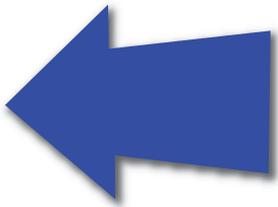




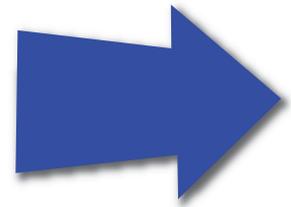
# WELCOME

## MD 5 Leonardtown Project Planning Study Location/Design Public Hearing

Thursday, June 28th, 2012



**5:00 p.m. - Open House  
in Auxiliary Gymnasium  
Maps and displays for review  
Staff available for questions**



**7:00 p.m. - Public Hearing  
in Auditorium  
25 minute presentation  
Public Testimony**

# Hearing Objectives

- Provide updates on the progress of the Study
- Present alternatives under consideration
- Present results of detailed engineering/environmental studies
- Present the next steps
- Receive feedback

# **MD 5 Leonardtown Project Planning Study**

## **PUBLIC HEARING PROCEDURES**

### **PUBLIC TESTIMONY**

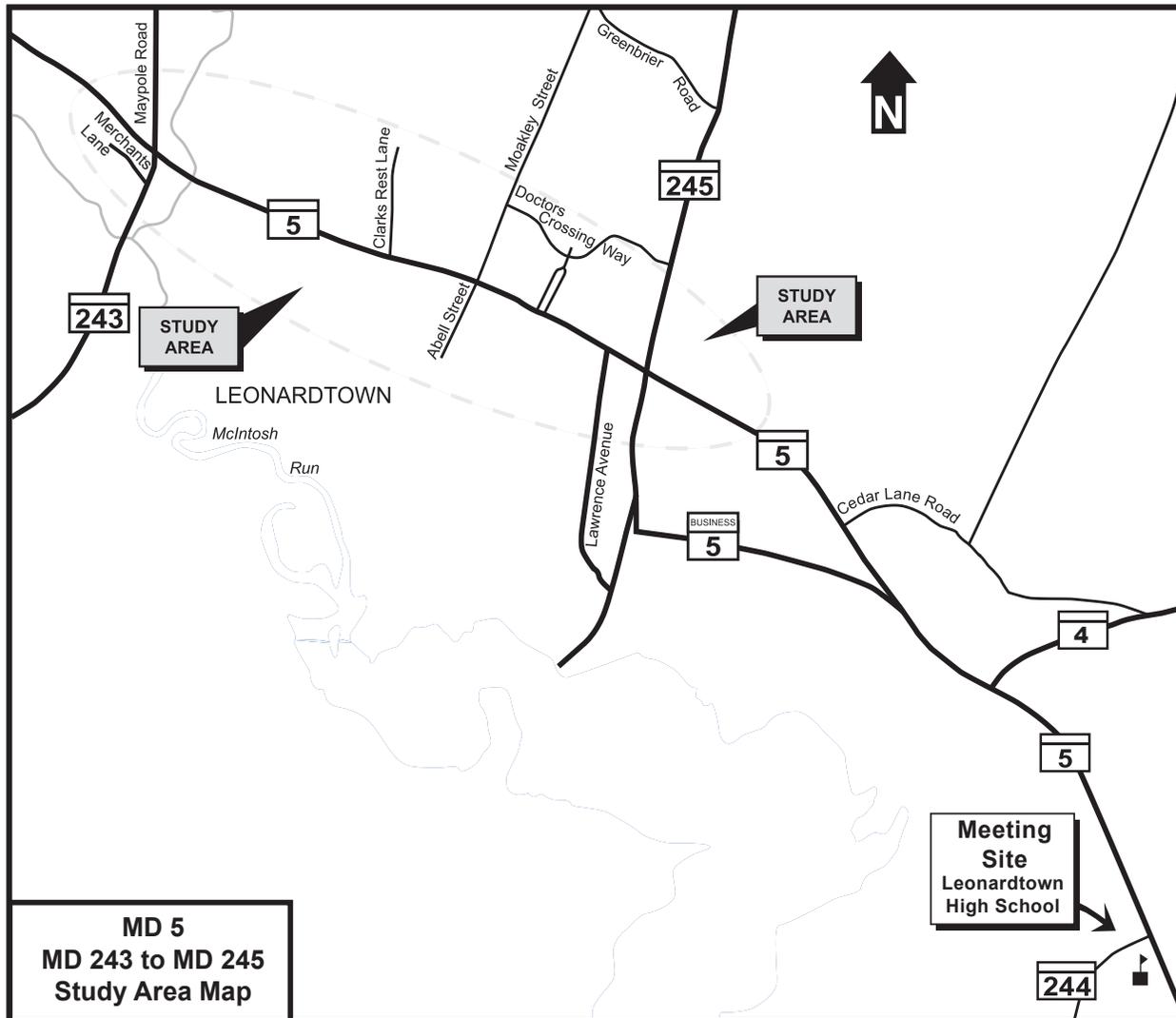
- **Speakers for public testimony will be called in the order they registered. You may add your name to the Speakers List at the registration table**
- **The Project Team will receive statements only - no questions will be addressed from the floor. Staff members are available to answer questions in the open house area**
- **If a large number of people enroll, a time limit of three minutes for each speaker may be necessary to ensure that everyone can be heard**
- **Please begin your testimony by spelling your name, and providing your address and organization name, if you are representing one**
- **Please speak into the microphone. Testimony will be taped and transcribed for a hearing transcript**

