

SUMMARY

A. Administrative Action

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

B. Additional Information

Additional information concerning this project may be obtained by contacting the following individuals:

Mr. Ian Cavanaugh
Project Manager
Delmar Division
Federal Highway Administration
10 S. Howard Street, Suite 2450
Baltimore, Maryland 21201
Phone: 410-779-7147
Hours: 8:00 AM to 4:30 PM

Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering
State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202
Phone: 410-545-8500
Hours: 8:00 AM to 4:30 PM

C. Description of Proposed Action/Purpose and Need

The purpose of the project is to improve existing capacity and traffic operations, and to increase vehicular and pedestrian safety along MD 4 while supporting existing and planned development in the area. The enhancements to MD 4 would improve access, mobility, and safety for local, regional, and inter-regional traffic, including passenger and transit vehicles. The Federal Highway Administration (FHWA) and the Maryland State Highway Administration (SHA) are the lead agencies for the project. Cooperating agencies include the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA).

Improvements in the study area are needed to address the substantial residential growth and increased traffic volumes in one of the fastest growing areas in Calvert and St. Mary's Counties. The growth of the Patuxent Naval Air Station has contributed greatly to increased traffic volumes in the area. In addition to high traffic volumes along MD 4, congestion on Thomas Johnson Memorial Bridge is problematic. Inadequate shoulder widths along the bridge cause major traffic delays, additionally any closures due to crashes or maintenance activities will create major traffic delays in both directions.

D. Alternatives Considered

The project involves widening MD 4 from a two-lane roadway to a four-lane divided roadway with two through lanes in each direction and a median (varying from 30 to 38 feet) from Patuxent Beach Road to just beyond Patuxent Boulevard in St. Mary's County. The project also includes the expansion of the Patuxent River crossing from a two-lane

bridge to a four-lane, single-span or double-span bridge with two through lanes in each direction. A shared use pedestrian/bicycle path from Patuxent Beach Road in St. Mary's County to Solomons Cemetery in Calvert County is also included. The western portion of the project includes some minor access improvements to the MD 4 and median widening. In addition to the widening of MD 4, the project includes a range of improvements to the MD 4/MD 235 Intersection.

Alternatives considered for further study include:

- Alternative 1: No-Build
- Alternative 2: Transportation Systems Management (TSM)
- MD 4 Mainline Alternatives:
 - MD 4 Mainline, Calvert County
 - MD 4 Mainline Widening, St. Mary's County
- Patuxent River Crossings:
 - Alternative 3: Two-Lane Parallel Span
 - Alternative 4: Four-Lane Parallel Span

The MD 4/MD 235 Intersection Options considered for further study include:

- Option A: Continuous Flow Intersection
- Option B: At-Grade Intersection with One-Directional Flyover
- Option D: Single Point Urban Interchange

E. Summary of Environmental Impacts

Table S-1 contains a comparative summary of impacts associated with the No-Build and the build alternatives, including the intersection options. These impacts are briefly described below.

- The build alternatives would have no adverse or disproportionate impacts to any Environmental Justice communities.
- A maximum of four business displacements and seven residential relocations would occur with the build alternatives.
- The build alternatives would enhance the quality of life in the study area by decreasing traffic congestion. The build alternatives would also benefit businesses in the area by potentially increasing drive-by business.
- There would be no impacts to schools or health care facilities from the build alternatives.
- Alternative 4 – St. Mary's County would require approximately 0.4 acre of right-of-way from the Patuxent Presbyterian Church. The access or use of the facility would not be impacted. Also, the intersection options would require up to 3.3 acres (approximately 8 percent of the total parcel size) of right-of-way from the Patuxent River Assembly of God. The access to the church from MD 4 would be modified to allow right-in/right-out turns only.
- There are no historic structures that will be impacted by the build alternatives. Archeology site 18ST830 is potentially eligible for NHRP listing and Phase 2 investigations will be required if this site is impacted.

