plans are included as Attachment 1.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered possible physical, visual, atmospheric, and audible impacts to historic properties. North of MD 223, the MD 5 corridor is characterized by dense development that is in close proximity to the roadway. South of MD 223, the corridor is characterized by a limited access dualized roadway separated by a wide median and flanked by a heavily vegetated right-of-way, which visually separates MD 5 from the surrounding area. The APE includes the tax parcels adjacent to MD 5 within the project limits, as well as areas encompassing the proposed interchange options (Attachment 2). The archeological survey area was defined as the worst-case limits of disturbance (LOD), primarily in areas where prior disturbance from roadway, residential or commercial construction had not occurred (Attachment 3).

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the corridor study.

Architecture: SHA Architectural Historian Fred Shoken consulted SHA-GIS Cultural Resources Database and the previous architectural surveys conducted within the MD 5 corridor from US 301 to I-95. This project was previously coordinated with MHT on September 19, 2006. On November 13, 2006, MHT concurred that there were only four properties eligible for the National Register of Historic Places (NRHP) within the project study area: Marlow Hunnt Store (MIHP No. PG:85A-14); J. Eli Hunnt Casket Shop (MIHP No. PG:85A-15); J. Eli Hunnt House (MIHP No. PG:85A-17); and T.B. "Colored" School (MIHP No. PG:85A-26). These four properties are located at the Brandywine Road intersection with MD 5 and are currently outside the APE for this project.

There are no standing historic structures within the APE. No historic standing structures will be impacted by the proposed work.

Archeology: SHA Archeologist Lisa Kraus assessed the archeological potential of the APE based on a review of the SHA-GIS Cultural Resources Database, historic maps, soil

Mr. J. Rodney Little
MD 5 Corridor Study
Page Four

survey data, site file data, and available photography of the project area. SCS Soil Survey data for the survey area indicated that numerous areas within the limits of disturbance for the proposed roadway improvements contained intact soils along gentle slopes near major waterways, which indicated a high potential for prehistoric sites. Historic maps showed several road alignments and structures within the survey area. In addition, one site, 18PR315 (The Surratts Site), a prehistoric campsite, was located within the survey area, and another site, known as Bldg. 4261 (18PR446), is located immediately outside the survey area on Andrews Air Force Base.

Based on this assessment, SHA determined that several areas along the MD 5 corridor had moderate to high potential to contain archeological resources. SHA engaged the services of URS Corporation to undertake Phase I investigation for the project. Enclosed please find one copy of the draft report entitled *Phase I Archeological Survey of the MD 5 Corridor (Project No. PG391A16), Prince George's County, MD* for your review and comment (Attachment 5). SHA's comments on the draft report are enclosed as Attachment 4.

URS Corporation explored the one previously identified site within the current study's limits of disturbance (LOD): 18PR315. 18PR315 was identified during a previous Phase I (Ballweber 1989) and consisted of a small prehistoric lithic scatter, which was identified during a pedestrian survey. The area was tested by URS with shovel test pits placed at 15-meter intervals. The testing at the site resulted in the identification of a scatter of mid-20th century artifacts and disturbed soils. It appears that the 20th century artifacts were related to a recently demolished 20th century structure which formerly stood at the site. No prehistoric artifacts were recovered at the site, and it is likely that the site was destroyed during the construction of a nearby housing development. SHA recommends that 18PR315 is not eligible for the NRHP and has prepared a Determination of Eligibility form for the site, included in Attachment 6.

Site 18PR446 and the associated standing structure, Building #04261 (PG: 77-49), were also explored during the URS survey. URS confirmed that the site was well outside the project LOD, and that the terrain between modern MD 5 and the site has been extensively disturbed. It is unlikely that any resources associated with the site will be affected by the proposed construction.

The Phase I survey included approximately 35 acres distributed across 2.5 non-contiguous linear miles of MD 5 between I-495 and US 301. 134 shovel tests were completed, and 91 artifacts were recovered. No new sites were identified. Significant archeological deposits are not present within the LOD for this project. SHA concludes that there will be no impact to any significant archeological sites as a result of Project PG391A16.

Mr. J. Rodney Little
MD 5 Corridor Study
Page Five

Review Request

Please examine the attached maps, plans, report, and Eligibility and Effects Table (Attachment 7). We request your concurrence by October 30, 2009 that there would be no historic properties affected by the proposed improvements along the MD 5 corridor. By carbon copy, we invite the Prince George's County Historic Preservation Commission and Prince George's Heritage, Inc. to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR §800.2(c)(3) and (5), and §800.3(f) for information regarding the identification and participation of consulting parties, and §800.4, and §800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by October 30, 2009, we will assume that these offices decline to participate. Please call Fred Shoken at 410-545-5793 (or via email at fshoken@sha.state.md.us) with questions regarding standing structures for this project. Lisa Kraus may be reached at 410-545-2884 (or via email at lkraus@sha.state.md.us) with concerns regarding archeology.

Very truly yours,

Julie M. Schablitsky
Assistant Division Chief
Environmental Planning Division

Attachments:
1) Project Plans
2) Area of Potential Effects Map
3) Archeological survey areas/LOD
4) SHA Comments on Archeological Report
5) Phase I Archeological Report
6) Determination of Eligibility form
7) Eligibility/Effects Table

Mr. J. Rodney Little
MD 5 Corridor Study
Page Six

cc: Ms. Karen Arnold, SHA-EPLD
Ms. Lisa Kraus, SHA-EPLD
Mr. Douglas McElrath, Prince George's Heritage, Inc. (w/Attachments)
Ms. Sue Rajan, SHA-PMD
Ms. Gail Rothrock, Prince George's County Historic Preservation Commission (w/Attachments)
Mr. Fred Shoken, SHA-EPLD
Dr. Julie M. Schablitsky, SHA-EPLD

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: PG391A16 **MHT Log No.** 200903844
Project Name: MD 5 Corridor
County: Prince George's
Letter Date: September 30, 2009

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 7]):
- [X] Concur
- [ ] Do Not Concur

Effect (as noted in the Effects Table [Attachment 7]):
- [X] No Properties Affected
- [ ] No Adverse Effect
- [ ] Conditioned upon the following action(s) (see comments below)
- [ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):
- [ ] Agree

Comments:

By: _____ 10/15/09
MD State Historic Preservation Office/ Date
Maryland Historical Trust

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Assistant Division Chief, Environmental Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5046

MARYLAND HISTORICAL TRUST DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes ___ no ___

Property Name: Surratts Inventory Number: 18PR315
Address: 10101 Branch AvenueNW of intersection of MD 5 and Surratts Road Historic district: ___ yes X no
City: Clinton Zip Code: 20735 County: Prince Georges
USGS Quadrangle(s): Anacostia
Property Owner: Land & Commercial Inc. Tax Account ID Number: ___
Tax Map Parcel Number(s): ___ Tax Map Number: ___
Project: MD 5 Corridor Agency: SHA
Agency Prepared By: SHA
Preparer's Name: Lisa Kraus Date Prepared: 10/01/2009
Documentation is presented in: Phase I Archeological Survey of the MD 5 Corridor (Project No. PG391A16) Prince George's County, MD. Horne & Lazelle, 2009
Preparer's Eligibility Recommendation: ___ Eligibility recommended X Eligibility not recommended
Criteria: ___A ___B ___C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G

Complete if the property is a contributing or non-contributing resource to a NR district/property:

Name of the District/Property: ___
Inventory Number: ___ Eligible: ___ yes Listed: ___ yes
Site visit by MHT Staff ___ yes X no Name: ___ Date: ___

Description of Property and Justification: *(Please attach map and photo)*

Site 18PR315 was identified during a pedestrian survey of a plowed field. This investigation was part of a Phase I survey carried out by the Maryland Geological Survey (MGS) in 1989 (Ballweber 1989). Artifacts recovered from the site at that time included one quartz biface fragment, two quartz shatter, two rhyolite secondary flakes, and two chert secondary flakes. Historic artifacts dating to the mid-20th century were also noted during the survey, but were not collected.

The most recent survey (Horne & Lazelle 1989) revisited the site. Shovel test pits were excavated at 15-meter intervals across the site. The area is no longer a plowed field; a modern housing development has been built on substantial portions of the site. Soil profiled of the shovel tests revealed disturbed soils, with deep fill deposits, truncated soil profiles, and very compact soils. Modern artifacts (bottle glass, asphalt chunks, and other construction debris) were present across the site. Some historic artifacts were collected, including bottle glass fragments, four whiteware sherds, three possible creamware sherds, one possible porcelain sherd, one nail, one porcelain doll fragment, and small pieces of coal and shell. All these artifacts were collected from fill deposits or disturbed contexts and do not constitute a site. No prehistoric artifacts were collected, which suggests that the prehistoric site was destroyed during the construction of the housing development.

MARYLAND HISTORICAL TRUST REVIEW
Eligibility recommended ___ **Eligibility not recommended** ___
Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G
MHT Comments:

___ ___
Reviewer, Office of Preservation Services **Date**

___ ___
Reviewer, National Register Program **Date**

NR-ELIGIBILITY REVIEW FORM

18PR315 Surratts

Page 2

Due to the extensive disturbance of the site and the absence of intact archeological contexts, 18PR315 is recommended not eligible for listing on the National Register.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ **Eligibility not recommended** _____

Criteria: __A __B __C __D **Considerations:** __A __B __C __D __E __F __G

MHT Comments:

_____ _____

Reviewer, Office of Preservation Services **Date**

_____ _____

Reviewer, National Register Program **Date**

Attachment 4

SHA Comments

Phase I Archeological Survey of the MD 5 Corridor
(Project No. PG391A16)
Prince George's County, MD

Report by: URS Corporation, Gaithersburg, MD

Reviewed by: Lisa Kraus, SHA-EPLD *September 29, 2009*

General

- The investigation adequately tested the project area. The proposed scope of work was completed.
- The report is adequately researched and well-organized, and the writing is clear and concise.

Technical

- No technical issues

Editorial

- P. 26: The final sentence of the first paragraph should probably read: "The church is located approximately 600 feet east of MD 5 on Allentown Road (MD-337), however, *and* is separated from MD 5 by a shopping center, a storage facility, and a warehouse and office complex."

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

Beverley K. Swaim-Staley, *Secretary*
Neil J. Pedersen, *Administrator*

April 20, 2011

Re: Project No. PG391B21
MD 5 Corridor Study
Prince George's County, MD
USGS *Anacostia and Piscataway* 7.5'
Quadrangle

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) finding that there will be no historic properties affected by the proposed project PG391B16, a project planning study on MD 5 from north of US 301 to I-495 in Prince George's County. South of MD 223 (Woodyard Road), the project corridor is a four-lane divided highway with limited access control, while north of MD 223, the project corridor is a six-lane divided highway with full access control. Six roadway improvement designs have been retained for detailed studies. The build-alternatives are varied, adding one to two lanes of additional roadway in each direction to ease traffic flow and/or making these new lanes priced managed lanes. There are four options to upgrade two intersections to interchanges in the southern half of the project in each alternative. The fifth interchange improvement would reconfigure an existing interchange and is associated with the priced managed lane alternative only. Right-of-way and temporary / permanent easement acquisitions will be required to complete the project.

SHA previously corresponded with your office about this project in letters dated September 19, 2006 and September 30, 2009. The 2006 letter defined a large project area and identified four National Register of Historic Places (NRHP) eligible properties in the project area. MHT concurred with that finding on November 13, 2006. The 2009 letter refined the APE, which excluded the NRHP eligible properties, and recommended that there would be no historic properties affected by the proposed improvements along the MD 5 corridor. MHT concurred with that finding on October 15, 2009.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1800.735.2258 Statewide toll free

Street address: 707 North Calvert Street - Baltimore, Maryland 21202 - *Phone* 410.545.0300 - www.marylandroads.com

Since the last correspondence, minor modifications have been made to the environmental site design. New environmental site design changes have widened the limits of disturbance between Brandywine Road and Woodyard Road to include grass swales or ditches. However, stormwater management ponds remain - some of which have been shifted outside environmentally sensitive areas like wetlands or streams. Project plans showing the revised limits-of-disturbance (LOD) are included as Attachment 1.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered direct and indirect impacts to historic properties. North of MD 223, the MD 5 corridor is characterized by dense development that is in close proximity to the roadway. South of MD 223, the corridor is characterized by a limited access dualized roadway separated by a wide median and flanked by a heavily vegetated right-of-way, which visually separates MD 5 from the surrounding area. The APE established in 2009 includes the tax parcels adjacent to MD 5 within the project limits as well as areas encompassing the proposed interchange options. The APE has been minimally revised to include all parcels impacted by environmental site design features as shown in Attachment 1.

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the proposed intersection improvements.

Architecture: SHA Architectural Historian Jennifer Goold consulted the SHA-GIS Cultural Resources Database, the Maryland Inventory of Historic Properties, tax parcel maps, Maryland Department of Assessments and Taxation real property data, deeds, plats, and aerial photographs. SHA Architectural Historian Rebecca Crew made a site visit on March 29, 2011.

There are eight previously unevaluated properties that meet a forty-five year age criterion and that will be impacted by revisions to environmental site design features. The properties are mid-20th century residential and commercial structures that are undistinguished examples of common resource types. The properties are recommended as not eligible for listing in the NRHP. DOE short forms for these properties are included as Attachment 2.

Mr. J. Rodney Little
MD 5 Corridor Study
Page Three

There are no historic standing structures located within the APE. The project will have no impacts on historic standing structures. No further architectural investigations are recommended.

Archeology: SHA Archeologist Lisa Kraus assessed the archeological potential of the project area based on review of the SHA-GIS Cultural Resources Database, soil survey data, aerial photography, project plans, previous archeological reports, and historic maps. The archeological survey area consists of the limits of direct construction impacts for the proposed roadway improvements.

The majority of the revised survey area was included in URS Corporation's previous archeological survey for this project (Horne and Boyd 2010) or in earlier studies (Ballweber 1989; Barse et al. 1999). Along the southern end of the project area, from Surratts Road to the southern terminus of the project, the revised LOD differs the most substantially from earlier estimates. However, these areas were identified as having high potential prior to the URS survey, and were either included in the Phase I survey, or visually inspected and determined to be too obviously steep or disturbed to contain intact archeological remains (Horne and Boyd 2010). Other areas where the revised LOD extends beyond the earlier estimated limits are located (from north to south) at Center Drive, along MD 337, just north of Tinker's Creek, and just north of Paynes Branch. Again, these locations have been either determined by the URS survey to have low potential for archeological sites, or have been included in prior surveys.

Given the negative survey coverage and the extent of prior disturbance, it is unlikely that the proposed project will impact any intact or potentially significant archeological resources. No further archeological work is recommended.

Review Request
Please examine the attached maps, plans, and Eligibility and Effects Table (Attachment 3). We request your concurrence by May 18, 2011 that there would be no historic properties affected by the corridor improvements along MD 5 between I-495 and north of US 301. By carbon copy, we invite the Prince George's County Historic Preservation Commission and Prince George's Heritage, Inc. to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR §800.2(c)(3) and (5), and §800.3(f) for information regarding the identification and participation of consulting parties, and §800.4, and §800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no

Mr. J. Rodney Little
MD 5 Corridor Study
Page Four

response is received by May 18, 2011, we will assume that this office declines to participate. Please call Jennifer Goold at 410-545-2899 (or via email at jgoold@sha.state.md.us) with questions regarding standing structures for this project. Lisa Kraus may be reached at 410-545-2884 (or via email at lkraus@sha.state.md.us) with concerns regarding archeology.

Very truly yours,

for April Fehr
Julie M. Schablitsky
Assistant Division Chief
Environmental Planning Division

Attachments: 1) Project Plans
2) DOE forms
3) Eligibility and Effects Table

cc: Ms. Karen Arnold, SHA-EPLD
Mr. Howard Berger, Prince George's Historic Preservation Commission (w/Attachments)
Ms. Jennifer Goold, SHA-EPLD (w/Attachments)
Dr. Lisa Kraus, SHA-EPLD
Mr. Doug McElrath, Prince George's Heritage, Inc. (w/Attachments)
Ms. Sue Rajan, SHA-EPLD
Dr. Julie M. Schablitsky, SHA-EPLD

Concurrence with the MD State Highway Administration's Determination(s) of Eligibility and/or Effects

Project Number: **PG391B16** **MHT Log No.** 2011016O2
Project Name: MD 005: IS 495 to US 301
County: **Prince George's**
Letter Date: **April 20, 2011**

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 3]):
- [X] Concur
- [ ] Do Not Concur

Effect (as noted in the Effects Table [Attachment 3]):
- [X] No Properties Affected
- [ ] No Adverse Effect
- [ ] Conditioned upon the following action(s) (see comments below)
- [ ] Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):
- [ ] Agree

Comments:

By: [signature] 5/19/2011
MD State Historic Preservation Office/ Date
Maryland Historical Trust

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Assistant Division Chief, Environmental Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5046

Attachment 3: Hybrid Eligibility / Effects Table

Project Name: MD 5: US 301 to I-495 **April 18, 2011**

Resource	Type	SHA NR Det.	SHPO Opinion	Impact	SHPO Concur	Attachment	Remarks
Marlow/Hunitt Store (PG:85A-14)	S	NR	12/08/1998	None	10/15/2009		Outside current APE
J. Eli Hunitt Casket Shop (PG:85A-15)	S	NR	07/21/1997	None	10/15/2009		Outside current APE
Marlow-MacPherson House (PG:85A-16)	S	X	11/13/2006	None	10/15/2009		Demolished
J. Eli Hunitt House (PG:85A-17)	S	NR	07/21/1997	None	10/15/2009		Outside current APE
T.B. "Colored" School (PG:85A-26)	S	NR	12/08/1998	None	10/15/2009		Outside current APE
Pyles Lumber Warehouse & Residence (PG:76A-8)	S	X	07/21/1997	None	10/15/2009		
Thornton-Wood Farmstead (PG:76A-24)	S	X	09/25/1997	None	10/15/2009		
L&R Lawnmower (PG:76A-25)	S	X	09/25/1997	None	10/15/2009		
Farm Housing/Andrews AFB Bldg. #04002 (PG:77-46)	S	X	02/29/2000	None	10/15/2009		
Farm Housing/Andrews AFB Bldg. #04242 (PG:77-47)	S	X	02/29/2000	None	10/15/2009		
Farm Housing/Andrews AFB Bldg. #04252 (PG:77-48)	S	X	02/29/2000	None	10/15/2009		
Farm Housing/Andrews AFB Bldg. #04261 (PG:77-49)	S	X	02/29/2000	None	10/15/2009		
Storage Shed/Andrews AFB Bldg. #04689 (PG:77-53)	S	X	02/29/2000	None	10/15/2009		
Storage Shed/Andrews AFB Bldg. #04690 (PG:77-54)	S	X	02/29/2000	None	10/15/2009		
Andrews AFB Bldg. #4691 (PG:77-85)	S	X	04/08/2003	None	10/15/2009		
Tobacco Barn/Spring Lake Restaurant Advertisement (PG:85A-3)	S	X	07/21/1997	None	10/15/2009		
Tee Bee Historic District (PG:85A-33)	HD	X	12/09/1998	None	10/15/2009		
Brandywine Patio Commercial Property (PG:85A-36)	S	X	12/08/1998	None	10/15/2009		
William & Margaret Ellen Smoot Property (PG:85A-37)	S	X	12/08/1998	None	10/15/2009		

5702 Old Branch Avenue							
Curtis Properties Residence 5710 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Robert and Gayle Jones Residence 5804 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Serio-Tillin Residence 6006 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Alejandro and Elsa Aviles Reyes Residence 6116 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Harvey and Glen Pyles Residence 6206 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Camp Spring Auto Parts 6516 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
LaRah and Yvonne Payne Residence 6601 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Ralph and Lillian Gran Residence 6605 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Barbara Bach Residence 6611 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Chester and Mary Affron Residence 7005 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Ofelia Valentin Residence 7011 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Demetris Goumis Residence 7201 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Demetris and Eleanore Goumis Residence 7209 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Michael Casey Residence 7105 Jordan Lane	S	X	11/13/2006	None	10/15/2009		
Edward Pockey Residence 9200 Stuart Lane	S	X	11/13/2006	None	10/15/2009		
Moore-Brooks Residence 9204 Stuart Lane	S	X	11/13/2006	None	10/15/2009		
Libelo Residence 9208 Stuart Lane	S	X	11/13/2006	None	10/15/2009		
Lenora Steven Residence	S	X	11/13/2006	None	10/15/2009		

Denise & Gregory Ally Property (PG:85A-38)	S	X	12/08/1998	None	10/15/2009		
Vincent Commercial Property (PG:85A-39)	S	X	12/08/1998	None	10/15/2009		
Dobson Property (PG:85A-40)	S	X	12/08/1998	None	10/15/2009		
John Kran Property (PG:85A-41)	S	X	12/08/1998	None	10/15/2009		
Charles W. & Velma B. Finch Property (PG:85A-42)	S	X	12/08/1998	None	10/15/2009		
J. Henry & Margaret Murray Property (PG:85A-43)	S	X	10/14/1999	None	10/15/2009		
Theron Morrow Property (PG:85A-54)	S	X	12/08/1998	None	10/15/2009		
Huntt Luckett Property (PG:85A-55)	S	X	12/08/1998	None	10/15/2009		
Mary I. Huntt Property (PG:85A-56)	S	X	12/08/1998	None	10/15/2009		
Ballard	HD	X	11/13/2006	None	10/15/2009		
Barbara Washington Residence 5400 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Mary Alexander Residence I 5418 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Mary Alexander Residence II 5500 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Ronald Troup Residence 5506 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Gary Gray Residence 5510 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Central Baptist Church Property 5600 Old Branch Avenue	S	X	11/13/2006	None	10/15/2009		
Lawrence Prevatte Residence 5501 Deerpond Lane	S	X	11/13/2006	None	10/15/2009		
Fineda-Sanchez Residence 5505 Deerpond Residence	S	X	11/13/2006	None	10/15/2009		
India Dupree Residence 5509 Deerpond Residence	S	X	11/13/2006	None	10/15/2009		
Joseph and Florence Fitzpatrick Residence 5513 Deerpond Residence	S	X	11/13/2006	None	10/15/2009		
Ingrid Lynch Residence 5517 Deerpond Lane	S	X	11/13/2006	None	10/15/2009		
Solomon's Island Road Residence	S	X	11/13/2006	None	10/15/2009		

9210 Stuart Lane							
Ginial and Miyoko Minor Residence 9216 Stuart Lane	S	X	11/13/2006	None	10/15/2009		
Mark George Residence 9218 Stuart Lane	S	X	11/13/2006	None	10/15/2009		
John and Mary Daye Residence 7205 Milligan Road	S	X	11/13/2006	None	10/15/2009		
Thomas and Mary Murphy Residence 7203 Milligan Road	S	X	11/13/2006	None	10/15/2009		
Robert Howard Residence 7201 Milligan Road	S	X	11/13/2006	None	10/15/2009		
6800 Friendship Court	S	X	11/13/2006	None	10/15/2009		
6802 Friendship Court	S	X	11/13/2006	None	10/15/2009		
6804 Friendship Court	S	X	11/13/2006	None	10/15/2009		
6806 Friendship Court	S	X	11/13/2006	None	10/15/2009		
6808 Friendship Court	S	X	11/13/2006	None	10/15/2009		
6810 Friendship Court	S	X	11/13/2006	None	10/15/2009		
7805 Surratts Road	S	X	11/13/2006	None	10/15/2009		
7812 Surratts Road	S	X	11/13/2006	None	10/15/2009		
6901 Burch Hill Road	S	X	11/13/2006	None	10/15/2009		
6907 Burch Hill Road	S	X	11/13/2006	None	10/15/2009		
Bridge No. 1601300	S	X	11/13/2006	None	10/15/2009		
Bridge No. 1605600	S	X	11/13/2006	None	10/15/2009		
18PR315	A	X	10/15/2009	None	10/15/2009		
13600 Brandywine Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
13504 Brandywine Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
6700 Springbrook Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
6702 Springbrook Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
6704 Springbrook Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
6706 Springbrook Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
6304 Springbrook Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
6306 Old Branch Road	**S**	**X**	**Requested 4/2011**	None	**Requested 4/2011**	4	
Effect				**NPA**	**Requested 4/2011**		

Codes:

Resource Types: S (Structure), A (Archeological Site), HD (Historic District), NHL (National Historic Landmark)
NR Determination: ND (Not Determined), X (Not Eligible), NR (Eligible), NRL (Listed), NHL (Landmark)
SHPO Opinion: (B) designates opinion regarding boundary, Code following date signifies SHPO opinion
Impact: None, No Adverse, Adverse
Effect: NPA (No Properties Affected), NAE (No Adverse Effect), AE (Adverse Effect)
Bold rows indicate review action requested

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA
State Highway Administration
Maryland Department of Transportation

Beverley K. Swaim-Staley, *Secretary*
Neil J. Pedersen, *Administrator*

October 7, 2009

Project No. PG391A16
MD 5 Corridor Transportation Project
Prince George's County, Maryland

Mr. Oliver Miranda
Natural Resources Conservation Service
USDA Field Service Center
5301 Marlboro Race Track Road
Upper Marlboro, MD 20772

Dear Mr. Miranda:

The Maryland State Highway Administration has initiated a Project Planning study for MD 5 (Branch Avenue) in Prince George's County, Maryland. The MD 5 Transportation Corridor Study limits extend from just south of US 301 to just north of I-95/I-495 (Figure 1). The configuration of the proposed alternatives range from adding one lane in the southern half of the project to adding another lane throughout the project, with price managed lane variations of that configuration. All build alternates include two grade separated interchanges, one at Surratts Road and one between the Burch Hill Drive/Earnshaw Road and Moores Road intersections. The proposed alternates include the:

- Alternative 1-- No-Build;
- Alternative 3--Expressway upgrade South of MD 223 (by adding a lane in each direction);
- Alternative 4--Expressway Upgrade the Entire Corridor (adding a lane in each direction for the length of the project;
- Alternative 5--Two-Lane Reversible Price Managed Lanes (provided in the median;
- Alternative 8--One to Two Lane Price Managed Lanes (adding a lane through the project, this new lane plus one general purpose lane would be priced north of the MD 223, while south of MD 223 the new lane would be price managed; Alternative 6); and
- Non-Priced Managed lanes (one lane would be added and used as non-priced managed lanes.

Enclosed, please find three copies of Form AD1006 with Parts I and III completed, along with a project location map and a map of the project footprint (which represents the alternate that requires the most right-of-way and therefore the most impact to farmland soils) overlaid on the 1967 Prince George's County Soil Survey and updated as needed based on electronic

mapping from the NRCS Soil Data Mart 2002 (Figures 2A, 2B, and 2C). An electronic version of the form and/or additional copies of the mapping are available upon request. Although the final design has not been determined, none of the build alternates should exceed approximately 320 acres, as noted on the form. We would like to have your response by November 3.

Please contact Ms. Karen Arnold at 410-545-8510 or at karnold@sha.state.md.us, should you have any questions or concerns. Thank you for your cooperation.

Very truly yours,

Donald H. Sparklin
Division Chief
Environmental Planning Division

by: Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

Enclosures
cc: Ms. Karen Arnold, SHA-EPLD (w/Enclosures)
Ms. Allison Grooms, SHA-EPLD
Ms. Jessica Kleinfelter, ADM
Mr. Joseph Kresslein, SHA-EPLD
Ms. Suseela Rajan, SHA-PMD
Mr. Donald H. Sparklin, SHA-EPLD

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 9/25/09	
Name Of Project MD 5 Corridor Transportation Study		Federal Agency Involved Federal Highway Adminstration	
Proposed Land Use Roadway		County And State Prince George's County MD	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	
Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☐ No ☐	Acres Irrigated	Average Farm Size
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 NRCS	

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	320.0			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	320.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* 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 NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment 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	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

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

Reason For Selection:

(See Instructions on reverse side) Form AD-1006 (10-83)

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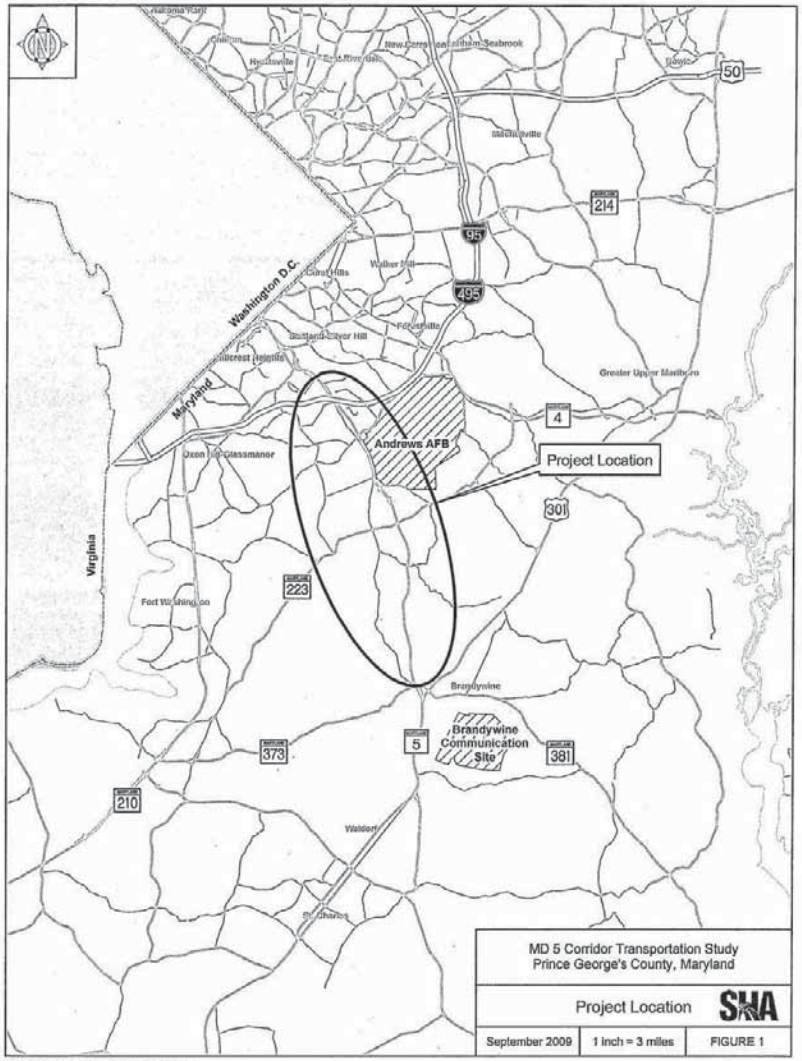

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
28577 Mary's Court, Suite 3
Easton, Maryland 21601-7499

Phone: 410 822-1577 ext. 3

DATE: November 6, 2009

TO: Karen Arnold, SHA-EPLD
707 North Calvert St. C-301
Baltimore, MD 21202

SUBJECT: Farmland Protection Policy Act
Environmental Assessment for
Project No. PG391A16
MD 5 Corridor Transportation Project
Prince George's County, Maryland

Dear Ms. Arnold:

The responsibility of our agency, for your environmental assessment of the MD 5 Corridor Transportation Project is to provide technical assistance for the Farmland Protection Policy Act (FPPA) by evaluating and completing our sections of the Farmland Conversion Impact Rating Form AD-1006.

We have completed our sections of the form. See attachment.

If you require any additional information, please let us know.

Sincerely,

James E. Brewer

James E. Brewer, CPSS, CPSC
NRCS Resource Soil Scientist
410 822-1577 ext. 121

cc: Oliver Miranda, Upper Marlboro, MD
Mark Rose, Annapolis, MD

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 9/25/09	
Name Of Project MD 5 Corridor Transportation Study		Federal Agency Involved Federal Highway Adminstration	
Proposed Land Use Roadway		County And State Prince George's County MD	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 10/10/09	
Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply – do not complete additional parts of this form).*	Yes ☑ No ☐	Acres Irrigated NA	Average Farm Size 99 ac.
Major Crop(s) Corn, Soybean, wheat	Farmable Land In Govt. Jurisdiction Acres: 205,662 % 68	Amount Of Farmland As Defined In FPPA Acres: 125,881 % 42	
Name Of Land Evaluation System Used modified LESA	Name Of Local Site Assessment System NONE	Date Land Evaluation Returned By NRCS 11/6/09	

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	320.0			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	320.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	82.16			
B. Total Acres Statewide And Local Important Farmland	95.36			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.08			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	58.6			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	58	0	0	0

PART VI *(To be completed by Federal Agency)* 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	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

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

Reason For Selection:

(See Instructions on reverse side)
This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
MARYLAND DEPARTMENT OF TRANSPORTATION

Beverley K. Swaim-Staley, *Secretary*
Darrell B. Mobley, *Acting Administrator*

November 16, 2011

Project No. PG391B16
MD 5 Corridor Transportation Project
Prince George's County, Maryland

Mr. Joseph Haamid
Natural Resources Conservation Service
USDA Field Service Center
5301 Marlboro Race Track Road
Upper Marlboro, MD 20772

Dear Mr. Haamid:

The Maryland State Highway Administration has initiated a Project Planning study for MD 5 (Branch Avenue) in Prince George's County, Maryland. We previously coordinated with your office in 2009 **[Attachment 1]**; however, since that time there have been design changes to the proposed alternatives that have increased the impacts to farmlands.

The MD 5 Transportation Corridor Study limits extends from just south of US 301 to just north of I-95/I-495 **(Figure 1)**. The configuration of the proposed alternatives range from adding one lane in the southern half of the project to adding another lane throughout the project, with price managed lane variations of that configuration. All build alternatives include two grade separated interchanges, one at Surratts Road and one between the Burch Hill Drive/Earnshaw Road and Moores Road intersections.

The proposed alternates include the following:

- Alternative 1 - No-Build;
- Alternative 3 - Expressway upgrade South of MD 223 (by adding a lane in each direction);
- Alternative 4 - Expressway Upgrade the Entire Corridor (adding a lane in each direction for the length of the project;
- Alternative 5 - Two-Lane Reversible Price Managed Lanes (provided in the median);
- Alternative 6 - One to Two Lane Price Managed Lanes (adding a lane through the project, this new lane plus one general purpose lane would be priced north of the MD 223, while south of MD 223 the new lane would be price managed; Alternative 6); and
- Alternative 8 - Non-Priced Managed lanes (one lane would be added and used as non-priced managed lane).

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • *Phone* 410.545.0300 • www.roads.maryland.gov

Mr. Joseph Haamid
MD 5 Corridor Transportation Project
Page Two

The design changes included widening the footprint of the proposed alternatives by reconfiguring the shape and placement of the stormwater management facilities from a few large ponds into a series of ditches that parallel the length of the roadway. The changes are due to new stormwater management requirements recently established by the Maryland Department of the Environment. These changes are reflected in the increased impacts shown on the attached forms.

Enclosed, please find three copies of Form AD1006 with Parts I, III and IV completed, along with a project location map and a map of the project footprint (which represents the alternative that requires the most right-of-way and therefore the most impact to farmland soils) overlaid on the 1967 Prince George's County Soil Survey and updated as needed based on electronic mapping from the NRCS Soil Data Markt 2002 **(Figures 2A, 2B, and 2C)**. An electronic version of the form and/or additional copies of the mapping are available upon request. Although the final alternative has not been selected, none of the revisions to the proposed build alternatives should exceed 444 acres, a 124 acre increase from the 2009 calculation of 320 acres. We are requesting your response by December 15.

Please contact Ms. Karen Arnold at 410-545-8510 or at karnold@sha.state.md.us, should you have any questions or concerns. Thank you for your cooperation.

Very truly yours,

Joseph R. Kresslein
Assistant Division Chief
Environmental Planning Division

Attachments
cc: Ms. Karen Arnold, SHA-EPLD (w/Attachments)
Ms. Allison Grooms, SHA-EPLD "
Ms. Jessica Kleinfelter, ADM "
Mr. Joseph Kresslein, SHA-EPLD
Ms. Suseela Rajan, SHA-PMD
Mr. Donald H. Sparklin, SHA-EPLD
Ms. Tessa Young, SHA-PMD "

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 11/10/11
Name Of Project MD 5, from North of US 301 to I-495	Federal Agency Involved Federal Highway Administration
Proposed Land Use Roadway	County And State Prince George's County, MD
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ | Acres Irrigated | Average Farm Size
(If no, the FPPA does not apply -- do not complete additional parts of this form).

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 NRCS

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	443.9			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	443.9	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland	101.8			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	126.3			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Nonurban Use	15	5			
2. Perimeter In Nonurban Use	10	4			
3. Percent Of Site Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	0			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	10	0			
9. Availability Of Farm Support Services	5	0			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	9	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	9	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	9	0	0	0

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

Reason For Selection:

(See Instructions on reverse side) Form AD-1006 (10-83)

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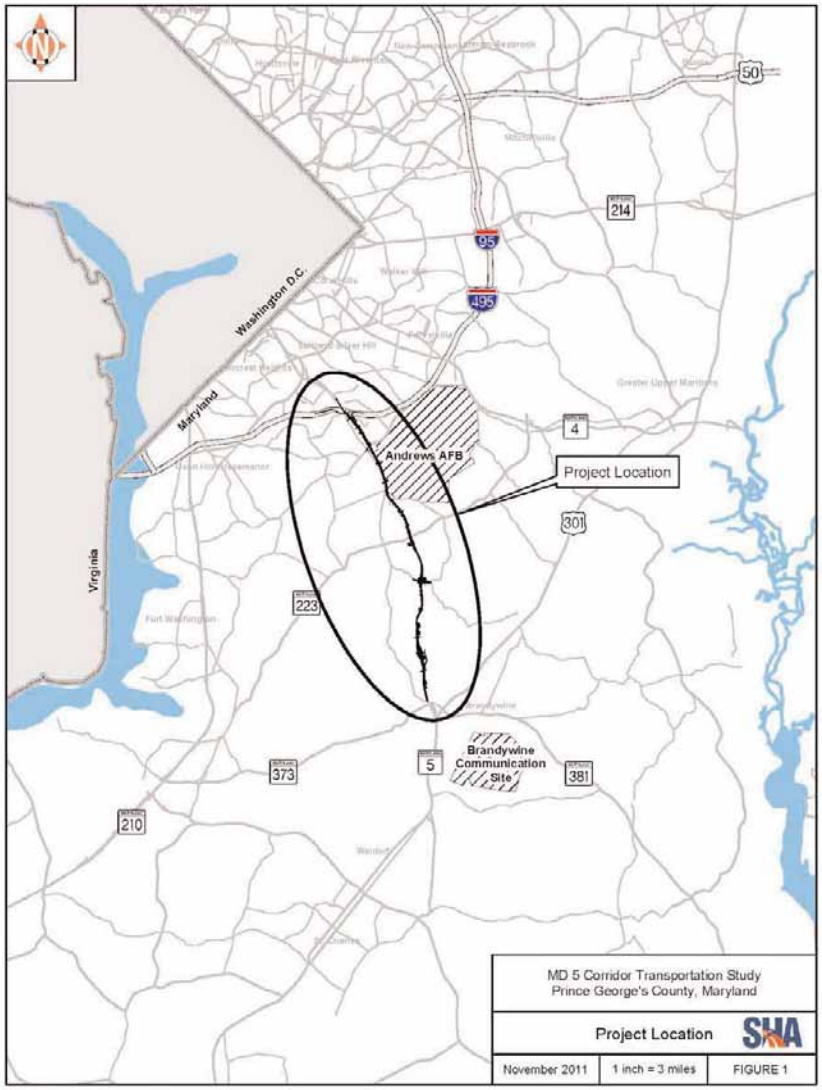
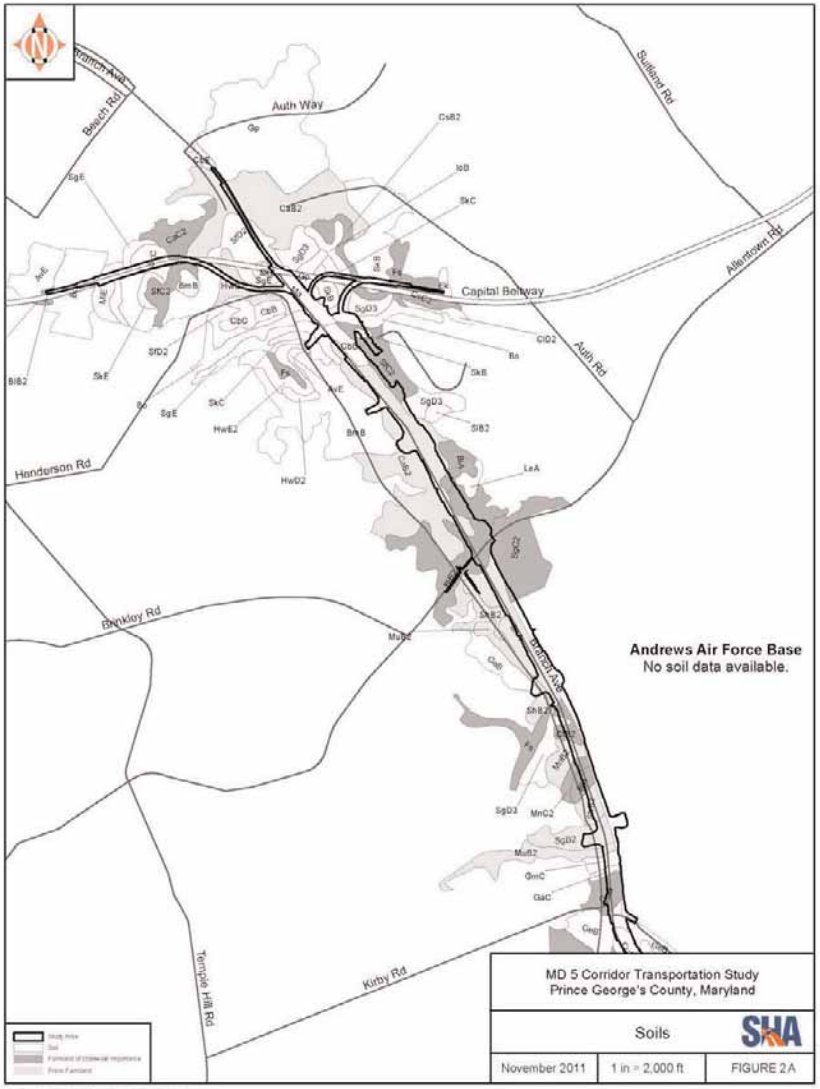
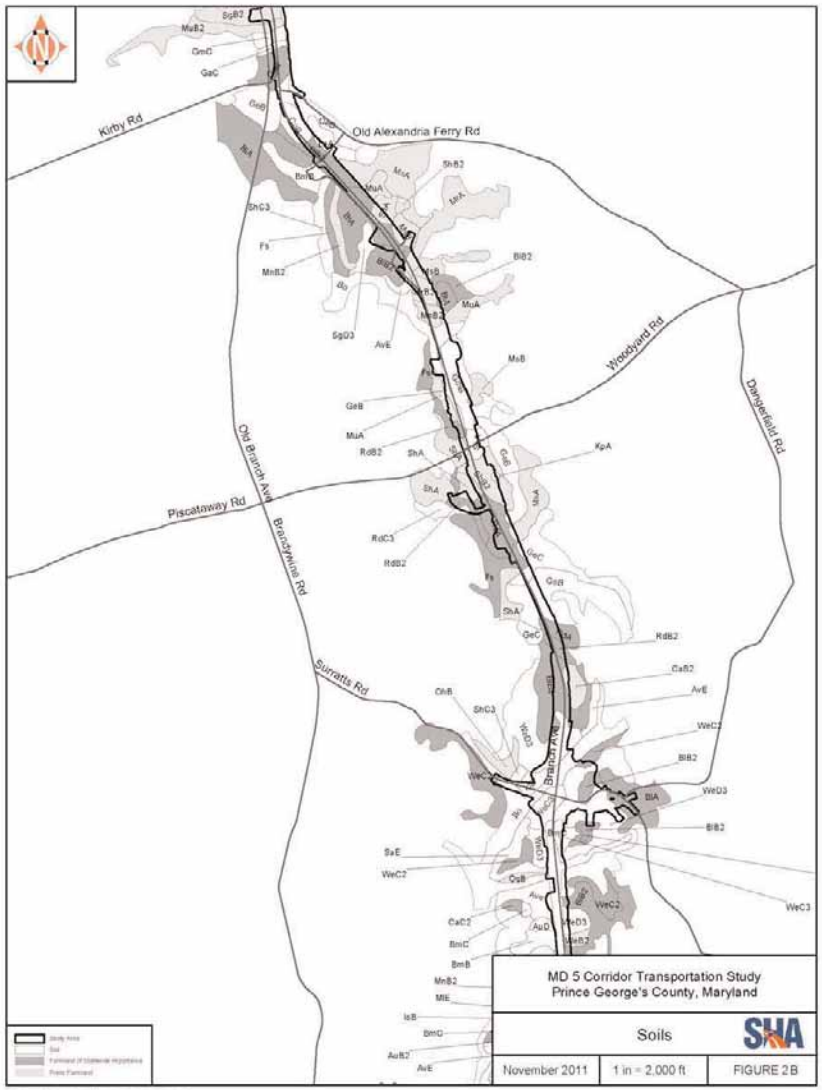
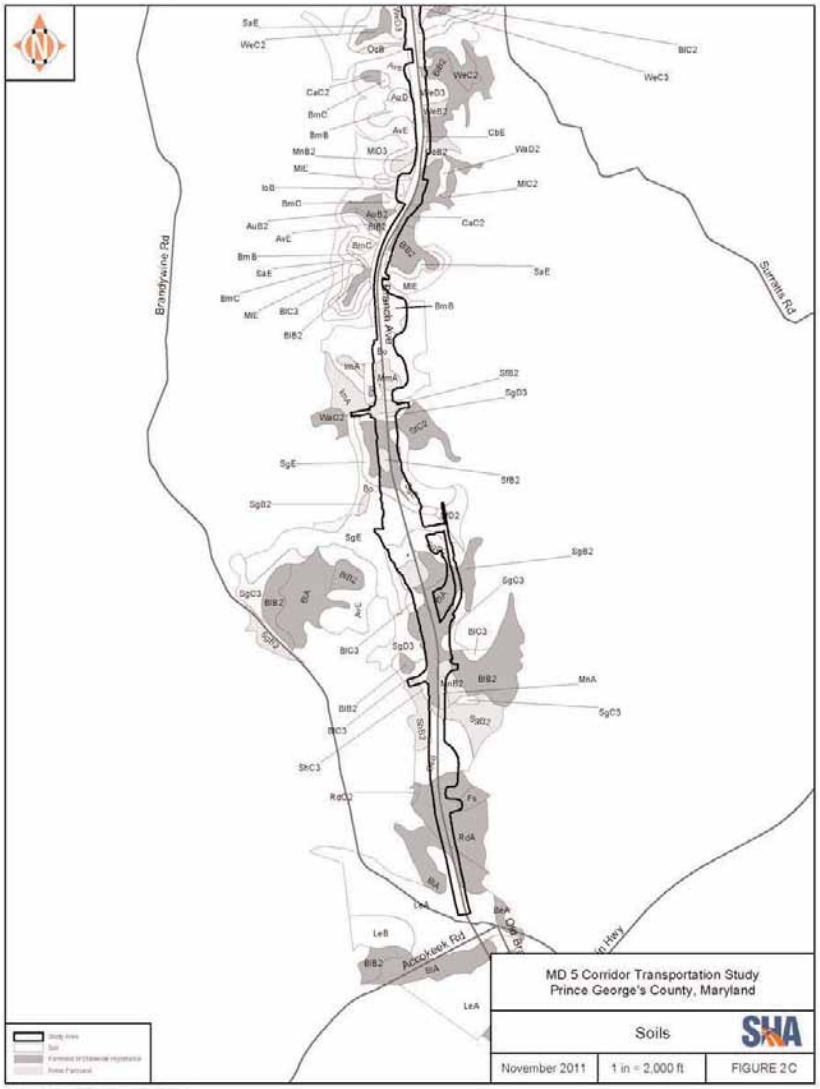



Auth Way
Beech Rd
Suitland Rd
Allentown Rd
Capital Beltway
Auth Rd
Henderson Rd
Brinkley Rd
Andrews Air Force Base
No soil data available.
Temple Hill Rd
Kirby Rd
MD 5 Corridor Transportation Study
Prince George's County, Maryland
Soils
SHA
November 2011
1 in = 2,000 ft
FIGURE 2A


Kirby Rd
Old Alexandria Ferry Rd
Woodyard Rd
Dangerfield Rd
Old Branch Ave
Piscataway Rd
Brandywine Rd
Suratts Rd
Branch Ave
MD 5 Corridor Transportation Study
Prince George's County, Maryland
Soils
SHA
November 2011
1 in = 2,000 ft
FIGURE 2B



United States Department of Agriculture

NRCS

Natural Resources Conservation Service
28577 Mary's Court, Suite 3
Easton, Maryland 21601-7499

Phone: 410 822-1577 ext. 3

DATE: February 9, 2012

TO: Karen Arnold, SHA-EPLD
707 North Calvert St. C-301
Baltimore, MD 21202

SUBJECT: Farmland Protection Policy Act
Environmental Assessment for
Project No. PG391B16
MD 5 Corridor Transportation Project
Prince George's County, Maryland

Dear Ms. Arnold:

The Natural Resources Conservation Service responsibility pertaining to the Farmland Protection Policy Act (FPPA) is to provide technical assistance for the Act by evaluating and completing Parts II, IV, and V of the Farmland Conversion Impact Rating Form AD – 1006. The purpose of the Act is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses.

We have determined that the Policy Act does not pertain to the proposed MD 5 Corridor Transportation Project in Prince George's County. This is because the entire site or parts of it, for the proposed project have been "identified as urbanized area (UA) on the US Census Bureau Map". Therefore the land at the sites does not meet the Act's definition of Farmland. We are returning the Rating Form AD 1006 with "No" checked in Part II.

If you require any additional information, please feel free to contact me.

Sincerely,

James E. Brewer

James E. Brewer, CPSS/SC
NRCS Resource Soil Scientist
Easton, Maryland
410 822-1577 ext. 121
james.brewer@md.usda.gov

cc: Bianca Soto Gomez, Annapolis, MD
Thomas Morgart, Annapolis, MD

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 11/10/11
Name Of Project MD 5, from North of US 301 to I-495	Federal Agency Involved Federal Highway Administration
Proposed Land Use Roadway	County And State Prince George's County, MD
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 11/16/11 to MGS P.G. Co.; 2/1/12 to Jim Brewer

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply – do not complete additional parts of this form).*	Yes ☐	No ☒	Acres Irrigated / Average Farm Size
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 NRCS

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	443.9			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	443.9	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland	101.8			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	126.3			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	5			
2. Perimeter In Nonurban Use	10	4			
3. Percent Of Site Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	0			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	10	0			
9. Availability Of Farm Support Services	5	0			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	9	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	9	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	9	0	0	0

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

Reason For Selection:

(See instructions on reverse side) Form AD-1006 (10-83)

This form was electronically produced by National Production Services Staff

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DEC-09-2008 14:11 FROM:MDE WSP 410 537 3157 TO:914109028856 P.1/4

MDE

MDE

FAX TRANSMISSION COVER SHEET

Maryland Department of the Environment
Water Management Administration
Water Supply Program
Water Rights Division
1800 Washington Boulevard
Baltimore, Maryland 21230

DATE: Dec 9, 2008

PLEASE DELIVER THIS FAX DOCUMENT TO:

NAME: Anna Mc Aninch

ADDRESS: A D Marble & Company

FAX NUMBER: 410 – 902 - 8856

MESSAGE:

Anna,

There are no wellhead protection areas along the route you indicated on your map of the expansion to Maryland Route 5. However, there are two permitted water withdrawal wells next to the highway. A copy of the permits descriptions and maps of the locations are enclosed for your convenience. Please call if you have any other questions.