### **OTHER WAYS TO COMMENT**

- **Individuals may speak privately to a court reporter outside of the auditorium to provide testimony or to add to their public testimony**
- **Written statements and comment card submissions are also welcomed and must be received by July 30, 2012 for inclusion in the hearing transcript**
- **Public, private and written testimony will be considered equally in project considerations**

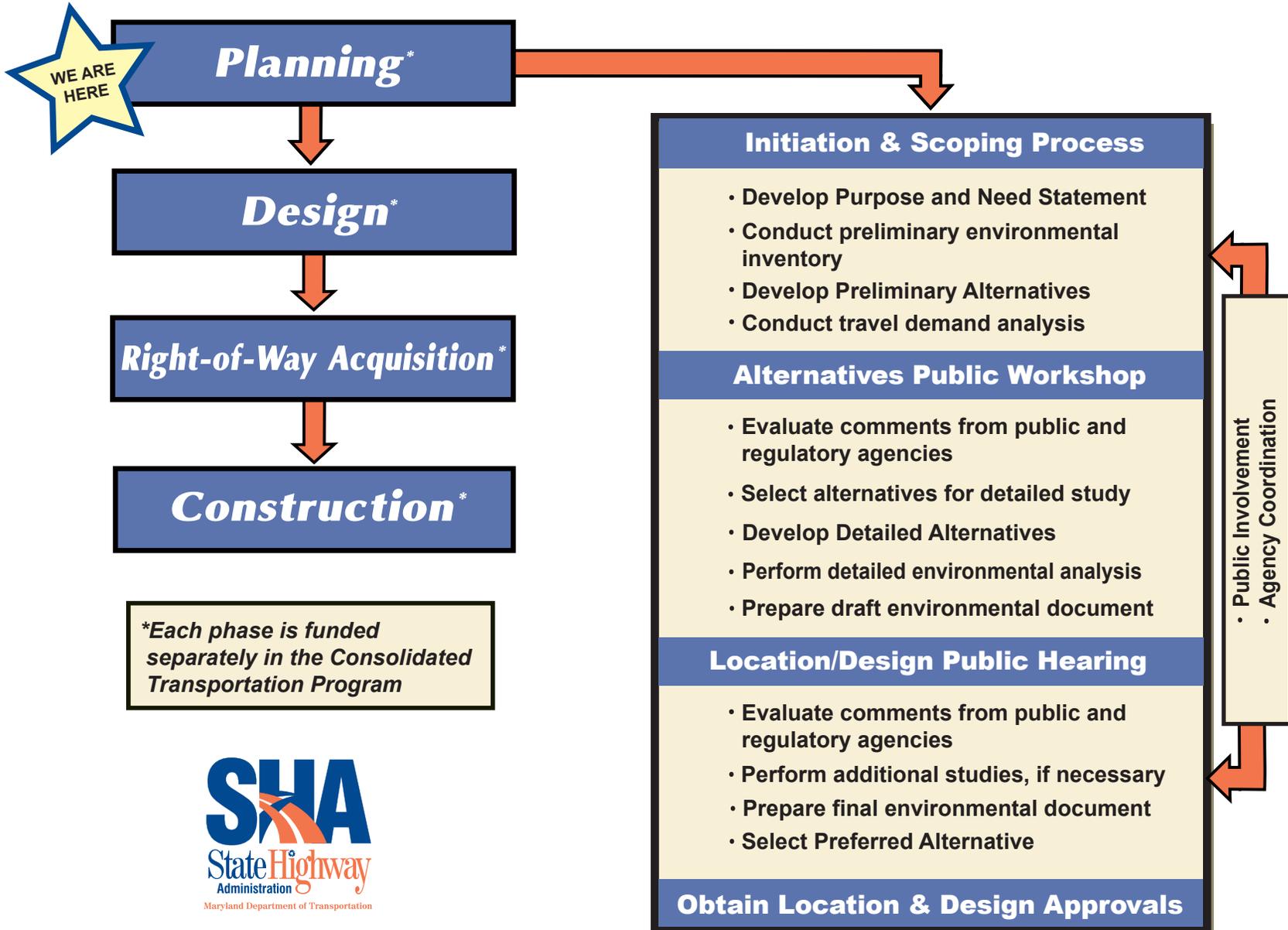


# Project Location



- MD 5 project area extends from just north of MD 243 to just south of MD 245 (two miles)

# PROJECT DEVELOPMENT PROCESS



# Existing Conditions

- **Four-lane roadway**
- **Four-foot-wide striped median**
- **40 MPH posted speed limit**
- **Multiple intersections and driveways**
- **Sidewalk on both sides from MD 245 to Abell Street/Moakley Street is not ADA-compliant**
- **Minimal to no shoulders throughout project area**



# Purpose and Need

- **Improve vehicular safety and traffic operations**
- **Support existing and planned development**
- **Address the safety of pedestrians, bicyclists, and drivers**
- **Improve access to homes, businesses, schools, and places of worship**
- **Accommodate horse-and-buggy users**

# Traffic

Limits	Average Daily Traffic (Vehicles/Day)		
	2007 Existing	2030 No-Build	Average Growth
MD 5 north of MD 243	23,475	41,425	77%
MD 5 between MD 243 and MD 245	28,750	50,750	
MD 5 south of MD 245	27,400	48,350	
MD 243 south of MD 5	8,000	14,125	58%
MD 245 north of MD 5	12,050	19,000	
MD 5 Business south of MD 5	7,975	12,575	



# What is Level of Service (LOS)?

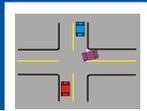


Level of Service is a quantitative measure of traffic operational conditions. Ranges of operation are defined for each type of roadway section (signalized intersections, freeways, ramp junctions and weaving sections) and are related to the amount of traffic demand at a given time as compared to the capacity of that type of roadway section.

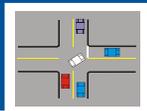
Six levels of service are defined for each type of roadway section and are given letter designations from A to F, with A representing good operating conditions and F representing unsatisfactory operating conditions.