- The mainline build alternatives and intersection options would permanently impact between 90 and 440 linear feet and the Patuxent River Crossing Alternatives would impact between 59,548 to 70,965 square feet of Waters of the U.S.
- The build alternatives would permanently impact between 0.02 and 0.05 acre of wetlands.
- The build alternatives would permanently impact between 13.0 and 14.3 acres of 100-year floodplain.
- The build alternatives would permanently impact between 21.5 and 22.3 acres of Chesapeake Bay Critical Area.
- There are 21 sites with potential for hazardous materials that could be affected by the build alternatives. Depending on the amount of right-of-way required, further investigations of some or all of the sites could be required and would be conducted prior to acquisition.
- The State/National ambient Air Quality Standards would not be exceeded by the build alternatives.
- Five noise sensitive areas would experience build year noise levels equal to or exceeding noise abatement criteria as a result of the build alternatives.
- Alternative 2, MD 4 Mainline Widening (St. Mary's County, Alternatives 3 and 4, and intersection options would have indirect effects to socioeconomic, cultural, and natural resources within the ICE boundary but no major cumulative effects on socioeconomic, cultural, or natural environmental resources.
- The build alternatives would require between 43,089 and 338,101 cubic yards of fill.
- The build alternatives would increase the impervious area by 158.7 to 196.3 percent.

Table S-1: Summary of Impacts

RESOURCE CATEGORY	Mainline Alternatives ¹						MD 4/MD 235 Intersection Improvements ¹		
	Alternative 1: No-Build	Alternative 2: TSM	Patuxent River Crossing		MD 4 Mainline		Option A: Continuous Flow Intersection	Option B: At-Grade Intersection with 1-directional Flyover	Option D: Single Point Urban Interchange
			Alternative 3: 2-Lane Parallel Span	Alternative 4: 4-Lane Parallel Span	Mainline - Calvert County	Mainline - St. Mary's County			
Community Effects									
Residential Relocations (number)	0	0	0	3	0	0	2	1	4
Business Displacements (number)	0	0	0	0	0	0	1	0	4
Properties Impacted	0	13	4	22	1	19	59	53	56
ROW Impacts (acre)	0	4.5	1.1	6.2	0.2	15.6	12	10.8	14.1
Natural Environment									
Stream Impacts (linear feet)	0	0	187 l.f. /59,548 s.f.*	187 l.f./70,965 s.f.*	0	440	90	90	90
Floodplain (acre)	0	0	0.4	0.6	0	0	0	0	0
Woodland (acre)	0	2.7	2.6	3.4	0.4	24.6	14.5	11.3	14.1
Wetlands (acre)	0	0.001	0.02	0.04	0.01	0.2	0.03	0.01	0.06
Critical Area Impacted (acre)	0	3.9	15.3	18.5	2.5	8.3	0	0	0
Estimated Net Fill (cubic yards)	0	-720	148,641	225,825	0	97,187	-4,314	15,089	-202,739
Impervious Area (Percent Increase Over Existing)	0	0	81.9	109.8	0	59.8	26.7	17.0	18.2
Total Cost (in millions)²	N/A	N/A	\$305 - 325	\$475 - 500	\$2.4 - 3.0	\$96 - 100	\$67 - 73	\$77 - 83	\$137 - 143

* Impacts from bridge alternatives to Patuxent River in square feet. The impacts are associated with the footers for the piers to the proposed bridge.

¹ Note: A complete build alternative for the study will include Mainline – Calvert County, one Patuxent River Crossing alternative, Mainline – St. Mary's County and one MD 4 / MD 235 Intersection Improvement option. The total impacts will be the summation of the four segments.

²Total cost includes neat cost, preliminary engineering, right-of-way, and construction management. The cost is based on 2010 dollars.

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 .6 of the Council of Environmental Quality Regulations, effective July 31, 1979, which recommend that duplication of Federal, State and Local procedures be integrated into a single process.

The checklist identifies specific areas of the natural and social-economic environment which have been considered while preparing this environmental assessment. The reviewer can refer to the appropriate 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, that specific area of the environment was not identified to be within the project area or would not be impacted by the proposed action.

ENVIRONMENTAL ASSESSMENT FORM

A.		<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
	Land Use Considerations			
1.	Will the action be within the 100 year floodplain?	<u> X </u>	<u> </u>	<u> X </u> See Section III.E.2.b
2.	Will the action require a permit for construction or alteration within the 50 year floodplain?	<u> </u>	<u> X </u>	<u> </u>
3.	Will the action require a permit for dredging, filling, draining or alteration of a wetland?	<u> X </u>	<u> </u>	<u> X </u> See Section III.E.2.d
4.	Will the action require a permit for the construction or operation of facilities for solid waste disposal including dredge and excavation spoil?	<u> X </u>	<u> </u>	<u> X </u> See Section III.E.1
5.	Will the action occur on slopes exceeding 15%?	<u> X </u>	<u> </u>	<u> X </u> See Section III.E.1
6.	Will the action require a grading plan or a sediment control permit?	<u> X </u>	<u> </u>	<u> X </u> See Section III.E.1
7.	Will the action require a mining permit for deep or surface mining?	<u> </u>	<u> X </u>	<u> </u>
8.	Will the action require a permit for drilling a gas or oil well?	<u> </u>	<u> X </u>	<u> </u>