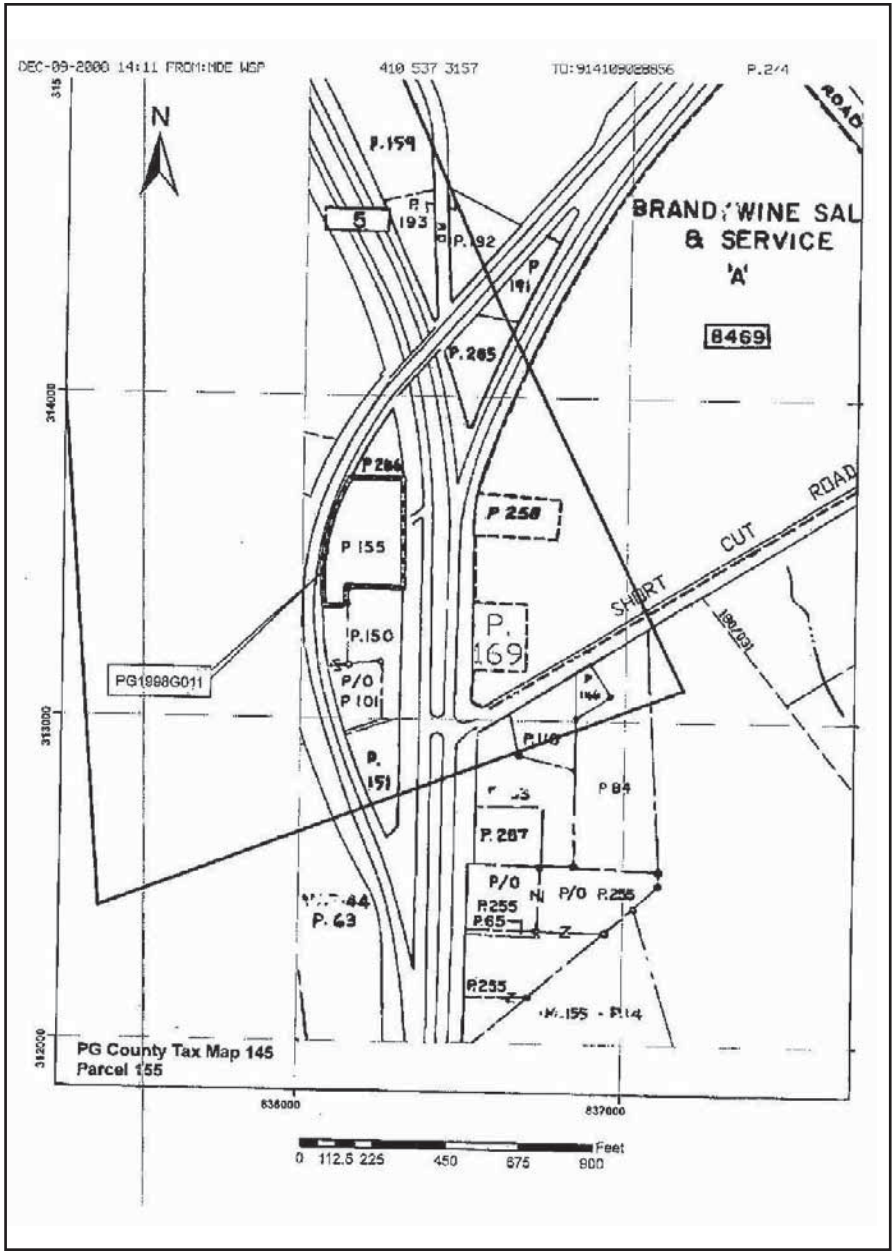
FAX DOCUMENT SENT BY:

NAME: Sam Glover

OFFICE PHONE NUMBER: (410) 537-4470

FAX NUMBER: (410) 537-3157

We are transmitting 4 pages (including this cover sheet.) If you do not receive all pages, please notify the sender at the number listed above.


DEC-09-2000 14:11 FROM:MDE WSP
410 537 3157
N
BRANDYWINE SAL
& SERVICE
'A'
8469
P.159
P.285
P 258
P 155
P.150
P/O
P 101
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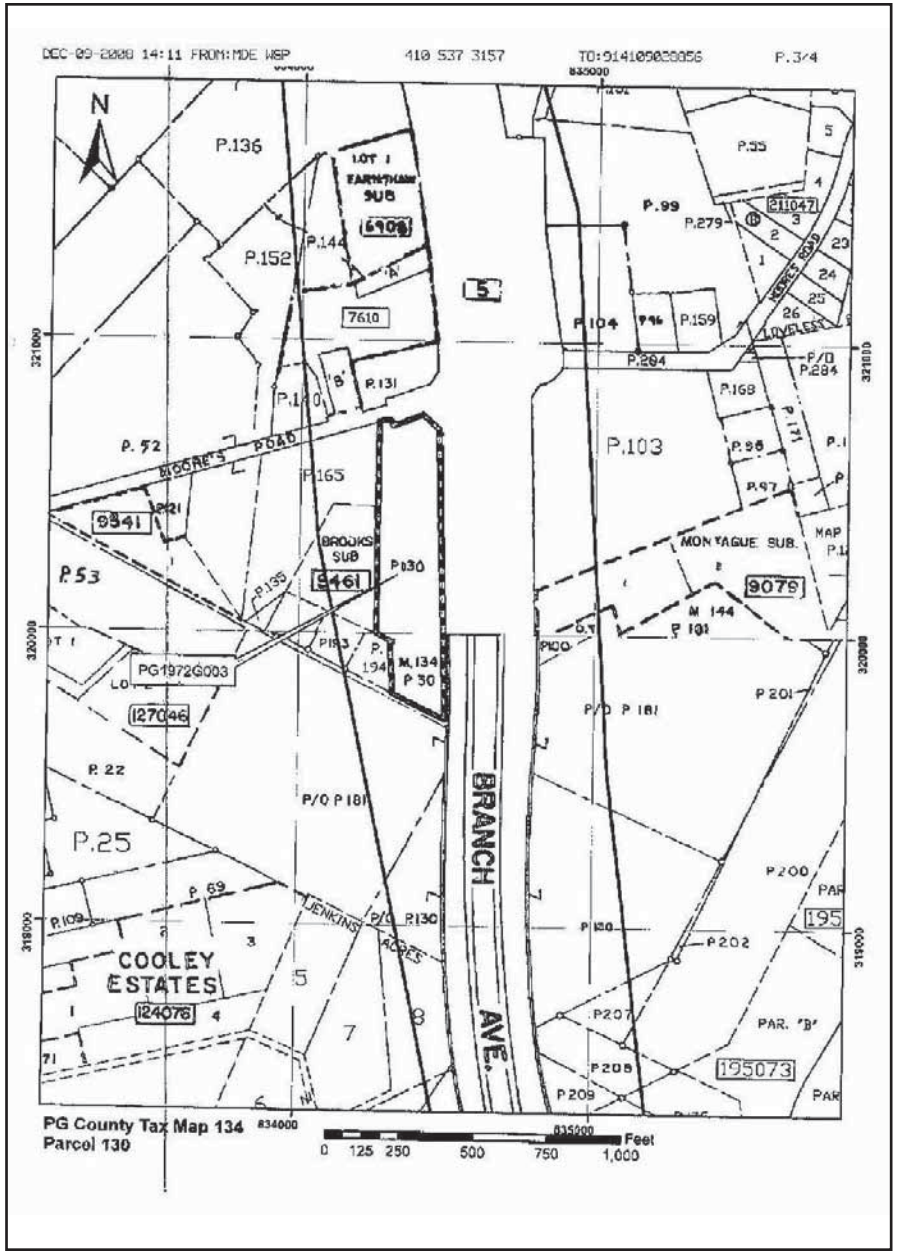
169
P.
151
P 84
P.287
P/O
P.255
P.65
P/O P.255
P.255
PG1988G011
SHORT CUT ROAD
PG County Tax Map 145
Parcel 155
Feet
0 112.5 225 450 675 900


DEC-09-2000 14:11 FROM:MDE WSP
410 537 3157
N
P.136
P.152
P.144
P.99
P.279
P.104
P.159
P.294
P.168
P.103
P.52
MOORE'S ROAD
P.165
P.53
BROOKS SUB
P.130
MONTAGUE SUB.
P.101
PG1972G003
127046
P.22
P/O P.181
P.25
P.69
P.109
JENKINS ACRES
P/O P.130
COOLEY ESTATES
124076
BRANCH AVE.
P.200
P.202
P.207
P.208
P.209
195073
PG County Tax Map 134
Parcel 130
Feet
0 125 250 500 750 1,000

DEC-09-2008 14:11 FROM:MDE WSP 410 537 3157 TO:914109028856 P.4/4

WMA - Water Rights Division wan_gpd.per
PERMIT CONDITIONS

PERMIT #: [PG1972G003(03)] ACTION ID: [197280326] STATUS: A DIV: WA
PROJECT: MOBILE HOME SALES

QUANTITY (GPD): AVERAGE [100] MAXIMUM [200]
USE: The water is to be used for [SANITARY FACILITIES AND A POTABLE]
[SUPPLY FOR A MOBILE HOME SALES OFFICE.]
[ ]

SOURCE: The water shall be taken from [ONE WELL IN THE AQUIA]
[FORMATION.]
[ ]

LOCATION: The point(s) of withdrawal shall be located [AT 7401 MOORE]
[ROAD, AT THE SOUTHWEST CORNER OF MOORE ROAD AND MD RT. 5,]
[1.2 MILES NORTH OF BRANDYWINE, PRINCE GEORGE'S]
[COUNTY, MARYLAND.]
[ ]

WMA - Water Rights Division wan_gpd.per
PERMIT CONDITIONS

PERMIT #: [PG1998G011(01)] ACTION ID: [199880185] STATUS: A DIV: W
PROJECT: BRANDYWINE RENTALS/EQUIPMENT RENTALS

QUANTITY (GPD): AVERAGE [200] MAXIMUM [300]
USE: The water is to be used for [A POTABLE SUPPLY AND SANITARY]
[FACILITIES AT BRANDYWINE RENTALS.]
[ ]

SOURCE: The water shall be taken from [ONE WELL IN THE MAGOTHY]
[FORMATION.]
[ ]

LOCATION: The point(s) of withdrawal shall be located [AT 14201 BRANCH]
[AVENUE, AT THE SOUTHWEST CORNER OF THE JUNCTION OF U.S.]
[ROUTE 301 AND ROUTE 5, BRANDYWINE, PRINCE GEORGE'S]
[COUNTY, MARYLAND.]
[ ]

THE PRINCE GEORGE'S COUNTY GOVERNMENT

Fire/EMS Department Headquarters
Office of the Fire Chief

May 21, 2009

Mr. Bruce M. Grey
Deputy Director
Office of Planning
and Preliminary Engineering
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Grey:

I am in receipt of your April 24, 2009, letter regarding the MD 5 Corridor Transportation Project No. PG391A16, requesting the Prince George's County Fire/Emergency Medical Services (EMS) Department's review for impact to our services. We have reviewed the project, and our comments are as follows:

- The biggest impact will be the access to the entrance to Southern Maryland Hospital. This is an extremely busy hospital and we must maintain adequate access to the entrance off of Surratts Road. Route 5 is the only main corridor for ambulances and medic units. It is vital to Fire/EMS operations to maintain control of this intersection during construction. Some of the transport and response routes can detour down Brandywine Road if necessary. Most of the emergency traffic will be traveling southbound on Route 5.
- Removing the at grade crossing of Surratts Road will eliminate the precarious left hand turn that all southbound EMS units must make with every transport to the hospital. This has long been a great hazard for providers, patients, and citizens alike.
- Exchanges that incorporate the bridge design are by far the best option. Fatal accidents have been significantly reduced at the Allentown Road/Branch Avenue, Coventry Road/Branch Avenue, and Woodyard Road/Branch Avenue exchanges now that bridge work has been completed. Traffic also flows better than it did when they were light controlled intersections. Bridges at Surratts, Earnshaw and Moores Road would drastically reduce accidents at these exchanges.
- During construction, any transport times will be significantly increased; however, when completed, the upgrades to the Route 5 corridor will improve traffic flow, therefore improving response times for emergency vehicles.
- Toll lanes, if installed, will increase response times if units are required to negotiate around them.
- Any intersection upgrade should include the Opticom (c) intersection control system with a multi-directional receiver.

9201 Basil Court, Fourth Floor East
Largo, Maryland 20774
VOICE-(301) 883-5200 FAX-(301) 883-5212 TDD-(301) 925-5167

Bruce M. Grey
May 21, 2009
Page 2

- Planned road closure(s) should be planned and reported with ample time for contingencies.
- Every intersection upgrade should include an emergency vehicle lane. This is paramount for the intersection(s) involved around the Southern Maryland Hospital facility.

Thank you for the opportunity to review the proposed plans. As the project moves forward, if changes are made to the proposed plans or alternate options are being considered, we would like the opportunity to further reassess impacts to our service delivery. Please contact Jerome LaMoria, Major, Fire/Rescue Operations, at 240-832-0878, if you have any questions or require additional information.

Sincerely,

Eugene A. Jones
Acting Fire Chief

EAJ:VS:mjw

Copy to: Victor Stagnaro, Lieutenant Colonel, Emergency Operations Command
Jerome F. LaMoria, Major, Fire/Rescue Operations

THE PRINCE GEORGE'S COUNTY GOVERNMENT

Fire/EMS Department Headquarters

Office of the Fire Chief

June 5, 2009

Joseph R. Kresslein, Assistant Division Chief
Project Planning Division
Maryland Department of Transportation
State Highway Administration
Office of Planning and Preliminary Engineering
P.O.Box 717
Baltimore Maryland 21203-0717

Re: Project No. PG391A16
Maryland Corridor Transportation Project
Prince George's County Maryland

Dear Mr. Kresslein:

Thank you for providing the Prince George's County Fire/Emergency Medical Services (EMS) Department with the opportunity to comment on the above referenced project. The Department is in support of Alternative 8, Figure 5, with four North lanes and three South lanes with median separation and shoulders on both directions (Reversible High Occupancy Vehicle Lanes, referred to as Non-priced lanes).

However, Mr. Kenny Oladeinde, Project Manager, Office of the Fire Marshal, spoke with Ms. Tessa Young, Assistant Project Manager, Project Management Division, on Monday, May 11, 2009, regarding the design input for the proposed project, namely, the exclusive use of the shoulders and provision of an intermittent turn around at the North-South lanes median separation by the emergency vehicles.

If you have any questions, please feel free to contact Mr. Kenny Oladeinde, Project Manager, at 301-583-1830.

Sincerely,

Eugene A. Jones
Acting Fire Chief

EAJ:KO/dmf
814-OFC-2009

09JUN24 AM10:05 FMP

Attachments

Copy to: Sean E. Eames, Major, Office of the Fire Marshal
Kenny Oladeinde, Project Manager, Office of the Fire Marshal

9201 Basil Court, Fourth Floor East
Largo, Maryland 20774
VOICE-(301) 883-5200 FAX-(301) 883-5212 TDD-(301) 925-5167

THE PRINCE GEORGE'S COUNTY GOVERNMENT

PRINCE GEORGE'S COUNTY POLICE DEPARTMENT

May 27, 2009

Mr. Bruce M. Gray
Deputy Director
Office of Planning and Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Gray:

Your request for confirmation and assessment of the impact and potential effects of your project on emergency response times for police services has been received by my office. The impacted area has been physically toured and the projected plans have been reviewed. We have determined that any impact due to road closures will have minimal impact on police response.

Any of the recommended plans would greatly enhance our efforts to respond to calls for service. Please notify my office in advance of any road closures due to construction. This will allow enough time for distribution of the notification of the road closures and the detour routes to be made to Department personnel.

Thank you for bringing the transportation study for MD 5 to my attention as well as providing an avenue for our input.

Sincerely,

Roberto L. Hylton
Chief of Police

RLH/DCM/lt

HEADQUARTERS: 7600 Barlowe Road, Palmer Park, MD 20785

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401
410/573-4575

April 28, 2009

State Highway Administration
Maryland Department of Transportation
707 North Calvert Street
Baltimore, MD 21202

RE: Project No. PG391A16 MD 5 US 301 to I 95/I 495 Adding Capacity Prince George's County MD

Dear: Bruce M. Grey

This responds to your letter, received April 22, 2009, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the vicinity of the above reference project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

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

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

Effective August 8, 2007, under the authority of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service (Service) removed (delist) the bald eagle in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife. However, the bald eagle will still be protected by the Bald and Golden Eagle Protection Act, Lacey Act and the Migratory Bird Treaty Act. As a result, starting on August 8, 2007, if your project may cause "disturbance" to the bald eagle, please consult the "National Bald Eagle Management Guidelines" dated May 2007.

If any planned or ongoing activities cannot be conducted in compliance with the National Bald Eagle Management Guidelines (Eagle Management Guidelines), please contact the Chesapeake Bay Ecological Services Field Office at 410-573-4573 for technical assistance. The Eagle Management Guidelines can be found at:

http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

In the future, if your project can not avoid disturbance to the bald eagle by complying with the Eagle Management Guidelines, you will be able to apply for a permit that authorizes the take of bald and golden eagles under the Bald and Golden Eagle Protection Act, generally where the take to be authorized is associated with otherwise lawful activities. This proposed permit process will not be available until the Service issues a final rule for the issuance of these take permits under the Bald and Golden Eagle Protection Act.
An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Devin Ray at (410) 573-4531.

Sincerely,

Leopoldo Miranda
Supervisor

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

May 15, 2009

Mr. Bruce M. Grey
Maryland Department of Transportation
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

RE: Environmental Review for Project No. PG391A16, MD 5: US 301 to I-95/I-495 - Adding Capacity, Prince George's County, Maryland.

Dear Mr. Grey:

The Wildlife and Heritage Service has determined that there are records for the following state-listed threatened fish species occurring in Piscataway Creek, which occurs partially within the study area: American Brook Lamprey (*Lampetra appendix*) and Comely Shiner (*Notropis amoenus*). Although not listed species, the Rosyside Dace (*Clinostomus funduloides*) and Least Brook Lamprey (*Lamptera aepyptera*) are considered in Greatest Conservation Need (GCN) species and are both found in Piscataway Creek stream system, which is considered a stronghold watershed for these species. In order to reduce the likelihood of adverse impacts to these and other important aquatic species, we would encourage strict adherence to all appropriate best management practices for sediment and erosion control during all stages of work. If in-stream work is required, please coordinate again with the WHS for specific minimization and avoidance measures.

Thank you for the information on the occurrence of possible state rare Giant Cane (*Arundinaria gigantea*) that was located during natural studies inventory work. We are currently coordinating with SHA on the identification of this species.

Our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the Department of Natural Resources. The following guidelines will help minimize the project's impacts on FIDS and other native forest plants and wildlife:

1. Avoid placement of new roads, or related construction in the forest interior. If forest loss or disturbance is absolutely unavoidable, restrict development to the perimeter of the forest (i.e., within 300 feet of the existing forest edge), and avoid line or road placement in areas of high quality FIDS habitat (e.g., old-growth forest). Maximize the amount of remaining contiguous forested habitat.

Tawes State Office Building • 580 Taylor Avenue • Annapolis, Maryland 21401
410.260.8DNR or toll free in Maryland 877.620.8DNR • www.dnr.maryland.gov • TTY users call via Maryland Relay

Page 2

2. Do not remove or disturb forest habitat during April-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
3. Maintain forest habitat as close as possible to the road, and maintain canopy closure where possible.
4. Maintain grass height at least 10" during the breeding season (April-August).

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER #2009.0660.pg
Cc: K. McCarthy
G. Golden, DNR

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

June 23, 2009

Mr. Bruce M. Grey
Maryland Department of Transportation
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

RE: Follow-Up to Environmental Review for Project No. PG391A16, MD 5: US 301 to I-95/I-495 - Adding Capacity, Prince George's County, Maryland.

Dear Mr. Grey:

The purpose of this letter is to summarize the findings regarding possible state rare Giant Cane (*Arundinaria gigantea*) located during natural studies inventory work for this project. After coordinating with WHS staff regarding the plant identification, it was determined that the species was actually Japanese Arrow Bamboo, a species not considered rare in Maryland. Therefore we are not requesting any protection measures for this population on the project site.

As mentioned in our earlier correspondence, there are records for the numerous RT&E fish species occurring in Piscataway Creek, which occurs partially within the study area, as well as fish species considered in Greatest Conservation Need (GCN) species, both found in the Piscataway Creek stream system, which is considered a stronghold watershed for these species. In order to reduce the likelihood of adverse impacts to these and other important aquatic species, we would encourage strict adherence to all appropriate best management practices for sediment and erosion control during all stages of work. If in-stream work is required, please coordinate again with the WHS for specific minimization and avoidance measures.

Our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the Department of Natural Resources, and specific guidelines are available to help minimize the project's impacts on FIDS and other native forest plants and wildlife.

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Page 2

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER #2009.0660x.pg
Cc: K. McCarthy
G. Golden, DNR

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

Coordination Sheet for Maryland Department of Natural Resources, Environmental Review Unit information on fisheries resources, including anadromous fish, related to project locations and study areas

DATE OF REQUEST: **April 22, 2009**
ENVIRONMENTAL MANAGER: **Karen Arnold**
PROJECT NAME/LOCATION/DESCRIPTION: **Project No.PG391A16, MD 5 north of I-95/I-495 to south of US 301**
The MD SHA is investigating alternatives to provide additional capacity on MD 5. The alternatives would either add a third lane in each direction in the median from MD 223 to US 301, or add an additional lane through the entire corridor (using the median as much as possible). Intersections would become interchanges at Surratts Road and at Earnshaw Drive/Burch Hill Road/Moores Roads. The project will also require stormwater management, grading, drainage, signing, paving and landscape improvements.

NAME OF STREAM(S) (and MDE Use Classification) WITHIN THE STUDY AREA:
Tributaries of Potomac River: Henson Creek, Meetinghouse Branch, Paynes Branch, Piscataway Creek (Use I)
SUB-BASIN (6 digit watershed): **Washington Metro (02-13-02)**

DNR RESPONSE (sections below to be completed by MD DNR):

TIME-OF-YEAR RESTRICTION:
__X__Generally, no instream work is permitted in Use I streams during the period of March 1 through June 15, inclusive, during any year.

ADDITIONAL FISHERIES RESOURCE NOTES: Henson Creek, Meetinghouse Branch, Paynes Branch and Piscataway Creek are expected to support resident populations of warm water fish species. Anadromous species, including herring species, and white perch have been documented spawning in the lower reaches of these streams, and may be present near the project location given adequate flow and the absence of barriers. Please also note that the Potomac River Upper Tidal watershed (of which Henson Creek is a part) and the Piscataway Creek watershed (of which Meetinghouse Branch, Paynes Branch and Piscataway Creek are a part) have both been designated by the Maryland Biological Stream Survey (MBSS) as Tier 1 Biodiversity Ranking watersheds, meaning that they are stronghold watersheds essential for the conservation of one or more state-listed rare, threatened or endangered aquatic species. Specifically, the Piscataway Creek watershed is a stronghold for the American brook lamprey (Maryland threatened) and the comely shiner (Maryland threatened). Please continue coordination with MD DNR Wildlife and Heritage Service (WHS) for further information on the potential presence of these sensitive species in the vicinity.

ADDITIONAL COMMENTS ON BEST MANAGEMENT PRACTICES: The expected fish species should be adequately protected by the Use I instream work prohibition period referenced above, sediment and erosion control methods, and other Best Management Practices typically used for protection of stream resources. Please contact our Wildlife and Heritage Service (WHS) for additional information or further coordination on any of the sensitive fish species referenced above. Note that our references to MBSS fisheries data are not meant to substitute for coordination with WHS on sensitive (rare, threatened, or endangered) species, as our screening distances may differ between the two reviews.

MD DNR, Environmental Review Unit signature

Gregory J. Golden

Gregory J. Golden

DATE: ----------6-12-09 ----------
PHONE: 410-260-8334

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410.260.8DNR or toll free in Maryland 877.620.8DNR • www.dnr.maryland.gov • TTY users call via Maryland Relay

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MEMORANDUM

TO: Mr. Raja Veeramachaneni, Director
Office of Planning and
Preliminary Engineering

FROM: Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

DATE: August 11, 2009

SUBJECT: Project No. PG391A16
MD 5 Project Planning Study
Prince George's County

RE: MD 5 Project Planning Study Scoping Meeting

A scoping meeting to discuss MD 5 Corridor Mobility Enhancements was held on Tuesday, June 21, 2005 in Conference Room 109, at the State Highway Administration (SHA) Headquarters in Baltimore. This meeting also served to kick off our partnering efforts for this study. The following people were in attendance:

Dennis M. Atkins	SHA – PPD	410-545-8520
Brian Bazinet	SHA – RIPD	410-545-5654
Jeremy Beck	SHA PPD	410-545-8518
Phillip Bello	FHWA	410-779-7156
Ken Briggs	SHA HDD	410-545-8761
Caryn Brookman	FHWA	410-779-7146
Glen Burton	MNCPPC-PG	301-952-3577
Nat Coley	FHWA	410-779-7159
Akshay Deodhar	OMT Pavement & Geotech	410-321-3119
Scott Duncanson	Gannett Fleming	410-763-7212
Lyn Erickson	MDOT	410-865-1279
Bruce M. Grey	SHA PPD	410-545-8500
Joe Harrison	SHA – PPD	410-545-8506
Scott Holcomb	Gannett Fleming	410-585-1460
John Jenkins	SHA HDD	410-545-8763
Joe Kresslein	SHA – PPD	410-545-8550
Christina Lavoie	SHA HDD	410-545-8050

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Harriet Levine	Jacobs Civil Inc.	410-837-5840
Ralph Manna	SHA – Bridge	410-545-8333
Harvey Muller	SHA – RIPD	410-545-5656
Bill Richardson	SHA – OOTS	410-787-5865
Manny Senjalia	Prince George's County DPW&T	301-883-5710
Dennis Simpson	MdTA Capital Planning	410-288-8485
Don Sparklin	SHA – PPD	410-545-8564
Matt Storck	STV for SHA District 3	410-281-2935
Chanel Torsell	SHA PPD	410-545-5644
Raja Veeramachaneni	SHA – OPPE	410-545-0412
Lane Victorson	SHA PPD	410-545-2950
Carrie Willems Casto	Jacobs Civil Inc.	410-837-5840
Matt Wolniak	JMT	410-316-2278

Handouts

- Meeting Agenda
- 11x17 project location map
- PIF sheets MD 5 and MD 337
- Partnering Handout

Purpose of The Meeting

The purpose of this meeting was to discuss the scope of the MD 5 Corridor Mobility Study with the study team. The notes below represent discussions and comments.

Project Overview

The Project Manager Harriet Levine opened the meeting with introductions and continued into the agenda giving a project overview. MD 5 within this corridor provides access to the communities through southern Prince George's County, and connects southern Maryland and Virginia to the south with Washington, D.C. and I-95/I-495 (Beltway) to the north. MD 5 is a major commuter route into the suburban and urban areas of Washington, D.C.

MD 5 is classified as a Freeway/Expressway on the Federal Functional Classification System and is a Principal Arterial on the State Functional Classification System. This facility is comprised of two major roadway types. Between the US 301/MD 5 interchange at T.B. and the MD 5/MD 223 interchange, MD 5 is a four-lane limited access controlled facility with access provided primarily via signalized intersections. From the MD 223 interchange north to the I-95/I-495 interchange, MD 5 becomes a six-lane fully access controlled freeway.

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Along the MD 5 corridor there is Metrorail service at the Branch Avenue Metrorail Station (just north of the I-95/I-495 interchange) as well as bus service provided by Metrobus (WMATA). The Bus (Prince George's County), and a commuter service provided by the Maryland Transit Administration (MTA) takes passengers from the Waldorf area to the Branch Avenue Metrorail Station. In the Waldorf area, commuter bus service is offered to passengers traveling into Washington, D.C.

The SHA has previously received National Environmental Policy Act (NEPA) approval to construct additional interchanges between MD 223 and the US 301/MD 5 interchange. These improvements are included in the region's Constrained Long Range Plan.

The purpose of the MD 5 Study is to determine the feasibility of developing MD 5 (Branch Avenue), from US 301 at T.B. to the Beltway, for corridor mobility enhancements. This facility could possibly include a 6 to 8 lane expressway, including 2 to 4 express toll lanes. A more detailed discussion of potential alternatives is summarized later in these minutes. The MD 5 corridor experiences severe traffic congestion during peak hours, especially at signalized intersections at the southern end of the corridor.

The project limits are defined as from just north of the Beltway to US 301 at T.B., a 10.5 mile section of roadway. A logical termini paper was recently submitted to the Federal Highway Administration (FHWA) to establish that this study has independent utility from improvements that are being considered along US 301 south towards Waldorf. A response should be received later this Summer.

A Final Environmental Impact Statement (FEIS) was approved for the MD 5 corridor in the 1980's. That previous project proposed widening MD 5 and implementing grade separated interchanges. In the northern section of MD 5, improvements including widening and grade separated interchanges have been completed. However, no improvements were implemented in the southern section of the corridor from south of MD 223 to T.B. The southern section is still a 4-lane divided roadway with limited access controls. There was also a concurrent transit study in the 1980's, so the northern section and its interchanges were constructed to not preclude HOV/transit in the future.

This project has strong political commitments. SHA would like to see the MD 5 project planning team make strong progress with the Purpose and Need completed this summer (2005), an Alternatives Public Workshop in February 2006, Alternatives Retained for Detailed Study in Summer of 2006, and a public hearing in Winter of 2007.

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Preliminary Purpose and Need

Scott Holcomb reviewed the preliminary purpose and need and provided information on land use, traffic and safety. Additional growth is anticipated within the corridor and beyond the corridor, which will lead to increases in traffic volumes (15 to 25% between 2004 and 2030). Several sections and all intersections experience failing levels of service today. This will worsen with the anticipated growth if no improvements are made to MD 5. Fixed object crashes are significantly high on freeway sections, and sideswipe crashes are higher on the section south of MD 223.

This project is located in four Prince George's County Planning Areas (76A is Allentown-Camp Springs, 77 is Andrews Air Force Base, 81A is Clinton and 85A is Brandywine) along MD 5. Andrews Air Force Base, located south of Allentown Road, is the largest single land use (government/institutional) along MD 5.

Other areas along MD 5 generally contain strip commercial businesses exhibiting a large variety of businesses such as restaurants, car dealerships, banks, and service stations. Residential areas, generally located beyond the commercial development, exhibit higher densities between the Beltway and south of Piscataway Creek, after which residences become more scattered until south of the county line.

Zoning along MD 5 consists primarily of "Rural Residential" (one-half-acre residential lots and some non-residential special exception uses) interspersed with pockets of "Commercial Shopping Center" and "Commercial Miscellaneous" zoning. A large "Employment and Institutional Area" (concentration of non-retail employment and institutional uses and services such as medical, manufacturing, religious, educational, and governmental) exists south of MD 223 and the MD 373 and MD 381 intersections near T.B.

Priority Funding Area (PFA) boundaries are located on both sides of MD 5 between the Beltway and Piscataway Creek and along the east side of US 301/MD 5 south of T.B. Note that the PFA boundary does not include the portion of MD 5 south of Piscataway Creek to the MD 373 and MD 381 intersections.

The Prince George's County Planning Department expects the population in the areas adjacent to the MD 5 corridor to increase 32%, households to increase 40%, and employment to increase 78% by the year 2030. This compares to an expected increase of 20% in population, 28% in dwelling units, and 68% in employment for Prince George's County, as a whole.

The Brandywine community located south of MD 223 and in the vicinity of the MD 373 and MD 381 intersections to the county line is targeted for growth and is expected to exhibit a 452% increase in population, a 486% increase in dwelling units, and a 219% increase in employment by the year 2030.

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Preliminary existing (2004) and forecasted no-build (2030) daily and peak hour traffic volumes were developed for the MD 5 corridor in support of the logical termini paper. Forecasted 2030 volumes were developed using the Metropolitan Washington Council of Governments (MWCOG) TP regional travel demand model. The Constrained Long Range Plan (CLRP) and Cooperative Land Use forecasts were used. The traffic projections are being refined for the future no-build condition based on a review of the projects contained in the CLRP.

A high portion of the AM peak hour traffic stream on MD 5 consists of commuter traffic heading from southern Maryland to the employment areas near the Beltway and the greater Washington, D.C. metropolitan area, with the reverse movement higher for the PM peak hour traffic stream. Traffic volumes that exhibit this type of highly one-way directional flow throughout are typical of a predominantly commuter corridor. The existing and forecasted peak hour volumes demonstrate this. Along the MD 5 corridor, the percentages of peak hour traffic traveling in the predominant directions are typically between 60% and 70%, indicating a strong flow of commuter traffic on this section to and from Washington, D.C. and the Beltway.

The crash history for the MD 5 corridor was obtained for the years 2001 through 2003. This information includes summaries of crash types and severities for major roadway segments, and the crash rates per 100 million vehicle miles of travel versus the comparable weighted statewide average crash rates for all similarly designed State maintained highways. Statistically significant high crash categories were noted, as were any Candidate Safety Improvement Intersections and Sections (CSII and CSIS), which occurred during the three-year period.

The 3-year average total crash rate for the MD 5 corridor was between 46.7 and 87.0 per 100 million vehicle miles, with none of those rates being significantly higher than the statewide average rate. However, within the freeway segments, fixed object crashes were significantly higher than the statewide rate, as were sideswipe crashes in the section between MD 223 and the US 301/ MD 5 interchange at T.B.

A total of 556 crashes occurred during the study period. Of these, six were fatal crashes, 254 were injury crashes, and 296 were property damage crashes. Four of the fatal crashes happened on the section of MD 5 between the US 301/MD 5 interchange and MD 223. As opposed to the access controlled freeway segments, this section has partial access control.

MD 5 in the vicinity of the Beltway met the criteria for a CSIS in 2002 and 2003. The MD 5/Auth Road intersection just inside the Beltway also met the criteria for a CSII in 2002. No other locations along MD 5 in the project area met the criteria for a CSII or CSIS during the three year study period.

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Environmental Overview

Carrie Casto presented an environmental overview. She stated that a preliminary environmental assessment has been prepared for the MD 5 project. The existing land use along MD 5 corridor is a mixture of residential, commercial agricultural and governmental/institutional (Andrews Air Force Base). Future land use is the same with an increase in residential use.

Approximately 85 percent of MD 5 lies within a PFA with the exception of the areas between Piscataway Creek and the MD 373 and MD 381 intersections. Along the MD 5 corridor there are schools, public parks, libraries and other community facilities.

Carrie then highlighted the natural features in the area. There are non-tidal wetlands, streams, and forested areas on both sides of MD 5. The streams include several tributaries to the Potomac River, including (from the North to South on MD 5) Henson Creek, Meetinghouse Branch, Panes Branch, Pea Hill Branch, Piscataway Creek, Timothy Branch and Mattawoman Creek. These stream are classified as Use I streams (water contact recreation, protection of aquatic life). In stream work is prohibited from March 1 through June 15. The Maryland Department of Natural Resources Fisheries Service has documented the spawning activities of anadromous fish (herring and white perch) in the streams.

There are a few historic sites that are on or eligible for the National Register of Historic Places along the MD 5 corridor, including the Surrat House, Gwynn Park, Marlow/Hunt Store, J. Eli Hunit Casket shop/Tenant House, Marlow-MacPherson House, and the T.B. 'Colored' School.

Four archeological sites have been recorded within the MD 5 corridor. Phase I archeological survey may be warranted. Coordination with the Maryland Historical Trust will occur throughout the development of this project.

Potential Project Alternatives

The project will re-examine all of the previous alternatives developed and studied, as well as the following:

- Express Toll Lanes (ETLs),
- ETLs in combination with upgrading existing at grade intersections to grade-separated interchanges
- Widening MD 5/lane balance of ETLs vs. regular lanes
- Reversible lanes (there is a strong 60-70% directional split, both now and in the future - this is primarily a commuter route, with many buses using the corridor)
- Access controls in the southern end.

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The team will also study access to the Branch Avenue Metro Station, access to the Beltway, and intermediate access points for ETLs. Another issue that will be considered is addressing the fact that all of the northern improvements, which have been constructed to accommodate future HOV/transit, may cause compatibility issues with ETLs, reversible lanes, and other median widening options. Harriet Levine will verify the inside shoulder widths north of MD 223.

Ken Briggs pointed out that careful consideration needs to be made where the project will tie in to US 301 and the Branch Avenue Metro Station because MD 5 will be a freeway with controlled access for a 10 mile stretch and then have to transition to signalized intersections.

Bicycle access will also need to be addressed as the project moves forward. MD 5 currently has no signs prohibiting bicycle use, thus access cannot be cut off as a result of this project. The team will need to investigate alternatives to include bicycle access, whether it is along MD 5 or a parallel side road.

Adjacent Projects

There are 3 main adjacent projects that this study will work closely with: the Capital Beltway Study, the US 301 Waldorf Study and the Branch Avenue Metro Access Improvement study. There were questions from Dennis Simpson as to how ETLs would tie into US 301 and I-495. The US 301 project team is waiting for approval from FHWA on the logical termini paper; traffic volume information will help determine the logical termini as the studies progress. For the Capital Beltway Study, coordination between the project teams will determine the access and other related issues. There are many unanswered questions about how this project will tie into the new Branch Avenue Metro access improvements at this time as well.

There is also a breakout interchange project from the original FEIS - Line Item 21 - to construct an interchange at MD 373. This project will be combined into the MD 5 study. Congressman Steny Hoyer allocated funds in the Reauthorization Bill for this breakout project. If the reauthorization passes, the study team would not want to design/construct a new interchange at MD 373 until the overall MD 5 study is completed.

Public Involvement

Joe Harrison talked about public involvement and how it will be addressed on this project. Joe explained that the public involvement plan has not been fully put together at this point. He wanted to get the team's input on any controversial issues and who the major stakeholders are related to this project. Potential stakeholders that were identified included Andrews Air Force Base, local businesses and homeowner's associations. Ken Briggs has dealt with Andrews Air Force Base on a separate project and could provide a contact name. It is unknown as to whether or not focus groups will be incorporated.

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Partnering

Harriet Levine stated that Partnering is an important tool that will be used by the study team. She then handed out a Partnering rating sheet. She informed the team that this project is going to incorporate elements of Partnering but it will not be as involved as it is with design projects. Large meetings with the entire team will take place at project milestones and several times throughout the year to keep the larger project team updated. However, meetings of the core team will take place more frequently and will relate to more specific project items. The study team intends to measure these meetings using the rating sheet.

ProjectWise will also be implemented to provide all team members access to the most recent and up-to-date project files. Information related to the project schedule, monthly rating sheets and completed documents (such as the Logical Termini paper) will be posted through ProjectWise.

As part of the Partnering Process, public and private sector team members will work together to develop scope tasks as the study moves forward.

The team was thanked for their participation in the study. Additional team meetings will be scheduled as the project moves forward. If you have any additional questions, please contact Harriet Levine, the Project Manager, at 410-837-5840 or via e-mail at hlevine@sha.state.md.us.

I concur with the decisions and direction provided at the June 21, 2005 Scoping Meeting for the MD 5 Project Planning Study.

Concurrence:

_____ _____

Raja Veeramachaneni, Director Date
Office of Planning and
Preliminary Engineering

cc: File
Attendees
Distribution List
Mr. Charlie Watkins
Ms. Bridgid Seering

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bcc: Ms. Carmeletta Harris

P-6426

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: February 21, 2006

SUBJECT: MD 5 Corridor Transportation Study
Project Number PG391A16

RE: Purpose & Need Presentation & Field Review Meeting

The Purpose and Need Presentation and Field Review Meeting for the MD 5 Corridor Transportation Study was held on Wednesday, January 11, 2006 in the conference room of the State Highway Administration (SHA) Upper Marlboro Shop. The following people were in attendance at the meeting:

Juliet Healy	AD Marble	(410) 902-1421
Jessica Klinefelter	AD Marble	(410) 902-1421
Phillip Bello	FHWA	(410) 779-7156
Scott Holcomb	Gannett Fleming	(410) 585-1460
Carrie Casto	Jacobs Civil	(410) 837-5840
Harriet Levine	Jacobs Civil	(410) 837-5840
Steve Hurt	MDE	(410) 662-7402
Lyn Erickson	MDOT-OPCP	(410) 865-1279
Bihui Xu	MDP	(410) 767-4567
Dennis Simpson	MdTA	(410) 537-5650
MaryAnne Polkiewicz	MTA	(410) 767-3426
Mansukh Senjalia	Prince George's County	(301) 883-5710
Felicia Alexander	SHA-PPD	(410) 545-8511
Donna Buscemi	SHA-PPD	(410) 545-8558
Sandy Hertz	SHA-EPD	(410) 545-8609

My telephone number/toll-free number is_____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • *Phone:*410.545.0300 • www.marylandroads.com

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Brian Lange	SHA-PPD	(410) 545-8532
Nicole Washington	SHA-PPD	(410) 545-8570
Steve Harman	US CORPS of Eng	(410) 962-6082

Purpose of the Meeting

The purpose of this meeting was to introduce the MD 5 Corridor Transportation Study, to present the draft Purpose and Need Statement, and to receive and address comments from the agencies on the project. The notes below represent discussions and comments that occurred at the meeting.

Nicole Washington opened the meeting with introductions and continued into the agenda giving a project overview. It was noted that a copy of the PowerPoint presentation will be given to each meeting attendee as well as agencies unable to attend.

Project Background

A Final Environmental Impact Statement (FEIS) was completed for the MD 5 corridor in 1988. That project proposed widening MD 5 from North of I-95 to south of US 301 and implemented upgrades at three intersections (Beech Road, Auth Way, and Auth Road), proposed the reconstruction two interchanges (I-95 and US 301) interchanges; and the construction of six new interchanges and consolidation of access controls (Linda Lane and Deerpond Lane, Allentown Road, Coventry Way, Schultz Road and Malcolm Road, Surratts Road, and Burch Hill Road). The northern section of MD 5, north of Surratts Road received the improvements with widening to three lanes in each direction and grade separated interchanges. However, no improvements were implemented in the southern section of the corridor south of MD 223. The southern section is still a four-lane divided section with limited access controls. There was also a transit study that was recommended as result of the US 301 Task Force of MD 5 in the 1990's; however the study did not begin until 2001. The northern section and its interchanges were constructed to be able to accommodate High Occupancy Vehicles (HOV)/transit in the future.

The MD 5/MD 373/MD 381 interchange was recently funded for design and is currently in the Design Phase at SHA.

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Existing Conditions

MD 5 is classified as an Urban Freeway/Expressway north of MD 373 and as a Rural Other Principal Arterial south of MD 223 on the Federal Functional Classification System within the project limits. This facility is comprised of two major roadway types. Between the US 301/MD 5 interchange at T.B. and the MD 5/MD 223 interchange, MD 5 is a four-lane limited access controlled facility with access provided primarily via signalized intersections. From the MD 223 interchange north to the I-95/I-495 interchange, MD 5 becomes a six-lane fully access controlled freeway. Transportation improvements along the MD 5 corridor are needed to relieve the current and projected severe traffic congestion along the corridor, to improve safety, and to support the local, regional, and statewide land use planning and development patterns for the area.

Purpose and Need

Felicia Alexander presented the Purpose and Need for the MD 5 Corridor Transportation Study. The purpose of this project is to facilitate safe and efficient traffic flow while providing a cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts.

The limits for this project are from south of the US 301/ MD 5 interchange at T.B. to north of the Capital Beltway including the Auth Road intersection.

Traffic

MD 5 within this corridor is a heavily traveled commuter route connecting southern Maryland and Virginia in the south, to the Washington, D.C. area in the north. A high portion of the AM peak hour traffic stream on MD 5 consists of commuter traffic heading from Prince George's County and southern Maryland to the employment areas near I-95/I-495 (Capital Beltway) and the greater Washington, D.C. metropolitan area, with the reverse movement higher for the PM peak. Traffic volumes are forecasted to grow between 15 and 30 percent from 2004 to 2030 as residential, employment, and commercial growth in the corridor and southern Maryland continues.

Safety

In 2004, all five of the at-grade intersections analyzed along MD 5 operated at a level of service (LOS) F for one peak of the day. The two sections around the I-95/I-495 interchange have numerous crash types that are significantly higher than statewide rates, including rear end, side swipe, angle, left turn and fixed object crashes. A total of 781 crashes occurred during a study period between 2001 and 2003.

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MD 5 within the two sections adjacent to the I-95/I-495 interchange met the criteria for a Candidate Safety Improvement Section in both 2002 and 2003. The MD 5/Auth Road intersection also met the criteria for a Candidate Safety Improvement Intersection in 2002. Although recent I-95/I-495 interchange improvements may help in the reduction of some of these rates, the expected increases in traffic volumes and congestion throughout the corridor may still increase the potential for high crash rates.

Intermodal Connectivity

Transit services operate along this corridor and include: bus service, park and ride facilities, Metrorail service, and Maryland Transit Administration (MTA) commuter bus routes along MD 5. MTA does not provide service in Prince George's County due to an agreement with the Washington Metropolitan Area Transit Authority (WMATA).

MTA developed the MD 5/ US 301 Transit Service Staging Plan to guide the expansion of transit service in the corridor to the year 2025. MaryAnne Polkiewicz from MTA stated that MTA's only action is to monitor ridership until 2015. Both Bus Rapid Transit (BRT) and Light Rail (LRT) are considered future possibilities. They may be located on their own piece of dedicated right of way west of MD 5 or perhaps located within the MD 5 footprint.

Nicole Washington informed the team that an Access Coordination Team has been formed to stay abreast on new development within the MD 5/US 301 project areas. Scott Holcomb from Gannett Fleming will lead these efforts.

Land Use, Planning and Economic Development

Donna Buscemi, Environmental Manager for the study, presented an overview of the project area's environmental features.

Heavily developed areas exist in the northern portion of the project area with Andrews Air Force Base being the largest single land use. According to Prince George's County's Approved General Plan (October 2002), the MD 5 corridor is situated primarily in the Developing Tier targeted for future growth and development. Most of the MD 5 corridor is within the Prince George's County certified Priority Funding Areas (PFAs) except for the portion of MD 5 just south of Piscataway Creek to the MD 373 and MD 381 intersections just north of T.B. The Director of the Prince George's County Department of Public Works informed the team that there are 120 subdivisions south of Piscataway Creek with approximately 11,000 homes to be built.

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The Maryland-National Capital Park and Planning Commission (M-NCPPC) sub region plans call for the MD 5 corridor within the project area to be upgraded to a fully access controlled freeway with grade separated interchanges to help improve traffic operations and safety, while supporting the proposed future land use and development patterns of the area. The sub region plans also call for MD 5 to be 6 to 8 lanes wide.

There are several parks within the project area. Piscataway Creek Park is an undeveloped park that borders MD 5. Henson Creek Park and Tinkers Creek Park are in the northern section of the project but do not border MD 5.
Register eligibility. Four archeological sites have been recorded in/near the corridor.

Cultural Resources

There are six resources considered eligible for the National Register of Historic Places eligible in the proposed Brandywine Interchange vicinity. There are properties at the northern end that are listed on the Maryland Inventory of Historic Properties but have not been evaluated for National

Watersheds/ Streams/Wetlands

The Potomac River Upper Tidal watershed extends from I-95/I-495 to MD 337. MD 5 crosses a tributary to Henson Creek in this section. The Piscataway Creek watershed extends from MD 337 to the US 301/MD 5 interchange at T.B. Streams included in the Piscataway Creek watershed include: Meetinghouse Branch, Paynes Branch, Pea Hill Branch, Fox Run (north of Surratts Road), Fox Run (south of Surratts Road), and Piscataway Creek.

The streams in the project area are classified as Use 1 Streams (Water Contact Recreation, Aquatic Life), which means there exists an instream work restriction period of March through June 15, inclusive, during any year. Spawning activities of anadromous fish have been documented.

Wetlands as well as floodplains are present along Henson and Piscataway Creeks. Several isolated palustrine wetlands were also shown near the southern portion of the corridor.

Wildlife Habitat

According to the US Fish and Wildlife Service and the Maryland Department of Natural Resources (DNR), no Federal or State listed rare, threatened or endangered species have been recorded along the corridor. DNR Maryland Department of Natural Resources noted that the forested area adjacent to the corridor may provide habitat for Forest Interior Dwelling Bird Species (FIDS).

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Related Projects

Nicole Washington reviewed the list of projects that are underway in the vicinity of the MD 5 Corridor Transportation Study. The projects include:

- I-495 Corridor Transportation Project (SHA Project Planning)
- MD 210 Multi-Modal Project (SHA Project Planning and SHA Highway Design)
- US 301 Waldorf Area Project (SHA Project Planning)
- MD 4 Corridor Project (SHA Project Planning and SHA Highway Design)
- MD 5 Branch Avenue Metro Access Project (SHA Highway Design)
- MD 5/ MD 381/ MD 373 Interchange Project (SHA Highway Design)
- MD 5/ US 301 Transit Service Staging Plan (MTA)
- Old Branch Avenue Project (Prince George's County)
- Surratts Road (Prince George's County)
- Wade Avenue (Prince George's County)
- Clinton Fringe Parking Lot Overflow (Prince George's County)
- MD 223 Widening (Prince George's County)

Project Schedule

- Alternates Public Workshop – Spring 2006
- Alternatives Retained for Detailed Study Package – Summer 2006
- Location/ Design Public Hearing – Fall 2007
- Location/ Design Approval – Fall/Winter 2008

Field Review

SHA provided a color 11x17 map highlighting 12 stops along the way.

- Stop 1: Branch Avenue Metro Station
- Stop 2: Meetinghouse Branch stream crossing of MD 5
- Stop 3: Payne's Branch stream crossing of MD 5
- Stops 4 & 5: Surratts Road/ MD 5 intersection/ Fox Run crossing
- Stop 6: Park and Ride Lot (northern section of project)
- Stops 7 & 8: Piscataway Creek crossing of MD 5/Park
- Stop 9: Burch Hill Road at-grade intersection
- Stop 10: Moore's Road at-grade intersection
- Stops 11 & 12: Historic Sites at MD 5/ MD 373/ MD 381 intersection
- After lunch, the bus drove along Brandywine Road/ Old Branch Avenue, which parallels MD 5, to show that the characteristics of the roadway and surrounding area.

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Comments/Questions

- The US Army Corps of Engineers (COE) recommended the addition of a bus lane along MD 5. Nicole Washington replied that the project team would be addressing transit issues.
- COE asked for information on past wetland and Waters of the US permits issued along the corridor. SHA has emailed this information to the COE on January 24, 2006.
- The Maryland Department of Planning commented that they would like to see Future Land Use added to the Purpose and Need.
- The Prince George's County Director of Public Works informed the team that there is an abundance of new housing developments either planned or already under construction in the southern section of the project corridor.

If you have any corrections or additions to the above meeting summary, please contact Donna Buscemi, the Environmental Manager at 410-545-8558 or me at 410-545-8570.

cc: Attendees
MD 5 Project Team
Mr. Bill Shultz, USF&W
Ms. Beth Cole, MHT
Mr. Tim Tamburrino, MHT
Mr. Eric Foster, MNCCPC
Mr. Greg Golden, DNR
Mr. Ron Kirby, Wash COG
Mr. Kevin Magerr, EPA
File

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO: Mr. Bruce Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington *Nicole Washington*
Project Manager
Project Planning Division

DATE: April 14, 2006

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Interagency Meeting for Preliminary Conceptual Alternatives

The meeting for the MD 5 Corridor Transportation Study was held on Wednesday, March 15, 2006 in Training Room 3, State Highway Administration Headquarters, Baltimore. The following were in attendance and introduced themselves at the meeting:

Jessica Klinefelter	A.D. Marble	410-902-1421
Steve Harman	COE	410-962-6082
Paul Wettlaufer	COE	410-962-5676
Phillip Bello	FHWA	410-779-7156
Veronica O. Davis	FHWA	410-779-7147
Denise W. King	FHWA	410-799-7145
Scott Holcomb	Gannett Fleming	410-585-1460
Carrie Casto	Jacobs Civil Inc.	410-837-5840
Gil Chlewicki	Jacobs Civil Inc.	410-837-5840
Harriet Levine	Jacobs Civil Inc.	410-837-5840
Greg Golden	MD-DNR	410-260-8334
Steve Hurt	MDE	410-662-7400
Bihui Xu	MDP	410-767-4567
Dennis N. Simpson	MdTA – Capital Planning	410-537-5650
Glen Smith	MdTA – Capital Planning	410-537-5665
Tim Tamburrino	MHT	410-545-7637
Harold Foster	MNCPPC – Prince George's Co.	301-952-4947
MaryAnne Polkiewicz	MTA	410-767-3426
John Nichols	NMFS	410-267-5675

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Mansukh Senjalia	Prince George's Co. DPWT	301-883-5710
Vic Weissberg	Prince George's Co. DPWT	301-388-5600
Sandy Hertz	SHA – EPD	410-545-8609
Felicia Alexander	SHA – PPD	410-545-8511
Dennis Atkins	SHA – PPD	410-545-8520
Donna Buscemi	SHA – PPD	410-545-8558
John Jenkins	SHA – HDD	410-545-8763
Joe Kresslein	SHA – PPD	410-545-8550
Brian Lange	SHA – PPD	410-545-8532
Chanel Torsell	SHA – PPD	410-545-5644
Nicole Washington	SHA – PPD	410-545-8570
Shiva Shrestha	SHA – RIPD	410-545-5667
Bill Schultz	USF&W	410-573-4586
Mark Roberts	WR&A	443-224-1573

Purpose of the Meeting

The purpose of this meeting was to introduce the project to the agencies, to present and to discuss preliminary concepts, to allow agency representatives the opportunity to develop additional concepts, to discuss SCEA scoping, and to present next steps and schedule. The notes below represent discussions and comments.