## Intersection

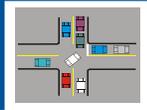
- Highly stable, free-flow condition with little or no congestion
- Delay: <10 seconds/vehicle



- Stable, free-flow condition with little congestion
- Delay: 10 to 20 seconds/vehicle



- Free-flow condition with moderate congestion
- Delay: 20 to 35 seconds/vehicle



- Approaching unstable condition with increasing congestion
- Delay: 35 to 55 seconds/vehicle



- Unstable, congested condition
- Delay: 55 to 80 seconds/vehicle



- Stop and go
- Delay: >80 seconds/vehicle



## Roadway

### LOS A



- Free flowing
- Uninterrupted vehicle

### LOS B



- Stable flow
- Other vehicles are more noticeable

### LOS C



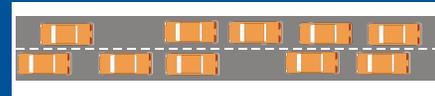
- Stable flow
- Vehicle operations affected by other vehicles

### LOS D



- High density free flow
- Operation of vehicle is affected by other vehicles

### LOS E



- High density traffic flow, nearing capacity
- Operating conditions are extremely poor

### LOS F



- Forced or breakdown flow
- Amount of traffic exceeds capacity

# Level of Service (LOS)

Intersection	2007 Existing LOS (Delay in Seconds)		2030 No-Build LOS (Delay in Seconds)		2030 Build LOS (Delay in Seconds)												
			Alt. 1 No Build		Alt. 2 TSM		Alt. 3 5-Lane		Alt. 4 4-Lane		Alt. 4 Opt. 2 Stream Avoidance		Alt. 4 Opt. 3 Intersection Improvements		Alt. 4 Opt. 4 Shopping Access Modification		
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
MD 5 at MD 243/Maypole Rd.	B (16)	C (30)	<b>F</b> (106.2)	<b>F</b> (182.8)	D (37.4)	E (75.2)	D (37.4)	E (75.2)	D (37.4)	E (75.2)	D (37.4)	E (75.2)	C (31.2)	E (76.3)	C (24.0)	E (61.2)	
MD 5 at Clarks Rest La. / Fenwick St.	N/A	N/A	<b>F</b> (96.0)	<b>F</b> (95.9)	<b>F</b> (88.9)	<b>F</b> (82.4)	<b>F</b> (88.9)	<b>F</b> (82.4)	D (37.6)	E (58.9)	D (37.6)	E (58.9)	C (33.2)	E (59.8)	C (32.4)	E (60.1)	
MD 5 at Moakley St. / Abell St.	N/A	N/A	N/A	N/A	A (6.8)	B (14.3)	A (6.8)	B (14.3)	A (7.1)	B (14.3)	A (7.1)	B (14.3)	A (5.1)	B (14.6)	A (5.2)	B (14.0)	
MD 5 at MD 5 Bus. / MD 245	B (19)	C (29)	E (75.5)	<b>F</b> (133.1)	E (64.9)	<b>F</b> (118.9)	E (64.9)	<b>F</b> (118.9)	E (64.1)	<b>F</b> (118.9)	E (64.1)	<b>F</b> (118.9)	D (47.9)	E (67.8)	E (64.6)	<b>F</b> (115.0)	
MD 5 at Shopping Entrance	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	A (4.9)	A (5.6)	
MD 243 at Merchants Ln.	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**	E (57.3)	C (30.0)	N/A**	N/A**

Level of Service was evaluated using the Highway Capacity Manual for signalized intersections only.

N/A: Intersection assumed to be unsignalized

\* A signal is proposed only under 2030 Build Option 4

\*\* A signal is proposed only under 2030 Build Option 3

# Safety

## 3-Year Crash Rate (2008-2010)

Type/Year	2008	2009	2010	Total	Study Rate	Statewide Rate
<b>Summary</b>						
Fatal Crashes	0	0	0	0	0.0	1.3
No. Killed	0	0	0	1	-	-
Injury Crashes	28	26	26	80	<b>191.5*</b>	75.9
No. Injured	58	45	35	138	-	-
Property Damage Crashes	30	25	20	75	<b>197.5*</b>	99.8
Total	58	51	46	155	<b>371.0*</b>	177.0
<b>Crash Breakdown</b>						
Opposite Direction	3	1	1	5	12.0	9.6
Read End	28	27	21	76	<b>181.9*</b>	62.0
Sideswipe	4	6	4	14	<b>33.5*</b>	11.0
Left Turn	11	7	5	23	<b>55.0*</b>	15.2
Angle	8	10	9	27	<b>64.6*</b>	29.7
Pedestrian	1	0	0	1	2.4	1.2
Fixed Object	2	0	1	3	7.2	24.6
Other	1	0	5	6	14.4	8.6
U-Turn	0	0	1	1	-	-
Animal	0	0	2	2	-	-
Overturn	0	0	1	1	-	-
Truck Related	3	5	0	8	19.1	14.6
<i>*Significantly Higher than Statewide average</i>				<i>Rates are per 100 mvm</i>		