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
9. Will the action require a permit for airport construction?	_____	<u>X</u>	_____
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?	_____	<u>X</u>	_____
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?	<u>X</u>	_____	<u>X See Section III.E.4.a</u>
12. Will the action affect the use of any natural or manmade features that are unique to the county, state, or nation?	<u>X</u>	_____	<u>X See Section III.E.6.a</u>
13. Will the action affect the use of an archeological or historical site or structure?	<u>X</u>	_____	<u>X See Section III.E.6.a</u>
B. Water Use Considerations			
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?	<u>X</u>	_____	<u>X See Section III.E.2.d</u>
15. Will the action require the construction, alteration, or removal of a dam, reservoir, or waterway obstruction?	_____	<u>X</u>	_____

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
16. Will the action change the overland flow of stormwater or reduce the absorption capacity of the ground?	<u>X</u>	<u> </u>	<u>X See Section III.E.3</u>
17. Will the action require a permit for the drilling of a water well?	<u> </u>	<u>X</u>	<u> </u>
18. Will the action require a permit for water appropriation?	<u> </u>	<u>X</u>	<u> </u>
19. Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?	<u> </u>	<u>X</u>	<u> </u>
20. Will the project require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?	<u> </u>	<u>X</u>	<u> </u>
21. Will the action result in any discharge into surface or sub-surface water?	<u>X</u>	<u> </u>	<u>X See Section III.E.2</u>
22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?	<u>X</u>	<u> </u>	<u>X See Section III.E.2</u>

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
C. Air Use Considerations			
23. Will the action result in any discharge into the air?	<u> X </u>	<u> </u>	<u> X See Section III.F </u>
24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?	<u> </u>	<u> X </u>	<u> X See Section III.F </u>
25. Will the action generate additional noise which differs in character or level from present conditions?	<u> X </u>	<u> </u>	<u> X See Section III.G </u>
26. Will the action preclude future use of related air space?	<u> </u>	<u> X </u>	<u> </u>
27. Will the action generate any radiological, electrical, magnetic, or light influences?	<u> </u>	<u> X </u>	<u> </u>
D. Plants and Animals			
28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?	<u> </u>	<u> X </u>	<u> </u>
29. Will the action result in the significant reduction or loss of any fish or wildlife habitats?	<u> </u>	<u> X </u>	<u> X See Section III.E.2.c </u>

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?	_____	<u>X</u>	_____
E. Socio-Economic			
31. Will the action result in a pre-emption or division of properties or impair their economic use?	<u>X</u>	_____	<u>X</u> 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?	<u>X</u>	_____	<u>X</u> See Section III.A.4
33. Will the action alter land values?	<u>X</u>	_____	<u>X</u> See Section III.A.4
34. Will the action affect traffic flow and volume?	<u>X</u>	_____	<u>X</u> See Section I.C.
35. Will the action affect the production, extraction, harvest or potential use of a scarce or economically important resource?	_____	<u>X</u>	_____
36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?	_____	<u>X</u>	_____

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
37. Is the action in accord with federal, state, regional and local comprehensive or functional plans-including zoning?	<u>X</u>	_____	<u>X</u> See Section III.A
38. Will the action affect the employment opportunities for persons in the area?	<u>X</u>	_____	<u>X</u> See Section III.C.2
39. Will the action affect the ability of the area to attract new sources of tax revenue?	<u>X</u>	_____	<u>X</u> See Section III.C.4
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?	_____	<u>X</u>	_____
41. Will the action affect the ability of the area to attract tourism?	_____	<u>X</u>	_____
F. Other Considerations			
42. Could the action endanger the public health, safety or welfare?	_____	<u>X</u>	_____
43. Could the action be eliminated without deleterious affects to the public health, safety, welfare or the natural environment?	<u>X</u>	_____	<u>X</u> See Section III

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
44. Will the action be of statewide significance?	_____	<u> X </u>	_____
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 the public health, safety, welfare, or environment?	_____	<u> X </u>	_____
46. Will the action require additional power generation or transmission capacity?	_____	<u> X </u>	_____
47. This agency will develop a complete environmental effects report on the proposed action.	<u> X </u>	_____	<u> X </u> See EA