Nicole Washington gave a brief overview and summary of the Project's progression. To date, the team has completed the Purpose and Need Document and has received concurrence from all commenting agencies, excluding the Environmental Protection Agency (EPA). The purpose of the MD 5 Corridor Transportation Study is to facilitate safe and efficient traffic flow while providing a cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts, while enhancing and facilitating transit services and maintaining the integrity of the existing highway systems.

The Study Team has developed mainline and interchange concepts, addressing the aforementioned Purpose and Need of the project.

Conceptual Alternative

Jacobs Civil, Inc. has been evaluating several potential concepts for the MD 5 corridor, including mainline improvements as well as interchange concepts. 500 scale color plots were presented at the meeting to show the different interchange concepts at the Moores Road/Earnshaw Road/MD 5, Burch Hill Road/MD 5, MD 223 Direct High Occupancy Vehicle (HOV)/Express Toll Lane (ETL) Access and at Surratts/ MD 5 intersections. The alternatives and interchange options include the following:

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MD 5 Mainline Alternatives:

Alternative 1 No-Build
- Routine maintenance and safety improvements
- No major improvements will be made

Alternative 2 Transportation System Management (TSM)/Transportation Demand Management (TDM)
- Combine acceleration and deceleration lanes into auxiliary lanes NB and SB between MD 223 and Coventry Way
- Two-lane SB exit ramps at Coventry Way and MD 223 (Woodyard Road)
- Two-lane NB entry ramp at MD 223
- Close ramps at Shultz Road and Malcolm Road
- Allow inside shoulder use to provide enhanced bus service
- Four-way continuous flow intersection (CFI) at Surratts Road
- Four thru lanes at Burch Hill/Earnshaw signalized intersection
- Four thru lanes at a new Moores Road signalized intersection
- Park & Ride and transit considerations

Alternative 3 Final Environmental Impact Statement (FEIS) Alternative
- Widen to three lanes each direction south of MD 223
- New interchanges at Surratts Road
- New interchange at combined Burch Hill Road/Earnshaw Drive/Moores Road
- UD 301/MD 5 at TB interchange modifications

Alternative 4 FEIS Alternative with Additional Improvements North of MD 223
- All improvements in Alternative 3
- Four thru lanes each direction from north of Coventry Way to I-95/I-495
- Create auxiliary lane NB between MD 337 and Deerpond Lane/Manchester Drive
- Incorporate northern section TSM/TDM interchange Improvements

Alternative 5 Express Toll Lanes (ETL) – Two-lane Reversible ETL
- Two new reversible ETLs in median
- Barrier separated
- Time-sensitive signs and gates needed

Alternative 6 Express Toll Lanes (ETL) – One to Two Lane ETL
- Two-lane ETL (add one, convert one existing) north of MD 223 (both directions)
- One-lane ETL (add one) south of MD 223 (both directions)
- Inside widening
- Four foot buffer between toll lanes and general purpose lanes

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Alternative 7 Express Toll Lanes (ETL) – Movable Barrier
- Two-lane ETL (add one reversible, convert one) north of MD 223
- One-lane (add one) barrier-separated reversible ETL south of MD 223
- Movable barrier north of MD 223 for AM and PM peak
- Time-sensitive signs, gates, and special equipment needed

Alternative 8 Express Toll Lanes (ETL) – One-lane ETL
- One-lane ETL (convert one north of MD 223, add one south of MD 223)
- Four foot buffer between toll lanes and general purpose lanes

Alternative 9 High Occupancy Vehicles (HOV)
- Add one concurrent HOV lane in each direction

Bike & Pedestrian Compatibility
- It has been discussed to look into using Old Branch Ave./ Brandywine Rd. as a bike/ pedestrian route
- Harvey Muller will be will give the project team guidelines to follow

MD 5 Interchange Alternatives:

Branch Avenue Metro Access Road (SHA-OHD Design Phase)
- The Branch Avenue Metro Access Road project is proposing to reconfigure the existing MD 5/I-495 interchange to incorporate direct access ramps from I-495 to the Branch Avenue Metro Station.
- The project has been split into two phases. Phase I, the interchange ramps from I-495, is presently under construction. Phase II, the Access Road(s) to the Metro Station, is under design.
- Currently SHA-OHD, has reinitiated the Phase II (Access to Metro Station) and is looking to reconfigure the Access Road design.
- Issues coordinating ETL/HOV lanes with this new interchange will be a challenge for the MD 5 team because there is limited space available, making adding lanes (ETL/HOV) nearly impossible under the current interchange design plan.

MD 223 – Direct ETL/HOV Access to/from the north
- Direct Access Ramps to MD 223 are proposed in conjunction with the existing Park and Ride lot. ETL/HOV travelers will be able to exit from MD 5 via inside median ramps, which are then carried via structure over southbound MD 5 giving access to MD 223.
- Questions were raised about the size of the existing Park and Ride lot, noting it was already exceeding capacity and members of the team thought that we should look for ways to expand this lot. The team noted that additional opportunities for Park & Ride facilities should be coordinated with WMATA/MTA/Prince George's County DPWT.

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Moores Rd/Earnshaw Rd/Burch Hill Rd/MD 5 Improvements
- For Option A, the team will evaluate the 1988 FEIS concept for this interchange; a proposed Diamond Interchange. Homes have been built since the 1988 study and the original concept goes through the middle of the community on the east side of MD 5 near Earnshaw Road. This option will be shown to the public at the meetings to show that the original study's alternatives are being evaluated. (Following this meeting, a Director's Review Meeting was held. During this meeting, this option was dropped from further study.)
- For Option B, the 1988 FEIS option was shifted south on MD 5 to tie into the new community road on the east side. On the west side of MD 5, the new interchange will tie in the same way it is shown in the 1988 FEIS. This interchange was presented as a diamond with traffic circles. These circles could also be replaced by stop signs or signals. This layout does get very close to the new homes on the east side of MD 5. SHA suggested looking into shifting the interchange slightly further south to avoid dividing the community.
- An additional option, Option C, presented included 2 two-way service roads with right-in/ right-out access at both Moores Road and Earnshaw Road. A bridge over MD 5 would be located between the two service roads to allow traffic to access both directions of MD 5.

Surratts Rd/MD 5 Improvements
- For Option A, the team utilized the 1988 FEIS concept of a Modified Diamond Interchange. This option has Surratts Rd. shifted slightly to the north (easier maintenance of traffic) and going over MD 5. There seems to be tight curves in this design on the access road in the northeastern quadrant of the intersection. Under this option, both the hotel and hospital in the southeastern quadrant share an entrance onto Surratts Rd. The property owners have been involved in this project and have requested separate entrances for the hospital and hotel.
- The team has taken the FEIS option and modified it to make larger curves on the access road and to also provide a second entrance to the hospital off of Surratts Rd.
- Option B was developed to take Surratts Rd. over MD 5 using the existing horizontal alignment of Surratts Road. This would eliminate the sharp curves of the access road in the northeastern quadrant. However, by using the existing alignment of Surratts Road, maintenance of traffic may be more involved.

US 301/T.B. Interchange
- The coinciding US 301 Project Planning Study is proposing several interchange options at T.B. At this point these options are not yet ready to be presented. However, the MD 5 Team will coordinate to ensure no option will be precluded by the MD 5 Alternative.

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MD 5/ MD 373 Interchange Highway Design Project

- John Jenkins updated the project team on the status of this project.
- Whitman Requardt is doing the design of the interchange and is looking at three options.
- John will keep the MD 5 team updated on his project's progress. He will available to the agencies who are interested in hearing updates on this project.
- The proposed interchange is not funded for construction.
- A Public Alternatives meeting is planned for mid June.
- Preliminary Investigation (P. I.) is currently planned for November 2006
- AD date is currently scheduled for September 2008
- The interchange is anticipated to be open to traffic in 2011.

Capital Beltway Corridor Transportation Study

- A SHA Corridor Transportation Study for I-495 from the American Legion Bridge to the Woodrow Wilson Bridge is being conducted.
- This Study is investigating safety enhancements, increased capacity, transit opportunities, and potential electronic toll lane facilities.
- A goal of the MD 5 Corridor Transportation Study is to coordinate with the I-495 study to ensure seamless integration of potential transit and/or electronic toll lane systems.
- Two studies are under consideration (both 10-Lane options) for feasibility: Option 1: Six general purpose lanes and four express toll lanes; Option 2: Eight general purpose lanes and two express toll lanes.

Important Environmental Features

Donna Buscemi provided a summary of the MD 5 corridor's important environmental features.

- Cultural resources sited include six National Register of Historic Places (NRHP)-eligible resources in the proposed Brandywine Interchange vicinity, there are properties at the northern end are listed on Maryland Inventory of Historic Places (MIHP) but have not been evaluated for NR eligibility, and four archeological sites have been recorded in/near the corridor.
- Natural resources sited in the project area include the Potomac River Upper Tidal and Piscataway Creek watersheds, several stream crossings (tributary to Henson Creek, Meetinghouse Branch, Paynes Branch, Pea Hill Branch, Fox Run, and Piscataway Creek), wetlands and floodplains associated with Henson and Piscataway Creeks, and isolated palustrine wetlands to the south.
- MD Department of Natural Resources noted that the forested areas adjacent to the corridor may provide habitat for Forest Interior Dwelling Species. No Federal or State listed rare, threatened or endangered species have been recorded along the corridor, according to US Fish and Wildlife Service and MD Department of Natural Resources (DNR).

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Agency Brainstorming

- Maryland Transit Administration (MTA) noted that their preference would be not to have buses running in the median (median Bus Rapid Transit). They would like transit to run on the east side of the roadway.
- Several agencies voiced their concern that previous transit options developed by MTA would be practically eliminated due to the alternatives under consideration for this project. Of particular concern was the use of the median to accommodate the new lanes, including ETL and HOV options. The addition of lanes to the median was done for the MD 5 project to reduce impacts outside of current SHA right of way. The availability of right of way in the northern half of the corridor is restricted by existing development.
- Several of the agency reps asked that SHA consider the impacts to transit options in their evaluation of the alternatives and not preclude any transit options. SHA stated that they would take that into further consideration and coordinate with PG County, MTA, and Washington Metropolitan Area Transit Authority (WMATA) to meet their needs for transit. The issue seemed to be resolved at that point.
- A suggestion to reserve right-of-way easements along the corridor for future Bus Rapid Transit (BRT) and/or Light Rail Transit (LRT) was made. Because the MD 5 Corridor Transportation Study is only funded for Project Planning, and the MTA MD 5/US 301 Transit Service Staging Plan did not recommend evaluating BRT or LRT until ridership reaches 10,000, SHA is not in a position to purchase any easements. Transit right-of-way reservation would need to be initiated through the County Master Plan process.
- Harold Foster from Maryland-National Park and Planning Commission (M-NCPPC) stated that the County also was not in position to purchase right-of-way. They can protect some right-of-way through the development review process for items on the Master Plan; however, much of this corridor is already developed.
- Concerns regarding the proposed mainline alternative 7 - Express Toll Lanes (ETL) – Movable Barrier were noted and was requested to be dropped from consideration due to the impracticality of movable barrier system. The team will not drop this alternative at this point, as it needs to be subjected to the proper analyses as part of the National Environmental Policy Act (NEPA) Process.
- Questions regarding the Burch Hill Option B impact to wetlands were raised. The team does not yet have an impact analysis, but will update the agencies once they are obtained.

Secondary and Cumulative Effects Analysis (SCEA) Scoping

The SCEA analysis scope was presented to the agencies. The SCEA scope will be used to estimate the level of analysis required for the SCEA. The eventual analysis will be performed in accordance with the guidelines established by SHA, NEPA, and the Council on Environmental Quality (CEQ) regulation (40CFR 1508.25(c)).

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The project limits encompass all areas that may be directly affected by improvements toMD 5. The SCEA boundary, however, covers a larger area that encompasses all areas that may be directly or secondarily affected by the improvements associated with this project, or cumulatively impacted by this and other projects in the area. The resources directly impacted by the project will form the basis for the resources that will be examined by the SCEA. Using the environmental resources that may be affected by direct and secondary impacts of the project as a guide, multiple resource boundaries were reviewed to determine appropriate SCEA sub-boundaries that would be joined to create a single SCEA boundary. These potential sub-boundaries included Area of Traffic Influence (ATI) and Traffic Analysis Zones (TAZs), Census Tracts, and Watersheds. The overall SCEA boundary was created by overlaying the boundary of each affected resource, and then selecting the outermost extent of the combined boundaries.

Based on population trends, development activity, and the general lack of available data prior to 1970 (which changed with the passing of the National Environmental Policy Act in 1969), 1970 was chosen as the past time frame. The future time frame was determined primarily from the project's design year of 2030. The SCEA analysis will be based on future population and land use assumptions, and planned transportation improvements. At the time of the meeting, the County planning area boundaries were not available to SHA at the time this scope was developed. However, they will be incorporated into the SCEA boundary, and the SCEA boundary will be revised if necessary.

Project Schedule

- Director's Review of Preliminary Concepts – March 21, 2006
- Director's Review prior to the Alternates Public Workshop –May 2, 2006
- Alternates Public Workshop – June 15, 2006
- Alternates Retained for Detailed Study Package – Summer 2006
- Location/ Design Public Hearing – Fall 2007
- Location/ Design Approval – Fall/Winter 2008

Follow-up/ Action Items

- Contact WMATA/MTA/Prince George's County about plans for Park & Ride and/or bus service expansion within the Study Area.
- Schedule a meeting with the transit agencies (WMATA, MTA, Prince George's County) to discuss existing issues and provide coordination between agencies.
- Email Draft SCEA Package to those who did not receive the package at this meeting.
- Determine if right-of-way preservation for future light-rail is necessary for this study.

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If you have any corrections or additions to the above meeting summary, please contact Donna Buscemi, the Environmental Manager at 410-545-8558 or me at 410-545-8570.

cc: Attendees
Distribution List
File

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington Nicole Washington
Project Manager
Project Planning Division

DATE: June 6, 2006

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Andrew's Air Force Base Meeting

A coordination meeting with representatives from Andrew's Air Force Base (AAFB) for the MD 5 Corridor Transportation Study was held on April 7, 2006 at, AAFB. The following people were in attendance at the meeting:

Major Anita Bullock	AAFB 89 CES/CEC	301-981-1266
Larry Carson	AAFB 89 CES/CD	301-981-7281
Donna Jackson	AAFB 89 CES/CECP	301-981-3451
Gail Myers	AAFB 89 CES/CECE	301-981-1199
Scott Spencer	AAFB 89CES/CECP-Community Planner	301-981-1169
Carrie Casto	Jacobs Civil, Inc.	410-230-6633
Donna Buscemi	SHA-EPD	410-545-8558
Juliet Healy	SHA-EPD	410-545-8504
Felicia Alexander	SHA-PPD	410-545-8511
Brian Lange	SHA-PPD	410-545-8532
Nicole Washington	SHA-PPD	410-545-8570

Purpose of the Meeting

The purpose of this meeting was to brief the AAFB staff on the current status of the project including Purpose and Need, preliminary conceptual alternatives, schedule, and next steps.

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Project Overview and Background

After a round of attendee introductions, Nicole Washington and Felicia Alexander gave a brief overview and summary of the project's background, including Purpose and Need, typical sections, existing traffic, crash history, and inter-modal connectivity. To date, the team has completed the Purpose and Need Document and has received concurrence from all commenting agencies. The purpose of the MD 5 Corridor Transportation Study is to facilitate safe and efficient traffic flow while providing a cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts, while enhancing and facilitating transit services. In order to maintain the integrity of the interstate system, the study must also consider the potential impacts to I-95/I-495 when improving traffic operations along northbound MD 5 (see attached PowerPoint presentation).

Project Planning Process

Following the Project Background, Nicole provided an overview of the Project Planning and Highway Development Process. Currently, the MD 5 Corridor Transportation Study is in Stage I of planning activities where the Purpose and Need has been developed, the Socio-economic and Natural Environmental inventories were performed, and conceptual preliminary alternatives have been developed. As the project progresses the team will be hosting an Alternates Public Workshop June 15, 2006 after that the team will select and develop Alternatives Retained for Detailed Study (ARDS), develop engineering for the detailed alternatives, prepare detailed natural, cultural, and socio-economic environmental analyses, develop a Secondary and Cumulative Effects Analysis (SCEA), host a Location/Design Public Hearing, and submit a draft final environmental document. The ultimate goal is to obtain Location/Design Approval for the project. Currently, this project is only funded for Project Planning, which is the first phase of the Highway Development Process. Additional phases of the Highway Development Process, which include Final Design, Right-of-Way, and Construction, are not funded.

Environmental Overview

Donna Buscemi provided a summary of the environmental features within the study area.

- High levels of development are occurring throughout the corridor, specifically in the south. It was also noted that AAFB is the single largest land use in the corridor and therefore a major component of the study.
- The majority of the corridor is within a Priority Funding Area (PFA). The PFA extends from southern of the study limits to Piscataway Creek Park, breaks through the Park, then begins again north of the Park and extends to the northern study limits.

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- There are six sites within the study area that are on the National Register of Historic Places (NRHP). NRHP Eligible resources exist in the proposed Brandywine Interchange vicinity. There are properties at the northern section of the corridor that are listed on Maryland Inventory of Historic Places (MIHP), but have not been evaluated for NRHP eligibility. Four archeological sites have been recorded in/near the corridor.

- Watersheds sited in the project area include the Potomac River Upper Tidal and Piscataway Creek. Stream crossings, wetlands, and floodplains are present throughout the corridor.
- Potential Forest Interior Dwelling Species (FIDS) are anticipated in the forests bordering the corridor.

Preliminary Conceptual Alternatives

The study team has evaluated several conceptual alternatives for the MD 5 corridor, including mainline improvements as well as interchange concepts. The interchange concepts that were presented showed options for the Moores Road/Earnshaw Road/MD 5, Burch Hill Road/MD 5, MD 223 Direct High Occupancy Vehicle (HOV) and Express Toll Lane (ETL) access, and Surratts Road/MD 5 intersections. The mainline concepts were shown on PowerPoint slides as typical sections broken into the northern and southern segments of the corridor. The northern segment extends from MD 223 north to Auth Road while the southern segment extends from MD 223 to the MD 5 and US 301 interchange at T.B. The mainline alternatives are designated with a number and the interchange concepts are designated by location and chronological letter. Carrie Casto presented the alternatives listed below.

MD 5 Mainline Alternatives:

- Alternative 1 No-Build
  - Routine maintenance and safety improvements
  - No major improvements will be made
  - Includes interchange at MD 5/MD 373, presently in design
  - It was noted that the Constrained Long Range Plan (CLRP) shows MD 5 designated as freeway and the interchange at MD 373

- Alternative 2 Transportation System Management/Transportation Demand Management (TSM/TDM)
  - Combine acceleration and deceleration lanes into auxiliary lanes Northbound (NB) and Southbound (SB) between MD 223 and Coventry Way
  - Two-lane SB exit ramps at Coventry Way and MD 223 (Woodyard Road)
  - Two-lane NB entry ramp at MD 223
  - Close ramps at Shultz Road and Malcolm Road
  - Allow inside shoulder use to provide enhanced bus service
  - Four-way continuous flow intersection (CFI) at Surratts Road

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  - Four thru lanes at Burch Hill/Earnshaw signalized intersection
  - Four thru lanes at a new Moores Road signalized intersection
  - Park & Ride and transit considerations
  - The most successful facets of TSM/TDM will be incorporated into all of Alternatives Retained for Detailed Study (ARDS).

An AAFB representative stated that they would like the ramps at Shultz Road and Malcolm Road to remain open. This could cause a problem with their gate located off of Alexander Ferry Road. Carrie then continued presenting the remaining conceptual alternatives

- Alternative 3 FEIS Alternative
  - Widen MD 5 to three lanes in each direction south of MD 223
  - New interchanges at Surratts Road and MD 373
  - New interchange at combined Burch Hill Road/Earnshaw Drive/Moores Road
  - UD 301/MD 5 at TB interchange modifications (previously not included in 1980's study)

- Alternative 4 FEIS Alternative with Additional Improvements North of MD 223
  - All improvements in Alternative 3
  - Four thru lanes in each direction from north of Coventry Way to I-95/I-495
  - Create an auxiliary lane NB between MD 337 and Deerpond Lane/Manchester Drive
  - Incorporate northern section TSM/TDM interchange improvements

- Alternative 5 Express Toll Lanes (ETL) – Two-Lane Reversible ETL
  - Two new reversible ETLs in median
  - Barrier separated (investigate spacing between travel lanes and barrier)
  - Time-sensitive signs and gates needed

- Alternative 6 Express Toll Lanes (ETL) – One to Two Lane ETL
  - Two-lane ETL (add one, convert one existing) north of MD 223 (both directions)
  - One-lane ETL (add one to accommodate lesser traffic volumes) south of MD 223 (both directions)
  - Inside widening
  - Four foot buffer between toll lanes and general purpose lanes

- Alternative 7 Express Toll Lanes (ETL) – Movable Barrier
  - Two-lane ETL (add one reversible, convert one) north of MD 223
  - One-lane (add one) barrier-separated reversible ETL south of MD 223
  - Movable barrier north of MD 223 for AM and PM peak
  - Time-sensitive signs, gates, and special equipment needed

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- Alternative 8 High Occupancy Vehicles (HOV)
  - Add one concurrent HOV lane in each direction

MD 5 Interchange Options:

MD 223 – Direct ETL/HOV Access
- Direct Access Ramps to MD 223 are proposed in conjunction with the existing Park and Ride (P&R) lot. ETL/HOV users will be able to exit from MD 5 via inside median ramps, and then be carried over SB MD 5 providing access to MD 223.
- The existing P&R lot is already exceeding capacity. This issue will be discussed with the County, Washington Metropolitan Area Transit Authority (WMATA), and Maryland Transit Administration (MTA) at a future meeting. In addition, the study team will also be discussing the potential for Transit Oriented Development (TOD) in a future meeting with the Maryland Department of Transportation (MDOT).

Surratts Road Interchange Option A
- The team utilized the 1988 FEIS concept of a Modified Diamond Interchange. This option has Surratts Road shifted slightly to the north and going over MD 5.
- The team has taken the FEIS option and modified it to make larger curves on Surratts Road and to also provide a second entrance to the Southern Maryland Hospital off of Surratts Road. SHA continues to coordinate with the property owners of the hotel and hospital

Surratts Road Interchange Option B
- Takes Surratts Road over MD 5 using the existing horizontal alignment of Surratts. This would eliminate the sharp curves on Surratts Road in the northeastern quadrant; however, by using the existing alignment of Surratts Road, Maintenance of Traffic (MOT) may be more involved.

NOTE: A continuous flow intersection (CFI) will be investigated as a short term improvement at this location.

Moores Road/Earnshaw Road/Burch Hill Road Option A
- Consist of A diamond interchange that is similar to the 1988 FEIS concept for this interchange. Since the 1988 FEIS, homes have been built and the original concept goes through the middle of a community on the east side of MD 5 near Earnshaw Road. Because of these impacts, it was decided shift this option further south along MD 5.

Moores Road/Earnshaw Drive/Burch Hill Road Option B
- This interchange includes two, 2-way service roads with right-in/ right-out access at both Moores and Earnshaw. A bridge over MD 5 would be located between the two service roads to allow traffic to access both directions of MD 5.

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Related Projects

Below is a list of the current related SHA, MTA, and County transportation projects.

- MD 5 Branch Avenue Metro Access Project (HDD)
  - The Branch Avenue Metro Access Road project is proposing to reconfigure the existing MD 5/I-495 interchange to incorporate direct access ramps from I-495 to the Branch Avenue Metro Station.
  - The project has been split into two phases. Phase I, the interchange ramps from I-495, is presently under construction. Phase II, the Access Road(s) to the Metro Station, is under design.
  - Issues coordinating ETL/HOV lanes with this new interchange will be a challenge for the MD 5 team because there is limited space available; adding additional lanes (ETL/HOV) will be very difficult under the current interchange design plan.
  - The MD 5 Team is working with the Branch Avenue Team to develop ideas for how a direct MD 5 ETL connection will work with the Metro Access Study
- I-495 Corridor Transportation Study (PPD)
  - SHA currently has a Project Planning Study for I-495 from the American Legion Bridge to the Woodrow Wilson Bridge.
  - This study is investigating safety enhancements, increased capacity, transit opportunities, and potential ETL's.
  - Two studies are under consideration (both 10-Lane options) for feasibility: Option 1: Six general purpose lanes and four ETL's; Option 2: Eight general purpose lanes and two ETL's.
  - A goal of the MD 5 Corridor Transportation Study is to coordinate with the I-495 study to ensure seamless integration of a potential transit and/or ETL system.
- MD 5/MD 381/MD 373 Interchange Project (HDD)
  - The interchange is currently under Design at SHA.
  - This project will not to preclude any of the MD 5 alternatives.
  - Advertisement is scheduled for Summer 2008.
- US 301Waldorf Area Project
  - This coinciding Project Planning study is proposing several interchange options at T.B. At this point these options are not yet ready to be presented. However, the MD 5 Team will coordinate to ensure no option will be precluded by the MD 5 Alternatives.
- MD 210 Multi-modal Project (PPD/HDD)
- MD 4 Corridor Project (PPD/HDD)

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- MD 5/US 301 Transit Services Staging Plan (MTA)
- Old Branch Avenue Project (County)
- Surratts Road (County)
- MD 223 Intersection Improvements (County)

Feedback Required from Andrews AFB

English Proficiency in Relation to Base Community

- From evaluating the census data, there is a large Hispanic population within the base, therefore, the team wanted to know if all public materials needed to be translated to Spanish.
- Base representatives informed the team that at least one person per household is fluent in English.

Employer Community Transportation Modes

- AAFB representatives are interested in enhancing transit connections. They would like to see if an MTA coordinated stop within Prince George's County is a possibility. Further, they see an opportunity to connect their internal transit system with off-base facilities such as Park & Rides and/or Metro Stations.
- AAFB would like to be included on any discussion with transit agencies. SHA will invite AAFB to the April 20, 2006 meeting on transit coordination.

Logistics for Alternates Public Workshop

- Logistics and published materials will be forwarded to the AAFB contact, Scott Spencer.

Additional Topics for Discussion

- AAFB representatives noted that Malcolm Road is a significant route for base traffic and therefore should not be considered for closure under the alternatives.
- Concerns were raised about a potential need for base property as SWM pond sites. The team responded that it is unlikely the state will ask the base for land.
- Recommended that the Study Team work with Prince George's County on Woodyard and Dowerhouse Roads. AAFB is opening a new "service entrance" gate on Dowerhouse Road next fall.
- Dowerhouse Road suffers from sight distance issues.

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- AAFB requested to be briefed on the results of the Origin and Destination Study if one is conducted.
- AAFB supports the inclusion of additional Park and Ride locations and increased transit service.
- Currently, AAFB offers a rudimentary on-base bus service. There may be opportunity for off-base shuttle services to Park & Ride and/or Metro Station locations.
- New base entrance to be constructed along MD 337, could potentially include a private transit entrance.
- AAFB will provide SHA with a copy of the Base Master Plan, once cleared for release.
- The AAFB Community Planner, Scott Spencer will coordinate the mailing of project notices to Base residents.
- AAFB will provide the study team with Base traffic volumes, to be investigated for entrance usage and transit studies.
- Concerns were raised by AAFB representatives regarding noise levels. SHA will investigate noise abatement needs as the study progresses.
- AAFB representatives are interested in the interchange issues with MD 4. SHA will notify the MD 4 project manager and provide contact information to Scott Spencer.

Upcoming Meeting

- Transit Meeting with Prince George's County, WMATA, MTA – April 20, 2006
- Director's Review – May 2, 2006
- Alternates Public Workshop – June 15, 2006

Follow-up

- Discuss with MTA about coordinating a bus stop in Prince George's County at the April 20 2006 Transit Meeting.
- Email .pdf version of the project newsletter to Scott Spencer with Andrew's AFB.
- Provide results of Origin/Destination study to Scott Spencer
- Send SHA District 3 point of contact information to Scott Spencer
- Inform SHA Project Manager of MD 4 Study of the Base's interest in that study.
- SHA to investigate the agreement between MTA and WMATA on bus service in Prince George's County.

Mr. Bruce M. Grey
Page Nine

If you have any corrections or additions to the above meeting summary, please contact Nicole Washington, Project Manager at 410-545-8570.

Attachments
cc: File
Attendees
Mr. Ken Briggs (w/attachments)
Mr. Darrell Mobley (w/attachment)
Ms. Teri Soos (w/attachments)

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: August 14, 2006

SUBJECT: MD 5 Corridor Transportation Project
Project Number PG391A16

RE: Prince George's County Base Realignment and Closure (BRAC) Outreach Meeting

A meeting for the Prince George's County BRAC Outreach was held on Tuesday, August 1st at 11:00 AM at the Prince George's County Community Planning Division building. The following people were in attendance at the meeting:

Carrie Casto	Jacobs Civil Inc.	410-837-5840
Missy Cassidy	MDOT	410-865-1040
Jeremy Miller	MDOT	410-865-1097
Sam Minnitte	MDOT-Planning	410-365-1275
Paul Oberle	MDOT – Planning	410-865-1011
Ron Spalding	MDOT – Planning	410-865-1304
Harold Foster	MNCPPC	301-952-4947
Joe Valenza	M-NCPPC	301-952-3662
Elaine Jones	MTA	410-767-4443
Dusan Vukeam	MWCOG/TPB	202-962-3279
J. Rick Gordon	PGC – DPW&T	301-883-5700
L.Hudson Pinkney	PGC – DPW&T	301-883-5656
Vic Weissberg	PGC – DPW&T	301-883-5600
Sarah Sebald	SHA – PPD	410-545-8519
Dennis Yoder	SHA - RIPD	410-545-5675

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Purpose of the Meeting

The purpose of this meeting was to discuss the BRAC effects on Prince George's County, in relation to current and planned projects.

General Information

MDOT is meeting with counties and with 'military alliances' to assess community needs and coordinate plans. There is no new federal (or other) money for BRAC initiation.

The Department of Business Development has a $1 Million grant from the federal government to study the effects of base expansion. The Department of Business Development is studying population numbers. The MD Department of Planning is doing an assessment of infrastructure (including roads, utilities, etc.), an education assessment, focusing on higher education needs, and an assessment of security clearances and the security clearance process.

All BRAC decisions are to be in place by 2011.

The MD Military Council is also involved with the BRAC process, and holds quarterly meetings:

- August – They are holding a meeting with State and County personnel
- October – They are holding a meeting with elected officials within the County.

Ft. Meade Expansion

BRAC Ft. Meade numbers do not include NSA expansion

The Green Line expansion to Laurel is in planning stages:

- Determining project stakeholders
- MTA is making preliminary alignments

Andrews Air Force Base (AFB) Expansion

No significant impact is expected to Andrews AFB, because only 400 new jobs will be created at this location.

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Affected projects:

- Only 400 new jobs, not expected to have significant impact
- MD 4 Suitland interchange is funded for construction
- Other breakout projects do not have funding
- I-495 Project Planning completed, working with Virginia
  - Southern mobility study to be done 2007
  - Lane choices either 6 regular, 4 ETL, or 8 regular, 2 ETL
- MD 5
  - MD 5/MD 373/Brandywine Rd interchange funded through Final Design

Follow-up/ Action Items

- Prince George's county wants to see Level of Service (LOS) analysis data for MD 5 alternatives when they're available

If you have any corrections or additions to the above meeting summary, please contact Ms. Sarah Sebald, the Project Engineer, at 410-545-8519 or me at 410-545-8570.

cc: MD 5 Core Team
File

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: November 28, 2006

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Maryland Department of Transportation (MDOT) Base Realignment and Closure (BRAC) Outreach Meeting

A meeting for MDOT BRAC Outreach was held on October 27th at 1:30 PM in Andrews Air Force Base (AAFB), Building 3465.

The following persons were in attendance:

MSgt Thomas Dickey	AAFB - 316 SFS/SFO
LtCol Brian Duffy	AAFB - 316 CES/CC
John Franz	AAFB- 316 CES/CEV
Donna Jackson	AAFB - 316 CES/CECP
David Lucus	AAFB - 316 CES/CEC
Gail Meyers	AAFB - 316 CES/CECE
Anne Munkres	AAFB - 316 CES/CECP
Scott Spencer	AAFB - 316 CES/CECP
Steve Rozyckie	Gannett Fleming
Harriett Levine	Jacobs
Erin Dowling	Jones Lang LaSalle
Marc Waddill	Jones Lang LaSalle
Danielle Edmonds	MD SHA
Siva Shrestha	MD SHA
Teri Soos	MD SHA

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Raja Veeramachaneni	MD SHA
Nicole Washington	MD SHA
Dennis Yoder	MD SHA
Julie Woepke	MDBED- Office of Federal Military Affairs
Carol Arscott	MDOT
Paul Oberle	MDOT
Sam Minnitte	MDOT - Office of Planning
Harold Foster	M-NCPPC - Prince George's County Planning
Fern Piret	M-NCPPC - Prince George's County Planning
Glenn Saffran	MTA
Dusan Vuksan	MWCOG
Louis Pinkney	PG County - DPW&T
Vic Weissberg	PG County - DPW&T
Nicole White	Symmetra Design

Purpose of the Meeting

The purpose of this meeting was to discuss the MD 5 project, BRAC projects, and the current and proposed projects surrounding the base.

General Information

With the addition of 2-3,000 people to the base through the BRAC initiative, there are plans for proposed BRAC related projects. This would include a BRAC Environmental Assessment Traffic Study and gate upgrade projects.

Nicole Washington gave a brief overview of the MD 5 Transportation Corridor Study and noted what stage the project was in as part of the project planning process. It was stated that the gate that is of most concern to the base in relation to MD 5 is the gate located at Virginia Avenue and Alexandria Ferry Road. This gate currently operates as a personal vehicle and golf course entrance.

AAFB was concerned with the Alternatives Retained for Detailed Study (ARDS) package for the MD 5 Corridor Transportation Study which contained options that included the closing of the Malcolm Road (northbound MD 5) exit. In addition, the ARDS did not include improvements to the Coventry Way (northbound MD 5) exit in one of the alternatives. AAFB personnel explained that Malcolm Road and Coventry Way were the only entrances for golfers with no military ID. Nicole stated that the Transportation Systems Management (TSM) Alternative previously included an option that closed Malcolm Road; however, that option had been dropped from consideration.

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AAFB personnel asked when the study team will have more detailed information. Nicole stated that more detailed information will be available in the Summer/Fall 07 before the Public Hearing that is scheduled for Fall 07.

Follow-up Items

- Raja Veeramachaneni stated that SHA has drafted a letter to some of the other military bases asking them for concurrence on future land use changes that should be incorporated into the traffic model. The same type of letter will be generated for Andrews Air Force Base.

If you have any corrections or additions to the above meeting summary, please contact Mrs. Nicole Washington, SHA Project Manager at 410-545-8570.

cc: File
Attendees
MD 5 Project Team

Robert L. Ehrlich, Jr., *Governor* | Michael S. Steele, *Lt. Governor*

State Highway Administration

Robert L. Flanagan, *Secretary* | Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: June 19, 2006

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Transit Meeting

A transit coordination meeting with representatives from Andrews Air Force Base (AAFB), Maryland Transit Administration (MTA), Washington Metropolitan Area Transit Authority (WMATA), and Prince George's County Department of Public Works and Transportation (P.G. DPW&T) for the MD 5 Corridor Transportation Study was held on April 20th at the District 3 office. The following people were in attendance:

Joe Tortella	AAFB 89 CES/CEC	301-981-1518
Carrie Casto	Jacobs Civil	410-837-5840
Harriet Levine	Jacobs Civil	410-230-6630
Dennis Simpson	MdTA	410-537-5650
MaryAnne Polkiewicz	MTA	410-767-3426
Louis Pinkney	P.G. DPW&T	301-883-5656
Felicia Alexander	SHA-PPD	410-545-8511
Brian Lange	SHA-PPD	410-545-8532
Nicole Washington	SHA-PPD	410-545-8570
John Magarelli	WMATA	202-962-1357

Purpose of the Meeting

The purpose of this meeting was to discuss the existing and future transit needs of the MD 5 corridor and determine how these needs can be incorporated into the MD 5 Corridor Transportation Study.

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Overview of the MD 5 Corridor Transportation Study

After attendee introductions, Nicole Washington gave a brief overview of the purpose of the study. To date, the team has completed the Purpose and Need Document and has received concurrence from all commenting agencies. The purpose of the MD 5 Corridor Transportation Study is to facilitate safe and efficient traffic flow while providing a cost-effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts, while enhancing and facilitating transit services. In order to maintain the integrity of the interstate system, the study must also consider the potential impacts to I-95/I-495 when improving traffic operations along northbound MD 5.

Following the discussion of the Purpose and Need, Harriet Levine and Carrie Casto provided an overview of alternatives under consideration. The following is a list of the eight alternatives and several interchange options under consideration:

Mainline Alternatives

- Alternative 1: No-Build
  - Routine maintenance and safety improvements
  - No major improvements will be made
- Alternative 2 Transportation System Management (TSM)
  - Combine acceleration and deceleration lanes into auxiliary lanes Northbound (NB) and Southbound (SB) between MD 223 and Coventry Way
  - Two-lane SB exit ramps at Coventry Way and MD 223 (Woodyard Road)
  - Two-lane NB entry ramp at MD 223
  - Allow inside shoulder use to provide enhanced bus service
  - Four-way continuous flow intersection (CFI) at Surratts Road
  - Four thru lanes at a new Burch Hill Road/Earnshaw Drive signalized intersection
  - Four thru lanes at Moores Road signalized intersection
  - Park & Ride lot facilities
- Alternative 3 Final Environmental Impact Statement (FEIS) Alternative
  - Widen to three lanes each direction south of MD 223 (no improvements north of MD 223)
  - New interchange at Surratts Road
  - New interchange at combined Burch Hill Road/Earnshaw Drive/Moores Road
  - UD 301/MD 5 at TB interchange modifications
- Alternative 4 FEIS Alternative with Additional Improvements North of MD 223
  - All improvements in Alternative 3
  - Four thru lanes each direction from north of Coventry Way to I-95/I-495
  - Create auxiliary lane NB between MD 337 and Deerpond Lane/Manchester Drive
  - Incorporate northern section TSM interchange Improvements

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- Alternative 5 Express Toll Lanes (ETL) – Two-lane Reversible ETL
  - Two new reversible ETLs in median
  - Barrier separated
  - Time-sensitive signs and gates needed
- Alternative 6 Express Toll Lanes (ETL) – One to Two Lane ETL
  - Two-lane ETL (add one, convert one existing) north of MD 223 (both directions)
  - One-lane ETL (add one) south of MD 223 (both directions)
  - Inside widening
  - Four foot buffer between toll lanes and general purpose lanes
- Alternative 7 Express Toll Lanes (ETL) – Movable Barrier
  - Two-lane ETL (add one reversible, convert one) north of MD 223
  - One-lane (add one) barrier-separated reversible ETL south of MD 223
  - Movable barrier north of MD 223 for AM and PM peak
  - Time-sensitive signs, gates, and special equipment needed
- Alternative 8 High Occupancy Vehicles (HOV)
  - Add one concurrent HOV lane in each direction

Interchange Alternatives:

- Capital Beltway (I-95/I-495) Access Ramps
  - Provides direct access ramps for the ETL/HOV/General Purpose (GP) lanes to access MD 5 and the Capital Beltway.
  - Considers future plans for Capital Beltway interchange modifications currently under construction.

- Woodyard Road (MD 223) Direct Access Ramps
  - Direct Access Ramps to MD 223 are proposed in conjunction with the existing Park and Ride lot.
  - ETL/HOV travelers will be able to exit from MD 5 via inside median ramps, which are then carried via structure over southbound MD 5 giving access to MD 223.

- Surratts Road Interchange – Option A
  - Creates a grade-separated modified diamond interchange bridging over MD 5
  - Shifts Surratts Road to the north of the existing intersection
  - Removal of "S" curve on Surratts Road
  - Provides a second entrance to Southern Maryland Hospital

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- Surratts Road Interchange – Option B
  - Takes Surratts Road over MD 5 using the existing horizontal alignment of Surratts Road. This would eliminate the sharp curves of the access road in the northeastern quadrant. However, by using the existing alignment of Surratts Road, maintenance of traffic may be more involved.

- Moores Road/Earnshaw Drive/Burch Hill Road Interchange
  - For Option A, the team will evaluate the 1988 FEIS concept for this interchange: a proposed Diamond Interchange. Homes have been built since the 1988 study and the original concept goes through the middle of the community on the east side of MD 5 near Earnshaw Road. This option will be shown to the public at the meetings to show that the original study's alternatives are being evaluated. (Following this meeting, a Director's Review Meeting was held. During this meeting, this option was dropped from further study.)
  - For Option B, the 1988 FEIS option was shifted south on MD 5 to tie into the new community road on the east side. On the west side of MD 5, the new interchange would tie in the same way it is shown in the 1988 FEIS. This interchange was presented as a diamond with traffic circles. These circles could also be replaced by stop signs or signals. This layout does get very close to the new homes on the east side of MD 5. It was suggested to look into shifting the interchange slightly further south to avoid dividing the community.
  - An additional option, Option C, included 2 two-way service roads with right-in/right-out access at both Moores Road and Earnshaw Road. A bridge over MD 5 would be located between the two service roads to allow traffic to access both directions of MD 5.

- US 301/T.B. Interchange
  - The coinciding US 301 Waldorf Area Project is proposing several interchange options at T.B. At this point these options are not yet ready to be presented. However, the MD 5 Team will coordinate to ensure no option will be precluded by the MD 5 Alternatives.

- MD 5/ MD 373 Interchange Highway Design Project
  - The proposed interchange is not funded for construction.
  - Preliminary Investigation (P. I.) is currently planned for November 2006
  - The advertisement date is currently scheduled for September 2008
  - The interchange is anticipated to be open to traffic in 2011.

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Existing Transit Service

MTA

MaryAnne Polkiewicz from MTA stated that her agency currently has a total of six routes within the MD 5 study area. Those routes consist of the bus routes #901, #903, #905, #907, #909, and #913. The #901 route is an express service via MD 210 with several stops in Charles County connecting to the George Washington University area in Washington, D.C. This route will switch to MD 5 if MD 210 is heavily congested during peak hours.

Route #903 is also an express service route via MD 5 going from St. Mary's County and Charles County to Union Station/Union Center Plaza in Washington, D.C. An express service via MD 5 is also available on bus route #905 from the St. Mary's County Airport, stopping in Waldorf, Charles County, onto Farragut Square in Washington, D.C. From Charles County, MTA also provides express bus #907 directly into Washington, D.C. The #909 bus route also provides direct express bus service from St. Mary's County directly into Washington, D.C. The #913 route is an express route that goes from Waldorf, to the Branch Avenue Metrorail Station. This route has had a total of 16 trips with approximately 4600 riders per day since February. On average MTA adds approximately 2 trips per year to their routes, which are usually contracted out to others bus service providers. Park and Ride lots are scattered throughout St. Mary's and Charles counties.

MTA stated at the meeting that their needs for this MD 5 study are to provide capacity and additional speed for busses to move continually through the corridor. They also support the US 301 project in Southern Maryland. To address an issue that arose during the Andrews Air Force Base Meeting, MTA stated that they are currently looking into the agreement between WMATA and MTA regarding MTA not providing transit service to Prince George's County.

P.G. DPW&T

Louis Pinkney from P.G. DPW&T provided a brief overview of the transit services offered by the County. "The Bus" currently provides 3 services within the northern section of the MD 5 in study area. Service in the southern portion of the study area is currently in the review process for potential bus routes. Commuters are currently driving from Prince George's County to Charles County to catch the bus to Washington, D.C. and other parts of Maryland. The department is very interested in potential Park and Ride facilities. Louis informed the team that the County is also looking at structured parking at existing Park and Ride locations within the study area. He suggested that SHA considered structured parking at all Park and Ride facilities under consideration within the study area because land is scarce.

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MaryAnne stated that MDOT has previously looked at potential properties within the study area that would be useful for Park and Ride locations. Louis also stated that P.G. DPW&T would like the team to consider Park and Ride lots further south in study area to aid in the transportation of southern Maryland travelers.

WMATA

John Magarelli with WMATA stated that Larry Glick would be the future representative on this project for WMATA. He stated that WMATA did evaluate rail through this corridor in 2001, but the ridership numbers did not warrant such an improvement.

AAFB

Joe Tortella informed the team that the Base currently has an existing bus service that does adequately operate or address the needs within the Base. Bus routes to the Base's front gate and a METRO stop closer to the Base would be improvements that AAFB would support.

Future Transit Needs

MTA would like to see additional capacity and speed addressed with this project. "The Bus" would like to see additional Park and Ride locations within the southern limits of the corridor. AAFB would like to see additional Park and Ride locations also, extended METRO service, and bus routes that stop at the Base's gate. Joe also mentioned that the Base was also interested in improvements along MD 4. Nicole informed the team that comments and questions regarding improvements along MD 4 would need to be directed to Teri Soos, Project Manager or Shiva Shrestha, Regional Planner at SHA.

Consensus on Transit Components That Can Be Incorporated into MD 5 Study

Nicole reiterated that SHA would consider additional Park and Ride locations (potential structured parking also), adding capacity on MD 5, and coordinating future bus stop at AAFB main gate.

Additional Topics for Discussion

No additional topics were discussed.

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Follow-up Items

- SHA along with MTA/WMATA to investigate the previous transit agreement between MTA/WMATA and what exemptions there are to this agreement so that bus service can be provided by MTA within Prince George's County.
- SHA to consider structured parking lots at any potential Park and Ride locations as part of this study.
- Place Park and Ride locations further south in the corridor.
- Have John Jenkins contact WMATA because they may be able to provide bus service to the Brandywine area with the addition of a Park and Ride.
- AAFB is to provide zip code data of base employees to Study Team.

Upcoming Meetings

- Director's Review Meeting – May 23, 2006
- Alternates Public Workshop – June 15, 2006

Adjourn

If you have any corrections or additions to the above meeting summary, please contact Nicole Washington, Project Manager at 410-545-8570.

cc: File
Attendees
Mr. John Jenkins, OHD

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: August 14, 2006

SUBJECT: MD 5 Corridor Transportation Project
Project Number PG391A16

RE: Team Meeting

A meeting for the MD 5 Corridor Transportation Project Planning Study project was held on Friday, July 14th. The following people were in attendance at the meeting:

Jessica Klinefelter	AD Marble	410-902-1421
Carrie Casto	Jacobs Civil Inc.	410-837-5840
Harriet Levine	Jacobs Civil Inc.	410-837-5840
Ian Beam	MDOT	410-865-1280
Vic Weissberg	Prince George's County DPW&T	301-388-5600
Dorey Uong	SHA – District 3 Traffic	301-512-7462
Daniel Beck	SHA – OBD	410-545-8317
John Jenkins	SHA – OHD	410-545-8763
Dennis Atkins	SHA – PPD	410-545-8520
Donna Buscemi	SHA – PPD	410-545-8558
Victoria Lane	SHA – PPD	410-545-8550
Brian Lange	SHA – PPD	410-545-8532
Chanel Torsell	SHA – PPD	410-545-5644
Nicole Washington	SHA – PPD	410-545-8570

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Mr. Bruce M. Grey
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Purpose of the Meeting

The purpose of this meeting was to discuss the alternatives that were presented at the Alternates Public Workshop and to develop a recommendation of the Alternatives Retained for Detailed Study.

Alternatives Public Workshop

Nicole provided an overview of the Alternatives and Options presented at the June 15, 2006 Alternates Public Workshop. They are as follows:

Alternatives

- Alternative 1: No-Build
- Alternative 2: Transportation Systems Management (TSM)
- Alternative 3: Expressway Upgrade South of MD 223
- Alternative 4: Expressway Upgrade Entire Corridor
- Alternative 5: Two-Lane Reversible Express Toll Lane (ETL)
- Alternative 6: One to Two Lane ETL
- Alternative 7: Movable Barrier ETL
- Alternative 8: High Occupancy Vehicle (HOV)

Options

- MD 223 Direct HOV/ETL Access Option
- Surratts Road Interchange Option A
- Surratts Road Interchange Option B
- Burch Hill Road Interchange Option A
- Burch Hill Road Interchange Option B

Donna Buscemi provided an overview of the environmental constraints. Donna highlighted the breaks in the Priorty Funding Area (PFA) boundary (Moores Road/Earnshaw Road not within PFA), major land uses (Andrew's Air Force Base is largest), parks, streams, forested areas and forest interior dwelling species, potential wetlands, and historic properties.

Nicole noted 120 people attended the Alternates Public Workshop and public comment cards from the meeting have been tallied. The team received a total of 91 comment cards. A lower than expected number of out-of-area responses were received (only 10%), potentially leading to misrepresentation of interest in Express Toll Lanes. The team will work to find another way of informing out-of-area users of the upcoming project and getting their input.

The majority of the citizens who responded live south of MD 223, east of MD 5 prior to US 301, followed closely by citizens who live south of MD 223 west of MD 5 prior to US 301. In

Mr. Bruce M. Grey
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addition, most citizens (74%) who responded would not pay to use MD 5 if their travel times could be faster.

The comments reflect Alternative 4 is the most liked (36%) and Alternative 1 is the least liked (31%) followed closely by Alternative 7 (30%).

Surveys from the initial project newsletter have been summarized. The team has received a number of surveys since the May 23rd Director's Review and has compiled the results, which will be available for the upcoming August Director's Review meeting.

In addition to the Newsletter Surveys and Workshop Comment Cards, the team compiled a summary of comments received by the staff from individuals at the workshop. A summary of these comments was presented at this meeting and is attached. Some topics discussed with the public at the workshop were:

- Overall Project Comments
- Displays and Workshop Layout
- US 301 Waldorf Project Planning Study
- Tolling and ETL's
- Environment
- Traffic and Safety
- Surratts Road Intersection
- Earnshaw/Burch Hill/Moores Road Intersections
- MD 373/MD 381/Dyson Road Intersections
- Requested Follow-Up Meetings

Alternatives Retained for Detailed Study (Criteria)

Nicole stated that the criteria that would be used for the Alternatives Retained for Detailed Study (ARDS) are design criteria/engineering parameters, maintenance of traffic/constructability, construction staging, environmental impacts, Secondary and Cumulative Effects Analysis (SCEA), and citizen input. The following summarizes the criteria used.

Design Criteria/Engineering Parameters

- The traffic engineering for the non-ETL alternatives has been finalized. The team is awaiting final results from the ETL conceptual analysis.
- Alternatives and options have been generated off of aerial photography and are still conceptual. No profiles, cross sections, or limits of disturbance have been generated at this point.
- Horizontal alignment criteria used meets a design speed of 60 mph.

Mr. Bruce M. Grey
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Maintenance of Traffic/Constructability Issues

- Surratts Road Option A would be built north of the existing at-grade intersection.
- Surratts Road Option B is proposed at the existing intersection and would require construction of a temporary intersection while the structure is built.
- Express Toll Lanes can be fit on the existing MD 5 interchange structures, but will require some retro-fitting to accommodate widening and signage.
- The ramps and retaining walls accompanying the MD 5 interchange structures make constructability for ETL's difficult, as they will need to be adjusted and relocated.
- Alternative 3 is considered the easiest to construct.
- The Alternative 7 reversible ETL's with movable barrier requires the greatest long-term maintenance and costs resulting from extensive signage, equipment, and man hours.

Construction Staging Plan

- Phase 1 - Construction of TSM features.
  - Combine acceleration and deceleration lanes into auxiliary lanes northbound and southbound between MD 223 and Coventry Way
  - Two-lane SB exit ramps at Coventry Way and MD 223 (Woodyard Road)
  - Two-lane NB entry ramp at MD 223
  - Allow inside shoulder use to provide enhanced bus service
  - Four-way continuous flow intersection (CFI) at Surratts Road
  - Four through lanes at Burch Hill Road/Earnshaw signalized intersection
  - Park & Ride and Transit considerations
- Phase 2 - Improvements to existing at-grade intersections.
- Phase 3 – The improvements included in Alternative 3, which include widening of MD 5 south of MD 223 once the MD 373 interchange is constructed.
- Phase 4 - Widen MD 5 to the north of MD 223.

ETL Issues

- If selected, the entire ETL system would need to be constructed prior to being open to traffic.
- Demand for an ETL system will dictate when the system should be constructed
- A direct connection to I-495/I-95 and the Metro Access Road will be needed.
- TEMS Inc. has conducted revenue sharing studies. The results will be made available to the team once finalized.
- Impacts will be analyzed to a greater degree as the project progresses.
- Interchanges at T.B. will be added later on in the study. The MD 5 team will coordinate closely with the US 301 team.
- Prince George's County representative Vic Weissberg noted that the County will send an official letter stating its preferred alternative(s). He noted that the County is not currently in favor of ETL alternatives.

Mr. Bruce M. Grey
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SCEA Issues

- Developers are waiting for results from the project to move forward with plans in the area of Burch Hill Road.
- Ease of access brought on by an interchange at Surratts Road may encourage development.
- Northern section of MD 5, north of MD 223, no secondary effects are anticipated.
- Mainline widening improvements are not anticipated to generate secondary effects.

Discussion of Alternatives Retained for Detailed Study

Alternatives

1. Team agreed to keep Alternative 1: No-Build
2. Team agreed to incorporate Alternative 2: TSM features as part of other build alternatives. Not selected to remain as a stand-alone alternative.
3. Team agreed to keep Alternative 3, but need to make sure it provides adequate capacity for 2030 design year.
4. Team agreed to keep Alternative 4, but need to make sure it provides adequate capacity for 2030 design year.
5. Team agreed to keep Alternatives 5 and 6; however more analysis will be need for Alternative 5's reversible BTL.
6. Team agreed to drop Alternative 7. Movable barriers are not preferred due to long term costs and expansion issues.
7. Team agreed to keep Alternative 8 until it can be confirmed it is not desired by the Federal Highway Administration and/or Prince George's County DPW&T.

Interchange Options

1. Team agreed to keep MD 223 Direct Access Ramp from ETL lanes
2. Team agreed to keep Surratts Road Option A
3. Team needs more information prior to a determination on Surratts Road Option B
4. Team agreed to keep Burch Hill Road Option A, but agreed to label the east connections as A1 and A2 to note they are separate connection options.
5. Team agreed to keep Burch Hill Road Option B, however SCEA concerns were raised and a meeting with Access Permits needs to be held to discuss potential developer activity. Also, ownership issues may arise for the connector roads. There is a potential for only overpass solution not a full interchange, with access diverted to the MD 373 interchange.

Key Issues

Close coordination with related projects will need to continue throughout the study. Specifically, the team will need to maintain coordination with the Metro Access study currently under

Mr. Bruce M. Grey
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construction, the MD 373/MD381/MD 5 Interchange Project currently in design, and the US 301 Waldorf Study currently in planning.

Public concerns over noise along the corridor were raised. The team noted that noise abatement will be studied as the project progresses into the second phase of the planning process.

Schedule for Upcoming Meetings

- Director's Review Meeting – August 24th @ 10:00 A.M. in SHA 211 Building Training Room 3
- Interagency Handout of the ARDS Package – September 2006
- Interagency Presentation of ARDS – October 2006

Follow-up/ Action Items

The following follow-up items will need to be addressed:

- At the upcoming Director's Review Meeting, the team will need to remind Raja of the preliminary level of engineering available at this time.
- Final traffic analysis will be emailed to team members.
- The staff summary will be updated to reflect that comments were from individuals, not collective responses from the public.
- A meeting with the County Council will need to be scheduled to brief them on the project and garner their feedback.
- Alternative 7 will be dropped from consideration.
- Alternative 2 will be incorporated into all other build alternatives.
- Team will investigate an additional interchange option at Burch Hill Road involving non-direct access overpasses.
- The PFA boundary will be added to the Environmental Base Mapping.
- Impacts resulting from interchange options will be summarized.

If you have any corrections or additions to the above meeting summary, please contact Mrs. Donna Buscemi, Environmental Manager, at 410-545-8558 or me at 410-545-8570.

Attachments
cc: Attendees
MD 5 Project Team
File

MD 5 CORRIDOR TRANSPORTATION STUDY

From South of the US 301/MD 5 Interchange to North of the I-95/I-495 Interchange

Friday, July 14, 2006 @ 10:30 AM
SHA Headquarters – 211 Building Training Room #4

AGENDA

Team Recommendation of Alternatives Retained for Detailed Study

I. **Introduction/Purpose of Meeting** – *To discuss the alternatives that were presented at the Alternates Public Workshop and to develop a recommendation of the Alternatives Retained for Detailed Study*

II. **Alternates Public Workshop**
   A. Overview of Alternatives & Options Presented at the Workshop
   B. Environmental Constraints
   C. Summary of Workshop & Comments Received

III. **Alternatives Retained for Detailed Study (ARDS) Criteria**
   A. Design Criteria/Engineering Parameters
   B. Maintenance of Traffic/Constructability Issues
   C. Construction Staging Plan
   D. Environmental Impacts
   E. Secondary and Cumulative Effects Analysis Issues

IV. **Discussion of Alternatives Retained for Detailed Study**

V. **Key Issues**
   A. Coordination with Related Projects
   B. Noise Walls

VI. **Upcoming Meetings**
   - Director's Review Meeting for ARDS – July 18, 2006 @ 10:00 AM

VII. **Schedule**
   - Interagency Review Meeting – September 20, 2006 (Handout of ARDS Package)
   - Interagency Review Meeting – October 18, 2006 (Presentation of ARDS)
   - Location/Design Public Hearing – Fall 2007.
   - Location/Design Approvals – Winter 2009

VIII. **Adjournment**

MD 5 CORRIDOR TRANSPORTATION STUDY

Comments Received from Individual Citizens by Staff at June 15, 2006 MD 5 Alternates Public Workshop

COMMENT SUMMARIES BELOW ONLY REFLECT THOSE MADE BY INDIVIDUALS ATTENDING THE ALTERNATES PUBLIC WORKSHOP.

Overall Project Comments:

- Several commented about the previous study, stating nothing has changed since the late 1980's. One lady said that their church group moved down by Surratts Rd. under the impression that the interchanges were to be built in the mid 1990's.

Displays & Workshop Layout

- The large bold text and eye-level placement of the displays made it easy for sight impaired people to read.
- A citizen questioned whether Auth Village Park was the same as Woodberry Forest Park? Our map may be incorrect. According to the MNCPPC letter, both parks exist in our study area. Jacobs /AD Marble will verify which name is correct.

US 301 Waldorf Project

- Several citizens asked what the US 301 Waldorf Area Project plans are for the T.B. area.
- It is important for the MD 5 project, the US 301 Waldorf project, and the MD 5/ MD 373 interchange project to coordinate so that one project does not force alternatives on another project.
- A resident of LaPlata prefers an upgrade of US 301 through Waldorf.
- Transit should be considered from LaPlata through Waldorf along the US 301 corridor and up the MD 5 corridor to the Branch Ave Metro Station.
- Few citizens told that both eastern and western alignments of the Waldorf Bypass have environmental issues. They added that State and Federal environmental agencies would not approve of both alignments. Some were also skeptical about the completion of the Waldorf Bypass during their life time.

Tolling/ETL's

- Some citizens told that congestion along the MD 5 corridor increased significantly over the past 10 years. They were willing to pay a toll for using the state road - if they can travel congestion free.
- Some citizens were surprised to see so many State highway projects in Prince George's County. They seem to be unaware of number of State highway projects in the county.

Environmental

- I noticed that historic sites that were determined eligible for the NRHP were not on the mapping. This will be corrected when we get additional information back from MHT late July/early August on other potentially eligible structures.
- A citizen asked why Pea Hill Branch was not considered a stream crossing. It may be that the existing structure will not need to be change and therefore not counted as a new stream crossing.
- A gentleman thought there might be a "spawning farm" near the end of Crestwood as it approaches Moores Road.
- Two different residents that back up to MD 5 NB (MD 223 area) were concerned with the noise levels on MD 5.

Traffic & Safety

- MD 223 is a real problem area. There are too many access points in the area.
- The projected amount of development is always greater than what's anticipated.
- When development is going in, does the state consider the impact to infrastructure?
- If anything traffic growth is going to be greater.
- Several residents that live off of Brandywine/ Branch Ave. complained of the high speed traffic and high traffic volumes with all of the new housing developments in the area (these comments came from long time residents)
- The accuracy of the accident data was questioned.
- The traffic board having asterisk * marks next to some of the data with no legend indicating what the * means.
- One woman wanted to know who to contact in regards to having pavement markings replaced in the study area. She was told to contact District 3.
- Other comments were made in regards to Surratts Road traffic problems.

Surratts Road

- There were two people who complained that currently at Surratts Road people who are trying to go to the Hospital from the north will go onto eastbound Surratts and make a U-turn to avoid waiting for the left turn lanes. Additionally it was stated that some people on the northbound side get off at Surratts, do a quick U-turn and continue northbound rather than waiting at the light.
- An explanation of the CFI was needed throughout the night.
- Many residents were happy to see an interchange proposed at Surratts Rd.

Earnshaw/ Burch Hill/ Moores Road

- One gentleman didn't want the crossing closed and didn't want to have to drive out of the way to get to Ed's (nursery).
- Discussed possibility of having an emergency only median break so emergency vehicles could access the neighborhood more directly.
- Ed (nursery owner) asked if under Earnshaw / Burch Hill Option B adjacent properties would have access onto the service roads, specifically on the west side of MD 5.
- There were two comments about the Earnshaw/ Burch Hill/ Moores Road interchanges. Both people stated that they prefer Alternative B. They both did not like having to go back up to Brandywine Road to get on to MD 5 Northbound.

MD 373/ MD 381/ Dyson Road

- People see this as the biggest bottleneck on MD 5 and in need of an immediate fix.
- Some citizens wanted to know a transportation improvement concept at US 301 and MD 5 at TB, where three projects (MD 5 interchange at US 301; MD 5 interchange at MD 373/Relocated Brandywine Road (Spine Road); and Waldorf Bypass) meet. Property owners wanted to know how their properties will be impacted by the proposed transportation improvement projects in the TB area.
- Roundabout intersections may operate better than the signalized intersections at the interchange ramps and Future Spine Road of the MD 5/MD 373/Future Spine Road interchange project. The citizen asked to evaluate the intersection design with roundabout options.

Follow Up's

- A meeting needs to be set up with Lt. Morris's State Police barracks to go over the alternates. In addition, she has concerns with the naming of the new road near T.B. It should not be *Mattawoman* since there is already a Mattawoman Beantown Road. She also inquired about T.B. - what's the significance? She was sent the description of T.B. from the Maryland Historical Trust website. She doesn't think we should use T.B. as a description for that intersection, since it's not well known.
- A citizen asked if the mapping and alternatives would be available on the website.

MD 5 CORRIDOR TRANSPORTATION STUDY

Summary of MD 5 Alternates Public Workshop Comment Cards

Total Number of Comments Received: 91

Question	Highest Response		Percentage of Total
Question 1: Where do you live? (see figure)	26	Location D (Southeast Quadrant)	29%
Question 2: If your travel time could be faster would you pay to use MD 5?	67	No	74%
Question 3: What alternative do you like the most?	33	Alternative 4	36%
Question 4: What alternative do you like the least?	29	Alternative 7	32%
Question 5: When using MD 5 where are you travelling?	47	Charles County	52%
Question 6: Do you use transit or ridesharing?	75	No	82%
Question 7: If you do use transit, what mode do you use?	30	METRO	33%
Question 8: Are you willing to participate in future surveys?	87	Yes	96%

Question 1: Where do you live? (see figure)

Answer	A (Quad 2)	B (Quad 1)	C (Quad 3)	D (Quad 4)	E (outside study area)
Total	20	8	25	26	9

Most responses	26
Least responses	8
TOTAL RESPONSES	91

Question 2: If your travel time could be faster would you pay to use MD 5?

Answer	Yes	No
Total	21	67

Most responses	67
Least responses	21

Question 3: What alternative do you like the most?

Answer	1	2	3	4	5	6	7	8
Total	8	22	14	**33**	6	3	1	7

Most responses	33
Least responses	1

Question 4: What alternative do you like the least?

Answer	1	2	3	4	5	6	7	8
Total	29	1	3	7	15	19	28	10

Most responses	29
Least responses	1

Question 5: When using MD 5 where are you traveling?

Answer	Washington, D.C.	Charles Couty	Northern Virginia	Montogomery County	Branch Ave. Metro	Other
Total	47	47	20	9	23	20

Most responses	47
Least responses	9

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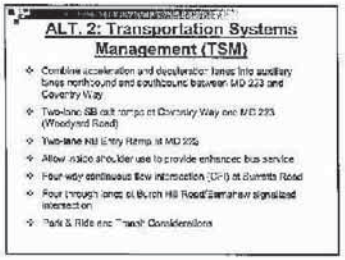
MD 5 CORRIDOR TRANSPORTATION STUDY

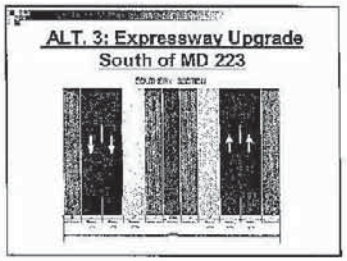
From South of the US 301/MD 5 Interchange to North of the I-95/I-495 Interchange

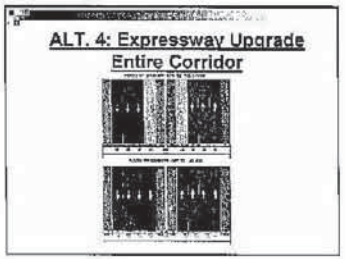
Alternatives	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8
Right-of-Way								
Residential (ac.)	0	7.2 - 22.1	6.9 - 21.6	15.1 - 30.0	15.0 - 29.6	16.4 - 31.3	14.6 - 29.5	15.1 - 30.0
Commercial (ac.)	0	5.7 - 6.5	2.0 - 3.6	3.0 - 5.6	6.8 - 7.7	5.6 - 7.3	3.0 - 5.6	3.8 - 5.6
Other (ac.)	0	0.9 - 4.4	0.1 - 3.6	0.4 - 3.9	2.0 - 5.5	0.1 - 3.6	0.3 - 3.8	0.4 - 3.9
Agriculture (ac.)	0	0.0 - 2.7	0.0 - 2.7	0 - 2.7	0 - 2.7	0 - 2.7	0 - 2.7	0 - 2.7
Natural Environment								
Floodplain Impacts (ac.)	0	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7
Wetlands Impacts (ac.)	0	0.0	1.3 - 1.6	2.1 - 2.4	1.9 - 2.2	1.5 - 1.8	1.8 - 2.1	2.1 - 2.4
Stream Crossings (#)	0	7 OK	7 OK	7 OK	7 OK	7 OK	7 OK	7 OK
Stream Impacts (LF)	0	332.0	345-745	450-840	555-945	480-870	495-885	450-840
Forest Impacts (ac.)	0	5.7 - 7.0	16.0 - 33.0	24.2 - 42.0	28.2 - 46.0	19.2 - 37.0	25.5 - 43.3	24.2 - 42.0
Park Impacts (ac.)	0	0.1	0.0	0.1	0.1	0.1	0.1	0.1
COST	$0M	24M	$158M-$168M	$847M-$855M	$879M-$888M	$702M-$711M	$670M-$678M	$657M-$660M

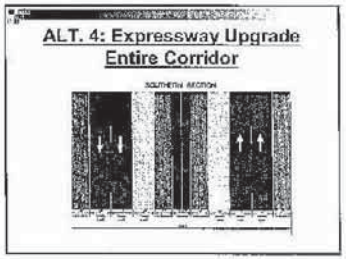
ALTERNATIVES UNDER CONSIDERATION

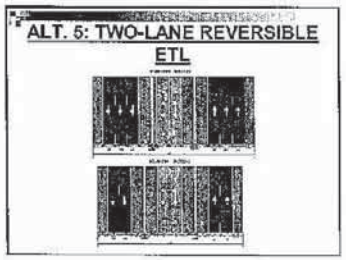
- Alternative 1 - No-Build
- Alternative 2 - Transportation Systems Management (TSM)
- Alternative 3 - Expressway Upgrade South of MD 223
- Alternative 4 - Expressway Upgrade for Entire Corridor
- Alternative 5 - Two-Lane Reversible Express Toll Lane (ETL)
- Alternative 6 - One to Two Lane ETL
- Alternative 7 - Movable Barrier ETL
- Alternative 8 - High Occupancy Vehicle (HOV)

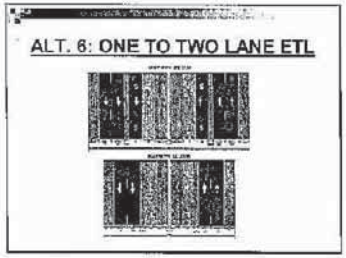

ALT. 2: Transportation Systems Management (TSM)


ALT. 3: Expressway Upgrade South of MD 223

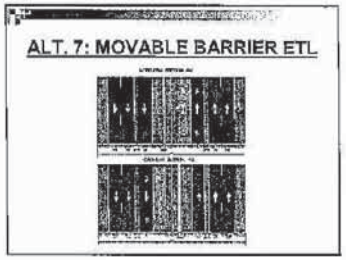

ALT. 4: Expressway Upgrade Entire Corridor

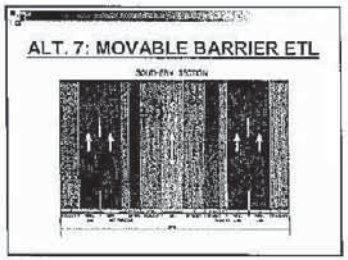

ALT. 4: Expressway Upgrade Entire Corridor


ALT. 5: TWO-LANE REVERSIBLE ETL

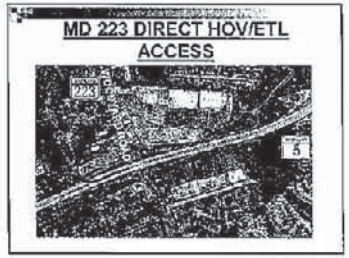

ALT. 6: ONE TO TWO LANE ETL

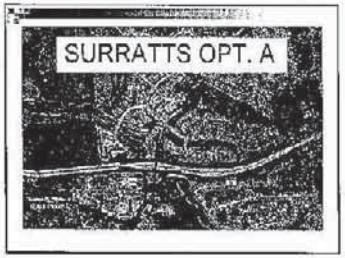
2

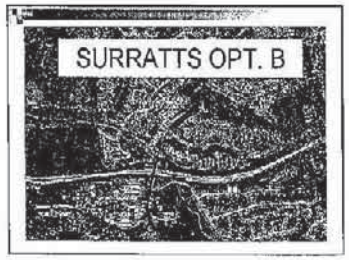

ALT. 7: MOVABLE BARRIER ETL


ALT. 7: MOVABLE BARRIER ETL

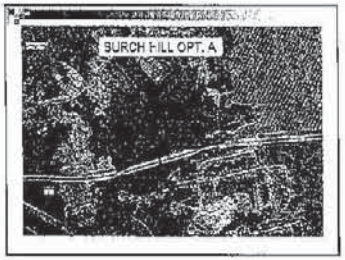
ALT. 8: HOV

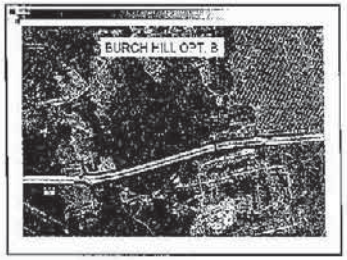

MD 223 DIRECT HOV/ETL ACCESS
223
5


SURRATTS OPT. A


SURRATTS OPT. B

3





Environmental Constraints

Alternates Public Workshop

- 120 People Attended
- 84 Comment Cards Received

Citizen Comment Cards

- Majority of citizens would not pay for faster travel on MD 5 (74%)
- Alternative 4 is the most liked alternative (36%)
- Alternative 1 is the least liked (31%), followed by Alternative 7 (30%)

Citizen Comment Cards, Cont.

- Majority of citizens are traveling to Charles County (52%), followed by Washington, DC (5[illegible]%)
- Majority of citizens (82%) do not use mass transit or ridesharing
  - The Highest ridership of transit options is Metro Rail (33% of citizens)

4

Key Issues

- Coordination with Related Projects
- Noise

Schedule

- Alternatives Retained For Detailed Study Package – Summer/Fall 2006
- Location/Design Public Hearing – Fall 2007
- Location/Design Approval – Winter 2009

Questions

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Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

SHA State Highway Administration

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO: Mr. Raja Veeramachaneni
Director
Office of Planning and
Preliminary Engineering

FROM: Bruce M. Grey *Bruce M. Grey*
Deputy Director
Office of Planning and
Preliminary Engineering

DATE: September 15, 2006

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Director's Review Meeting
Alternatives Retained for Detailed Study

A Director's Review Meeting for the MD 5 Corridor Transportation Study was held on August 24, 2006 The following people were in attendance at the meeting:

Phillip Bello	FHWA	410-779-7156
Denise King	FHWA	410-779-7145
Carrie Casto	Jacobs	410-837-5840
Harriet Levine	Jacobs	410-837-5840
Matthew Wolniak	JMT	410-329-3100
Glen Smith	MdTA	410-537-5665
Glen Burton	MNCPPC-PG	301-952-3577
Vic Weissberg	Prince George's DPW&T	301-388-5600
Dorey Uong	SHA - D-3 Traffic	301-513-7462
Jack Valenti	SHA - D-3 Util.	301-513-7351
Daniel Beck	SHA - OBD	410-545-8317
Prakash Dave	SHA - OBD	410-545-8355
John Jenkins	SHA - OHD	410-545-8763
Raja Veeramachaneni	SHA - OPPE	410-545-0412

My telephone number/toll-free number is_____
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Dennis Atkins	SHA - PPD	410-545-8520
Jeremy Beck	SHA - PPD	410-545-8518
Joseph Harrison	SHA - PPD	410-545-8506
Greg Katz	SHA - PPD	410-545-5793
Jamaica Kennon	SHA - PPD	410-545-8512
Brian Lange	SHA - PPD	410-545-8532
Heather Lowe	SHA - PPD	410-545-8526
Sarah Sebald	SHA - PPD	410-545-8519
Donald Sparklin	SHA - PPD	410-545-8564
Chanel Torsell	SHA - PPD	410-545-5644
Nicole Washington	SHA - PPD	410-545-8570
Alex Metcalf	TEMS	301-846-0700
Giovanni Santoboni	TEMS	301-846-0700

Purpose of the Meeting

Nicole Washington distributed handouts (see attached), gave introductions, and provided an overview of the meeting. The purpose of this meeting was to discuss the alternatives that were presented at the Alternates Public Workshop and to determine the Alternatives Retained for Detailed Study.

Alternates Public Workshop

Overview of Alternatives & Options Presented at the Workshop
Carrie Casto presented drawings and descriptions of each alternative presented to the public:

- **Alternative 1 – No-Build**: No major improvements are proposed under Alternative 1, the No-Build Alternative. Minor short term improvements would occur as part of normal maintenance and safety projects. This alternative served as a baseline for comparing the impacts and benefits associated with other alternatives.
- **Alternative 2 – Transportation System Management (TSM)**: The TSM Alternative consists of a series of modest improvements throughout the corridor to address the areas with greatest need at specific locations or segments of the roadway. TSM improvements generally could be implemented with relatively low costs and impacts. These improvements would include the following:
  - Combine acceleration and deceleration lanes into auxiliary lanes northbound (NB) and southbound (SB) between MD 223 and Coventry Way
  - Two-lane SB exit ramps at Coventry Way and MD 223 (Woodyard Road)
  - Two-lane NB entry ramp at MD 223
  - Allow inside shoulder use to provide enhanced bus service
  - Four-way continuous flow intersection (CFI) at Surratts Road
  - Four through lanes at Burch Hill/Earnshaw signalized intersection
  - Four through lanes at a new Moores Road signalized intersection
  - Park & ride and transit considerations

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- **Alternative 3 – Expressway Upgrade South of MD 223**: Alternative 3 would convert the remaining at-grade intersections into grade-separated interchanges and provide three through lanes in each direction throughout the entire corridor. This alternative would also provide the two missing movements to and from MD 5 and US 301.
- **Alternative 4 – Expressway Upgrade Entire Corridor**: Alternative 4 would incorporate all of the improvements from Alternative 3. This alternative would also have four through lanes in each direction from north of Coventry Way to I-95/I-495.
- **Alternative 5 – Two-Lane Reversible Express Toll Lane (ETL)**: This alternative would convert the remaining at-grade intersections into grade-separated interchanges. In addition, two new ETLs would be provided in the median with access only allowed at select locations.
- **Alternative 6 – One to Two Lane ETL**: This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, this alternative would provide one additional ETL per direction and it would convert one existing general purpose lane per direction into an ETL. South of MD 223, this alternative would provide one additional ETL per direction and keep the existing two lanes per direction as general purpose lanes.
- **Alternative 7 – Movable Barrier ETL**: This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, in the morning this alternative would provide one additional northbound ETL and convert one existing general purpose lane into an ETL. Southbound traffic would continue to have three general purpose lanes. In the evening, this alternative would provide one additional southbound ETL and convert one existing general purpose lane into an ETL. Northbound traffic would continue to have two general purpose lanes. The transition from the morning period to the evening period would be made with a movable barrier. South of MD 223, one reversible ETL would be added in the median.
- **Alternative 8 – High Occupancy Vehicle (HOV) Lane**: The remaining at-grade intersections would be converted into grade-separated interchanges. This alternative would widen MD 5 with one additional lane to the inside in each direction along the whole corridor. This additional lane would be designated as an HOV lane.

Carrie also presented Options A and B for Surratts Road, as well as Options A and B for Moores Road/Earnshaw Drive/Burch Hill Road. Denise King stated that the 'Y' of Burch Hill Road west of MD 5 represents two possible alignments of the road. She requested that each leg of the Moores Road/Earnshaw Drive/Burch Hill Road Option A 'Y' have a different designation. The team agreed to change the naming convention for this Option to Option A1 and Option A2.

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Environmental Constraints
After a presentation of the alternatives and options presented at the Alternates Public Workshop, Carrie presented the environmental constraints:

There are 16 streams within the study area. Seven to eight streams would be affected by MD 5 Alternatives, depending on the level of new construction done.

Piscataway Park abuts MD 5, but would only experience minimal impacts, if at all. The exact Right of Way (ROW) boundary between MD 5 and the Park is not known, but will need to be researched more thoroughly in Stage 2. The Core Team has obtained most of the ROW plats for the corridor, and is in the process of digitizing the plats and verifying the ROW boundaries. Raja Veeramachaneni asked if maps exist from the previous MD 5 study. The study team will obtain the Park plat to determine the boundary.

Development in the southern portion of the MD 5 Corridor is much less dense than the northern portion, and there is the possibility of impact to forest interior dwelling species.

Historic sites in the study area are concentrated in the southern extremes, near the T.B. area.

The Priority Funding Area (PFA) does not encompass the entire MD 5 study area; the proposed Moores Road/Earnshaw Drive/Burch Hill Road interchange is not within a PFA. However, this region is zoned residential, and there is a road in the Prince George's County Master Plan extending through the area from MD 381 (Brandywine Road) to MD 5 (Branch Avenue). Raja asked whether there was a proposal by Prince George's County to include the missing area in the PFA. The team will further investigate.

Summary of Workshop & Comments Received
Nicole summarized the June 15th Alternates Public Workshop including the comments received at the workshop:

- Several individuals commented about the previous study, stating nothing has changed since the late 1980's.
- Several citizens asked what the US 301 Waldorf Area Project plans are for the T.B. area.
- It is important for the MD 5 project, the US 301 Waldorf Project, and the Dyson Road/MD 373/MD 381 interchange project to coordinate so that one project does not force alternatives on another project.
- There were many noise complaints regarding MD 5.
- Citizens complained that the MD 223 intersection area is too congested, especially with the shopping center on one corner.
- People attempting to make left turns at Surratts Road into the hospital will turn right onto Surratts Road and make U-turns instead of waiting for a left-turn arrow at the stoplight.

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- Emergency response officials requested that SHA look into having an emergency-only median break at Earnshaw Road/Burch Hill Road/Moores Road so emergency vehicles could access the neighborhood more directly.
- Citizens see MD 373/MD 381/Dyson Road as the biggest bottleneck on MD 5 and in need of an immediate fix.
- A meeting needs to be set up with Lt. Morris of the local Maryland State Police barracks to go over the alternatives. She also inquired about T.B., and asked if the state could change the name of T.B. She does not think we should use T.B. as a description for that intersection, since it is not well known.
- A citizen asked if the mapping and alternatives would be available on the website.

Public comment cards from the Alternates Public Workshop have been tallied. The team received a total of 94 comment cards. A lower than expected number of out-of-area responses were received (11%), potentially leading to misrepresentation of interest in Express Toll Lanes. The team will work to find another way of informing out-of-area users of the upcoming project and getting their input.

Alternative 4 is the most liked alternative, with 35% support, and Alternatives 1 and 7 are the least liked, with 31% and 30%, respectively. The majority of responders are traveling to Washington, DC (52%), followed by Charles County (50%). 82% of citizens responded that they do not use mass transit or ridesharing, and the highest mass transit ridership was the METRO, with 33% of citizens who responded to our survey.

The majority of the citizens who responded live south of MD 223, east of MD 5 prior to US 301, followed closely by citizens who live south of MD 223 west of MD 5 prior to US 301. In addition, most citizens (72%) who responded would not pay to use MD 5 if their travel times could be faster.

Raja asked if the study team had correlated the residential "zones" from the comment cards with transit needs. Nicole stated that this had not been done because of the nature of comments received, with most relating to local bus service.

It was stated that since the Maryland Transit Administration (MTA) does not have jurisdiction in Prince George's County, citizens are driving to park and ride lots in Charles County to take MTA commuter buses into Washington D.C.

Raja asked if bus ridership data had been collected. Harriet Levine answered that all area bus routes have been mapped and the project team is collecting and compiling data from the different transit services. Nicole stated that the project team had met with MTA, WMATA, The Bus, and Andrews Air Force Base to discuss area transit and determine their needs. Andrews Air Force Base expressed interest in additional Park & Ride lots and shuttle or bus service that would pick up employees at the Park & Ride lot and drop them off at the gate entrance. It was also envisioned that this service would connect with an internal bus system.

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The question was raised whether the public interpretation of "transit" indicated only trains. Raja answered that since the follow-up question on the comment cards asked which method of transit citizens used – including buses – the question should not have been misleading.

John Jenkins spoke briefly regarding the proposed MD 373/MD 381 interchange. That project is currently experiencing problems due to a developer proposing to build an elderly/assisted living community on land which had been planned to be within the project ROW. The other considered ROW contains a wetland area, and the Corps of Engineers indicated that they would not grant a permit for impacts to this area. There is a great deal of public support for the interchange. The project is also including a new 500+ space park and ride lot at the T.B. Triangle.

Alternatives Retained for Detailed Study (ARDS) Criteria

Design Criteria/Engineering Parameters/Traffic Operations
Nicole presented a brief overview of the alternative comparison chart.

Raja asked how each cost was given its rating (excellent, good, fair, poor). Carrie answered that the costs were from the estimated cost of each alternative, and that the comparison had been done between the costs to determine the ratings. Each cost estimate can be seen in the "Environmental Impacts" chart. Raja stated that he would like to change the category "cost" to "initial cost."

Alex Metcalf stated that costs for the ETL Alternatives were misleading, because they only took into account construction cost, not future revenue. Raja stated that while construction cost is a major factor that must be considered regardless of future income, SHA should also examine net cost. Raja asked Denise to ask her colleagues at the Federal Highway Administration (FHWA) if there are any examples of net cost analyses being done in other states.

Harriet presented the design criteria. At this stage of planning the engineering work that has been done is very preliminary; Horizontal work has been done but no vertical work has been completed due to the limitations of the mapping. The work completed to date was done off of aerial photos. Nicole stated that we are still missing the final mapping for the Burch Hill Road area and are not expected to receive it until December.

Engineering will be more difficult in northern sections because there is less available space, and there are already retaining walls along sections of the road and ramps.

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Maintenance of Traffic/Constructability Issues
The team discussed Maintenance of Traffic and Constructability Issues:

- Surratts Road Option A would be easier to construct than Option B, because Option A can keep traffic on the original road as construction takes place, while Option B would involve the construction of a temporary road.
- Alternative 3 would be the easiest build alternative to construct, because there is existing median space and there is ROW in the south.
- Alternative 7 would require high long-term maintenance costs because of the movable barriers.
- Alternative 6 has a narrower typical section than the other ETL alternatives.

Matt Wolniak then reviewed the traffic analysis. The Surratts Road intersection fails with 2030 No-build Alternative 2. Alternative 3 fails in the northern section by 2030. Alternative 8 maintains a good Level of Service (LOS), but starts to break down by 2030.

The MD 373/MD 381 intersection is currently a bottleneck for traffic. If this is improved there is the possibility of having additional volume on MD 5. Raja suggested that the team needs to evaluate other traffic analysis methods to measure congestion, not just LOS. He stated that we need to look at travel time savings and simulation.

In discussing the ETL Alternatives, TEMS stated that for Alternative 5, the reversible concept may break down by 2030, due to the peak hours of traffic merging into each other. In order to keep the ETL lanes at LOS C or better, toll rates would likely double or triple. Raja stated that Alternative 7 is not feasible, due to the long-term maintenance costs.

Nicole stated that Vic Weissberg had previously indicated that Prince George's County did not support any of the ETL Alternatives, and asked Vic if this was still the case. Vic confirmed that the County still did not support any ETL Alternatives, but did support keeping the HOV alternative.

Nicole asked whether it was necessary for Prince George's County to officially put their preferences in writing. Raja replied that since this meeting was a formal meeting, Vic's statement would be sufficient for the record. At the end of Stage I, SHA will send a letter confirming the completion of Initial Project Planning (IPP) studies to Prince George's County and the elected officials. After this letter is sent, the County usually responds with their support and preference of alternatives. Raja stated the team could follow this normal process.

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Raja added that the project team must clearly and objectively show the benefits of each alternative, and that the team needs to make sure the alternatives are affordable, as well. He stated that ETL is not just about revenue, but is also a form of traffic management, improving throughput and relieving congestion.

Denise stated that in order to get more public support for ETL, SHA needs to educate the public on the benefits of ETL, and its benefits especially to carpool users. Nicole responded that these were presented on posters at the Alternates Public Workshop. Because the alternatives were very preliminary, the Alternates Workshop functioned as a Purpose and Need/ETL educational forum where a thorough description of the Purpose and Need was given as well as an explanation of ETLs, including the benefits and travel time savings.

In order to provide additional service for buses, it was proposed to have a bus lane on the inside shoulder, which would increase bus travel time and provide better mobility of traffic.

Construction Staging Plan
Staging will be easier with non-ETL options, because SHA would not need to take into account entrances and exits for ETL lanes, and to get the benefit of the ETL you have to build the entire system.

Intersection improvements can be done gradually throughout the corridor, starting with the worst area where there could be the most improvement to traffic operations and safety and then proceeding to the next intersection.

Secondary and Cumulative Effects Analysis (SCEA) Issues
Because of the PFA issue at Moores Road/Earnshaw Drive/Burch Hill Road, it was discussed whether it would be a good idea to add another, local-access only option. Because the zoning of the land is single family residential and there is already access through the area on Burch Hill Road, it was determined that there is no PFA impact, and no extra options should be considered. The PFA should be checked regarding the Burch Hill Road area, because the Master Plan shows a similar roadway that connects to MD 5.

A question was asked whether SCEA scoping was done prior to the Alternates Public Workshop. Nicole informed the team that SCEA scoping was discussed at the Interagency Meeting for Preliminary Conceptual Alternatives.

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Recommendation of Alternatives Retained for Detailed Study

At the Core Team Meeting, the team decided to recommend carrying forward most of the Alternatives except Alternative 2 (because it could be folded in to the other Alternatives) and Alternative 7.

Raja stated that Alternative 2 could not be totally folded into the other Alternatives because it is not a traditional TSM alternative, and includes a Continuous Flow Intersection (CFI) and other major intersection improvements. Some of the TSM improvements can be implemented as short-term fixes to Corridor problems, so Prince George's County would like these to be implemented. Other components of the TSM, such as Transit and ramp improvements can be added to the other alternatives.

In addition, the Moores Road/Earnshaw Drive/Burch Hill Road options will include separate Options A1 and A2, for each fork of the proposed roadway.

The following is a list of recommendations for alternatives which will be retained for detailed study:

- **Alternative 1 – No Build** is recommended to be retained for detailed study as the basis for comparison.
- **Alternative 3 – Expressway Upgrade South of MD 223**
  This alternative was the preferred alternative for the previous 1988 MD 5 Study. This alternative should be retained with elements of Alternative 2, including Transit and ramp improvements.
- **Alternative 4 – Expressway Upgrade Entire Corridor**
  This alternative should be retained with elements of Alternative 2, including Transit and ramp improvements.
- **Alternative 5 – Two-Lane Reversible ETL**
  This alternative should be retained with elements of Alternative 2, including Transit and ramp improvements.
- **Alternative 6 – One to Two Lane ETL**
  This alternative should be retained with elements of Alternative 2, including Transit and ramp improvements.
- **Alternative 8 – HOV**
  This alternative should be retained with elements of Alternative 2, including Transit and ramp improvements.

The following will not be carried forward for further study:

- **Alternative 2 – TSM**
  Transportation Systems Management throughout the MD 5 corridor. The improvements in this alternative do not meet the Project's Purpose and Need.

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- **Alternative 7 – Movable Barrier ETL**
  This alternative will not be carried forward because it has high maintenance and construction costs.

Key Issues

Coordination with Related Projects
The MD 5 Project Team is coordinating with the MD 373/MD 381 Project Team, the US 301 Waldorf Project Team, and the I-95/I-495 Project Team in order to make sure all plans coordinate with each other.

Noise Barriers
There have been numerous citizen complaints about noise along the corridor and the need for noise barriers. The Project Team will do a noise impact analysis in Stage II to determine whether noise barriers are warranted.

Upcoming Meetings

- Interagency Handout ARDS Package – September 2006
- Interagency ARDS Presentation – October 2006

Schedule

- Location/Design Public Hearing – Fall 2007
- Location/Design Approvals – Winter 2009

Direction from the Planning Director and Follow Ups

- Obtain the park plat map for Piscataway Creek Park
- Analyze transit data further
- Denise will ask other employees at FHWA if any states have considered net cost
- Use other methods (simulation, travel time savings) to gauge the congestion and the effectiveness of the ARDS.
- Follow the normal correspondence process where SHA sends an IPP letter stating the ARDS, Prince George's County will supply a response with their preference of alternatives
- Determine if there are any proposals for the Moores Road/Earnshaw Drive/Burch Hill Road should be added to the PFA.

Initial Project Planning Summary

During the initial project planning phase alternatives were studied, in addition to the No-Build Alternative. An environmental inventory of the area was completed to identify social, economic, natural, and cultural resources. These resources were considered during the development of the alternatives.

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During the final project planning phase, an environmental document will be prepared describing the alternatives and their potential impacts. The document will be circulated and made available to the public. A Location/Design hearing will be held in the Fall of 2007, to present the detailed information relative to these alternatives and to receive comments from all concerned persons.

As part of the initial project planning phase and in accordance with Section 8-102 of the 1993 Annotated Code of the Public General Laws of Maryland, it has been determined that the objectives of the proposed project could not be satisfactorily met through:

1. Improvements in highway maintenance and safety:

Currently, MD 5 operates at LOS "A" to "F" with five intersections at LOS F for at least one peak hour each day. By 2030, with an increase in traffic volumes, the level of service along the mainline will range from "B" to "F", with three intersections at LOS F for both peak hours, and five roadway segments at LOS F for at least one peak hour each day if no improvements are made. Since improving safety and operations are essential components of the alternatives developed for the study, the planning team is proposing to develop alternatives which will upgrade the existing roadway to current design standards.

2. Safety projects that modify existing highways, but provide for minimal relocation or new highway construction:

The two sections around the I-95/I-495 interchange have numerous crash types that are significantly higher than statewide rates, including rear end, sideswipe, angle, left turn and fixed object crashes. This preliminarily indicates difficulties with high volumes of traffic shifting lanes under highly congested conditions. The build alternatives propose a redesign of this interchange, which would reduce traffic shifting and weaving.

Sideswipe crashes in the section between the US 301/MD 5 interchange at T.B. and MD 223 could indicate high volumes of traffic maneuvering to turn off and on from the at-grade side streets under heavy traffic conditions. All of the build alternatives propose interchanges at these intersections, which would reduce or eliminate turn maneuvers from side streets.

A total of 781 crashes occurred during the study period between 2001 and 2003 for the five sections. Of these, eight were fatal crashes, 340 were injury crashes, and 433 were property damage crashes.

3. Improvements in or adoption of, transit alternatives, including mass transit:

The project team is consulting with area transit operators to improve transit in the area; however, due to the projected volume of traffic, in combination with only 18% of citizen comment cards acknowledging use of transit, it was determined that transit options alone will not significantly improve the projected LOS or meeting the project's purpose and need.

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I concur with the project planning team's recommendation and decision to proceed with final project planning for the Alternatives Retained for Detailed Study, for the MD 5 Project Planning Study in Prince George's County.

Concurrence:

Raja Veeramachaneni, Director — Date 9/15/06

Attachments
cc: File
Attendees
MD 5 Project Team
Mr. Steve Hawtof
Mr. Douglas H. Simmons

MD 5 CORRIDOR TRANSPORTATION STUDY

From South of the US 301/MD 5 Interchange to North of the I-95/I-495 Interchange

Thursday, August 24, 2006 @ 10:00 AM
SHA Headquarters – 211 Building Training Room #3

AGENDA

Director's Review of Alternatives Retained for Detailed Study

I. **Introduction/Purpose of Meeting** – *To discuss the alternatives that were presented at the Alternates Public Workshop and to determine the Alternatives Retained for Detailed Study*

II. **Alternates Public Workshop**
- A. Overview of Alternatives & Options Presented at the Workshop
- B. Environmental Constraints
- C. Summary of Workshop & Comments Received

III. **Alternatives Retained for Detailed Study (ARDS) Criteria**
- A. Design Criteria/Engineering Parameters
  - Traffic Operations
- B. Maintenance of Traffic/Constructability Issues
- C. Construction Staging Plan
- D. Environmental Impacts
- E. Secondary and Cumulative Effects Analysis Issues

IV. **Discussion of Alternatives Retained for Detailed Study**

V. **Key Issues**
- A. Coordination with Related Projects
- B. Noise Walls

VI. **Upcoming Meetings**
- Interagency Handout ARDS Package – September 2006
- Interagency ARDS Presentation – October 2006

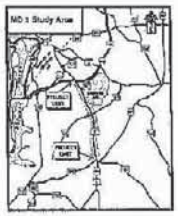
VII. **Schedule**
- Location/Design Public Hearing – Fall 2007
- Location/Design Approvals – Winter 2009

VIII. **Adjournment**

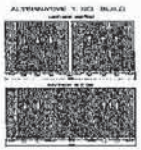
MD 5 Corridor Transportation Study

Alternatives Retained for Detailed Study- Director's Review
August 24, 2006

Location Map



Existing MD 5



CONCEPTUAL ALTERNATIVES

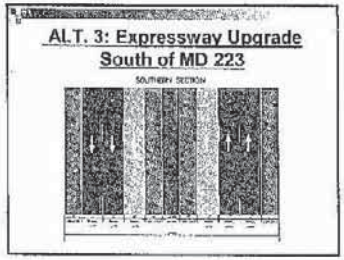
ALT 1: No-Build

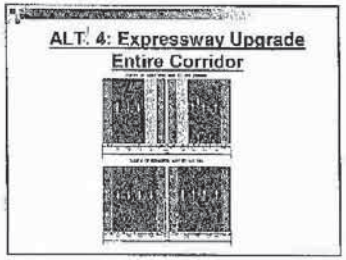
- No major improvements are proposed.
- Minor short-term improvements would occur as part of normal maintenance and safety projects.
- Serves as a baseline for comparing the impacts and benefits associated with other alternatives

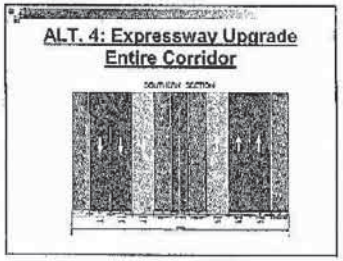
ALT. 2: Transportation Systems Management (TSM)

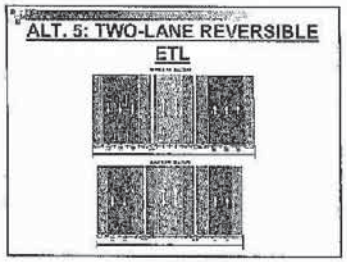
- Combine acceleration and deceleration lanes into auxiliary lanes northbound and southbound between MD 223 and Coventry Way
- Two-lane SB exit ramps at Coventry Way and MD 223 (Woodyard Road)
- Two-lane NB Entry Ramp at MD 223
- Allow inside shoulder use to provide enhanced bus service
- Four-way continuous flow intersection (CFI) at Surratts Road
- Four through lanes at Burch Hill Road/Earnshaw signalized intersection
- Park & Ride and Transit Considerations

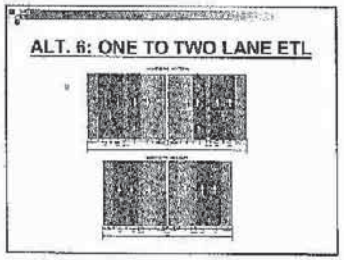
1

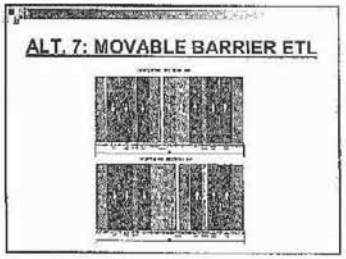

ALT. 3: Expressway Upgrade
South of MD 223


ALT. 4: Expressway Upgrade
Entire Corridor

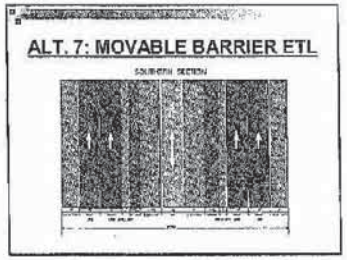

ALT. 4: Expressway Upgrade
Entire Corridor

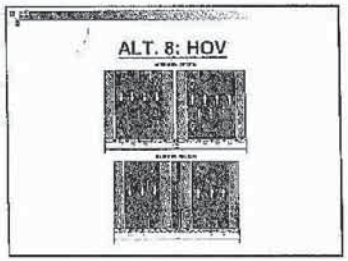

ALT. 5: TWO-LANE REVERSIBLE
ETL


ALT. 6: ONE TO TWO LANE ETL

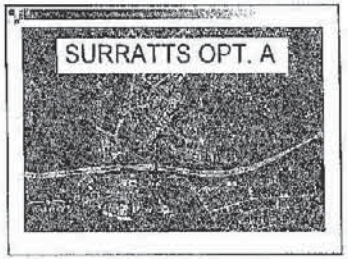

ALT. 7: MOVABLE BARRIER ETL

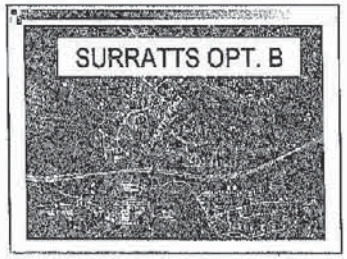
2

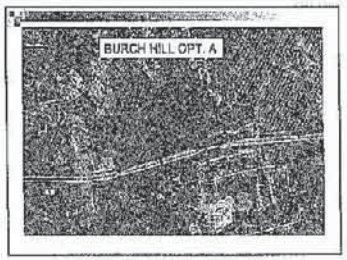

ALT. 7: MOVABLE BARRIER ETL


ALT. 8: HOV

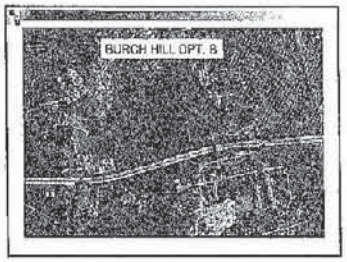
MD 223 DIRECT HOV/ETL
ACCESS
223
5


SURRATTS OPT. A


SURRATTS OPT. B


BURCH HILL OPT. A

3



Environmental Constraints

Alternates Public Workshop

- 120 People Attended
- 84 Comment Cards Received

Citizen Comment Cards

- Majority of citizens would not pay for faster travel on MD 5 (74%)
- Alternative 4 is the most liked alternative (36%)
- Alternative 1 is the least liked (31%), followed by Alternative 7 (30%)

Citizen Comment Cards, Cont.

- Majority of citizens are traveling to Charles County (52%), followed by Washington, DC (51%)
- Majority of citizens (82%) do not use mass transit or ridesharing
  - The highest ridership of transit options is Metro Rail (33% of citizens)

Alternatives Retained for Detailed Study Criteria

4

Decision on Alternatives Retained for Detailed Study

Key Issues

- Coordination with Related Projects
- Noise

Schedule

- Alternatives Retained For Detailed Study Package – Summer/Fall 2006
- Location/Design Public Hearing – Fall 2007
- Location/Design Approval – Winter 2009

Questions

5

MD 5 CORRIDOR TRANSPORTATION STUDY

Comments Received from Individual Citizens by Staff at June 15, 2006 MD 5 Alternates Public Workshop

COMMENT SUMMARIES BELOW ONLY REFLECT THOSE MADE BY INDIVIDUALS ATTENDING THE ALTERNATES PUBLIC WORKSHOP.

Overall Project Comments:

- Several commented about the previous study, stating nothing has changed since the late 1980's. One lady said that their church group moved down by Surratts Rd. under the impression that the interchanges were to be built in the mid 1990's.

Displays & Workshop Layout

- The large bold text and eye-level placement of the displays made it easy for sight impaired people to read.
- A citizen questioned whether Auth Village Park was the same as Woodberry Forest Park? Our map may be incorrect. According to the MNCPPC letter, both parks exist in our study area. Jacobs /AD Marble will verify which name is correct.

US 301 Waldorf Project

- Several citizens asked what the US 301 Waldorf Area Project plans are for the T.B. area.
- It is important for the MD 5 project, the US 301 Waldorf project, and the MD 5/ MD 373 interchange project to coordinate so that one project does not force alternatives on another project.
- A resident of LaPlata prefers an upgrade of US 301 through Waldorf.
- Transit should be considered from LaPlata through Waldorf along the US 301 corridor and up the MD 5 corridor to the Branch Ave Metro Station.
- Few citizens told that both eastern and western alignments of the Waldorf Bypass have environmental issues. They added that State and Federal environmental agencies would not approve of both alignments. Some were also skeptical about the completion of the Waldorf Bypass during their life time.

Tolling/ETL's

- Some citizens told that congestion along the MD 5 corridor increased significantly over the past 10 years. They were willing to pay a toll for using the state road - if they can travel congestion free.
- Some citizens were surprised to see so many State highway projects in Prince George's County. They seem to be unaware of number of State highway projects in the county.

Environmental

- I noticed that historic sites that were determined eligible for the NRHP were not on the mapping. This will be corrected when we get additional information back from MHT late July/early August on other potentially eligible structures.
- A citizen asked why Pea Hill Branch was not considered a stream crossing. It may be that the existing structure will not need to be change and therefore not counted as a new stream crossing.
- A gentleman thought there might be a "spawning farm" near the end of Crestwood as it approaches Moores Road.
- Two different residents that back up to MD 5 NB (MD 223 area) were concerned with the noise levels on MD 5.

Traffic & Safety

- MD 223 is a real problem area. There are too many access points in the area.
- The projected amount of development is always greater than what's anticipated.
- When development is going in, does the state consider the impact to infrastructure?
- If anything traffic growth is going to be greater.
- Several residents that live off of Brandywine/ Branch Ave. complained of the high speed traffic and high traffic volumes with all of the new housing developments in the area (these comments came from long time residents)
- The accuracy of the accident data was questioned.
- The traffic board having asterisk * marks next to some of the data with no legend indicating what the * means.
- One woman wanted to know who to contact in regards to having pavement markings replaced in the study area. She was told to contact District 3.
- Other comments were made in regards to Surratts Road traffic problems.

Surratts Road

- There were two people who complained that currently at Surratts Road people who are trying to go to the Hospital from the north will go onto eastbound Surratts and make a U-turn to avoid waiting for the left turn lanes. Additionally it was stated that some people on the northbound side get off at Surratts, do a quick U-turn and continue northbound rather than waiting at the light.
- An explanation of the CFI was needed throughout the night.
- Many residents were happy to see an interchange proposed at Surratts Rd.

Earnshaw/ Burch Hill/ Moores Road

- One gentleman didn't want the crossing closed and didn't want to have to drive out of the way to get to Ed's (nursery).
- Discussed possibility of having an emergency only median break so emergency vehicles could access the neighborhood more directly.

- Ed (nursery owner) asked if under Earnshaw / Burch Hill Option B adjacent properties would have access onto the service roads, specifically on the west side of MD 5.
- There were two comments about the Earnshaw/ Burch Hill/ Moores Road interchanges. Both people stated that they prefer Alternative B. They both did not like having to go back up to Brandywine Road to get on to MD 5 Northbound.

MD 373/ MD 381/ Dyson Road

- People see this as the biggest bottleneck on MD 5 and in need of an immediate fix.
- Some citizens wanted to know a transportation improvement concept at US 301 and MD 5 at TB, where three projects (MD 5 interchange at US 301; MD 5 interchange at MD 373/Relocated Brandywine Road (Spine Road); and Waldorf Bypass) meet. Property owners wanted to know how their properties will be impacted by the proposed transportation improvement projects in the TB area.
- Roundabout intersections may operate better than the signalized intersections at the interchange ramps and Future Spine Road of the MD 5/MD 373/Future Spine Road interchange project. The citizen asked to evaluate the intersection design with roundabout options.

Follow Up's

- A meeting needs to be set up with Lt. Morris's State Police barracks to go over the alternates. In addition, she has concerns with the naming of the new road near T.B. It should not be *Mattawoman* since there is already a Mattawoman Beantown Road. She also inquired about T.B. - what's the significance? She was sent the description of T.B. from the Maryland Historical Trust website. She doesn't think we should use T.B. as a description for that intersection, since it's not well known.
- A citizen asked if the mapping and alternatives would be available on the website.

MD 5 CORRIDOR TRANSPORTATION STUDY

Summary of MD 5 Alternates Public Workshop Comment Cards

Total Number of Comments Received: 94

Question	Highest Response		Percentage of Total
Question 1: Where do you live? (see figure)	29	Location D (Southeast Quadrant)	31%
Question 2: If your travel time could be faster would you pay to use MD 5?	68	No	72%
Question 3: What alternative do you like the most?	33	Alternative 4	35%
Question 4: What alternative do you like the least?	29	Alternative 7	31%
Question 5: When using MD 5 where are you traveling?	49	Charles County	52%
Question 6: Do you use transit or ridesharing?	78	No	83%
Question 7: If you do use transit, what mode do you use?	31	METRO	33%
Question 8: Are you willing to participate in future surveys?	90	Yes	96%

Question 1: Where do you live? (see figure)

Answer	A (Quad 2)	B (Quad 1)	C (Quad 3)	D (Quad 4)	E (outside study area)
Total	20	8	25	29	10

Most responses	29
Least responses	8
TOTAL RESPONSES	94

Question 2: If your travel time could be faster would you pay to use MD 5?

Answer	Yes	No
Total	23	68

Most responses	68
Least responses	23

Question 3: What alternative do you like the most?

Answer	1	2	3	4	5	6	7	8
Total	8	23	14	33	6	3	1	8

Most responses 33
Least responses 1

Question 4: What alternative do you like the least?

Answer	1	2	3	4	5	6	7	8
Total	29	1	3	7	16	20	28	10

Most responses 29
Least responses 1

Question 5: When using MD 5 where are you traveling?

Answer	Washington, D.C.	Charles Couty	Northern Virginia	Montogomery County	Branch Ave. Metro	Other
Total	49	47	20	10	23	21
Most responses		49				
Least responses		10				

MD 5 CORRIDOR TRANSPORTATION STUDY

Summary of Environmental Impacts and Costs

Alternatives	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8
Right-of-Way								
Residential (ac.)	0	7.2 - 22.1	6.9 - 21.8	15.1 - 30.0	15.0 - 29.9	16.4 - 31.3	14.6 - 29.5	15.1 - 30.0
Commercial (ac.)	0	3.7 - 5.5	2.0 - 3.8	3.8 - 5.6	5.4 - 7.2	5.5 - 7.3	3.8 - 5.6	3.8 - 5.6
Other (ac.)	0	0.9 - 4.4	0.1 - 3.6	0.4 - 3.9	2.0 - 5.5	0.1 - 3.6	0.3 - 3.8	0.4 - 3.8
Agriculture (ac.)	0	0.0 - 2.7	0.0 - 2.7	0 - 2.7	0 - 2.7	0 - 2.7	0 - 2.7	0 - 2.7
Natural Environment								
Floodplain Impacts (ac.)	0	1.3	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	1.3 - 1.7	0.0
Wetlands Impacts (ac.)	0	0.0	1.3 - 1.6	2.1 - 2.4	1.9 - 2.2	1.5 - 1.8	1.8 - 2.1	2.1 - 2.4
Stream Crossings	0	7	7	8	8	8	8	8.0
Stream Impacts (lf.)	0	332.0	345-735	450-840	555-945	480-870	495-885	450-840
Forest Impacts (ac.)	0	6.7	180 - 338.8	24.2 - 42.0	28.2 - 46.0	19.2 - 37.0	26.5 - 43.3	24.2 - 42.0
Park Impacts (ac.)	0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
COST	$0M	$246M	$158M-$166M	$347M-$355M	$679M-$688M	$702M-$711M	$670M-$678M	$657M-$666M

ALTERNATIVES UNDER CONSIDERATION

Alternative 1 – No-Build
Alternative 2 – Transportation Systems Management (TSM)
Alternative 3 – Expressway Upgrade South of MD 223
Alternative 4 – Expressway Upgrade for Entire Corridor
Alternative 5 – Two-Lane Reversible Express Toll Lane (ETL)
Alternative 6 – One to Two Lane ETL
Alternative 7 – Movable Barrier ETL
Alternative 8 – High Occupancy Vehicle

PARTNERING FOR PROJECT PLANNING STUDIES RATING

Contract: Project Description: MD 5 Corridor Transportation Study

Meeting Type/Number: Director's Review Meeting - ARDS Date: 08/24/06

Your membership status on the Team: SHA ___ Consultant ___ Other ___

STANDARD EVALUATION ELEMENTS

Circle Rating for Each Element

(1) Communication Open and honest communication among the group members is:	Non-Existent 1	Cautious/Guarded 2	Meeting Needs 3	Open/Free 4	I don't know N/A
	Comments:				
(2) Teamwork The group encourages all of its members to participate:	Never 1	Infrequently 2	Often 3	Always 4	I don't know N/A
	Comments:				
(3) Cooperation and Respect On this project, relationships among team members as a whole are characterized by:	Lack of Cooperation and Respect is the Norm 1	Cooperation and Respect Often Prevail 2	Cooperation and Respect Almost Always Prevail 3	Cooperation and Respect are Strong and are Being Nurtured 4	I don't know N/A
	Comments:				
(4) Issue Resolution Team members and their counterparts identify issues and find that the process of timely resolution or escalations is:	Not Functioning 1	Functioning, but Untimely 2	Established and Functioning 3	Exceeding Expectations 4	I don't know N/A
	Comments:				
(5) Scope The Project Scope has been consistent with regard to Purpose & Need, Project Goals and Project Commitments.	Often Changed and/or Very Inconsistent 1	Changed and Inconsistent 2	Occasionally Varied and/or Marginally Changed 3	Highly Consistent and/or Unchanged 4	I don't know N/A
	Comments:				

This form should be completed at major milestones and at intervals in between, as defined within the Partnering Agreement.

Results are to be reported to both the SHA and Consultant Project Manager.

MD5 ETL Concept Study Traffic & Revenue Summary

Alternative 5: Two-lane reversible ETL

- 2030 AADT: 145K/160K – 2030 LOS(GPL): D/E
- 2030 ETL (N/S) Peak Toll: $2.50/$3.50
- NPV (2010-2030): 290M (in 2005 USD)

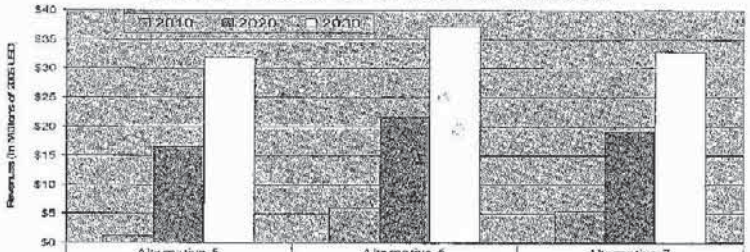
Alternative 6: One to two lane ETL

- 2030 AADT: 130K/160K - 2030 LOS(GPL): F/F
- 2030 ETL (N/S) Peak Toll: $3.00/$4.50
- NPV (2010-2030): 400M (in 2005 USD)

Alternative 7: Movable barrier ETL

- 2030 AADT: 130K/160K - 2030 LOS(GPL): F/F
- 2030 ETL (N/S) Peak Toll: $3.00/$4.50
- NPV (2010-2030): 380M (in 2005 USD)

2010-2030 ETL Toll Revenues



	Alternative 5	Alternative 6	Alternative 7
2010	$1,199,654	$6,000,971	$5,475,000
2020	$16,525,082	$21,607,959	$19,141,250
2030	$31,850,511	$37,214,947	$32,807,500

STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS

PG391A16
ALTERNATES PUBLIC WORKSHOP
MD 5 CORRIDOR TRANSPORTATION STUDY

THURSDAY, JUNE 15, 2006
5:00 P.M. – 8:00 P.M.

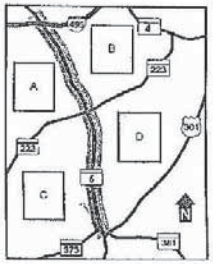
SURRATTSVILLE HIGH SCHOOL (MULTI-PURPOSE ROOM)
6101 GARDEN DRIVE
CLINTON, MARYLAND 20735

NAME _____ DATE _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TO HELP US IN EVALUATING THE ALTERNATIVES PRESENTED AT THE ALTERNATES PUBLIC WORKSHOP PLEASE ANSWER THE QUESTIONS BELOW:



(1) Where do you live (see Figure 1)? A ☐ B ☐ C ☐ D ☐
E ☐ (outside of the study limits) If so, where? _____

(2) If your travel time could be faster would you pay to use MD 5?
Yes ☐ No ☐

(3) What alternative do you like the most? 1 ☐ 2 ☐ 3 ☐
4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

(4) What alternative do you like the least? 1 ☐ 2 ☐ 3 ☐
4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

(5) When using MD 5 where are you traveling? Washington, D.C. ☐ Charles County ☐ Northern Virginia ☐
Montgomery County ☐ Branch Ave. Metro Station ☐ Other _____ ☐

(6) Do you use transit or ridesharing? Yes ☐ No ☐ If not, why? _____

(7) If you do use transit, what mode do you use? ☐ Metrobus ☐ Metro ☐ MTA ☐ The Bus ☐ Vanpool

(8) Are you willing to participate in future surveys? Yes ☐ No ☐

Additional Comments: _____

☐ 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.

MD 5 Corridor Transportation Study

South of US 301/ MD 5 Interchange to North of I-95/ I-495 Capital Beltway Interchange

	Alternative 1 No-Build	Alternative 2 Transportation System Management (TSM)	Alternative 3 Expressway Upgrade South of MD 223	Alternative 4 Expressway Upgrade Entire Corridor	Alternative 5 Two Lane Reversible ETL	Alternative 6 One to Two Lane ETL	Alternative 7 Moveable Barrier Etc.	Alternative 8 HOV
Public Support	◐	●	●	●	◐	○	○	◐
Cost	●	●	●	◐	◐	○	◐	◐
Right-of-Way Impacts	●	●	●	◐	◐	○	◐	◐
Environmental Impacts	●	●	●	◐	○	◐	◐	◐
Safety								
- Overall Safety of the Corridor	○	◐	●	●	◐	●	●	●
- Improves Safety of Intersections/ Interchanges	○	◐	●	●	●	●	●	●
Ability to Satisfy the Purpose & Need	○	○	●	●	●	●	●	●

Key: ● Excellent ◐ Good ◐ Fair ○ Poor

MD 5 CORRIDOR TRANSPORTATION STUDY

Existing and Future Level of Service

MD 5 Segment Location	2005 Existing		Alternatives: 2030 Alt 1		2030 Alt 2		2030 Alt 3		2030 Alt 4		2030 Alt 5		2030 Alt 6		2030 Alt 7		2030 Alt 8	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
US 301 to S of Surratts																		
General Purpose[1]	N/A	N/A	D-F	D	D-F	D	C-D	C-D	C-D	C-D	E	D	F	F	F	F	D-F	D-E
Managed/HOV[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	C	C	C	C	A-C	A-B
Intersections	F	D-F	F	F	D-F	D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
S of Surratts to MD 223																		
General Purpose[1]	C	D	D	F	D	F	E	D	E	D	E	D	F	F	F	F	F	E
Managed/HOV[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	C	C	C	C	C	B
Intersections	F	D	F	F	E	C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MD 223 to MD 337																		
General Purpose[1]	D-E	D-E	E-F	E-F	E-F	E-F	E-F	E-F	D-E	D-E	E	D	F	F	F	F	D-E	D-E
Managed/HOV[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	C	C	C	C	C	C-D
MD 337 to I-95/495																		
General Purpose[1]	D	D	F	F	F	F	F	F	E	E	E	D	F	F	F	F	E	D
Managed/HOV[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	C	C	C	C	C	C

[1] - Peak Direction (NB-AM; SB-PM)
N/A - Not Applicable

ALTERNATIVES UNDER CONSIDERATION

* Alternative 1 - No-Build
* Alternative 2 - Transportation Systems Management (TSM)
* Alternative 3 - Expressway Upgrade South of MD 223
* Alternative 4 - Expressway Upgrade for Entire Corridor
* Alternative 5 - Two-Lane Reversible Express Toll Lane (ETL)
* Alternative 6 - One to Two Lane ETL
* Alternative 7 - Movable Barrier ETL
* Alternative 8 - High Occupancy Vehicle (HOV)

C:\Documents and Settings\nwashington\Local Settings\Temporary Internet Files\OLK4D\MD 5 Level of Service.xls

	Burch Hill Option A	Burch Hill Option B	Surratts Road Option A	Surratts Road Option B	Capital Beltway Direct Access Ramps	Woodyard Road (MD 223) Direct Access Ramps
Cost	●	◐	●	●	○	●
Right-of-Way Impacts	○	◐	●	◐	◐	●
Environmental Impacts:						
- Floodplain	●	●	◐	●	●	●
- Wetlands	●	●	●	◐	●	●
- Stream	◐	◐	○	◐	●	●
- Forest	○	◐	●	◐	◐	●

Key: ● Excellent ● Good ◐ Fair ○ Poor

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: August 11, 2009

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Meeting with MD State Police and Prince George's County Fire/EMS

A meeting between the Maryland State Highway Administration (SHA), Maryland State Police, and Prince George's Fire/EMS was held on Monday, December 19, 2006 at the Maryland State Police Barracks in Forestville, MD. The following people were in attendance at the meeting:

Carrie Casto	Jacobs	410-837-5840
Denton Rouke	Prince George's County Fire/EMS	240-508-8038
Bonnie Morris	MSP	301-568-8101
Rodney Norris	MSP	301-568-8101
Danielle Edmonds	SHA-PPD	410-545-8516
Brian Lange	SHA-PPD	410-545-8532
Nicole Washington	SHA-PPD	410-545-8570

Purpose of the Meeting

The purpose of this meeting was to present the Alternatives Retained for Detailed Study (ARDS) for the MD 5 Corridor Transportation Study and to receive feedback from the Maryland State Police and Prince George's County Fire/EMS on the alternatives.

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Alternatives Retained for Detailed Study Presentation

Nicole Washington provided a presentation on the ARDS package. She summarized the project background and existing conditions of the roadway. The purpose of the project is to facilitate safe and efficient traffic flow while providing cost effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts.

Nicole then presented the operational analysis and crash data along the corridor. She made special notice of the crash totals for the sections of Manchester Drive to I-95/I-495 (Capital Beltway) and I-95/I-495 (Capital Beltway) to Auth Road, which both have significantly higher than statewide crash rates.

Carrie Casto presented descriptions of each alternative presented at the Alternates Public Workshop.

Overview of Alternatives & Options Presented at the Workshop

- **Alternative 1 – No-Build**: No major improvements are proposed under Alternative 1, the No-Build Alternative. Minor short term improvements would occur as part of normal maintenance and safety projects. This alternative served as a baseline for comparing the impacts and benefits associated with other alternatives.
- **Alternative 2 – Transportation System Management (TSM)**: The TSM Alternative consists of a series of modest improvements throughout the corridor to address the areas with greatest need at specific locations or segments of the roadway. TSM improvements generally could be implemented with relatively low costs and impacts
- **Alternative 3 – Expressway Upgrade South of MD 223**: Alternative 3 would convert the remaining at-grade intersections into grade-separated interchanges and provide three through lanes in each direction throughout the entire corridor. This alternative would also provide the two missing movements to and from MD 5 and US 301.
- **Alternative 4 – Expressway Upgrade Entire Corridor**: Alternative 4 would incorporate all of the improvements from Alternative 3. This alternative would also have four through lanes in each direction from north of Coventry Way to I-95/I-495.
- **Alternative 5 – Two-Lane Reversible Express Toll Lane (ETL)**: This alternative would convert the remaining at-grade intersections into grade-separated interchanges. In addition, two new ETLs would be provided in the median with access only allowed at select locations.

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- **Alternative 6 – One to Two Lane ETL:** This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, this alternative would provide one additional ETL per direction and it would convert one existing general purpose lane per direction into an ETL. South of MD 223, this alternative would provide one additional ETL per direction and keep the existing two lanes per direction as general purpose lanes.

- **Alternative 7 – Movable Barrier ETL**
  This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, in the morning this alternative would provide one additional northbound ETL and convert one existing general purpose lane to an ETL. Southbound traffic would continue to have three general purpose lanes. In the evening, this alternative would provide one additional southbound ETL and convert one existing general purpose lane to an ETL. Northbound traffic would continue to have three general purpose lanes. The Transition from the morning period to the evening period would be made with a movable barrier. South of MD 223, one reversible ETL would be added in the median.

- **Alternative 8 – High Occupancy Vehicle (HOV)**
  The remaining at-grade intersections would be converted into grade-separated interchanges. This alternative would widen MD 5 with one additional lane to the inside in each direction along the whole corridor. This additional lane would be designated as a HOV lane.

Carrie also presented Options A and B for Surratts Road, as well as Options A and B for Moores Road/Earnshaw Drive/Burch Hill Road. Carrie stated that the 'Y' of Burch Hill Road west of MD 5 represents two possible alignments of the road, Option A1 and Option A2. Nicole reviewed the alternatives not recommended for detailed study, Alternatives 2 and 7.

- Alternative 2: Transportation Systems Management
  - Does not fully meet the Purpose and Need
  - Would not eliminate the at-grade intersections along the southern portion of the corridor
  - Several elements could be short-term solutions
  - Other elements of Alternative 2 will be incorporated into all the Alternatives Retained for Detailed Study
    - Allow inside shoulder use to provide enhanced bus service for the non-managed lane alternatives
    - Park and Ride and transit considerations

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- Alternative 7: Movable Barrier ETL
  - Does not provide a benefit over the other managed lane alternative
  - Very high long-term operational cost

  A movable barrier machine, machine operator, variable lane indicators, maintenance, and the amount of time to move 5 miles of barrier are all drawbacks of this alternative

Discussion

Lieutenant Bonnie Morris asked SHA to consider the locations of new and existing fire hydrants along the roadway. She mentioned a brush fire that happened on US 301 where the fire department had trouble with the spacing of the hydrants. She also asked SHA to look at the tubes that go under the roadway that connects to the fire hydrants.

Lt. Morris raised concern over the grass median located at the US 301/MD 5 split as well as the median proposed in the ARDS package. The grass median has caused many crashes in the area with cars going through the median into oncoming traffic. She stated that she thought a barrier or guardrail would be safer. Nicole stated that there are engineering standards we use when determining whether to use guardrail or a grass median. Grass medians are used when given the design speed; there is enough room for cars to recover. Guardrails and barriers are used when right-of-way is limited; however, the team will forward the comments to District 3 and the Office of Traffic and Safety for further analysis.

It was noted that the Prince George's County Police Department covers inside the beltway and the Maryland State Police covers the outside of the beltway for crashes.

Lt. Morris stated that the expressway section of MD 5 encourages drivers to speed. The Maryland State Police would like to see crossovers built into the plan in order to help catch speeders. Presently, officers have to use interchanges in order chase speeders in the opposite direction. She also stated that there is the need for adequate shoulder space that allows the police to angle their vehicles during vehicle stops. SHA will consider the location of crossovers as part of the Stage II engineering studies.

Nicole asked if there were any comments in relation to the alternatives on the table.

Lt. Morris stated that the State Police would prefer full shoulders on both sides of the roadway for all of the alternatives. She also asked if the study team was including all of the crashes not reported to Maryland Crash Reporting System (MARS) in our crash reports because the crash numbers seemed very low. She stated that during snow events, crash reports are not written; therefore, they are not reported to MARS.

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Nicole stated that the SHA Office of Traffic and Safety only provides a summary of reported crashes. She noted that although there may be a problem with data not being reported, it will not sway the information for the project since we already know there is a safety problem in the corridor.

Denton Rouke asked will the project include any studies like the tolls in Virginia. Nicole stated that we look at examples of tolling across the country and will also use models to see what will happen in the corridor if tolls were to be implemented. He mentioned that he did not want the same things that happened on US 50 to happen on MD 5 with the under usage of the HOV system.

Lt. Morris then stated that Prince George's County has a high amount of uninsured and stolen vehicles that would make enforcement of the toll difficult. Nicole stated that the study team will look at enforcement regarding the toll lanes during the study.

Lt. Morris asked if Alternative 5 included 12-foot shoulders on each side and where would the access points be located. Carrie stated that in order to get full shoulders along the entire corridor, there would be a large amount of impacts. In response to the access points, Carrie stated that currently the access points for the tolls are at the US 301/MD 5 split, MD 223 and the Capital Beltway. She also stated that we will study the system further to see if additional access points are warranted.

Lt. Morris asked if the shoulders would be wide enough to accommodate fire truck parking. Denton noted that when there is a crash, they usually end up taking a lane so the width for fire trucks is not as important.

Lt. Morris stated that the Maryland State Police preferred the 4-foot/14-foot configuration for the MD 5 shoulder system because it allows the police to stop for crashes without stopping traffic. Their main concern is that 10-foot shoulders are too small especially when motorists are changing tires.

Nicole asked what would happen if a motorist were to breakdown on the side with the 4-foot shoulder. Lt. Morris responded that they could easily shut down the lanes to allow them to cross traffic.

Denton asked if there is a way to shut down the toll lane in an emergency. Nicole answered that there should be something in the system to facilitate shutting down the toll lane when needed.

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Follow-Ups

- SHA will provide contact information for the MD State Police and EMS to Project Managers of MD 5 corridor projects.
- SHA will check with OOTS on accuracy of crash data.
- SHA will investigate shoulder widths along corridor and barriers within the medians, as well as potential crossover locations.

If you have any corrections or additions to the above meeting summary, please contact Nicole Washington, Project Manager at 410-545-8570.

cc: File
Attendees
Ms. Harriet Levine, Jacobs, Inc.
Ms. Jennifer Rohrer, Environmental Manager, State Highway Administration

MEMORANDUM

TO: Mr. Bruce Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: January 8, 2007

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: SHA Project Briefing with Prince George's County Department of Public Works and Transportation (PG DPWT)

A meeting was held to discuss the State Highway Administration's (SHA) MD 5 and US 301 Waldorf planning projects with Prince George's County of Department of Public Works and Transportation (DPWT) on Monday, January 8, 2007 at the Prince George's County Department of Public Works Building. The following people were in attendance at the meeting:

Carrie Casto	Jacobs	410-837-5840
Crystal Saunders	PB	410-752-9626
Davit Abraham	PG DPWT	301-883-5730
Armin Abrahamian	PG DPWT	301-883-5730
Frank Bell	PG DPWT	301-883-5616
Edward Binseel	PG DPWT	301-883-5642
J. Rick Gordon	PG DPWT	301-883-5700
Haitham Hijazi	PG DPWT	301-883-5600
Andre Issayans	PG DPWT	301-883-5710
Mansukh Senjalla	PG DPWT	301-883-5710
Vic Weissberg	PG DPWT	301-883-5600
Raja Veeramachaneni	SHA - OPPE	410-545-0412
Danielle Edmonds	SHA – PPD	410-545-8516
Nicole Washington	SHA – PPD	410-545-8570

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Purpose of The Meeting

The purpose of this meeting was to brief Prince George's County DPWT on both the SHA US 301 Waldorf Project and the MD 5 Corridor Transportation Study. The notes below represent discussions and comments.

US 301

Crystal Saunders, gave Prince George's County DPWT an update on the progress of the US 301 Waldorf Project. She discussed the various alignments and corridors that are under consideration. Crystal went over a list of milestones and the anticipated schedule as follows:

- Purpose and Need – Winter 2006
- Alternates Public Workshop – Spring 2007
- Alternatives Retained for Detailed Study (ARDS) – Summer/ Fall 2007
- Location/ Design Public Hearing – Winter 2008
- Location/ Design Approval – Summer 2009

Prince George's County DPWT expressed their desires for an interchange to be located within Prince George's County along the Western Waldorf Bypass Corridor. Prince George's County DPWT also stated that the network of local roadways should also be improved around US 301. SHA replied that local traffic impacts will be evaluated as a secondary impact. Funding for local roadway upgrades is a policy decision and most likely based on impacts.

Prince George's County DPWT suggested that the US 301 team go to the County Council and to Park and Planning to present the refined alternatives. The County Council will want to see how this project benefits the residents of Prince George's County.

MD 5 Corridor Transportation Study

Nicole Washington provided a presentation on the ARDS package. She summarized the project background and existing conditions of the roadway. The purpose of the project is to facilitate safe and efficient traffic flow while providing cost effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts.

Nicole then presented the operational analysis and crash data along the corridor. She made special notice of the crash totals for the sections of Manchester Drive to I-95/I-495 (Capital Beltway) and I-95/I-495 (Capital Beltway) to Auth Road, which both have significantly higher than statewide crash rates.

Carrie Casto presented descriptions of each alternative presented at the Alternates Public Workshop.

Mr. Bruce M. Grey
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Overview of Alternatives & Options Presented at the Workshop

- Alternative 1 – No-Build
- Alternative 2 – Transportation System Management (TSM)
- Alternative 3 – Expressway Upgrade South of MD 223
- Alternative 4 – Expressway Upgrade Entire Corridor
- Alternative 5 – Two-Lane Reversible Express Toll Lane (ETL)
- Alternative 6 – One to Two Lane ETL
- Alternative 7 – Movable Barrier ETL
- Alternative 8 – High Occupancy Vehicle (HOV)

Carrie also presented Options A and B for Surratts Road, as well as Options A and B for Moores Road/Earnshaw Drive/Burch Hill Road. Carrie stated that the 'Y' of Burch Hill Road west of MD 5 represents two possible alignments of the road, Option A1 and Option A2. Nicole reviewed the alternatives not recommended for detailed study, Alternatives 2 and 7.

- Alternative 2:Transportation Systems Management
  - Does not fully meet the Purpose and Need
  - Would not eliminate the at-grade intersections along the southern portion of the corridor
  - Several elements could be short-term solutions
  - Other elements of Alternative 2 will be incorporated into all the ARDS
    - Allow inside shoulder use to provide enhanced bus service for the non-managed lane alternatives
    - Park and Ride and transit considerations

- Alternative 7: Movable Barrier ETL
  - Does not provide a benefit over the other managed lane alternative
  - Very high long-term operational cost

Nicole also went over a list of milestones and the anticipated schedule as follows:
- Alternates Public Workshop – June 2006
- Alternates Retained for Detailed Study – Fall 2006
- Location/ Design Public Hearing –Winter/ Spring 2008
- Location/ Design Approval – Summer 2009

Prince George's County DPWT Comments on MD 5 Project

Edward Binseel asked if the team received any comments about the hotel and hospital. There is a safety problem with pedestrians crossing Surratts Road. "The Bus" no longer stops at the hospital and pedestrians have to cross Surratts Road to get to the hospital with cars traveling at high speeds.

Mr. Bruce M. Grey
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Vic Weissberg noted that citizens who wanted to travel into Washington D.C, would have to travel south in order to go north when traveling by metro. Currently, the Branch Avenue Metro Station parking lots and park and ride lot in the study area are at capacity.

Armin Abrahamian asked what would happen to the water quantity and quality that will collect on the roadway when barriers are in place. Nicole responded that the team would address storm water management later in the study.

Haitham Hijazi stated the Prince George's County does not support ETLs. They feel that with tolls in place, ETLs do not give citizens any other viable options to travel the MD 5 Corridor. He stated that they would find HOV lanes converted to ETL lanes at a later date more acceptable. Raja Veeramachaneni explained that converting HOV lanes would bring up legal issues.

Vic asked what kind of HOV would the team be looking at for the corridor. Nicole stated that currently the team has not determined which HOV configuration would be suitable for the MD 5 Corridor.

Vic asked if park and ride lots have been identified along the corridor. Nicole stated that there is one park and ride lot currently identified as a part of the MD 5/Brandywine Road project, which is currently in Highway Design.

The Prince George's County DPWT started a project for the expansion of an existing park and ride lot along MD 223 approximately 5 years ago. The project called for an additional 74 parking spots but has been put on hold.

Frank Bell stated that there was a study done by Prince George's County to identify potential park and ride lots along the corridor. He also stated that he would forward this information to SHA.

Nicole stated that currently the proposed Burch Hill interchange is located outside of the Priority Funding Area (PFA). The Prince George's County DPWT stated that Maryland National Capital Park and Planning Commission should address the PFA issue because it is their jurisdiction. Prince George's County DPWT also stated that they prefer Burch Hill Road Option A1 because there is already right-of-way reservation along that alignment.

Mr. Bruce M. Grey
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Nicole noted that the National Marine Fisheries Service (NMFS) did not concur on the ARDS package because they would like to see a dedicated transit line incorporated in all of the alternatives presented. The ARDS package shows express buses using shoulders for travel throughout the corridor. NMFS felt that the shoulder width of 10 feet would be adequate for bus service. Nicole also stated that inclusion of a transit line would not provide minimal benefits for Prince George's County citizens because the Maryland Transit Administration (MTA) does not provide service in Prince George's County and the impacts along the corridor would be substantial. Prince George's County DPWT agreed and stated that they would provide SHA a letter stating their stance on a dedicated transit line and ETLs along the corridor.

Follow-Up Items

- Prince George's County DPWT will forward a map of planned subdivisions between MD 4 and MD 5 to SHA
- Prince George's County DPWT will provide the study of potential park and ride lots to SHA
- Prince George's County DPWT will provide SHA with a letter stating their stance on a dedicated transit line and ETLs along the corridor

If you have any corrections or additions to the above meeting summary, please contact Nicole Washington, Project Manager at 410-545-8570.

cc: File
MD 5 Core Team

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: March 16, 2007

SUBJECT: MD 5 Corridor Transportation Study
Project No: PG391A16

RE: Project Coordination Meeting with the Maryland Transit Administration (MTA)

A meeting was held to discuss the State Highway Administration's (SHA) MD 5 Corridor Transportation Study and the US 301 Waldorf Project with MTA on Thursday, January 4, 2007 at MTA Offices in Baltimore. The following people were in attendance at the meeting:

Carrie Casto	Jacobs	410-837-5840
Mike Madden	MTA	410-767-3694
Judith Sikorski	MTA	410-767-7507
Crystal Saunders	PB	410-752-9626
Danielle Edmonds	SHA – PPD	410-545-8516
Brian Lange	SHA – PPD	410-545-8532
Nicole Washington	SHA – PPD	410-545-8570

Purpose of The Meeting

The purpose of this meeting was to brief MTA on both the US 301 Waldorf Project and the MD 5 Corridor Transportation Study and to discuss the coordination efforts that will be needed as these projects progress. The notes below represent discussions and comments.

Mr. Bruce M. Grey
Page Two

MD 5 Corridor Transportation Study

Nicole Washington provided a presentation on the Alternatives Retained for Detailed Study (ARDS) package. She summarized the project background and existing conditions of the roadway. The purpose of the project is to facilitate safe and efficient traffic flow while providing cost effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts. Nicole also provided a brief description of how the Highway Development Process operated and likewise how the Project Planning Process worked. She then presented the operational analysis and crash data along the corridor. She made special notice of the crash totals for the sections of

Manchester Drive to I-95/I-495 (Capital Beltway) and I-95/I-495 (Capital Beltway) to Auth Road, which both have significantly higher than statewide crash rates.

Nicole reviewed comments received from the public at the Alternates Public Workshop held in June 2005, which revealed that the majority of citizens who responded are traveling to Charles County and Washington, D.C. Further, the majority (82% responding) of the citizens do not use mass transit or ridesharing, with the highest ridership of existing transit options being Metro Rail (33% responding).

Carrie Casto then presented descriptions of each alternative presented at the Alternates Public Workshop.

Overview of Alternatives & Options Presented at the Workshop

- Alternative 1 – No-Build
- Alternative 2 – Transportation System Management (TSM)
- Alternative 3 – Expressway Upgrade South of MD 223
- Alternative 4 – Expressway Upgrade Entire Corridor
- Alternative 5 – Two-Lane Reversible Express Toll Lane (ETL)
- Alternative 6 – One to Two Lane ETL
- Alternative 7 – Movable Barrier ETL
- Alternative 8 – High Occupancy Vehicle (HOV)

Carrie also presented Options A and B for Surratts Road, as well as Options A and B for Moores Road/Earnshaw Drive/Burch Hill Road. Carrie stated that the 'Y' of Burch Hill Road west of MD 5 represents two possible alignments of the road, Option A1 and Option A2. Nicole then reviewed the alternatives not recommended for detailed study, Alternatives 2 and 7.

Mr. Bruce M. Grey
Page Three

- Alternative 2:Transportation Systems Management
  - Does not fully meet the Purpose and Need
  - Would not eliminate the at-grade intersections along the southern portion of the corridor
  - Several elements could be short-term solutions
  - Other elements of Alternative 2 will be incorporated into all the Alternatives Retained for Detailed Study
    - Allow inside shoulder use to provide enhanced bus service for the non-managed lane alternatives
    - Park and Ride and transit considerations

- Alternative 7: Movable Barrier ETL
  - Does not provide a benefit over the other managed lane alternative
  - Very high long-term operational cost

Nicole also went over a list of milestones and the anticipated schedule as follows:
- Alternates Public Workshop – June 2006
- Alternates Retained for Detailed Study – Fall 2006
- Location/ Design Public Hearing –Winter/ Spring 2008
- Location/ Design Approval – Summer 2009

Nicole noted that the National Marine Fisheries Service (NMFS) did not concur on the ARDS package because they would like to see the right-of-way for potential future Bus Rapid Transit (BRT) incorporated in all of the alternatives presented. The ARDS package shows express buses using shoulders for travel throughout the corridor with the non ETL and HOV alternatives. NMFS felt that the shoulder width of 10 feet would not be adequate for bus service. Nicole also stated that inclusion of a transit line would provide minimal benefits for Prince George's County citizens because MTA does not provide service in Prince George's County and the impacts along the corridor would be substantial.

MTA Comments on MD 5 Project

The following bulleted items summarize the discussion between MTA and SHA:

- MTA agreed to join the MD 5 Study Team and cooperate as the project progresses.
- MTA is very interested in potential new Park and Ride locations along the corridor; however, they do not have any active projects in the area.
- MTA asked that the team look at US 50 as a comparison project for inside shoulder BRT needs. The shoulder width along US 50 should be sufficient for the needs of MD 5 and should be matched. Also, verify what was done on US 29.
- MTA has no specific requirements for the width of BRT lanes.

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Page Four

- MTA noted that SHA should respond to NMFS that MTA cannot operate service within Prince George's County. The Washington Metropolitan Area Transit Authority (WMATA) has jurisdiction on transit services throughout Prince George's County. MTA only rides through the County with no stops, and therefore no service. **NOTE:** based on recent events SHA should hold off on responding to NMFS until further discussions can be conducted with SHA and MTA regarding the direction of future studies in the MD 5 Corridor.
- MTA cannot justify recommending the BRT and it's associated impacts without adding service to the area.
- MTA recommended SHA request a letter from Prince George's County stating the County's position against a BRT lane.
- MTA recommended SHA contact Charlie Scott, from MTA's Washington area transit section, to get information on potential funding opportunities in Prince George's County.
- MTA requested that they be included as a participating agency as the project continues.
- MTA was notified that SHA will be holding an informational workshop prior to the Public Hearing. The date of the workshop has not yet been determined.
- MTA inquired as to who provides service to the MD 223 Park & Ride lot.
- MTA inquired to the potential to expand the existing Park & Ride lot at Surratts Road.

Follow-Up Items

- SHA will contact NMFS to further discuss the issues surrounding the inclusion of a BRT lane. On-Hold
- SHA will look to see if MTA could be included as a participating agency.
- SHA will contact both Mike Madden and Judy Sikorski regarding future team meetings.
- SHA will contact Charlie Scott to find out how money for County transit services is provided.
- SHA will discuss with Prince George's County the impact vs. service issues surrounding NMFS's request that BRT lanes be included.

If you have any corrections or additions to the above meeting summary, please contact Nicole Washington, Project Manager at 410-545-8570.

cc: File
MD 5 Core Team

MEETING RECORD

Organization: MD 5 Coordination with Maryland Transit Administration (MTA)

Meeting Date/Time: Thursday, April 19, 2007 at 10:00 AM

Location: SHA Headquarters, Conference Room 336

Purpose of Mtg.: To discuss project coordination efforts between SHA's MD 5 Corridor Transportation Study and MTA's Corridor Preservation

Meeting Agenda:
Introductions
SHA MD 5 Project Update
MTA Corridor Preservation Study Summary
Coordination Discussion

Meeting Attendees:

Carrie Casto	Jacobs	410-837-5840
Mike Madden	MTA	410-767-3694
Judith Sikorski	MTA	410-767-7507
Danielle Edmonds	SHA PPD	410-545-8516
Brian Lange	SHA – PPD	410-545-8532
Nicole Washington	SHA – PPD	410-545-8570
Dennis Atkins	SHA- PPD	410-545-8520

Key Issue(s) Summary:
- Update MTA on the SHA Planning Study
- Receive details from MTA about their Corridor Preservation Study
- Discuss coordination needs between the projects
- Establish future coordination meetings

Meeting Summary:

The purpose of this meeting was to discuss with MTA their intentions associated with their recently introduced transit corridor preservation study, to discuss this study's affect on the SHA MD 5 Corridor Transportation Study, and to discuss the coordination efforts that will be needed as these projects progress.

Meeting Record
MD 5 Coordination with MTA
Page Two

MTA Transit Corridor Preservation Study

MTA is performing a corridor preservation study from Branch Avenue Metro Station in Prince George's County to White Plains in Charles County. Charles County elected officials and some Prince George's County elected officials are now interested in implementing a Light Rail Transit (LRT) corridor in the vicinity of the existing MD 5 alignment. There is an existing rail corridor in Charles County that runs parallel to US 301.

The study will investigate and propose a transit corridor for preservation. An Environmental Impact Statement will follow at some point in the future, containing alternatives and options along the proposed preservation corridor.

Congressman Hoyer is pushing the Prince George's County officials to support the effort.

MD 5 Corridor Transportation Study

The purpose of the project is to facilitate safe and efficient traffic flow while providing cost effective transportation infrastructure to serve and support existing and future traffic demand, land use planning, and development efforts.

Overview of Alternatives & Options Presented at the Workshop

- Alternative 1 No-Build
- Alternative 2 Transportation System Management (TSM)
- Alternative 3 – Expressway Upgrade South of MD 223
- Alternative 4 – Expressway Upgrade Entire Corridor
- Alternative 5 – Two-Lane Reversible Express Toll Lane (ETL)
- Alternative 6 – One to Two Lane ETL
- Alternative 7 – Movable Barrier ETL
- Alternative 8 High Occupancy Vehicle (HOV)

Diamond Interchange Options A and B are proposed for Surratts Road, as well as Interchange Options A and B at Moores Road/Earnshaw Drive/Burch Hill Road.

Alternatives 2 and 7 are not recommended for detailed study. The following details the reasoning for not being included in the ARDS package:

- Alternative 2: Transportation Systems Management
  - Does not fully meet the Purpose and Need
  - Would not eliminate the at-grade intersections along the southern portion of the corridor

Meeting Record
MD 5 Coordination with MTA
Page Three

  - Several elements could be short-term solutions
  - Other elements of Alternative 2 will be incorporated into all the Alternatives Retained for Detailed Study
    - Allow inside shoulder use to provide enhanced bus service for the non-managed lane alternatives
    - Park and Ride and transit considerations

- Alternative 7: Movable Barrier ETL
  - Does not provide a benefit over the other managed lane alternative
  - Very high long-term operational cost

Milestones for the project schedule are as follows:
- Alternates Public Workshop – June 2006
- Alternatives Retained for Detailed Study (ARDS) Fall 2006
- Location/ Design Public Hearing –Winter/ Spring 2008
- Location/ Design Approval – Summer 2009

Nicole noted that the National Marine Fisheries Service (NMFS) did not concur on the ARDS package because they would like to see the right-of-way for potential future Bus Rapid Transit (BRT) incorporated in all of the alternatives presented. The ARDS package shows express buses using shoulders for travel throughout the corridor with the non ETL and HOV alternatives. NMFS felt that the shoulder width of 10 feet would not be adequate for bus service. Nicole also stated that the inclusion of a transit line would provide minimal benefits for Prince George's County citizens because MTA does not provide service in Prince George's County and the impacts along the corridor would be substantial, particularly in the northern section from MD 223 to I-495, where existing SHA right-of-way is narrow.

Topics of Discussion:
The following is a listing of the issues which arose during the meeting based on questions and comments from MTA and SHA.

- It was noted that SHA's project would have a significant impact on the MTA preservation corridor if it lays directly adjacent to the existing MD 5 alignment. This is especially evident along MD 5 north of MD 223.
- MTA noted that the corridor preservation is not a long term study. They hope to have a corridor proposed within the next two years.
- The construction of Light Rail or Bus Rapid Transit would be the long term project.
- From south of MD 223, SHA and MTA should be able to find a balance within the existing right-of-way to fit both plans. This would have to be verified.
- The question was raised if ETL's should remain a part of SHA's study. Will the Secretary of Transportation still support the idea's of ETL's?

Meeting Record
MD 5 Coordination with MTA
Page Four

- A meeting between Simon and Raja should be scheduled to discuss SHA and MTA conflicts and policies for these projects.
- Schedule issues will be a point of contention. SHA may need to represent the project to the public with any new alternatives.
- SHA will need to evaluate how the proposed preservation corridor may affect the proposed interchanges at Surratts Road and Earnshaw/Moores Road.
- Likewise, MTA will need heavy coordination with the current Highway Design Division (HDD) projects: MD 373 Interchange and the Auth Road/I-495 Interchange. SHA will get John Jenkins and Eric Marabello involved immediately.
- SHA needs to know how large the preservation swath along MD 5 will be. It is assumed to be at least 30-feet wide.
- Could SHA look at performing a reevaluation for the 1988 study, and complete the southern portion from MD 223 to T.B.?

Follow-Up/Action Items:

- SHA will schedule a meeting between Raja and Simon to discuss policy issues.
- SHA will get HDD involved with MTA. Specifically for the MD 373 and I-495/Branch Avenue Access Road projects.
- SHA will develop a list of issues that were formed at this meeting (see attached)

If you have any corrections or additions to the above meeting summary, please contact Mrs. Nicole Washington, Project Manager at 410-545-8570.

Attachment
cc: File
MD 5 Core Team
Mr. Bruce M. Grey

MEMORANDUM

TO: Mr. Bruce Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Nicole Washington
Project Manager
Project Planning Division

DATE: March 10, 2008

SUBJECT: MD 5 SHA/MTA Directors' Meeting
MD 5 Project Planning Study
Prince George's County

A Director's Coordination Meeting with the State Highway Administration (SHA) Office of Preliminary Engineering and Planning Director and the Maryland Transit Administration (MTA) Office of Planning Director to discuss the MD 5 Project Planning Study and the Southern Maryland Transit Corridor Preservation Study was held on Friday, February 15, 2008. The following people were in attendance at the meeting:

Steve Hawtoff	Gannett Fleming	410-585-1460	shawtoff@gfnet.com
Carrie Casto	Jacobs (SHA Project)	410-837-5840	Carrie.casto@jacobs.com
Harriet Levine	Jacobs (SHA Project)	410-837-5840	Harriet.levine@jacobs.com
Meghan Powell	Jacobs (MTA Project)	410-837-5840	Meghan.powell@jacobs.com
Ernie Baisden	MTA	410-767- 3752	ebaisden@mta.state.md.us
Diane Ratcliff	MTA	410-767-3787	dratcliff@mta.state.md.us
Jennifer Weeks	MTA	410-767-3788	Jweeks1@mtamaryland.com
Crystal Saunders Hancock	Parsons Brinckerhoff	410-752-9626	saundersc@pbworld.com
Norie Calvert	SHA – OHD	410-545-8846	ncalvert@sha.state.md.us
John Jenkins	SHA – OHD	410-545-8763	Jjenkins2@sha.state.md.us
Eric Marabello	SHA – OHD	410-545-8770	emarabello@sha.state.md.us
Raja Veeramachaneni	SHA – OPPE	410-545-0412	rveeramachaneni@sha.state.md.us
Karen Arnold	SHA – PPD	410-545-8510	karnold@sha.state.md.us
Dennis Atkins	SHA – PPD	410-545-8520	datkins@sha.state.md.us

Purpose of The Meeting
The purpose of this meeting was to discuss with the SHA and MTA Directors the coordination effort between SHA's MD 5 Corridor Transportation Study and MTA's Southern Maryland Transit Corridor Preservation (SMTCP) Study and to determine the next steps.

MD 5 Project Planning Study Transit Analysis Overview

Harriet Levine and Carrie Casto provided a brief overview of the scope and status of the MD 5 Corridor project as well as a review of the analysis on the 42' transit envelope.

In August 2007, the SHA MD 5 team initiated a study to determine what size transit envelope would be considered for the MD 5 Corridor. Since a minimum of 40' is required for light rail transit (LRT) and 42' is required for bus rapid transit (BRT), SHA recommended looking at a 42' transitway along the corridor. MTA agreed on the 42' cross section as appropriate for the purposes of saving room for a future transitway on MD 5.

MD 5 from MD 223 north towards I-95 has no room in the median for a transit component. Including transit in the median would cause major impacts to the buildings along MD 5 and would cause major reconstruction of MD 5's mainline, bridges, and ramps. Therefore, the study considered potential impacts from MD 223 southwards.

The MD 5 team first evaluated a 42' Transitway in the median of MD 5 from MD 223 southward. Alternative 6 (MD 5's widest typical section) was used in the analysis. MD 5 from MD 223 south towards US 301 does have adequate room to include a transitway in the median; however, the MD 5 typical section will need to wider and the interchange improvements would cause additional impacts to accommodate the transitway.

Grades also need to be considered in the analysis of impacts. MD 5 is a bifurcated roadway and retaining walls of 5 to 10' will be needed in sections of the corridor, thus requiring additional width for the transit typical section.

Stormwater Management for MD 5 and the transitway would all need to be closed section and treated under the roadway as there will no room to treat the runoff in the median.

Any areas where a station and/or center platform may be considered in the median would require more than the 42'. At this stage, it is not known where future stations may be located making it difficult to determine where the extra width is needed.

The 42' width does not take into consideration any location where a bridge pier may be located for any roadways bridging up and over MD 5. The 42' section would need to be increased at certain locations to accommodate the bridge piers.

It was also noted that a 42' foot grassy median would be in place with the MD 5 roadway improvements, reserving the room for the future transitway. Once the transitway is constructed, the grassy median would be replaced by the transitway, essentially paving the corridor from edge of roadway to edge of roadway.

In October 2007, the SHA MD 5 team evaluated the 42' Transitway along the eastside of MD 5, also using Alternative 6. MD 5 from MD 223 north towards I-95 has no space or very limited space in the median or along the east side of MD 5 for a transit component. Including transit would cause major impacts to the buildings along MD 5 and would cause major reconstruction of MD 5's mainline, bridges and ramps. It is suggested for the transitway to use an alternate alignment off of MD 5 mainline in this area.

MD 5 from MD 223 south towards US 301 does have adequate room along the eastside to include a transitway with minimal additional impacts.

By placing the transitway on the east side of MD 5, there will be conflict points at each interchange if the transitway were to remain at grade alongside MD 5. There are two options at each interchange: veer transitway off of mainline and have it follow the interchange ramps or elevate the transitway up and over the interchange ramps and bridges. Horizontal curves should have at least a 300 ft radius for the transitway. For an elevated transitway, grades should not exceed 6%.

42' Transit Envelope Analysis Discussion

Raja Veeramachaneni stated that SHA supports placing the transit along the outside of MD 5 not within MD 5's median. Construction and maintenance of a transitway along the outside of the existing roadway is much easier. Another key point to consider is access for transit users. If the transitway is in the median, transit patrons will have a much longer walk to access the transit. The stations and parking facilities would also be further away. By holding 42' in the median for possible future transit, the MD 5 team may face difficulty when questioned by agencies as to why impacts couldn't be minimized and/or avoided by widening to the inside.

Diane Ratcliff stated that she would like SHA's MD 5 Project to preserve 42' in the median for the potential transitway so that it is not precluded from being an alternative in MTA's study. The MTA study is scheduled to be completed in18 months.

Raja stated that if MTA insists on including the 42' in the median, SHA will put the MD 5 Project Planning Study on hold until MTA's study is complete.

SHA MD 5/ MD 373/ MD 381 Interchange Project

John Jenkins discussed the MD 5/MD 373/MD 381 interchange project. This project is currently in SHA Highway Design and consists of an interchange and a future Park and Ride lot. This project is being designed/constructed in phases. Phase 1 is fully funded for construction and is moving forward with advertisement. Phase 1 includes widening MD 5 to 3 lanes in each direction, using the median for the widening. Phase 1 also includes intersection improvements to MD 5 at MD 373 and MD 381. Phases 2 and 3 include a new bridge and interchange ramps as well as a Park and Ride lot.

The MD 5 team analyzed the impacts of the transitway on this interchange project. The team used the final interchange phase (Phase 3) as the layout to push the 42' transitway envelope and evaluated it on the east side of MD 5. The 42' transitway could either be elevated over the interchange ramps with an intersection on the bridge over MD 5 or the transitway would veer off of MD 5 mainline and go along the future Park and Ride lot and then follow the ramp back on to MD 5 northbound. Either of these options is feasible with the interchange design and will not cause a need for re-design of the MD 373/ MD 381/ MD 5 ramps and bridge. Thus, the future transitway will not impact the design of the interchange and should not stop the design project from progressing with their interchange design.

At this meeting, both MTA and SHA agreed to keep this project moving forward with their design/ schedule and the widening will be done in the median for this project.

Follow-Up Items

- Jacobs will provide MTA with a MicroStation file to show the additional impacts related to including 42' in the median reserved for a transit envelope
- MTA will make a decision as to whether or not they will include using MD 5's median as an option in the SMTCP Study.

If you have any corrections or additions to the above meeting summary, please contact Nicole Washington, the Project Manager at 410-545-8570.

cc: Attendees
File

SHA

Martin O'Malley, *Governor* | Anthony G. Brown, *Lt. Governor* | State Highway Administration | John D. Porcari, *Secretary* | Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

MEMORANDUM

TO: Mr. Bruce Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Tessa Young
Assistant Project Manager
Project Planning Division

DATE: June 1, 2009

RE: MD 5 Corridor Transportation Project
Prince George's County
Project Number PG391A16

SUBJECT: Team Meeting Minutes

A MD 5 Team Meeting was held on Tuesday, May 12, 2009 at the State Highway Administration's (SHA) Headquarters in Room 400.

The following people were in attendance:

Greg Slater	SHA-OPPE	(410) 545-0412	gslater@sha.state.md.us
Glen Smith	MdTA	(410) 537-5665	gsmith2@mdta.state.md.us
Dennis Simpson	MdTA	(410) 537-5650	dsimpson@mdta.state.md.us
Sue Rajan	SHA-PMD	(410) 545-8514	srajan@sha.state.md.us
Tessa Young	SHA-PMD	(410) 545-8527	tyoung@sha.state.md.us
Nicole Washington	SHA-PMD	(410) 545-8570	nwashington@sha.state.md.us
Jawad Abdullah	SHA-PMD	(410) 545-8572	jabdullah@sha.state.md.us
Kirk McClelland	SHA-OHD	(410) 545-8800	kmcclelland@sha.sta.md.us
Eric Marabello	SHA-OHD	(410) 545-8770	emarabello@sha.state.md.us
John Jenkins	SHA-OHD	(410) 545-8763	jjenkins2@sha.state.md.us
Jesse Free	SHA-OOC	(410) 802-0186	jfree@sha.state.md.us
Daniel Beck	SHA-OOS	(410) 545-8317	dbeck@sha.state.md.us
Chanel Torsell	SHA-TFD	(410) 545-5644	ctorsell@sha.state.md.us
Karen Arnold	SHA-EPLD	(410) 545-8510	karnold@shae.state.md.us
Gregory Robinson	SHA-RIPD	(410) 545-5654	grobinson@sha.state.md.us

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com

MD 5 Team Meeting
Page Two

Shiva Shrestha	SHA-RIPD	(410) 545-5667	sshrestha@sha.state.md.us
Claudine Myers	SHA-D3-EST	(301) 513-7467	cmyers1@sha.state.md.us
Fred Shoken	SHA-EPLD	(410) 545-5793	fshoken@sha.state.md.us
Allison E. Grooms	SHA-EPLD	(410) 545-8568	agrooms@sha.state.md.us
Prakash Dave	SHA-BDD	(410) 545-8355	pdave@sha.state.md.us
Tom Masog	M-NCPPC	(301) 952-5216	tom.masog@ppd.mncppc.org
Jennifer Weeks	MTA	(410) 767-3880/	jweeks1@mtamaryland.com
		(410) 454-9757	weeks@pbworld.com
Harriet Levine	Jacobs	(410) 837-5840	harriet.levine@jacobs.com
Melissa Hedrick	Jacobs	(410) 837-5840	melissa.hedrick@jacobs.com
Joseph Crider	Jacobs	(410) 837-5840	joseph.crider@jacobs.com
Jessica Klinefelter	A.D. Marble	(410) 902-1421	jklinefelter@admarble.com

Handouts included:

- Meeting Agenda
- Map of Project Area
- Project Fact Sheet
- Study Schedule
- Summary of Public Comments
- Typical Sections
- Summary of Impacts and Costs
- Traffic Data and Analysis
- Interchange Mapping

The meeting began at 10:30 AM. Ms. Tessa Young, the Assistant Project Manager, introduced herself to the group, thanked everyone for attending, and then asked the members to introduce themselves.

Purpose of the Meeting

Ms. Young stated that the purpose of this meeting was to reintroduce the project and to update the team on the progress since the study was reinitiated last Spring 2008.

Project Overview

Ms. Young presented the project background, including the study area, project length, limits, typical sections, and Purpose and Need. Originally the project contained eight (8) alternatives including the No-Build. Six (6) of these alternatives were retained for detailed study, including the No-Build, two (2) Priced Managed Lanes alternatives formerly referred to as Express Toll Lanes (ETLs) and one (1) Non-Priced Managed Lane alternative formerly referred to as High Occupancy Vehicle (HOV).

MD 5 Team Meeting
Page Three

A meeting with representatives from Andrews Air Force Base (AAFB) is anticipated to occur this summer. AAFB was concerned about the project's resulting noise impacts and access disruption.

Environmental Overview

Ms. Karen Arnold gave an overview of the environmental resources in the area. The MD 5 study area is located between the MD 5/US 301 Junction and just north of the Capital Beltway. There was an Final Environmental Impact Statement (FEIS) that was completed in the '80's, and improvements in the northern part of the corridor were developed and completed.

There are two Priority Funding Areas (PFA) in the vicinity of the project. The northernmost PFA extends from the Beltway down toward Surratts Road. The southern most PFA extends up from US 301 toward Moore's Road. Ms. Arnold pointed out that one of the proposed interchanges is outside of the County's PFA.

Ms. Arnold specifically identified a few concerns from an environmental standpoint:

- Five (5) potential resident displacements on Deerpond Lane, located in an Environmental Justice (EJ) area. Community Outreach is being planned.
- Two archaeological areas of concern: 1 farmstead near AAFB and the Piscataway Creek Crossing
- Piscataway Creek Stream Valley Park impacts would require a Section 4(f) evaluation. Will try for a de minimis determination.
- Forest Interior Dwelling Species (FIDS) south of MD 223

She concluded by stating that Air and Noise studies are ongoing and that Prince George's County is in a Non-Attainment zone.

Traffic Data

Ms. Chanel Torsell presented the traffic data. The MD 5 corridor serves as both a community access and commuter route for travelers in the area. There is a lot of traffic from Charles County that travels along the corridor to the Branch Avenue Metro Station or to Washington, DC.

The design year for traffic volumes is 2030. The No-Build Alternative will have a Level of Service (LOS) D through F along the corridor. Alternative 5 has the best overall performance for the priced managed lanes alternatives. Of the non-priced managed lane alternatives, Alternative 4 has the overall best LOS south of MD 223. The worst LOS results are shown under Alternative 8 for the general purpose lanes north of MD 223.

MD 5 Team Meeting
Page Four

* It was noted that the traffic data distributed at the meeting has been updated. The revised table is attached to these meeting minutes.

Alternatives Retained for Detailed Study (ARDS) Review

Ms. Harriet Levine described the alternatives and interchange options that were retained and presented at the February 24, 2009 Informational Public Workshop.

Mainline Alternatives:
Alternative 1 – No-Build
No major improvements are proposed under Alternative 1, the No Build Alternative. Minor short term improvements would occur as part of normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for judging the impacts and benefits associated with the other alternatives.

Alternative 3 – Expressway Upgrade South of MD 223
Alternative 3 would convert the remaining at-grade intersections into grade-separated interchanges and provide three through lanes in each direction throughout the entire corridor.

Alternative 4–Expressway Upgrade Entire Corridor
Alternative 4 would incorporate all of the improvements from Alternative 3. This alternative would also have four through lanes in each direction from north of Coventry Way to I-95/495.

Alternative 5–Two Reversible Priced Managed Lanes
This alternative would convert the remaining at-grade intersection into grade-separated interchanges. In addition, two new reversible lanes would be provided in the median with access only allowed at selected locations.

This alternative will include reversible direct access ramps to and from Woodyard Road and the Capital Beltway. The ramps would have to incorporate gate systems to keep out wrong-way traffic. This alternative has the most difficult operations and constructability. It was mentioned that the current directional traffic split is between 60-70% and will become more uniform in the future. One of the items still being looked at is adding slip ramps to and from the priced managed lanes south of Woodyard Road. Two potential ideas are being looked at for these slip ramps. The first is flaring out the section to provide slip ramps for both the northbound and southbound direction at the same location. The second is trying to stagger the slip ramps with one possibly north of Woodyard Road and one to the south.

MD 5 Team Meeting
Page Five

Alternative 6–One to Two Lane Priced Managed Lanes
This alternative would convert the remaining at-grade intersections into grade-separated interchanges. North of MD 223, this alternative would provide one additional managed lane per direction and it would convert one existing general purpose lane per direction to a managed lane. South of MD 223, this alternative would add one managed lane per direction and keep the existing two lanes per direction as general purpose lanes.

This alternative will include direct access ramps to and from Woodyard Road and the Capital Beltway.

Alternative 8-Non-Priced Managed HOV Lanes
The remaining at-grade intersections would be converted into grade-separated interchanges. This alternative would widen MD 5 with one additional lane to the inside in each direction along the whole corridor. This additional lane would be designated as a High occupancy Vehicle (HOV) lane. This alternative was proposed and supported by Prince George's County in lieu of the price managed lanes.

Interchange Alternatives:
Surratts Road Interchange-Option A
The intersection of Surratts Road and MD 5 is currently an at-grade intersection with traffic signals. This option would create a grade-separated interchange. Surratts Road would bridge over MD 5. Option A is a Modified Diamond Interchange similar to what was selected from the 1988 Final Environmental Impact Statement (FEIS). Surratts Road would be slightly shifted to the north of the existing intersection. Ramps would be included for each movement to and from MD 5 Other improvements include removing the existing "S" Curve on Surratts Road and also providing a second entrance to the Southern Maryland Hospital Center.

Surratts Road Interchange – Option B
Option B is a Diamond Interchange with Surratts Road bridging over MD 5. The bridge would be placed where the existing intersection is located. Ramps would be included for each movement to and from MD 5. Other improvements include removing the existing "S" curve on Surratts Road and also providing a second entrance to the Southern Maryland Hospital Center.

Moores Road/Earnshaw Drive/Burch Hill Road Interchange – Option A
Today, Moores Road and Earnshaw Drive are both at-grade intersections with MD 5. Option A creates a Modified Diamond Interchange between the two existing intersections. This new interchange would have a bridge over MD 5 with ramps to access all directions of MD 5. This interchange will be connected to Crestwood Road. A connection to Brandywine Road is in the Prince George's County Master Plan and would be built by others. This option would also put cul-de-sacs on Moores Road, Earnshaw Drive and Burch Hill at the current intersection locations. This interchange is what was proposed in the 80's study but it was shifted southward to accommodate recent development in the corridor.

MD 5 Team Meeting
Page Six

Moores Road/Earnshaw Drive/Burch Hill Road Interchange – Option B
The two existing intersections would be closed and two-way service roads would be constructed parallel to MD 5 along both northbound and southbound between Moores Road and Earnshaw Drive. A bridge would be built over MD 5 connecting the two service roads. Vehicles would use the service roads and bridge to access both directions along MD 5. The service roads would connect to existing Moores Road, Earnshaw Drive, and Burch Hill Road in the location where the current intersections are located. The Prince George's County Master Plan proposed road can potentially tie into the connection between service roads.

ARDS Discussion

Ms. Levine noted that the plant nursery business, located at the corner of Burch Hill Road and MD 5, has a preference for the Moores Road Option B interchange option because it would preserve their access to the road.

Ms. Levine also explained that the project is undergoing coordination with other area projects. On the southern end of the corridor, efforts have been made to coordinate with the Brandywine Interchange Project as well as the US 301 Waldorf Area Study.

On the northern end of the corridor, an additional outside lane on southbound MD 5 was added from the Beltway ramp to Linda Lane, as it is an alteration being considered by the Highway Design Division (HDD). Mr. Eric Marabello of HDD confirmed that this was being studied as well as reconfiguring the Linda Lane/Deerpond Lane interchange all together. Coordination will continue as plans are finalized.

Also on the northern end of the corridor, an additional access to the Metro Access Road is being studied and coordinated through the MD 5/ I-495/ I-95 Interchange Project – Phase II. This access consists of a bifurcated intersection, where MD 5 northbound will continue under Metro Access Road and MD 5 southbound will meet the access road at a signalized intersection. The MD 5 northbound and southbound inside shoulders will become a ramp to the signalized intersection. This access would be restricted to buses and possibly managed lanes traffic only traveling to the Branch Avenue Metro Station. Ms. Levine also noted that Alternatives 3 and 4 incorporate 12' inside shoulders for bus use to eliminate transit delay due to congestion.

Mr. Kirk McClelland expressed concern about queuing on the MD 5 exit ramps on the Burch Hill Road - Option B interchange. He suggested evaluating other configurations to eliminate the stopping condition of the ramps, such as a roundabout or reversing the stopping condition to give the ramps the right-of-way.

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Page Seven

Key Issues

Transit Development
Ms. Jennifer Weeks informed the team of the Southern Maryland Corridor Transit Study sponsored by the Maryland Transit Administration (MTA). The MTA is studying the addition of high capacity transit service along the east side of MD 5, from White Plains (Charles County) to the Branch Avenue Metro Station. A stop at Andrews Air Force Base is being evaluated. This project is being coordinated with the MD 5 Study.

Informational Public Workshop Debriefing

Approximately 100 people attended the February 2009 Informational Public Workshop and 27 comment cards were received. These public comments were briefly discussed as there was one major comment shared by the majority of citizens: Most local residents do not support the Priced Managed Lanes alternatives, and favor Alternatives 3 and 4.

Other comments the team received concerned a need for a light rail system throughout the corridor, traffic congestion, and speeding. A detailed summary of the comments received are attached (See Summary of Comments attachment).

Priced Managed Lane Discussion

A discussion regarding the viability of managed lanes followed. Mr. Dennis Simpson of the Maryland Transit Authority (MdTA) said that MdTA's experience and research indicates that priced managed lanes systems typically do not pay for themselves. He pointed out that the Virginia Department of Transportation (VDOT) is backstopping the profit forecast of the private developer of the Virginia Beltway HOT Lanes Project because of this. Ms. Levine added that the draft traffic and revenue analysis shows there is not enough revenue to support construction due to the expense of the ramps at the Beltway and the extent of the reconstruction of the northern portion of the roadway.

It was pointed out that there is no system of managed lanes planned. Some of the benefits of managed lanes are lost when there is no connection to a system to speed travel times.

Ms. Nicole Washington stated that the team could still consider dropping the priced managed lanes alternatives if they were not viable options. She asked Mr. Greg Slater, Director of Office of Planning and Preliminary Engineering (OPPE), if the team should take this issue to senior management. Mr. Slater proposed preparing a briefing package to the SHA Administrator and let him make the decision of whether the team should drop the priced managed lanes alternatives from further consideration.

MD 5 Team Meeting
Page Eight

Schedule

Environmental Tech Reports	Summer 2009
Hold Location Design Public Hearing	Winter 2009/2010
Team Recommendation Meeting	Spring 2010

The meeting adjourned at 12:00 PM. If you have any questions please feel free to contact Ms. Tessa Young, the Assistant Project Manager, at 410-545-8527 or via e-mail at tyoung@sha.state.md.us

cc: Attendees w/ attachments
Project Team list w/ attachments
File w/ attachments

SHA State Highway Administration
Maryland Department of Transportation

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

MEMORANDUM

TO: Mr. Donald H. Sparklin
Division Chief
Environmental Planning Division

FROM: Joe Kresslein
Assistant Division Chief
Environmental Planning Division

DATE: July 31 2009

SUBJECT: Smart Growth Minutes of June 10, 2009

MD 5 Corridor Transportation Study: SG 4: Karen Arnold, Tessa Young, Sue Rajan

The project was previously presented to the committee in November 2006. It was determined that MDP had completed origin and destination modeling using 2007 traffic data. Subsequent to this June 2009, Smart Growth meeting, SHA sent updated 2008 traffic data to, and confirmed with MDP, that the 2007 origin and destination studies are current and support connecting PFA criteria. The project will require further coordination with MDP when a Preferred Alternative is designated.

MD 97 Brookeville: Continued Discussion: Jane Wagner, Reena Mathews, Allison Grooms, Eric Beckett, and Chisa Winstead

The project was last presented to the Smart Growth committee in December 2004. SHA presented a draft Memorandum of Understanding (MOU) with Montgomery County. A completed MOU will be required to allow the project to be reactivated and ensure compliance with Smart Growth legislation. It was determined SHA intends to meet with Montgomery County officials, and then report back to the committee the results of the upcoming meeting with the county. The project team is seeking resolution of Smart Growth compliance concerns by November 2009.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com

Mr. Donald H. Sparklin
Smart Growth Minutes of June 10, 2009
Page Two

I-70 Meadow Road: Continued Discussion: Bihui Xu, Kiman Choi

The I-70 project was last presented to the Smart Growth committee in November 2007. MDP has subsequently completed origin and destination studies in March 2008 and determined the project serves to connect PFAs. Subsequent coordination between the county and MDP has determined that the county has amended its water plan and is currently revising their sewerage designation consistent with Smart Growth criteria so that the project can be located with a PFA.

Peggs Road Extension: Discussion: Bradley Smith, John Groeger, Heidi Van Luven

Approximately 40% of this county project occurs outside a PFA. SHA has confirmed with MDP that this local project is not included in the CTP. The project is, however, included in the St. Mary's County Capital Improvement Budget and Program. This State Aid program is funded through MDOT's yearly appropriation to SHA, and is known as State Aid in lieu of Federal Aid. MDP will determine if this project funding source subjects the project to Smart Growth law, upon receipt of additional information from SHA as regards the State Aid program.

The project is located partly within a PFA and could meet connecting PFA criteria. Should it be determined the project is subject to Smart Growth law, MDP will complete origin and destination studies to determine if the project supports connecting PFA criteria.

cc: Ms. Karen Arnold, SHA-EPLD
Mr. Eric Beckett, SHA-RIPD
Mr. Kiman Choi, MDP
Ms. Anne Elrays, SHA-EPLD
Mr. Bruce Grey, SHA-OPPE
Mr. John Groeger, St. Mary's County
Ms. Allison Grooms, SHA-EPLD
Ms. Reena Mathews, SHA-EPLD
Ms. Sue Rajan, SHA-PMD
Mr. Bradley Smith, SHA-EPLD
Ms. Heidi Van Luven, A. Morton Thomas & Associates
Ms. Jane Wagner, SHA-PMD
Ms. Chisa Winstead, SHA-PMD
Ms. Bihui Xu, MDP
Ms. Tessa Young, SHA-PMD

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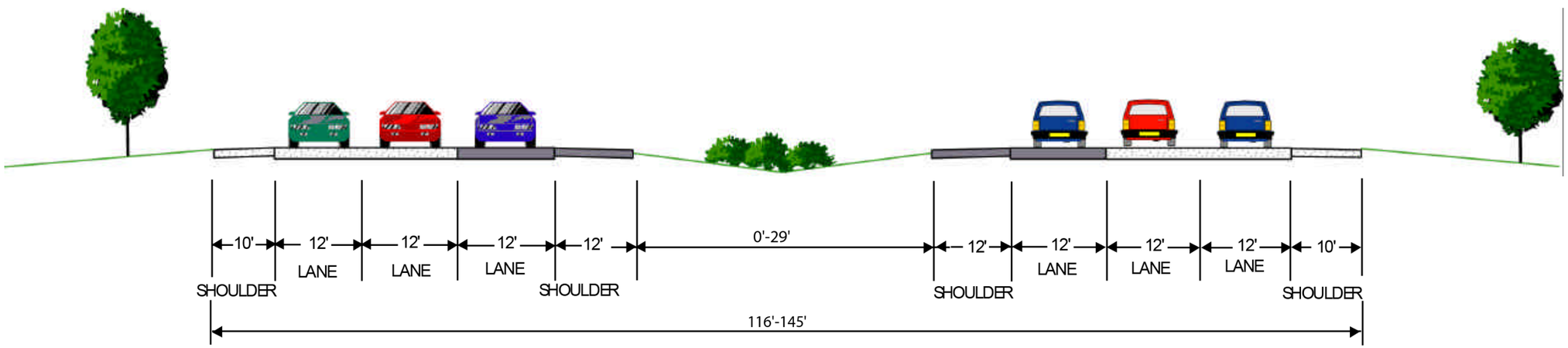
Appendix A:
Alternatives Mapping

Alternative 3: Expressway Upgrade South of MD 223



PROPOSED EARNSHAW DRIVE/ BURCH HILL ROAD/ MOORES ROAD INTERCHANGE SEE FIGURES BH-A AND BH-B

MATCHLINE SEE FIGURE 3-2

MOORES RD.

GARDEN CITY

MARYLAND 5

MARYLAND 5

PHASE 1 MD 5 / BRANDYWINE ROAD IMPROVEMENTS

GWYNN PARK MIDDLE SCHOOL

LEGEND

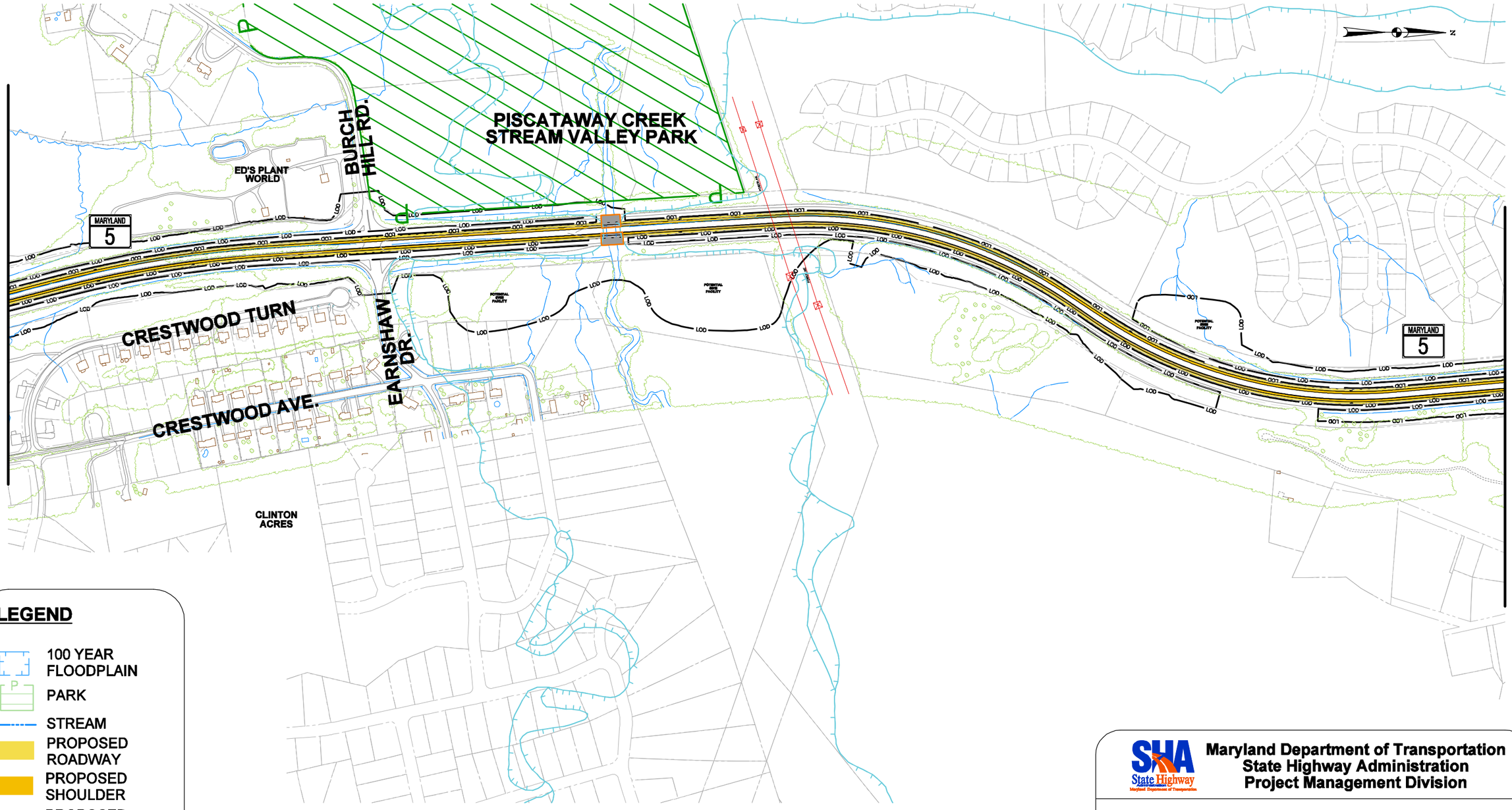
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 3

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	3-1



LEGEND

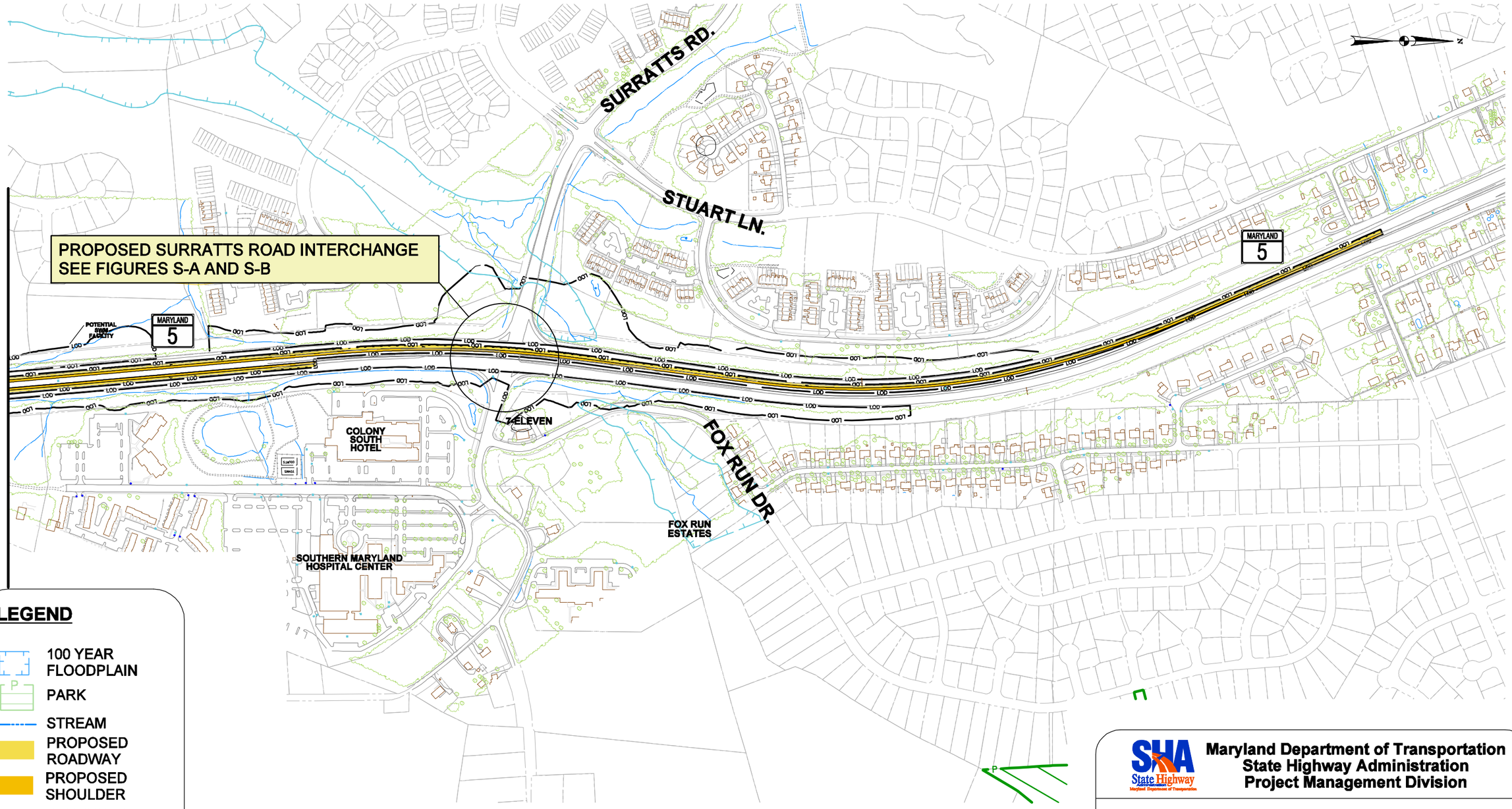
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 3

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	3-2



MATCHLINE SEE FIGURE 3-2

LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
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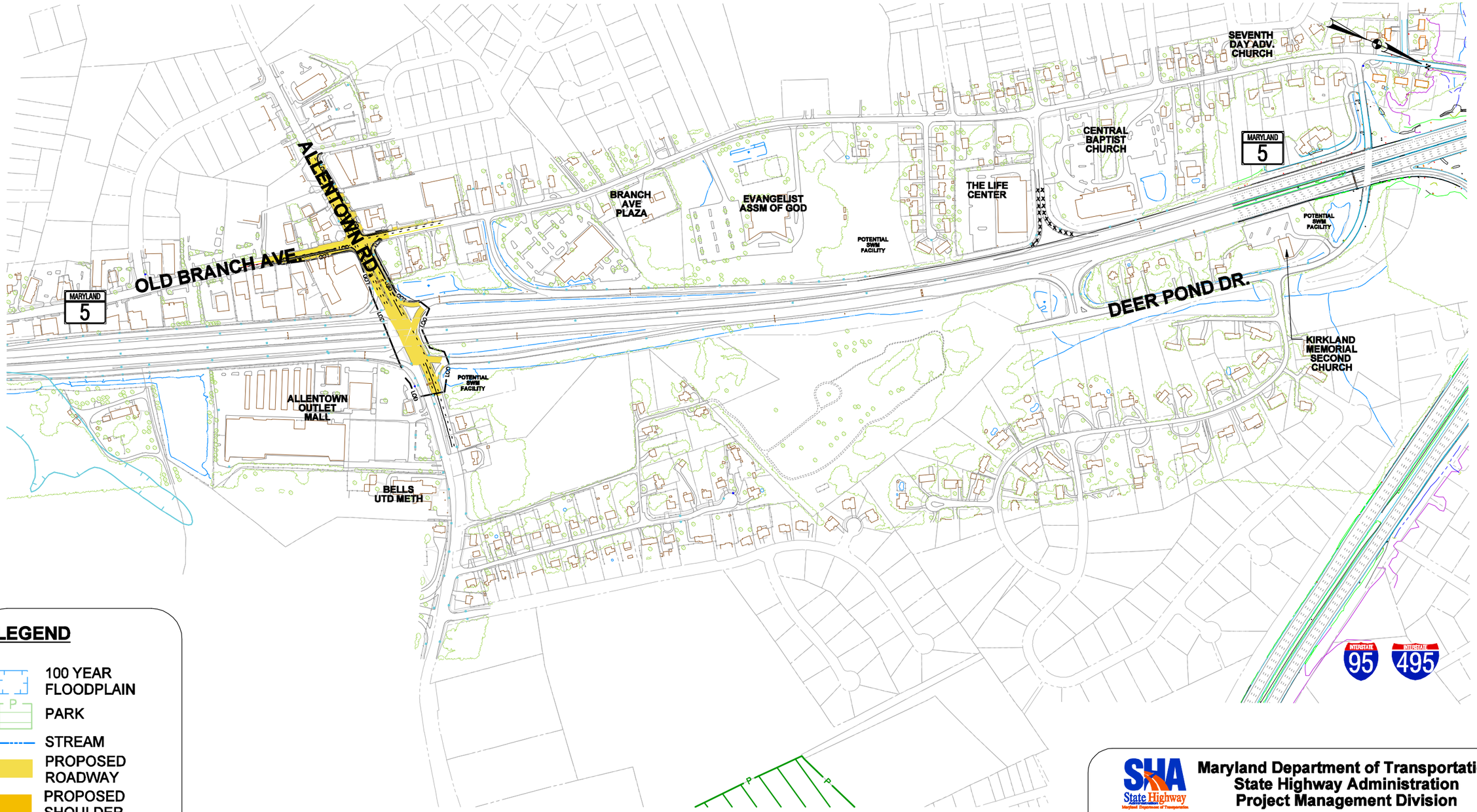
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 3

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	3-3



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LOD — LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
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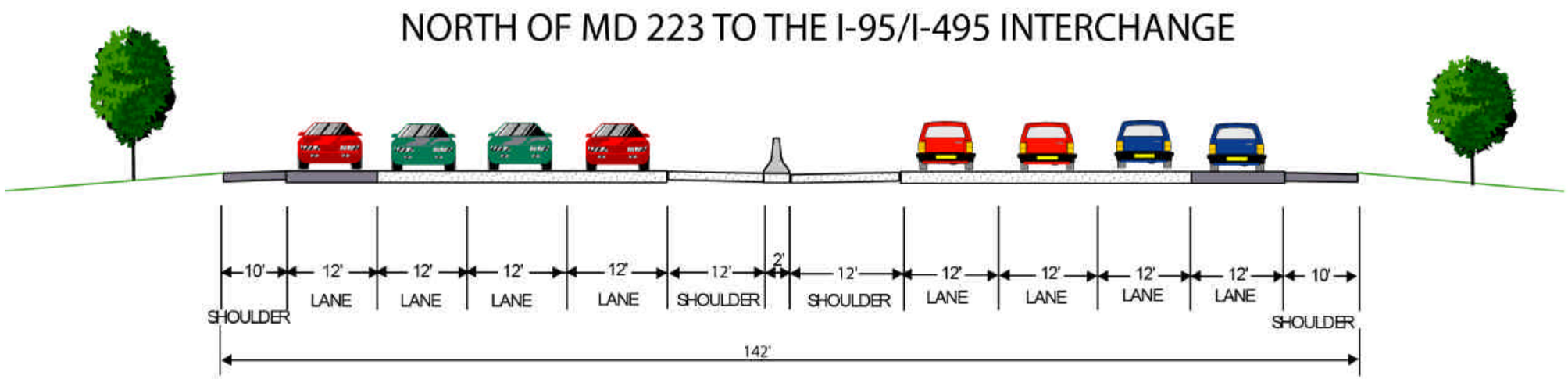
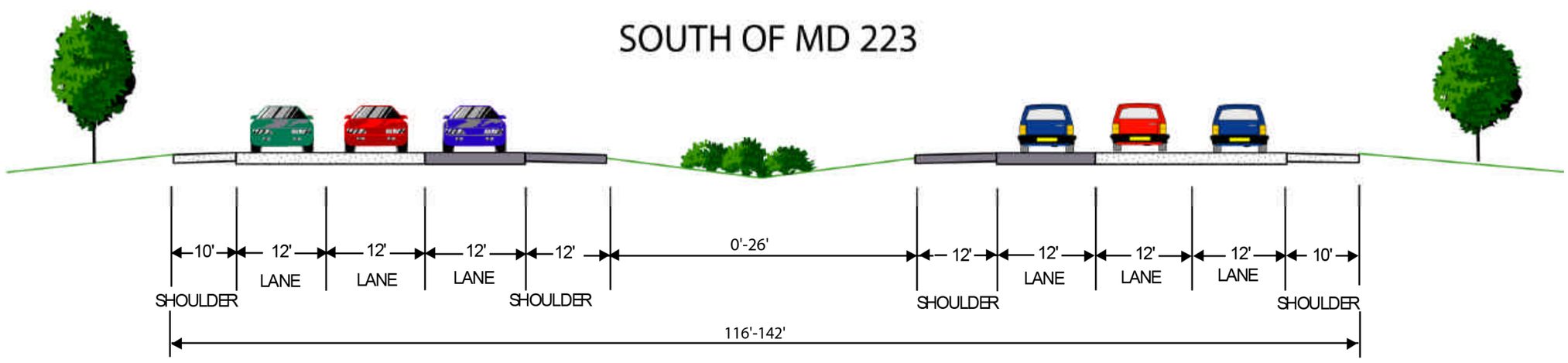
MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 3

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	3-4

Alternative 4: Expressway Upgrade Entire Corridor





PROPOSED EARNSHAW DRIVE/ BURCH HILL ROAD/ MOORES ROAD INTERCHANGE SEE FIGURES BH-A AND BH-B

MATCHLINE SEE FIGURE 4-2

MARYLAND 5

MOORES RD.

GARDEN CITY

PHASE 1 MD 5 / BRANDYWINE ROAD IMPROVEMENTS

GWYNN PARK MIDDLE SCHOOL

LEGEND

- 100 YEAR FLOODPLAIN
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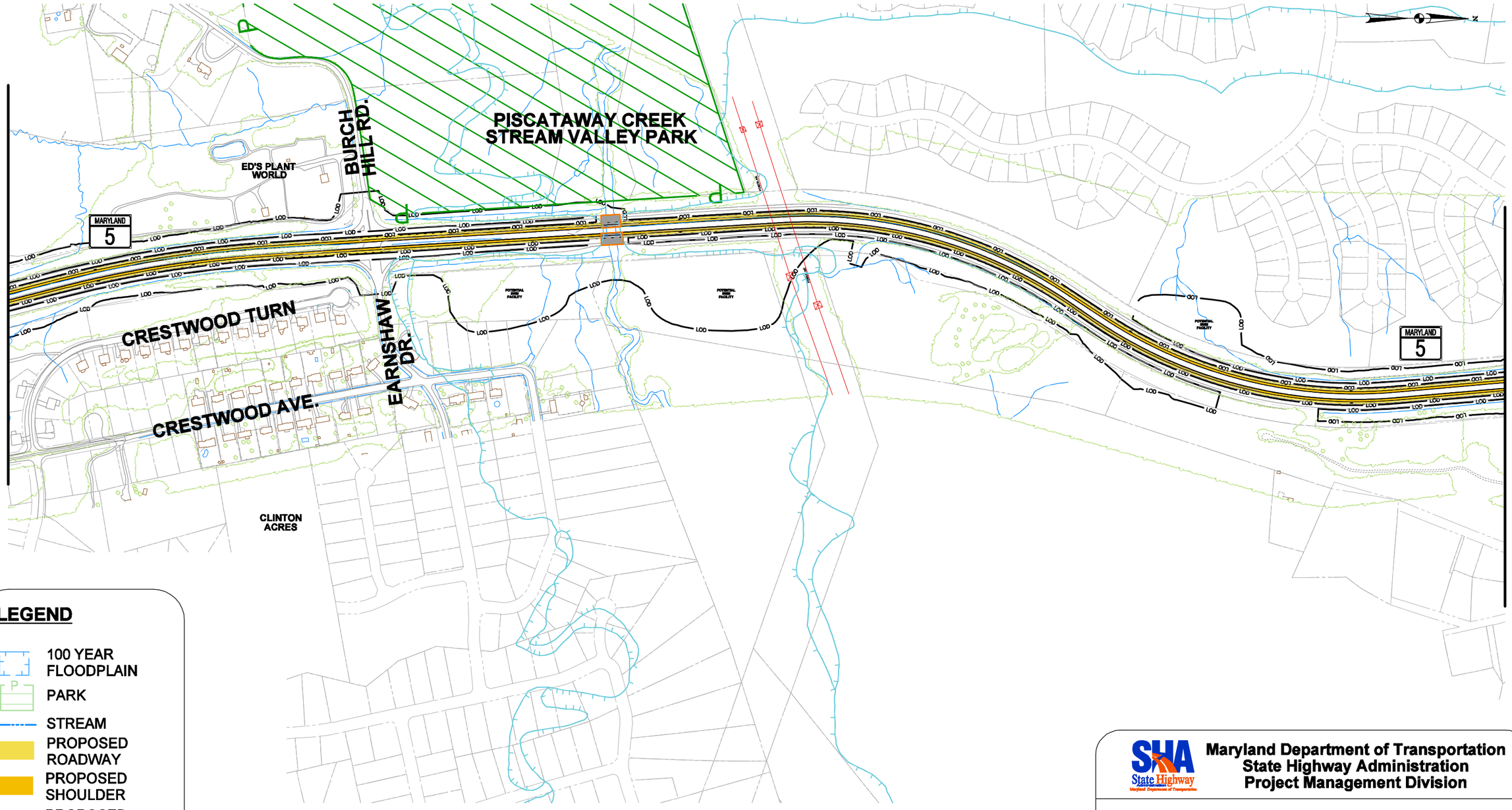
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-1



LEGEND

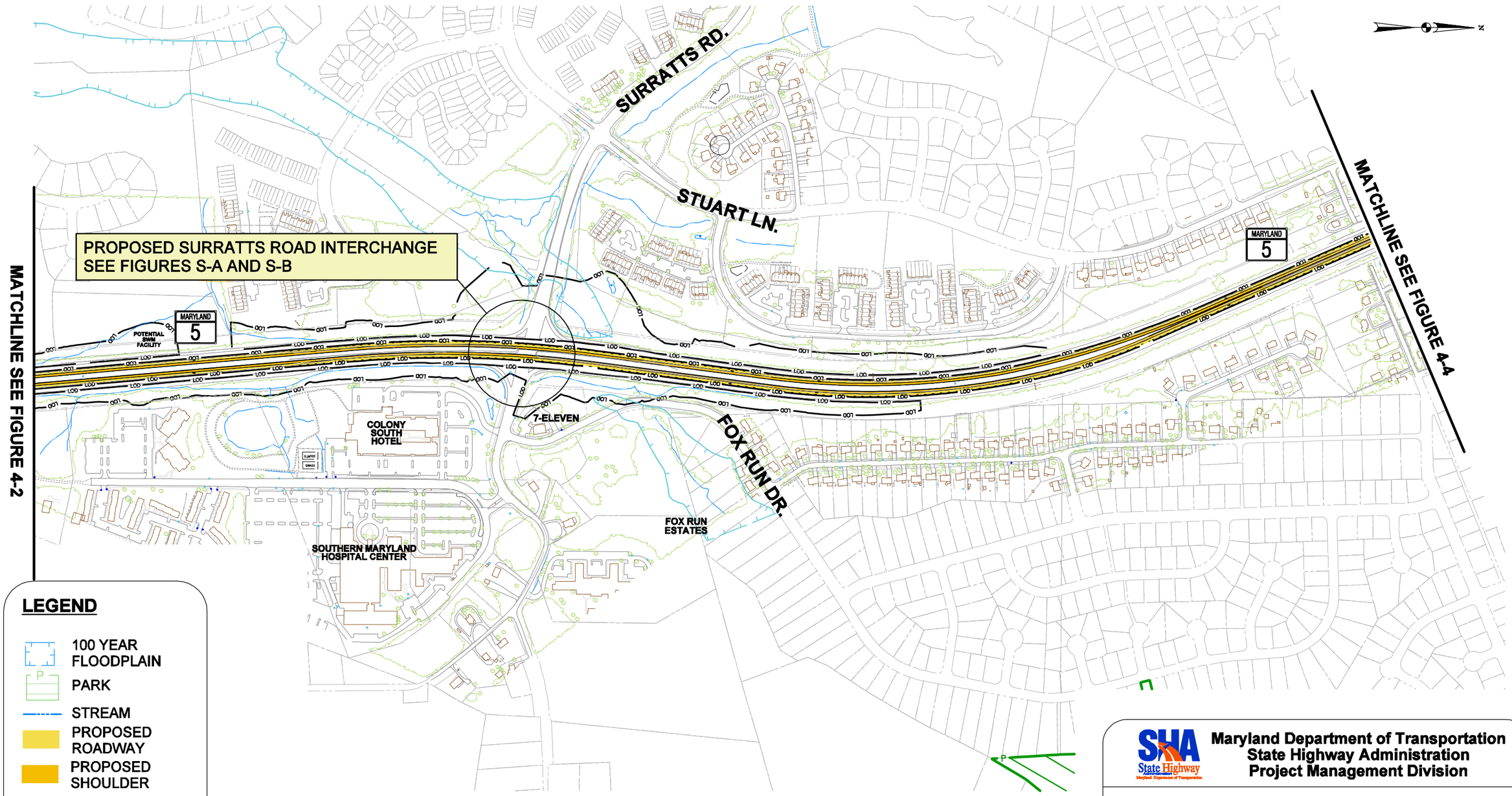
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-2



LEGEND

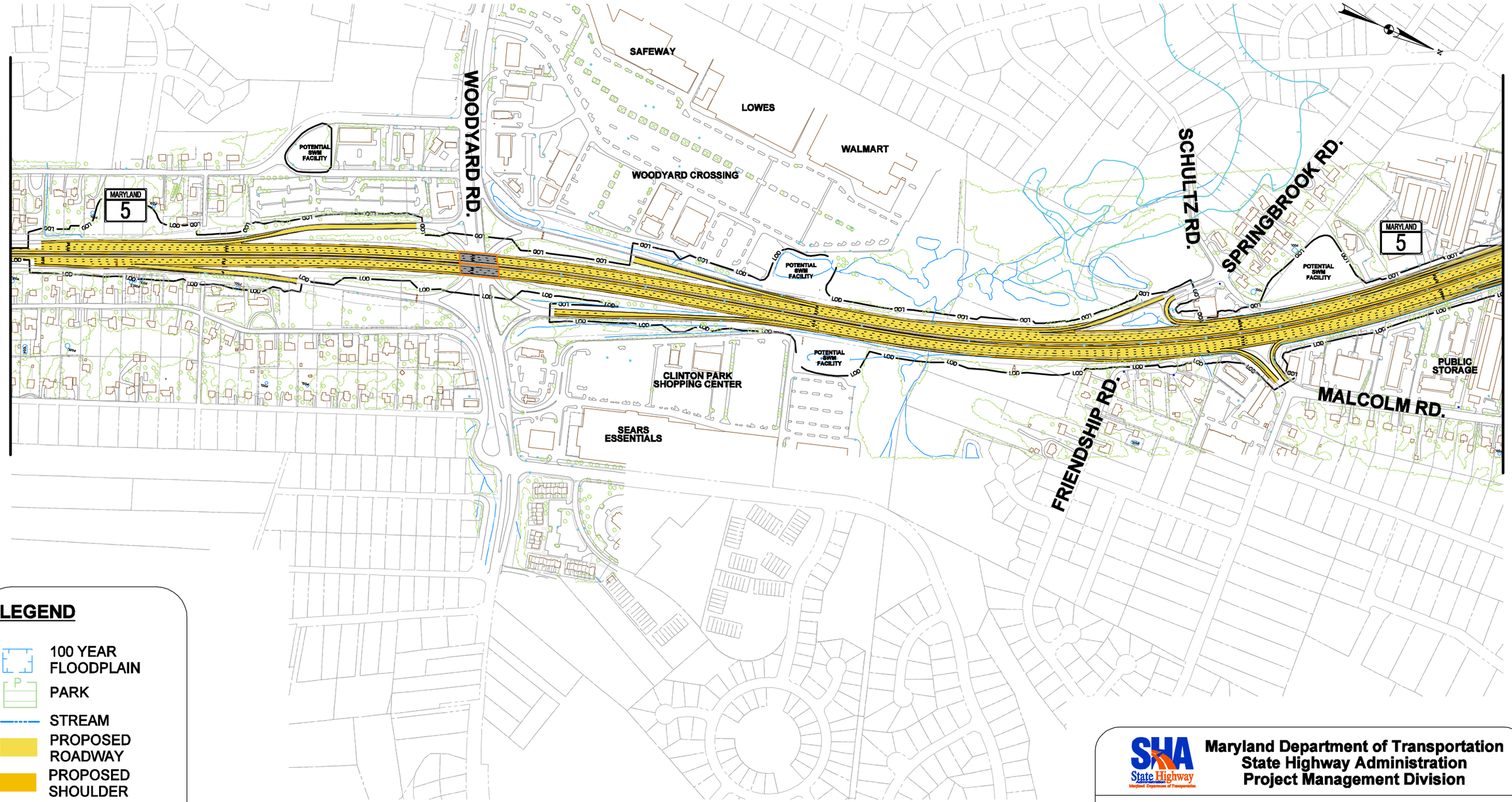
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-3



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

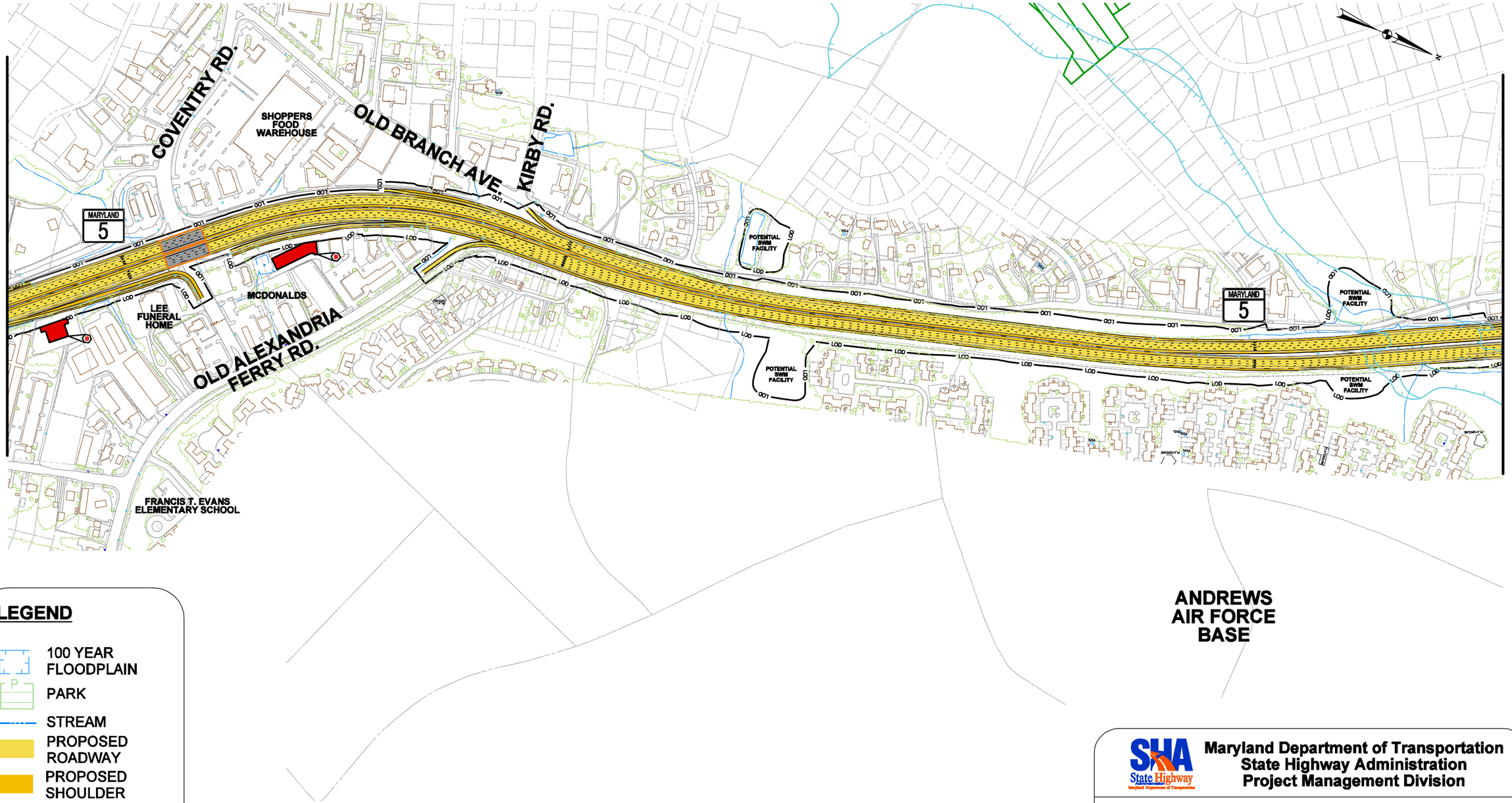
Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-4

MATCHLINE SEE FIGURE 4-4



MATCHLINE SEE FIGURE 4-6

LEGEND

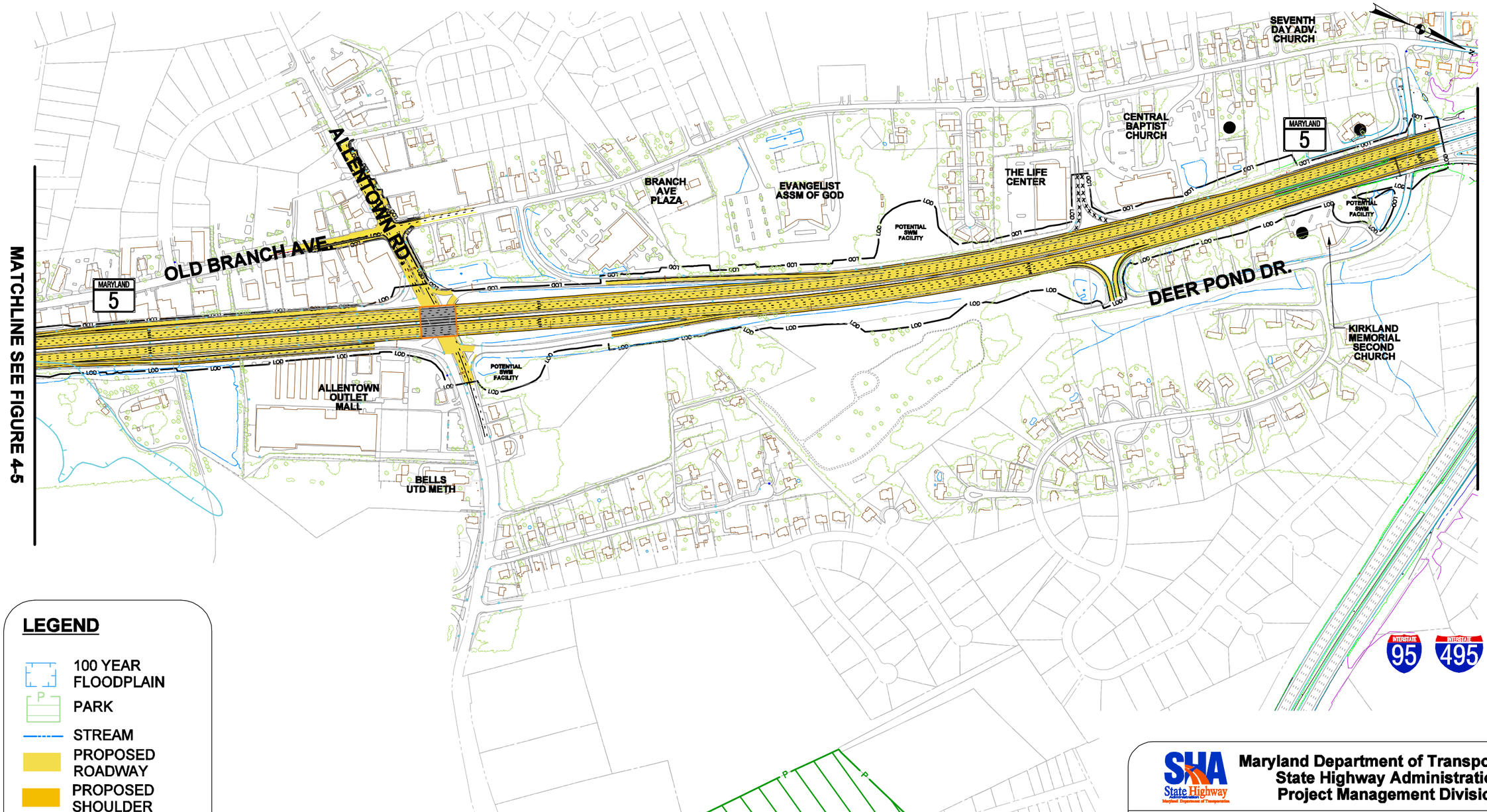
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-5



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-6

MATCHLINE SEE FIGURE 4-6

MARYLAND 5

MARYLAND 5

POTENTIAL SWM FACILITY

POTENTIAL SWM FACILITY

AUTH PL

PHASE 1 CONSTRUCTION COMPLETED IN 2008

PROPOSED PHASE 2 CONSTRUCTION

INTERSTATE 95

INTERSTATE 495

AUTH RD

PROPOSED METRO ACCESS ROAD

BRANCH AVENUE METRO STATION

LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

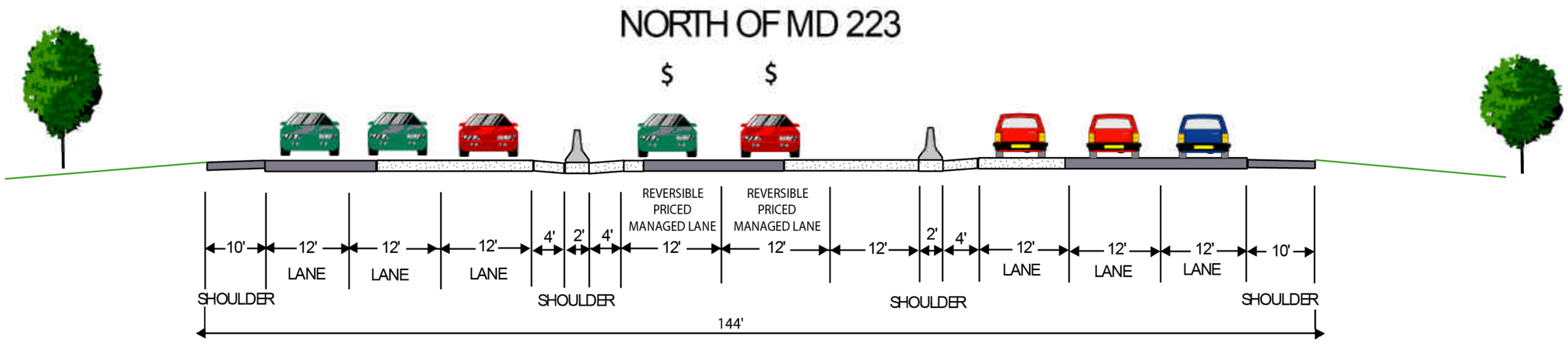
Maryland Department of Transportation
State Highway Administration
Project Management Division

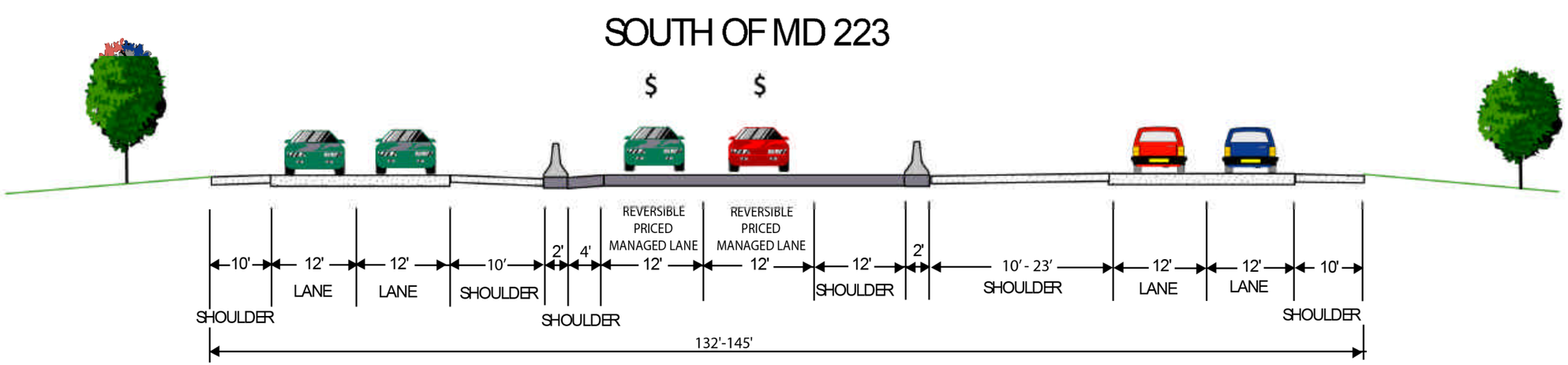
MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 4

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	4-7

Alternative 5: Two-Lane Reversible Priced Managed Lanes





$ - New Priced Managed Lane

PROPOSED EARNSHAW DRIVE/ BURCH HILL ROAD/ MOORES ROAD INTERCHANGE SEE FIGURES BH-A AND BH-B

MATCHLINE SEE FIGURE 5-2

MOORES RD.

GARDEN CITY

MARYLAND 5

MARYLAND 5

PHASE 1 MD 5 / BRANDYWINE ROAD IMPROVEMENTS

GWYNN PARK MIDDLE SCHOOL

LEGEND

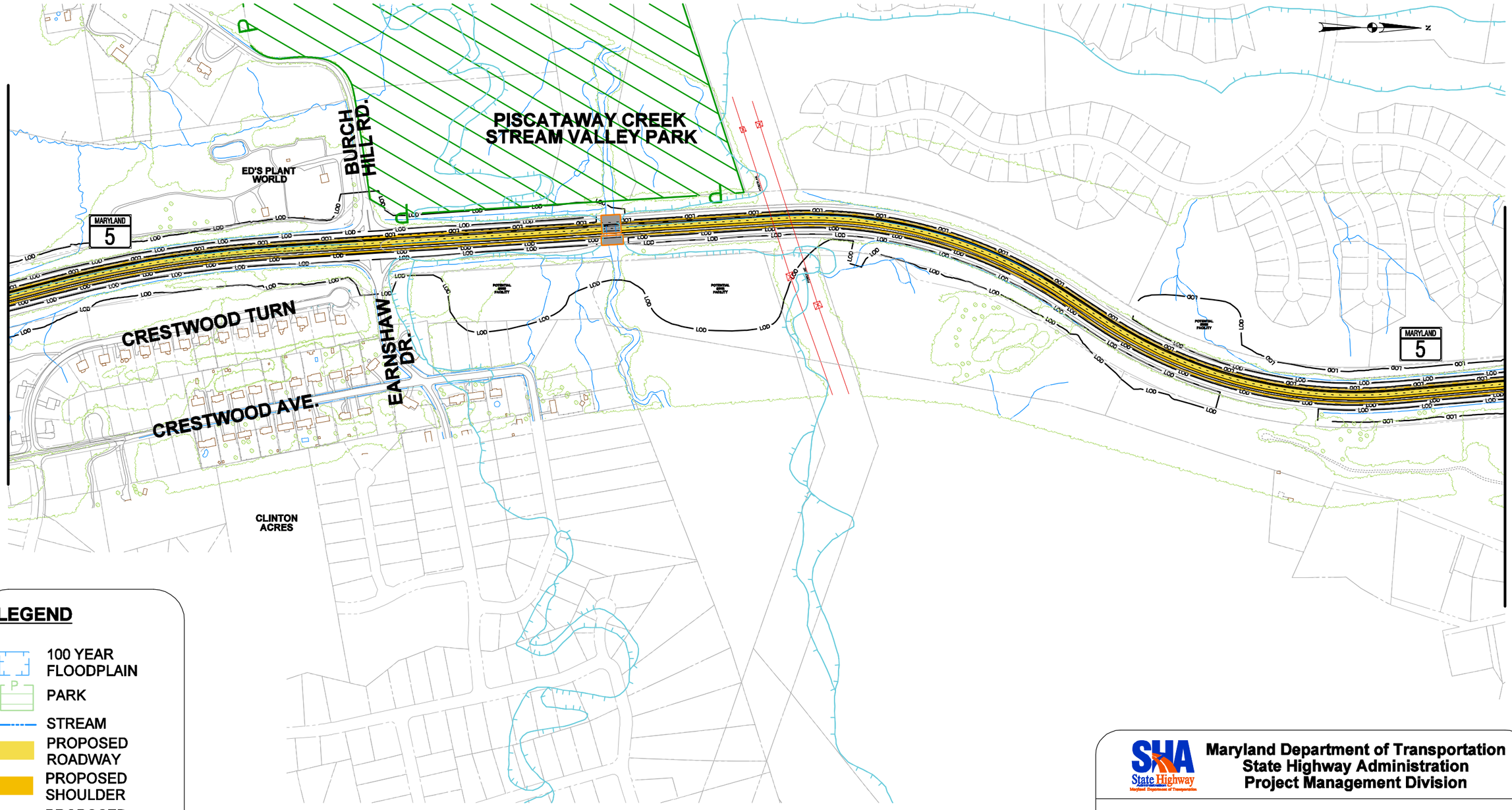
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LOD — LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-1



LEGEND

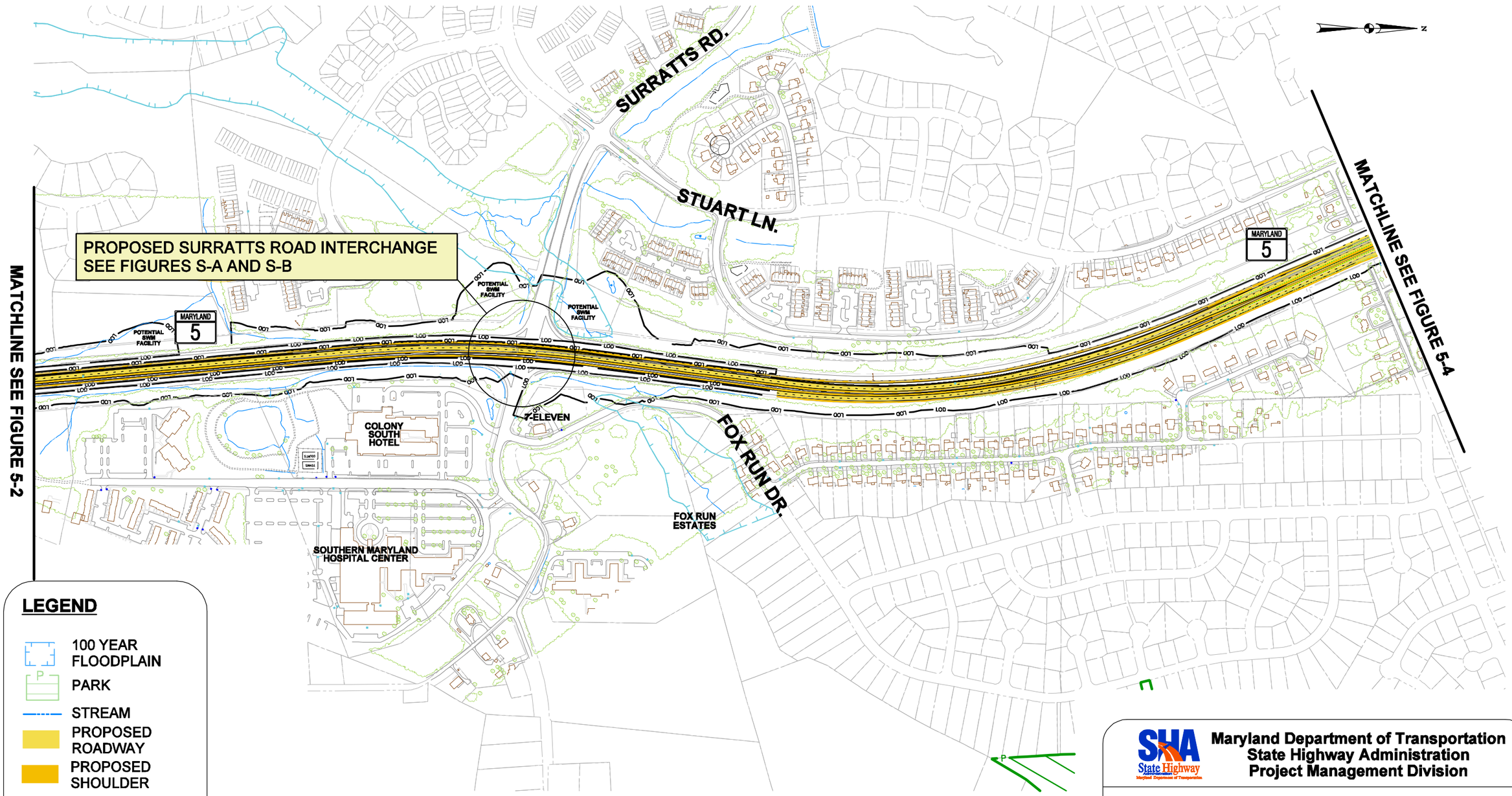
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-2



LEGEND

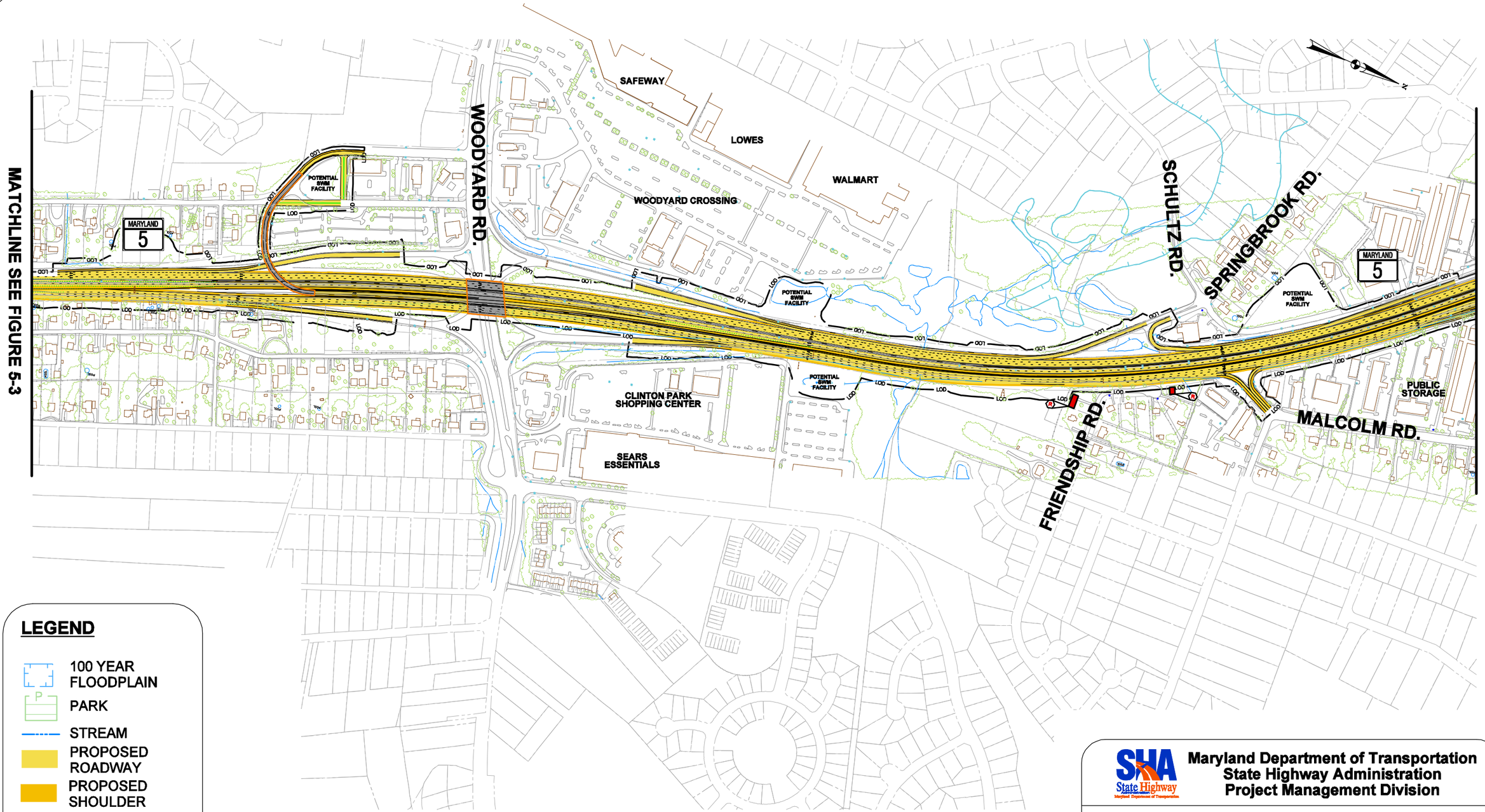
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-3



LEGEND

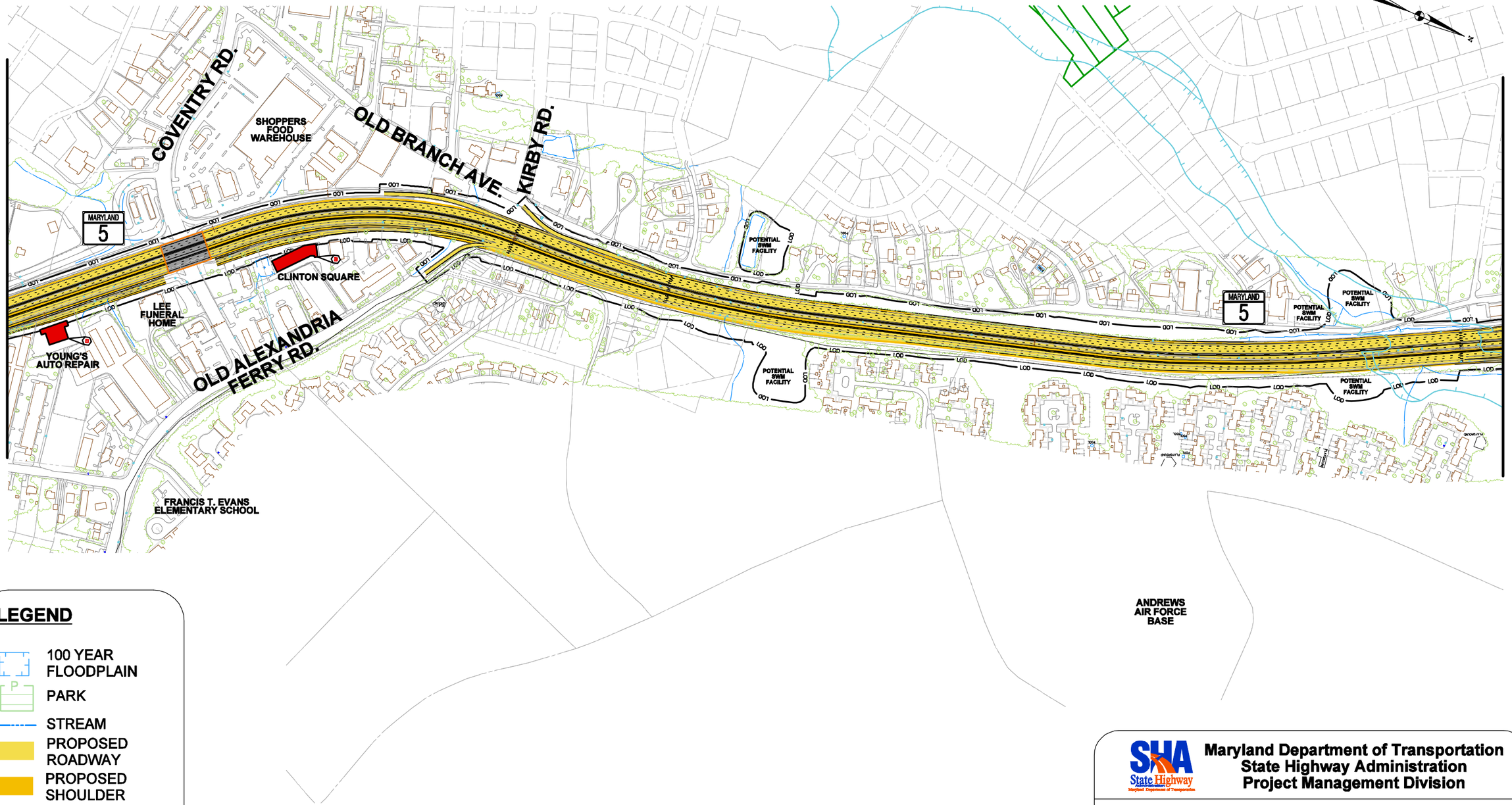
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-4



LEGEND

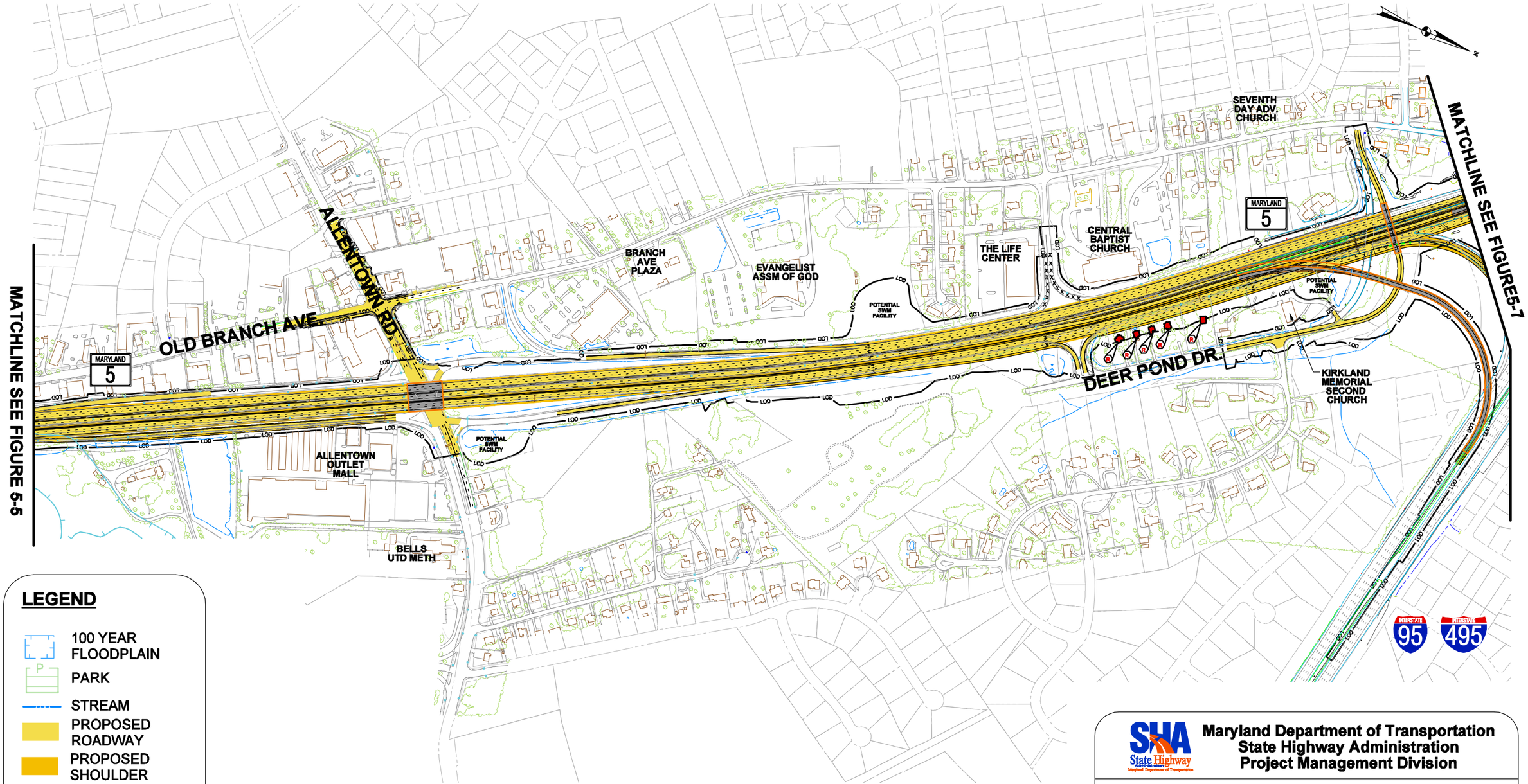
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-5



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

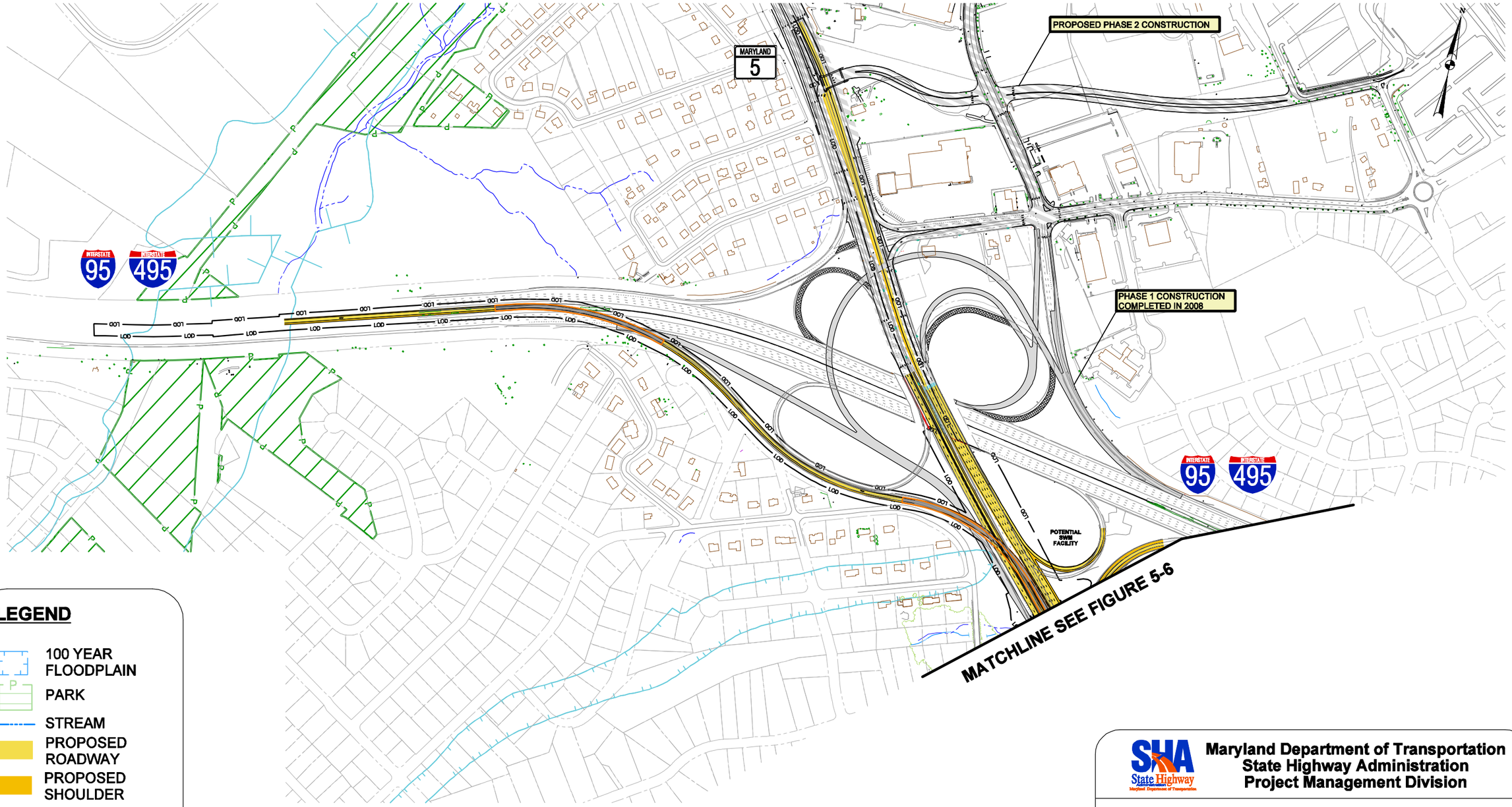
SHA State Highway Administration Maryland Department of Transportation

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-6



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

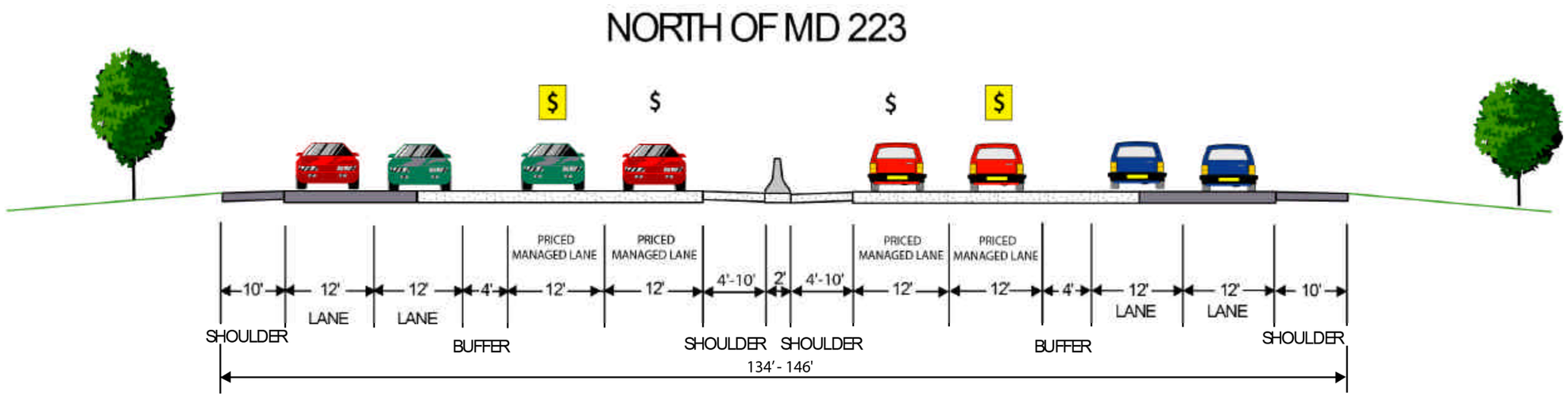
Maryland Department of Transportation
State Highway Administration
Project Management Division

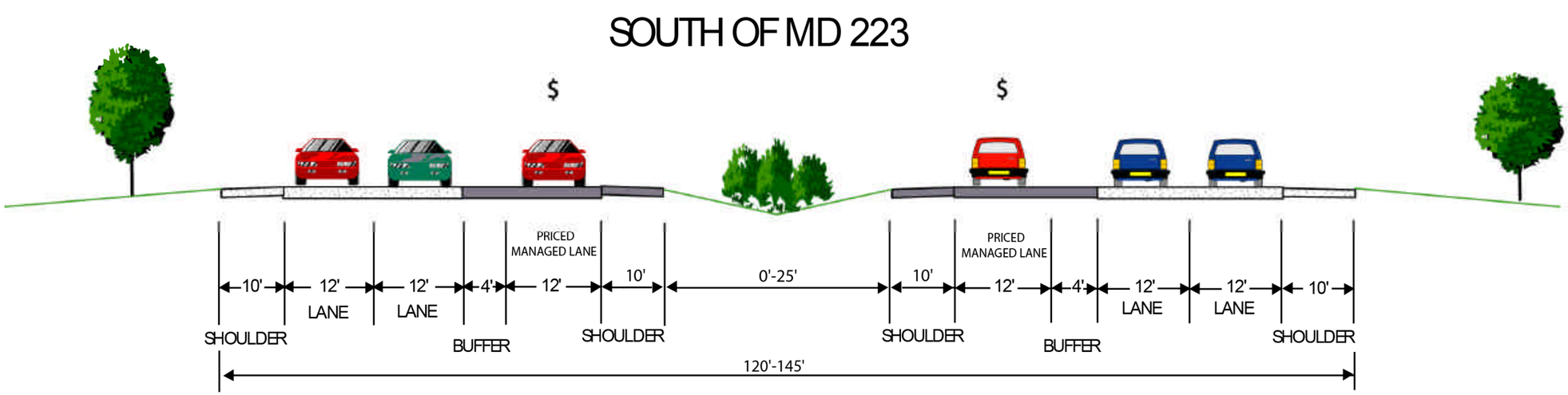
MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 5

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	5-7

Alternative 6: One to Two Lane Priced Managed Lanes





$ - New Priced Managed Lane

$ - Existing Lane Converted to Priced Managed Lane

PROPOSED EARNSHAW DRIVE/ BURCH HILL ROAD/ MOORES ROAD INTERCHANGE SEE FIGURES BH-A AND BH-B

MATCHLINE SEE FIGURE 6-2

PHASE 1 MD 5 / BRANDYWINE ROAD IMPROVEMENTS

MOORES RD.

GARDEN CITY

MARYLAND 5

GWYNN PARK MIDDLE SCHOOL

LEGEND

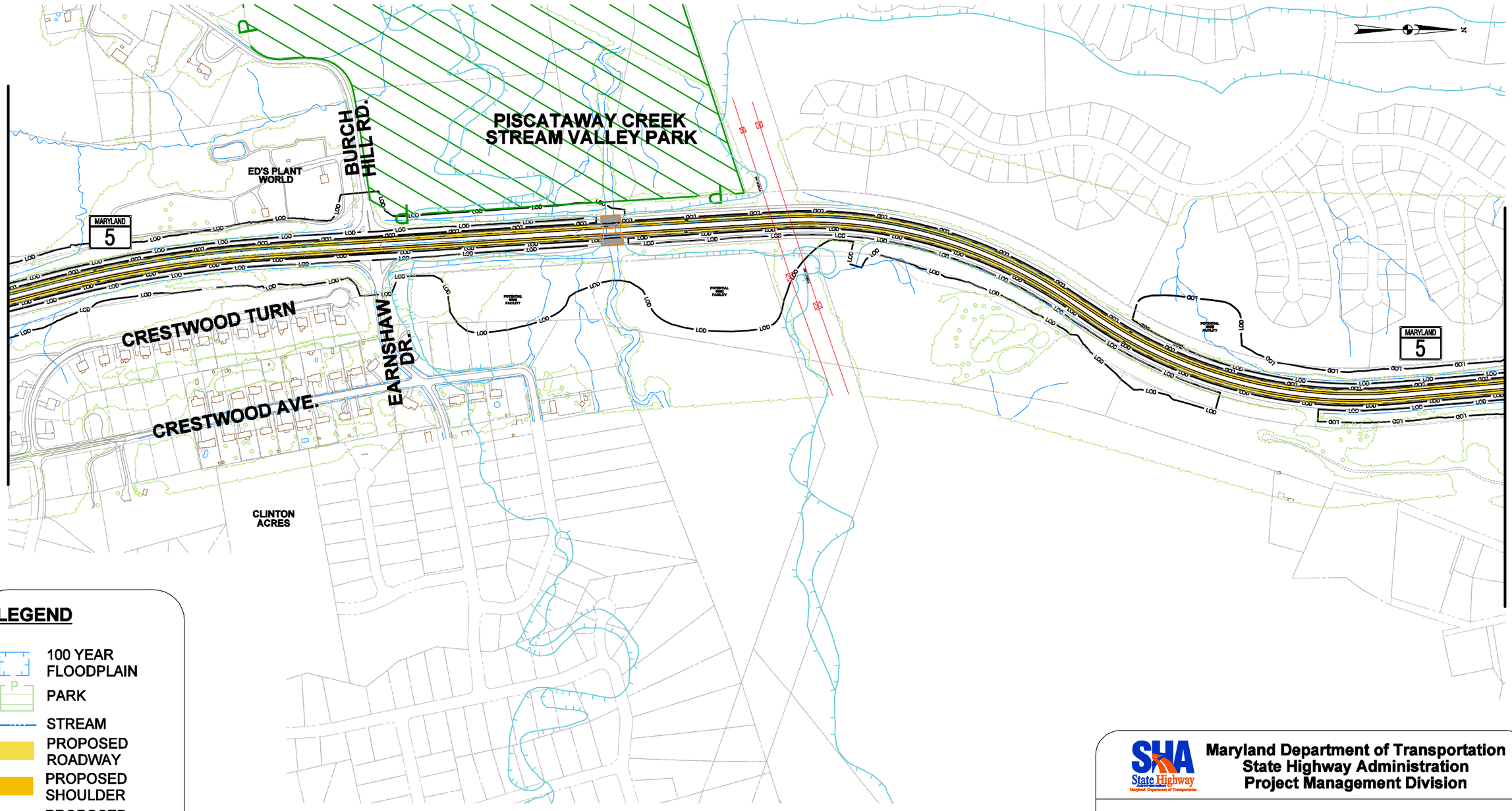
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-1



LEGEND

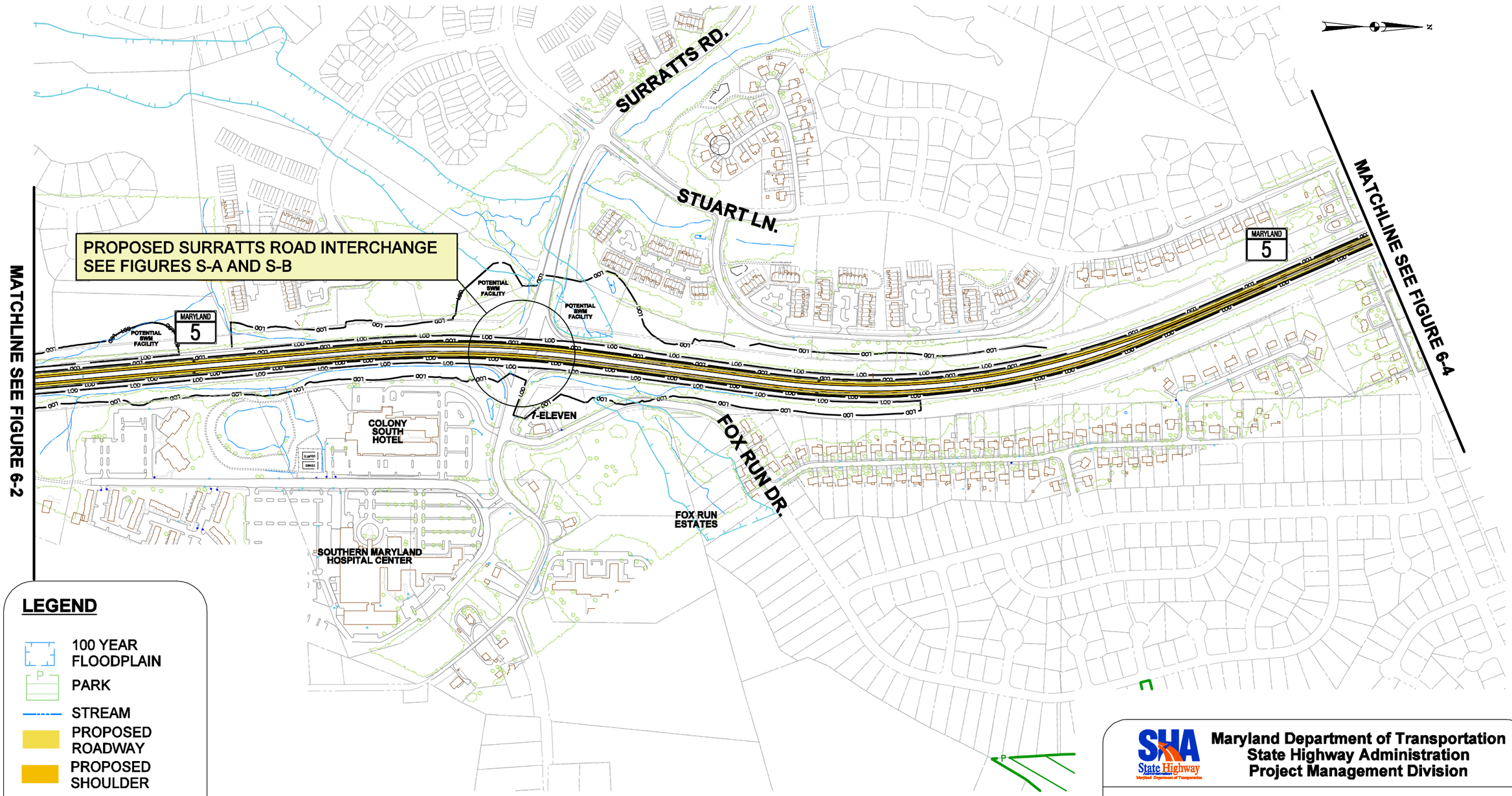
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-2



LEGEND

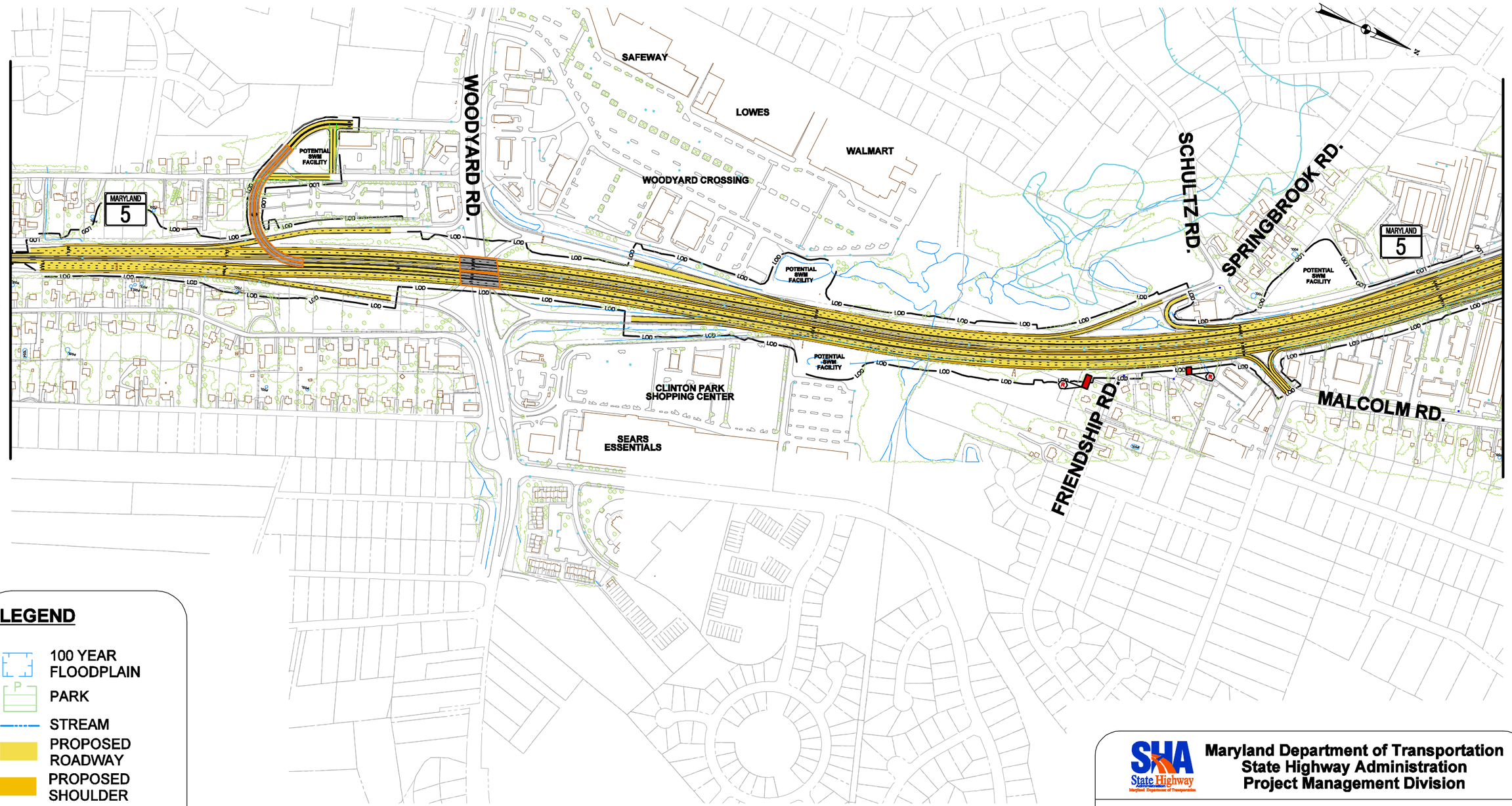
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-3



LEGEND

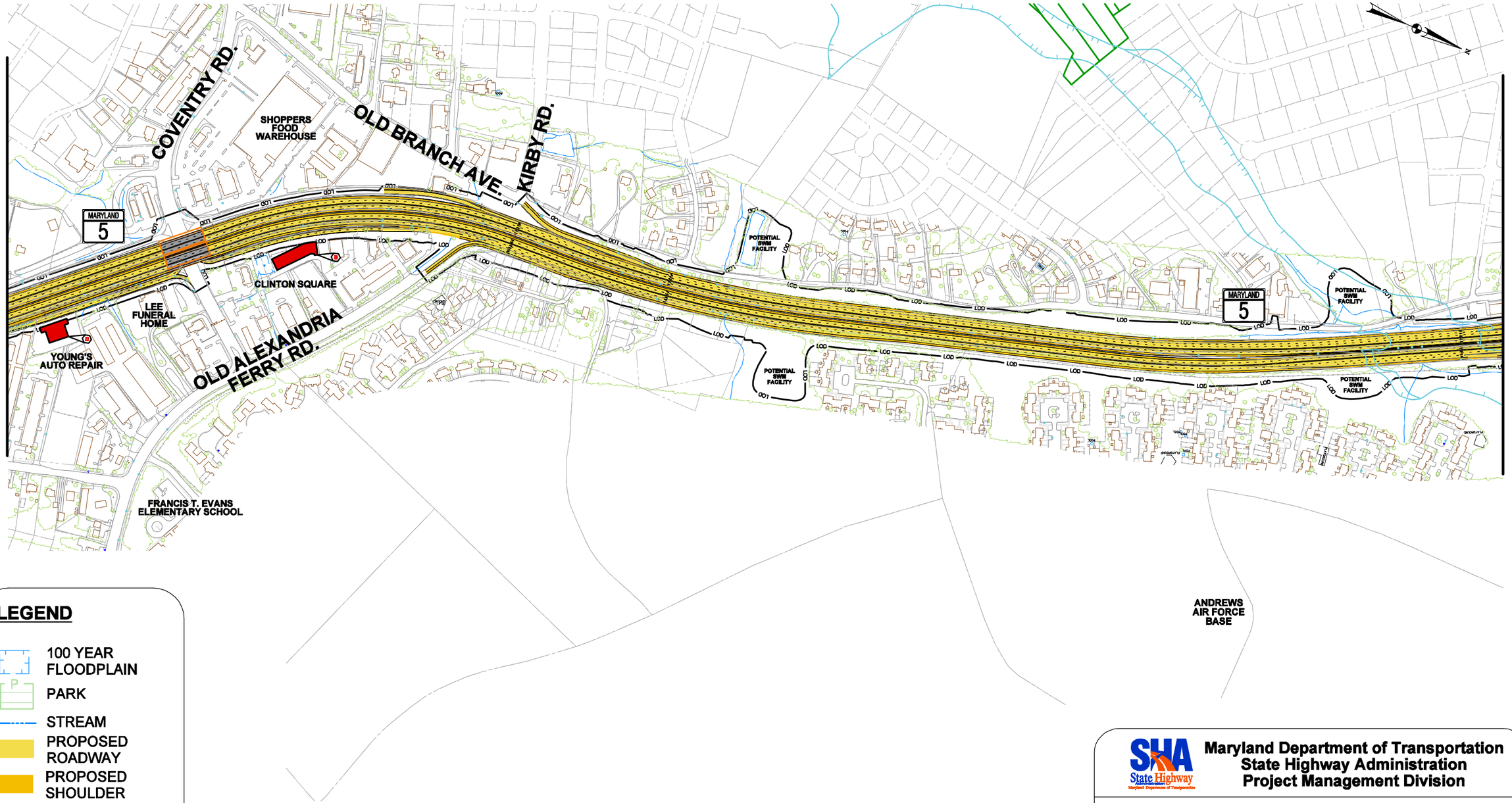
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-4



LEGEND

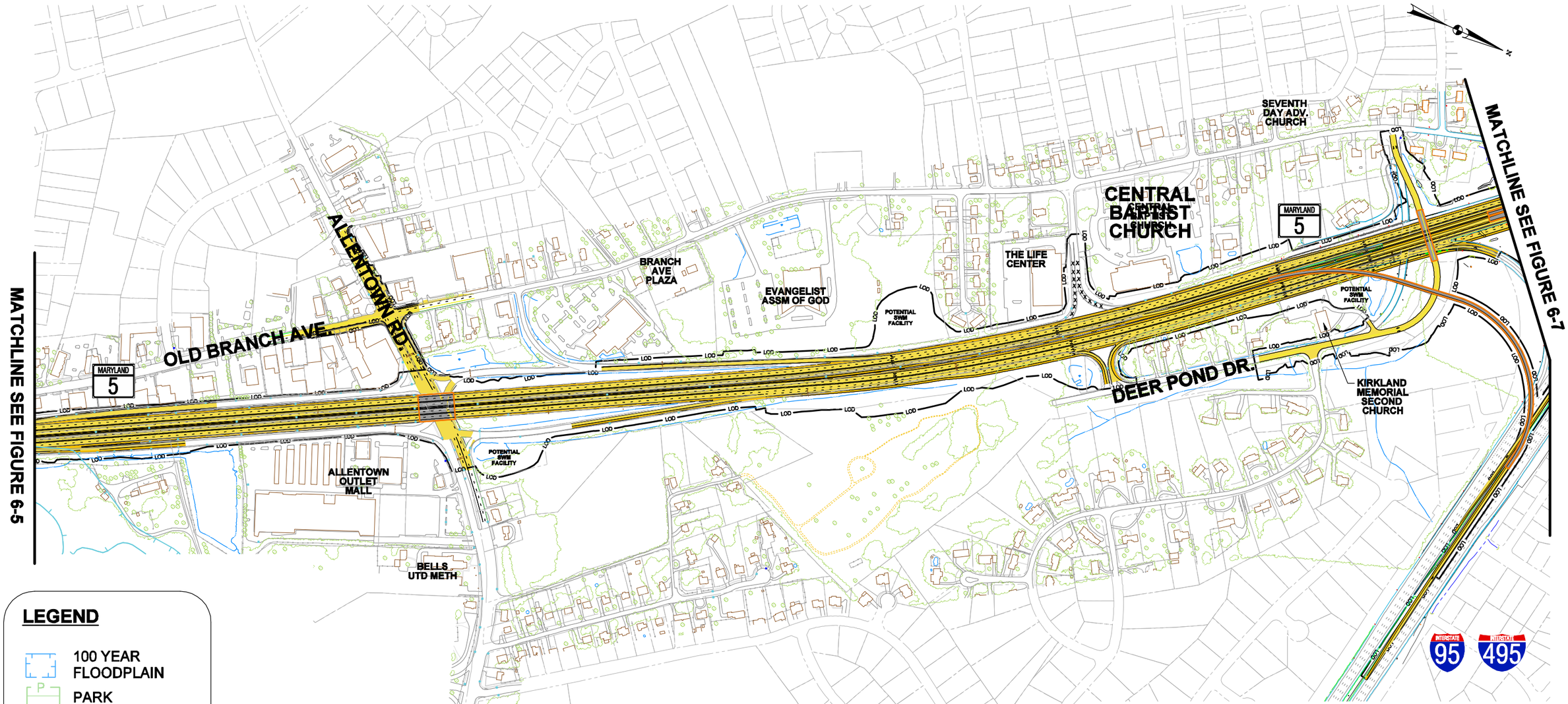
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-5



LEGEND

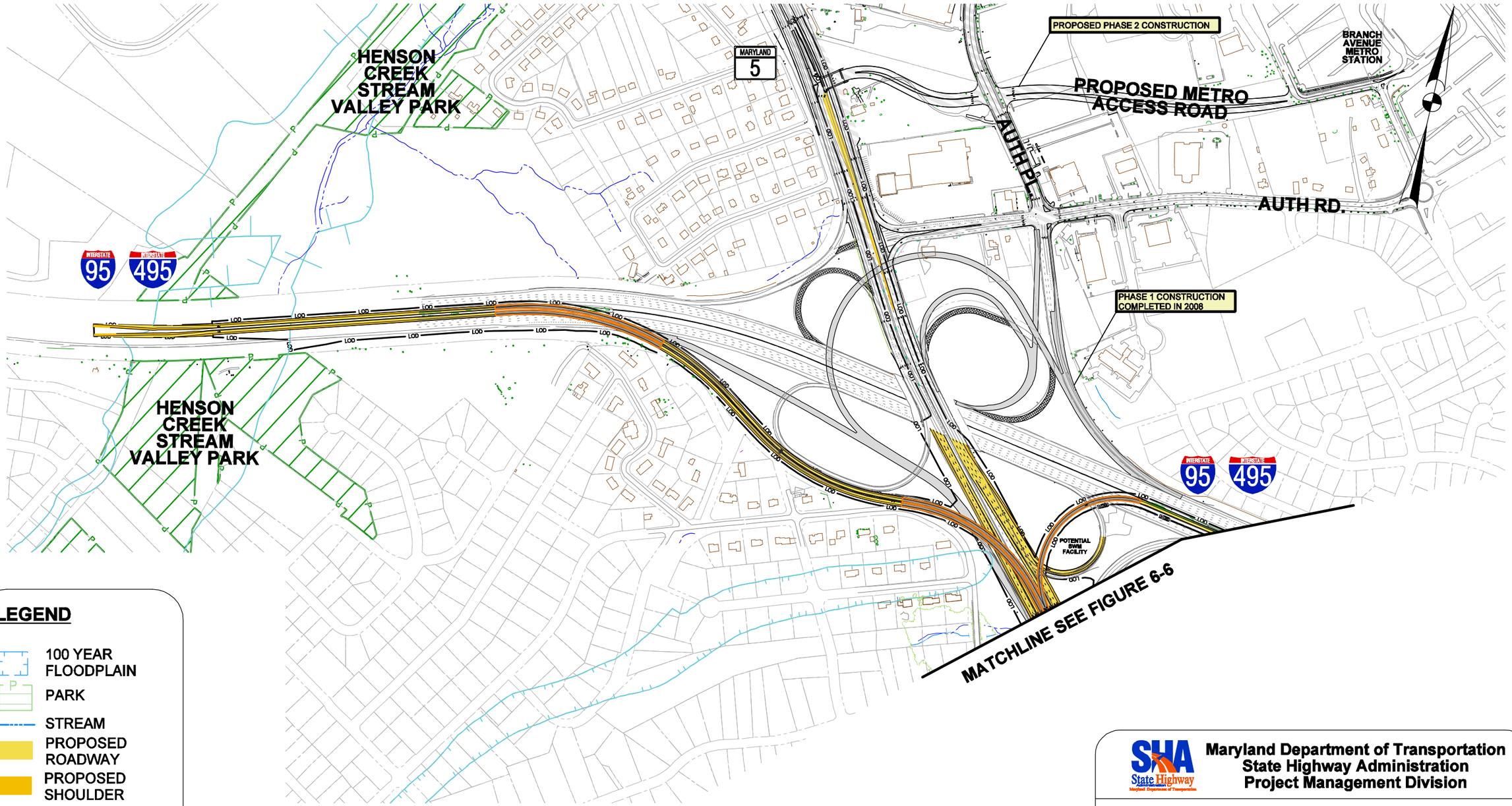
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-6



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

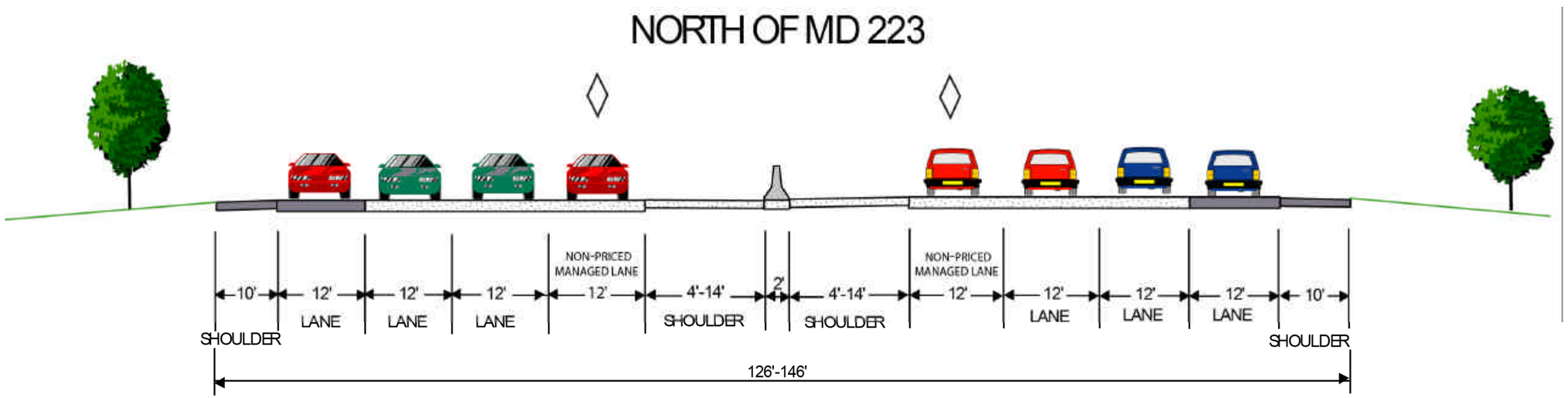
Maryland Department of Transportation
State Highway Administration
Project Management Division

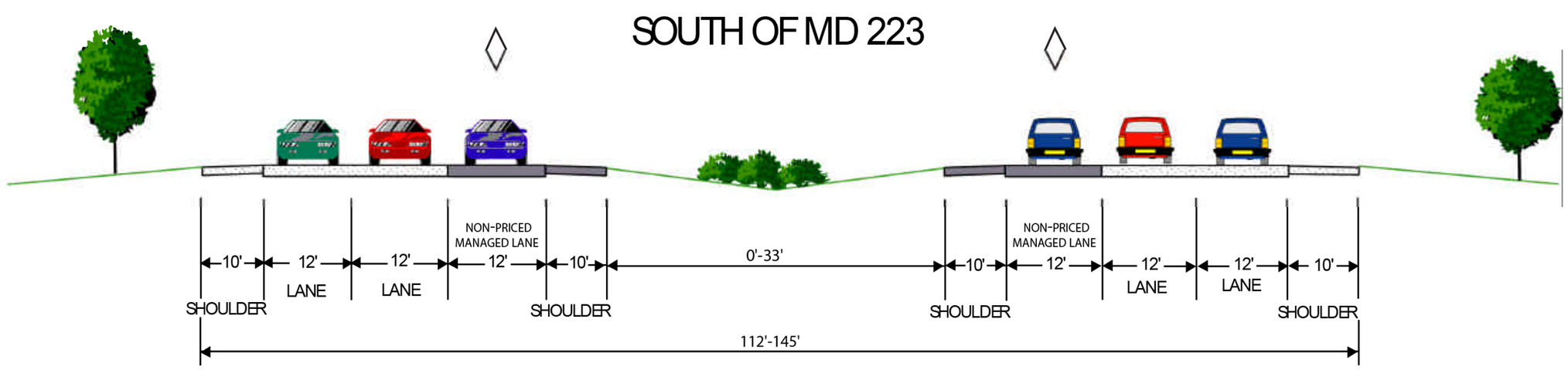
MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 6

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	6-7

Alternative 8: Non-Priced Managed Lanes





◊ - New Non-Priced Managed Lane

PROPOSED EARNSHAW DRIVE/ BURCH HILL ROAD/ MOORES ROAD INTERCHANGE SEE FIGURES BH-A AND BH-B

MATCHLINE SEE FIGURE 8-2

MOORES RD.

GARDEN CITY

MARYLAND 5

MARYLAND 5

PHASE 1 MD 5 / BRANDYWINE ROAD IMPROVEMENTS

GWYNN PARK MIDDLE SCHOOL

LEGEND

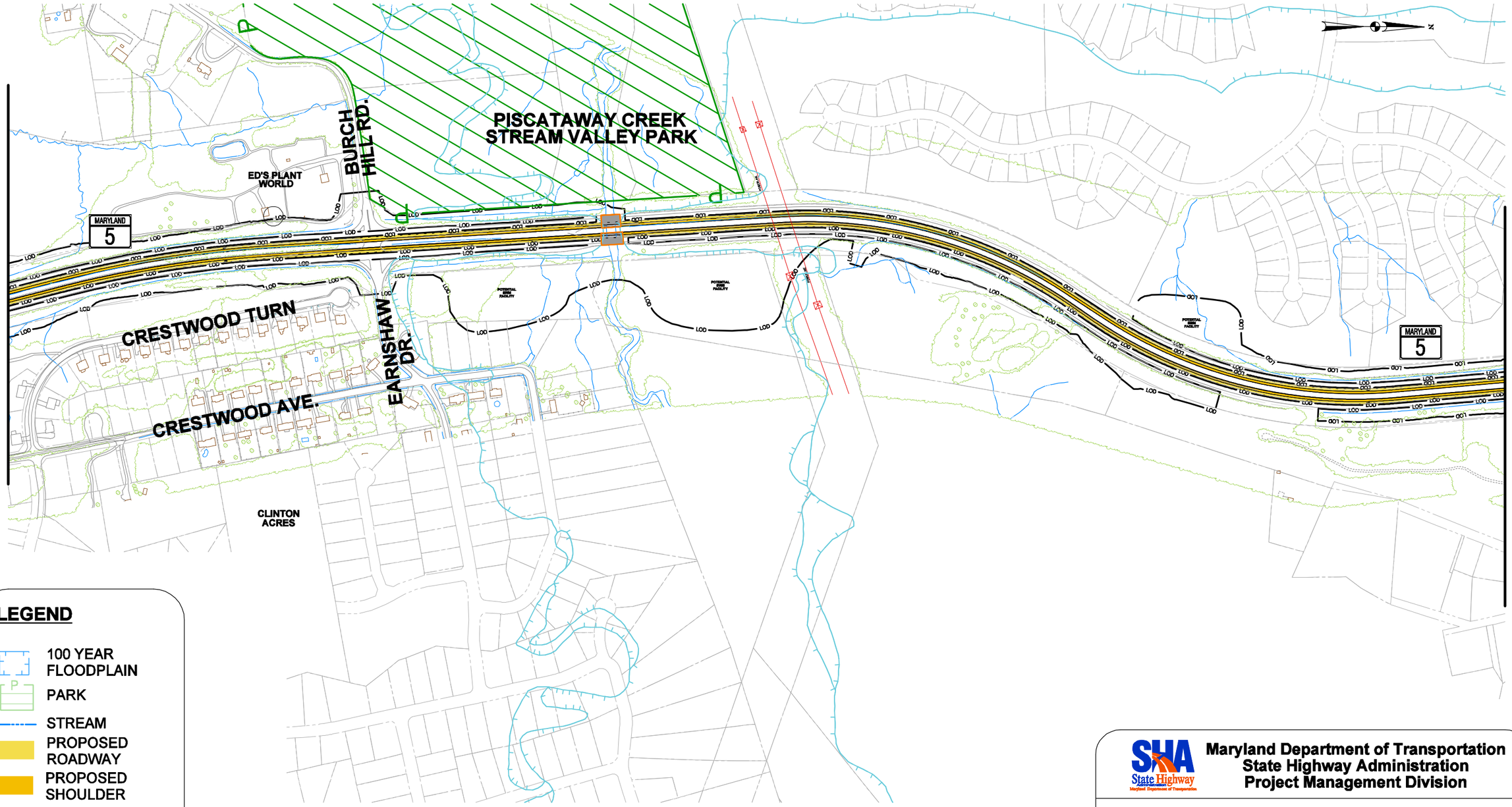
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-1



LEGEND

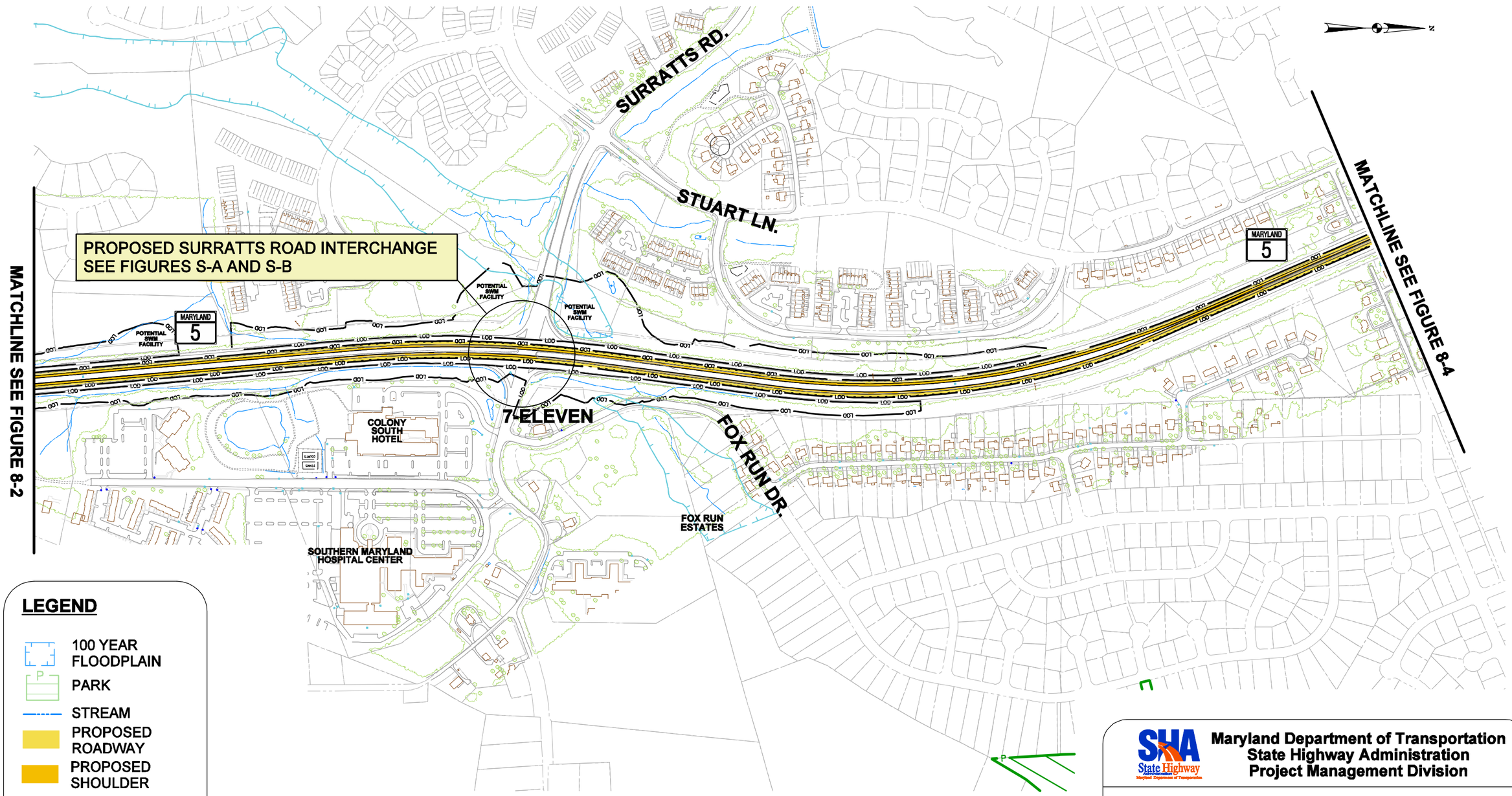
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-2



LEGEND

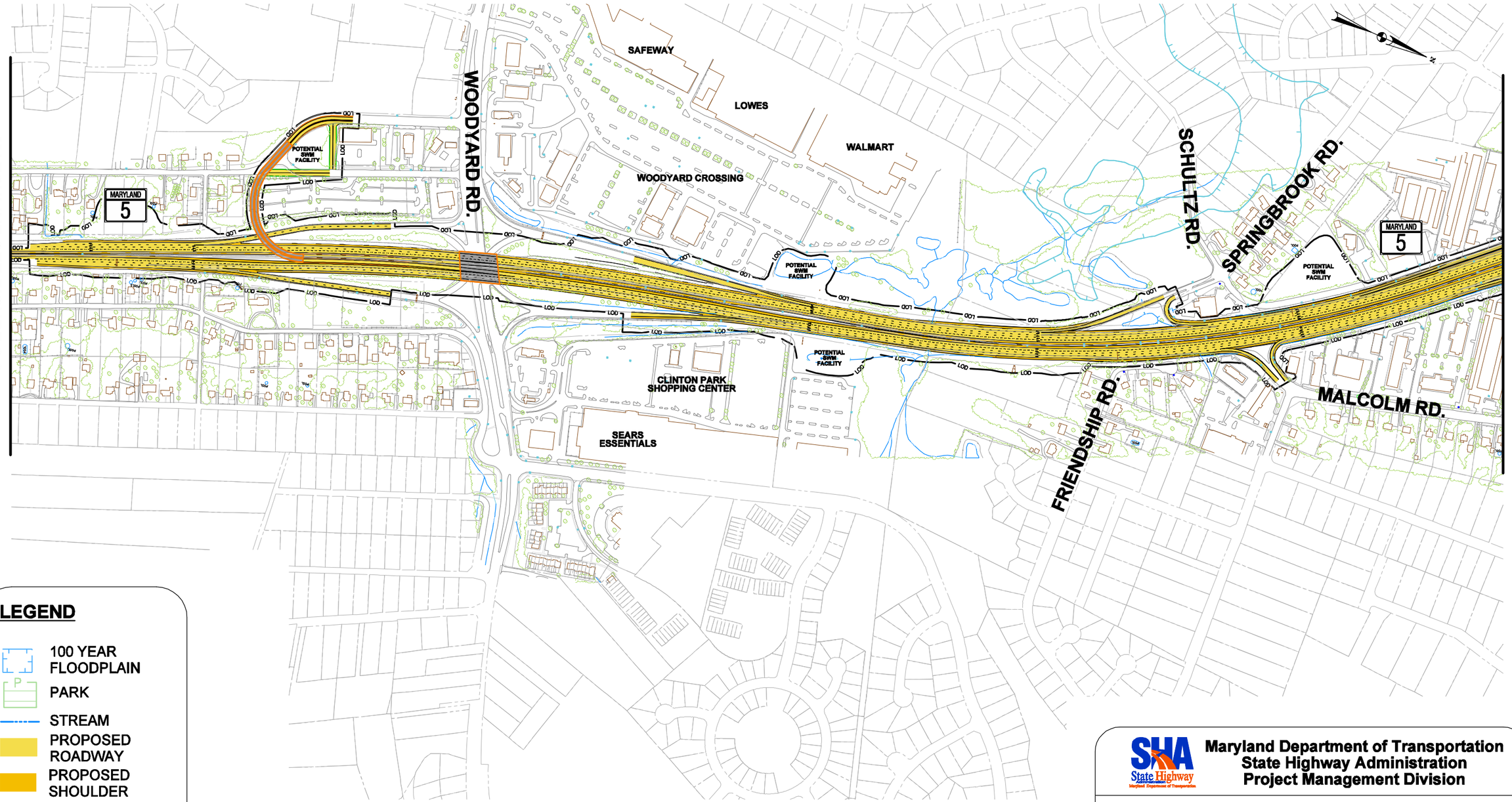
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-3



LEGEND

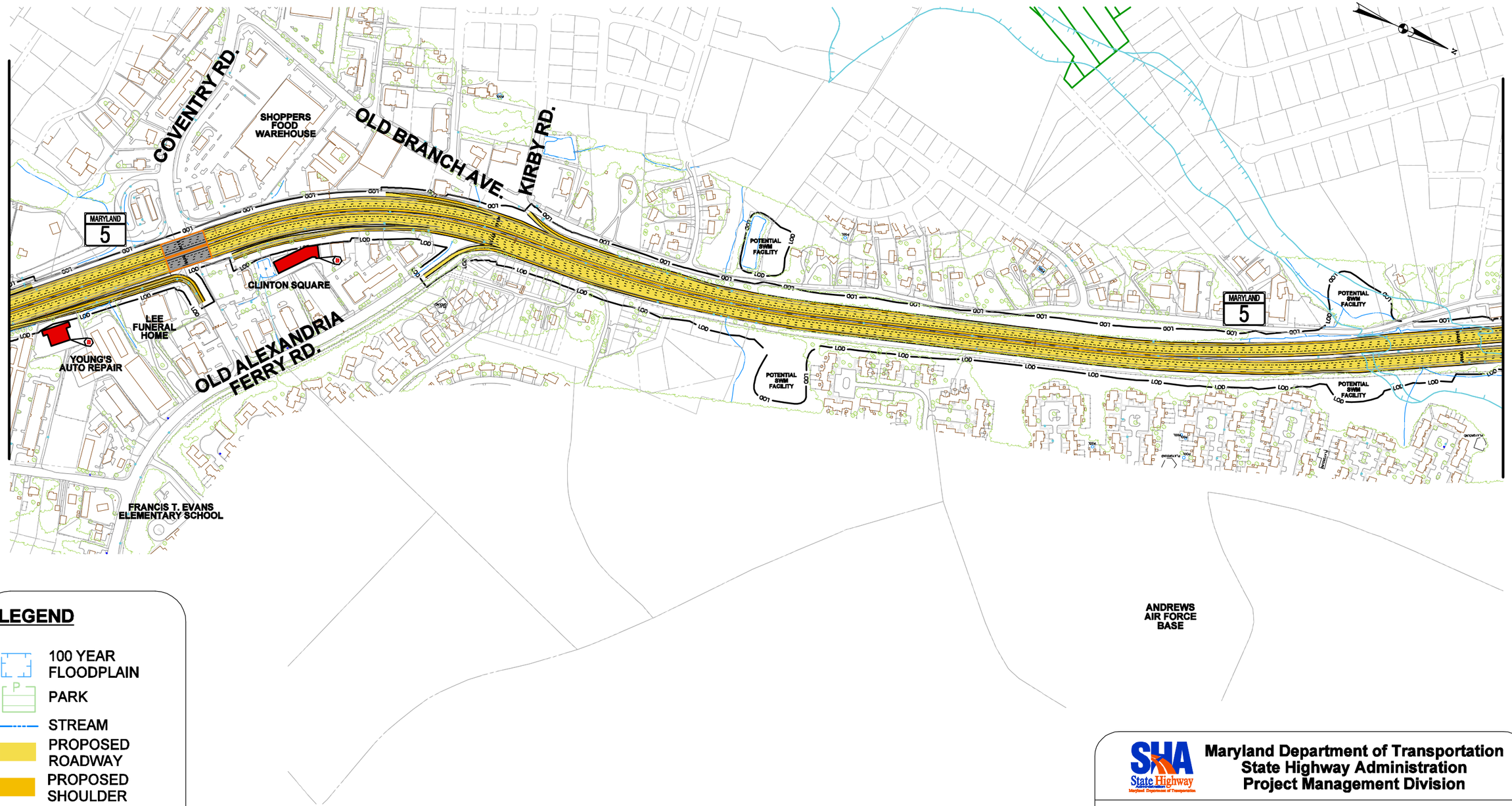
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-4



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-5

MATCHLINE SEE FIGURE 8-5

MATCHLINE SEE FIGURE 8-7

OLD BRANCH AVE.

ALLENTOWN RD.

MARYLAND 5

ALLENTOWN OUTLET MALL

BELLS UTD METH

BRANCH AVE PLAZA

EVANGELIST ASSM OF GOD

POTENTIAL SWM FACILITY

THE LIFE CENTER

CENTRAL BAPTIST CHURCH

SEVENTH DAY ADV. CHURCH

DEER POND DR.

KIRKLAND MEMORIAL SECOND CHURCH

INTERSTATE 95

INTERSTATE 495

LEGEND

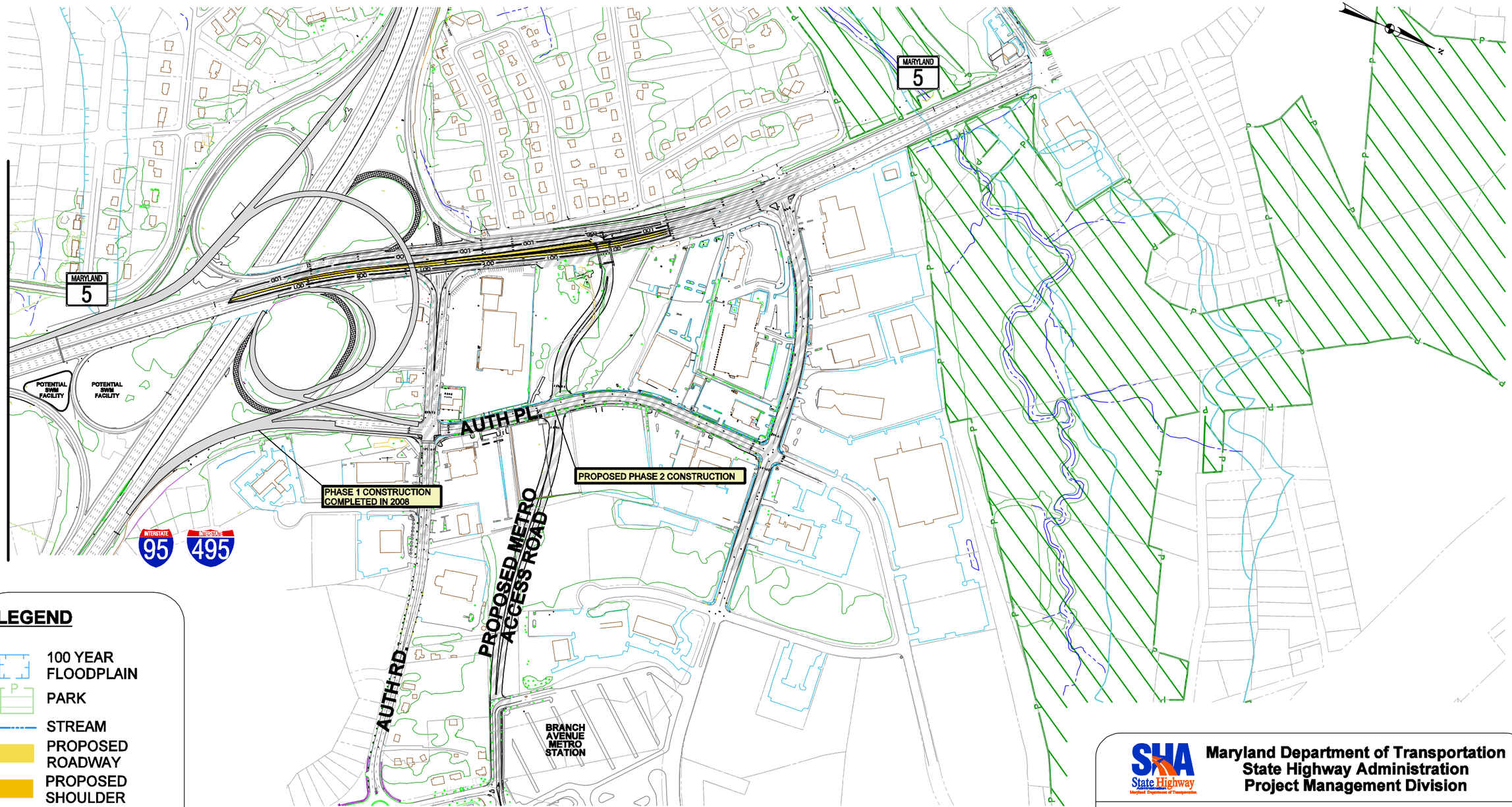
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- LOD — LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-6



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

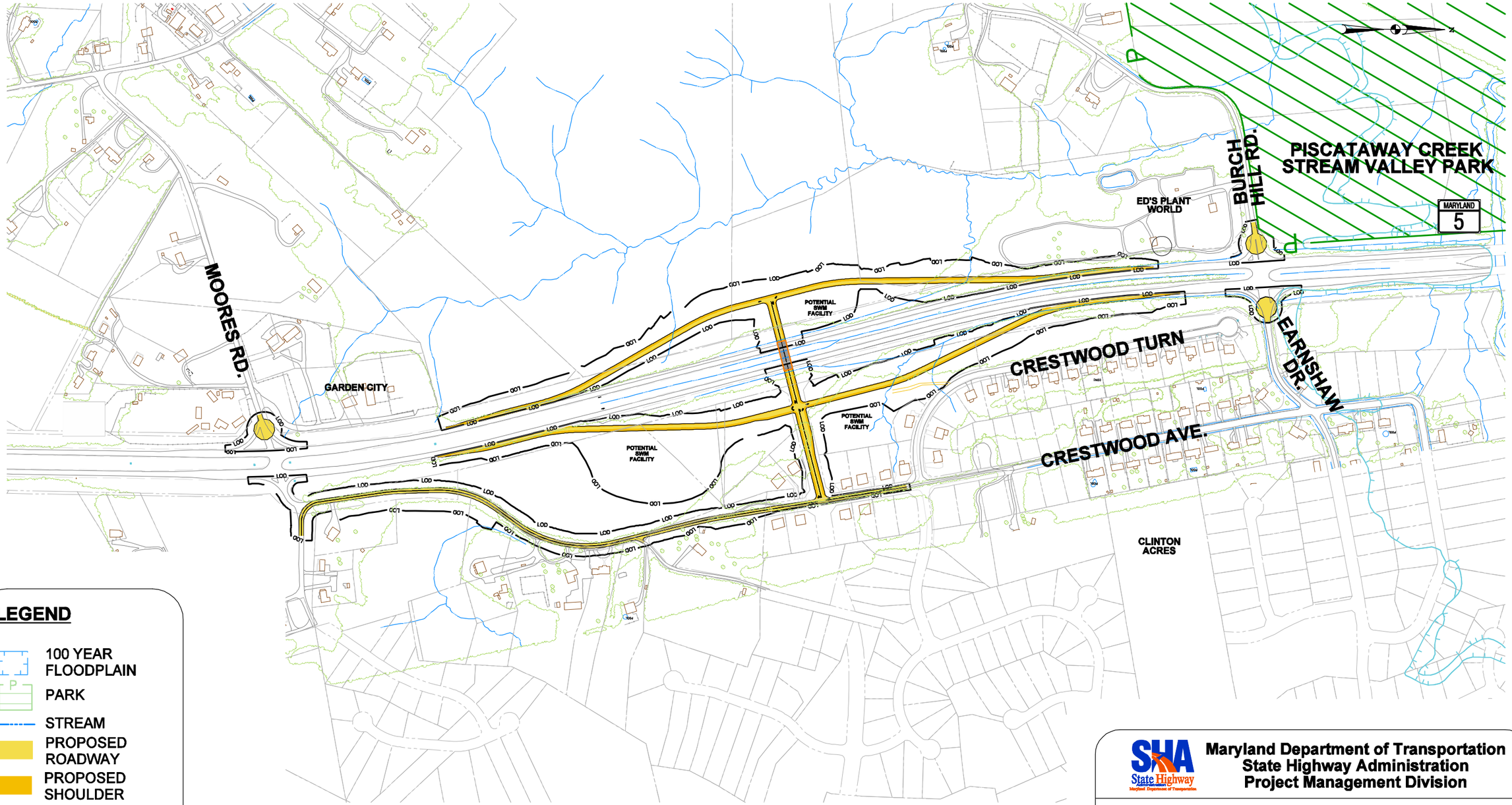
SHA State Highway Administration

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Alternative 8

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	8-7



LEGEND

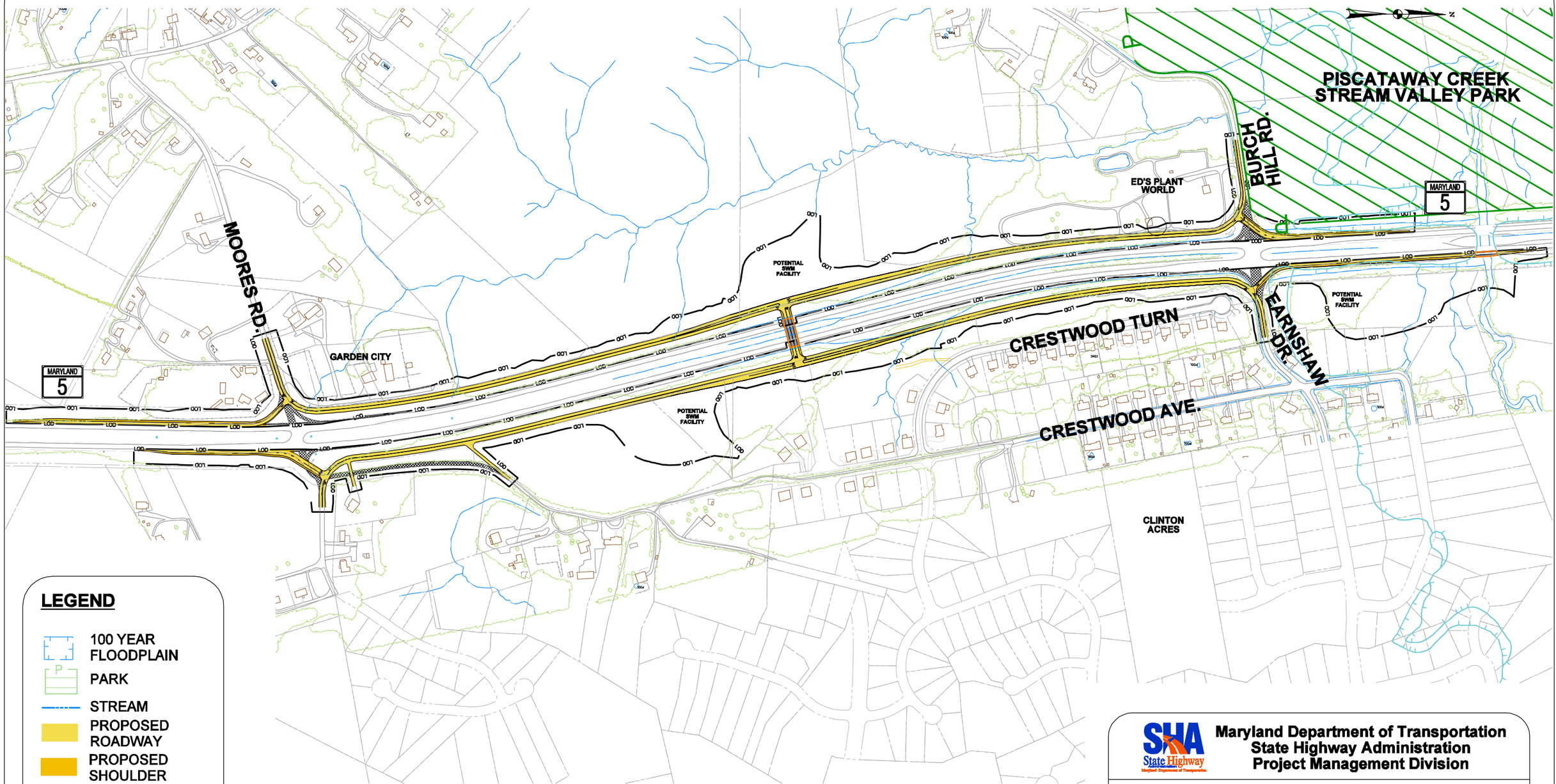
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Earnshaw Drive/ Burch Hill Road/ Moores Road Interchange - Option A

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	BH-A



LEGEND

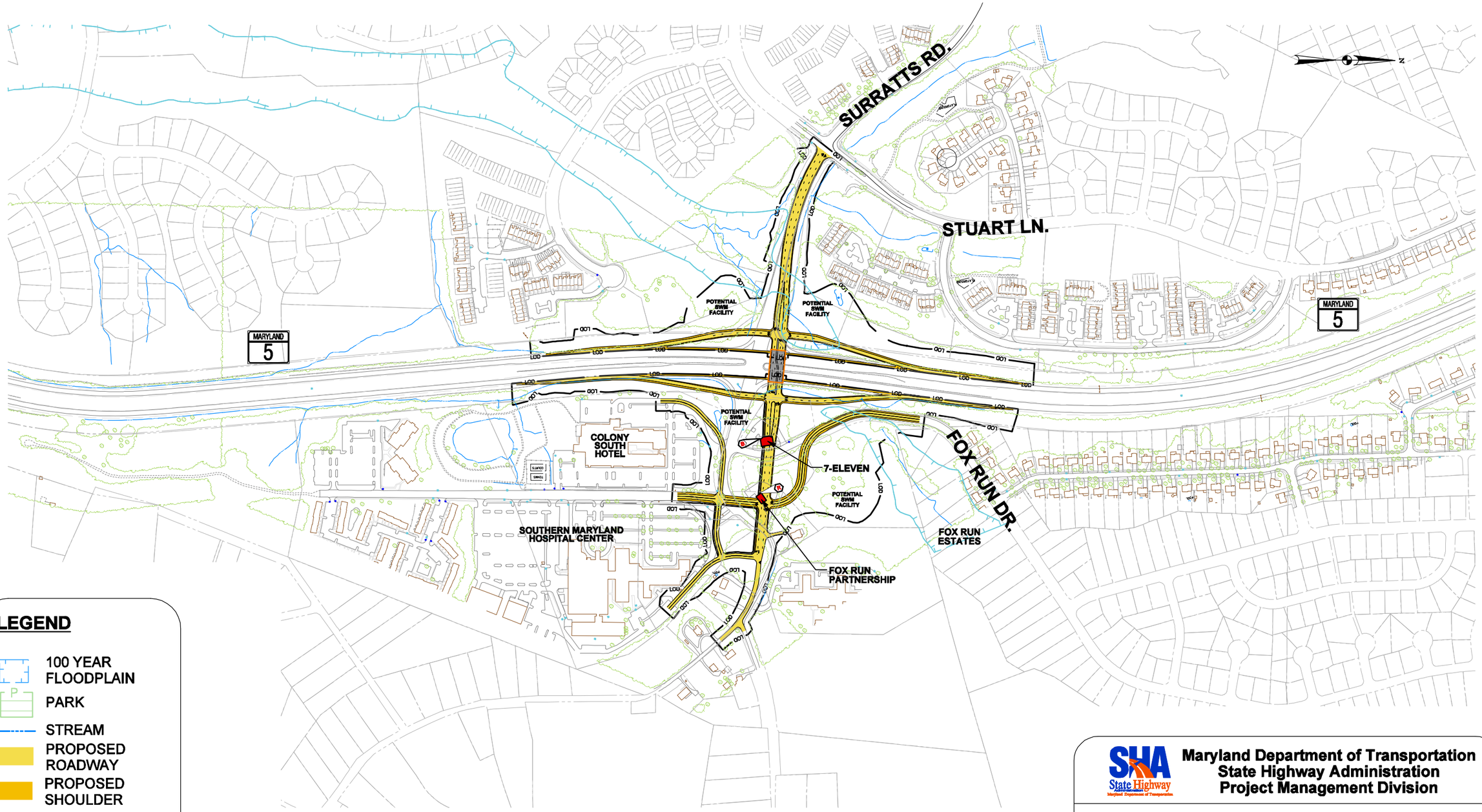
- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Earnshaw Drive/ Burch Hill Road/ Moores Road Interchange - Option B

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	BH-B



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

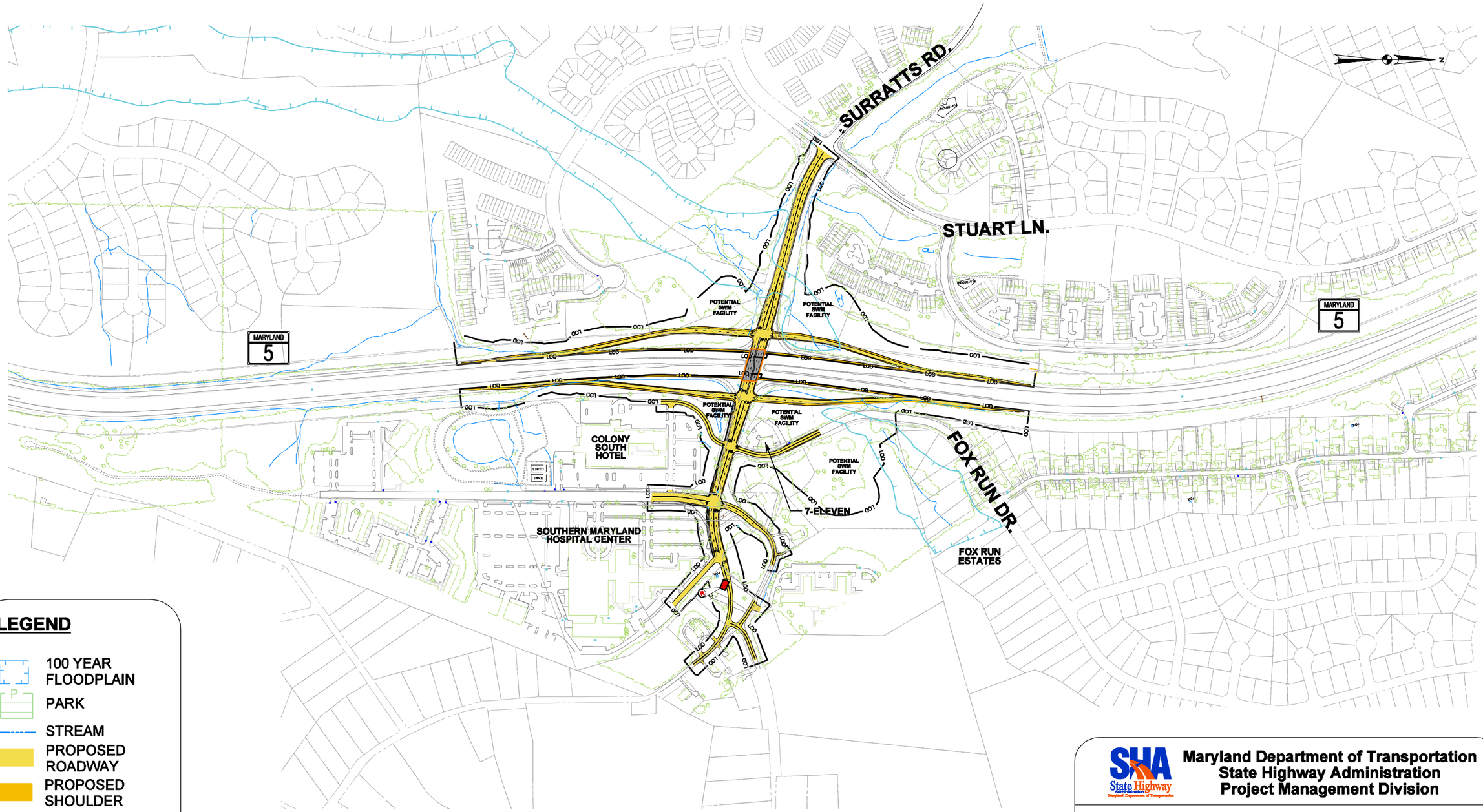
SHA State Highway

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Surratts Road Interchange - Option A

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	S-A



LEGEND

- 100 YEAR FLOODPLAIN
- PARK
- STREAM
- PROPOSED ROADWAY
- PROPOSED SHOULDER
- PROPOSED BRIDGE
- –LOD– LIMIT OF DISTURBANCE
- POTENTIAL PROPERTY DISPLACEMENT

Maryland Department of Transportation
State Highway Administration
Project Management Division

MD 5 CORRIDOR TRANSPORTATION STUDY

Surratts Road Interchange - Option B

SCALE	DATE	FIGURE
1" = 500'	APRIL 2012	S-B

Appendix B:
Summary of the Uniform Relocation Assistance Act

SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE MARYLAND STATE HIGHWAY ADMINISTRATION

All State Highway Administration projects utilizing Federal funds must comply with the provisions of the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (42 USC 4601) as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), Public Law 105-117 in 1997, and Title 49 CFR Part 24 in 2005. State-funded projects must comply with Sections 12-112 and Subtitle 2, Sections 12-201 to 12-212, of the Real Property Article of the Annotated Code of Maryland.

The State Highway Administration's Office of Real Estate administers the Relocation Assistance Program for the Maryland Department of Transportation.

The aforementioned Federal and State laws require that the State Highway Administration provide relocation assistance payments and advisory services to eligible persons who are displaced by a public project. There are two categories of residential occupants: 180-day owner-occupants and 90-day tenants and short-term owner-occupants. Non-residential occupants may be businesses, farms or non-profit organizations.

A displaced person that has owned and occupied a subject dwelling for at least 180 days prior to the initiation of negotiations for the property may receive a replacement housing payment of up to $22,500. The replacement housing payment is composed of three parts: a purchase price differential; an increased mortgage interest differential; and reimbursement for incidental settlement expenses.

The purchase price differential is the difference between the value paid by the State Highway Administration for the existing dwelling and the cost to the displaced owner of a comparable replacement dwelling, as determined by the State's replacement housing study.

The increased mortgage interest differential is a payment made to the owner at the time of settlement on the replacement dwelling to negate the effects of less favorable financing in the new situation. The payment is calculated by use of the "buy-down" mortgage method.

Reimbursable incidental expenses are necessary and reasonable incidental costs that are incurred by the displaced person in purchasing a replacement dwelling, excluding pre-paid expenses such as real estate taxes and insurance. The maximum reimbursable amount for these incidental expenses is based upon the cost of the comparable selected in the replacement housing study.

A displaced person who has leased and occupied a subject dwelling for at least 90 days prior to the initiation of negotiations for the property may receive a replacement rental housing payment of up to $5,250. The replacement rental housing payment is the difference between the

monthly cost of housing for the subject dwelling, plus utilities, and the monthly cost of housing for a comparable replacement rental unit, plus utilities, over a period of 42 months. Owner-occupants of 90-179 days prior to the initiation of negotiations for the subject dwelling are eligible for the same replacement rental housing payments as tenants.

As an alternative to renting, a displaced tenant-occupant may elect to apply the rental replacement housing eligibility amount toward the down payment needed to purchase a replacement dwelling.

The comparable properties used in calculating any replacement housing payment eligibility must comply with all local standards for decent, safe and sanitary (DS&S) housing and be within the financial means of the displaced person.

If affordable, comparable DS&S replacement housing cannot be provided within the statutory maximums of $22,500 for 180-day owner-occupants or $5,250 for 90-day tenants or short-term owners, the maximums may be exceeded on a case-by-case basis. This may only be done after the completion and approval of a detailed study that documents the housing problem, explores the available replacement options and selects the most feasible and cost-effective alternative for implementation.

In addition, eligible displaced residential occupants may be reimbursed for the expense of moving personal property up to a maximum distance of fifty (50) miles, using either an actual cost or fixed schedule method.

Actual cost moves are based upon the lower of at least two commercial moving estimates and must be documented with receipted bills or invoices. Other incidental moving expenses, such as utility reconnection charges, may also be paid in the same manner.

As an alternative method, the fixed schedule move offers a lump sum, all-inclusive payment based upon the number of rooms to be moved. Other incidental costs are not separately reimbursable with this method.

Non-residential displaced persons such as businesses, farms or non-profit organizations may also receive reimbursement for the expense of relocating and re-establishing operations at a replacement site on either an actual cost or fixed payment basis.

Under the actual cost method, a non-residential displaced person may receive reimbursement for necessary and reasonable expenses for moving its personal property, the loss of tangible personal property that is not moved, the cost of searching for a replacement site and a re-establishment allowance of up to $10,000.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Payments for the actual reasonable expenses are limited to a 50-mile radius unless the State determines a longer distance is necessary. The expenses claimed for actual cost moves must be supported by firm bids and receipted bills. An inventory of the items to be moved must be prepared in all cases. In self-moves, the State will negotiate an amount for

payment, usually lower than the lowest acceptable bid. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business vehicles or equipment, wages paid to persons who participate in the move, the cost of actual supervision of the move, replacement insurance for the personal property moved, costs of licenses or permits required and other related expenses.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses.

If the business elects not to move or to discontinue the use of an item, the payment shall consist of the lesser of: the fair market value of the item for continued use at the displacement site, less the proceeds from its sale; or the estimated cost of moving the item.

If an item of personal property which is used as part of a business or farm operation is not moved and is promptly replaced with a substitute item that performs a comparable function at the replacement site, payment shall be the lesser of: the cost of the substitute item, including installation costs at the replacement site, minus any proceeds from the sale or trade-in of the replaced item; or the estimated cost of moving and reinstalling the replaced item.

In addition to the moving payments described above, a business may be eligible for a payment up to $10,000 for the actual reasonable and necessary expenses of re-establishing at the replacement site. Generally, re-establishment expenses include certain repairs and improvements to the replacement site, increased operating costs, exterior signing, advertising the replacement location, and other fees paid to re-establish. Receipted bills and other evidence of these expenses are required for payment. The total maximum re-establishment payment eligibility is $10,000.

In lieu of all moving payments described above, a business may elect to receive a fixed payment equal to the average annual net earnings of the business. This payment shall not be less than $1,000 nor more than $20,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage; the business is not part of a commercial enterprise having more than three other establishments in the same or similar business that are not being acquired; and the business contributes materially to the income of a displaced owner during the two taxable years prior to the year of the displacement. A business operated at the displacement site solely for the purpose of renting to others is not eligible. 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 expense payment, the average annual net earnings of the business is to be one-half of the net earnings before taxes during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State may use another two-year

period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, owner's spouse, or dependents during the period. Should a business be in operation less than two years, the owner of the business may still be eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, or certified financial statements, for the tax years in question.

Displaced farms and non-profit organizations are also eligible for actual reasonable moving costs up to 50 miles, actual direct losses of tangible personal property, search costs up to $2,500 and re-establishment expenses up to $10,000 or a fixed payment "in lieu of" actual moving expenses of $1,000 to $20,000. The State may determine that a displaced farm may be paid a minimum of $1,000 to a maximum of $20,000 based upon the net income of the farm, provided that the farm has been relocated or the partial acquisition caused a substantial change in the nature of the farm. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive a fixed payment or an "in lieu of" actual moving cost payment, in the amount of $1,000 to $20,000 based on gross annual revenues less administrative expenses.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms and non-profit organizations is available in the brochure entitled, "Relocation Assistance – Your Rights and Benefits," that will be distributed at the public hearing for this project and be given to all displaced persons.

Federal and State laws require that the State Highway Administration shall not proceed with any phase of a 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 persons.

In addition, the requirements of Public Law 105-117 provides that a person who is an alien and is not lawfully present in the United States shall not be eligible for relocation payments or other assistance under the Uniform Act. It also directed all State displacing agencies that utilize Federal funds in their projects to implement procedures for compliance with this law in order to safeguard that funding. To this end, displaced persons will be asked to certify to their citizenship or alien status prior to receiving payments or other benefits under the Relocation Assistance Program.

Appendix C:
List of Acronyms

LIST OF ACRONYMS

AAFB	Andrews Air Force Base
ADA	Americans with Disabilities Act
AICUZ	Air Installation Compatible Use Zone
ARDS	Alternatives Retained for Detailed Study
AST	Aboveground Storage Tank
BMP	Best Management Practice
BRT	Bus Rapid Transit
CAAA	Clean Air Act Amendments
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COR	Corrective Action Site
CRZ	Critical Root Zone
CZM	Coastal Zone Management
dBA	A-weighted equivalent decibel level
DHHS	Department of Health and Human Services
DNR	Department of Natural Resources
DOI	U.S. Department of the Interior
EJ	Environmental Justice
EO	Executive Order
EPA	United States Environmental Protection Agency
ERRP	Environmental Restoration Program
ESD	Environmental Site Design
ETL	Express Toll Lane
FCA	Maryland Forest Conservation Act
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIDS	Forest Interior Dwelling Species
FINDS	Facility Index System
FPPA	Farmland Protection Policy Act
GCN	Greatest Conservation Need
GIS	Geographic Information System
HOV	High Occupancy Vehicle
ICE	Indirect and Cumulative Effects
L_{eq}	Hourly Equivalent A-weighted sound level
LEP	Limited English Proficiency
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MD DNR	Maryland Department of Natural Resources
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
MDP	Maryland Department of Planning

M-NCPPC	Maryland National Capital Park and Planning Commission
MOT	Maintenance of Traffic
MSATs	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NB	Northbound
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NSA	Noise Sensitive Area
PEM	Palustrine Emergent
PFAs	Priority Funding Areas
PFO	Palustrine Forested
$PM_{2.5}$	Particulate matter of 2.5 micrometers or smaller in size
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
ROW	Right-Of-Way
SB	Southbound
SHA	Maryland State Highway Administration
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SWM	Stormwater Management
TIP	Transportation Improvement Plan
TNM	Traffic Noise Model
TRIM	Tax Reform Initiative
TSM	Transportation Systems Management
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
VMT	Vehicle Miles Traveled
WMA	Wildlife Management Area

Environmental Assessment
MD 5 Corridor Transportation Study

From North of the U.S. 301/MD 5 Interchange to
North of the I-95/I-495 Interchange

Prince George's County, Maryland