# Options Non-Retained for Detailed Study

- **Option 1 - Section 4(f) Avoidance**
  - Option no longer under consideration due to the number of associated displacements (up to 22 displacements)

# Alternative 1: No-Build

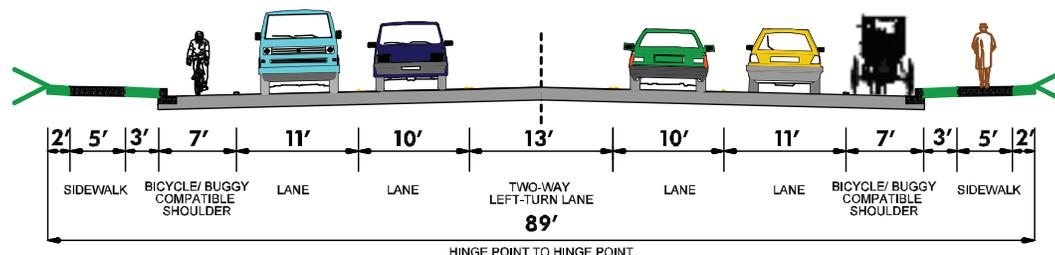
- No major improvements proposed
- Minor, short-term improvements would occur as part of routine maintenance and safety operations
- Serves as a baseline for comparison with the build alternatives

## Alternative 2: TSM

- Adding and lengthening turn lanes and/or improving signal timing at the MD 5 intersections with MD 243 and MD 245
- Adding turn lanes at the MD 5 intersection with Abell/Moakley streets
- Adding on-road bicycle lanes and sidewalks on MD 5 at the intersections with MD 243, Abell/Moakley streets, and MD 245
- Consolidating entrances to properties along the MD 5 corridor

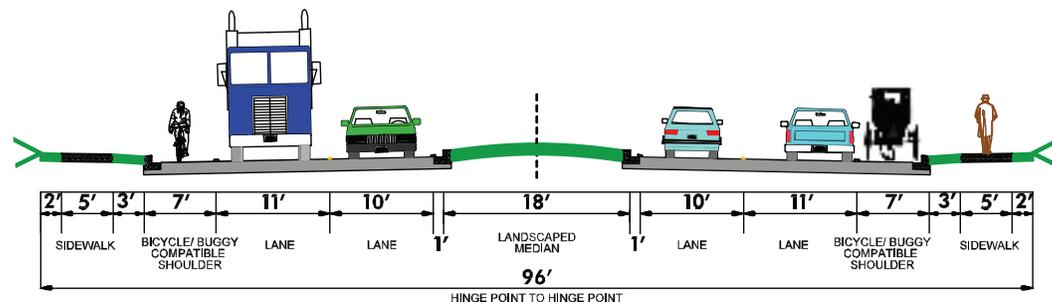
# Alternative 3: Five-Lane Roadway

- Intersection improvements listed under Alternative 2
- Continuous 13-foot-wide two-way center left-turn lane
- Maintain two travel lanes in each direction
- Outside travel lane include a seven-foot-wide bicycle/buggy lane
- Continuous five-foot-wide sidewalks on both sides



# Alternative 4: Four-Lane Divided Roadway

- Intersection improvements listed under Alternative 2
- Landscaped raised median with left-turn lanes at major intersections throughout the corridor
- Maintain two travel lanes in each direction
- Outside travel lanes include a seven-foot-wide bicycle/buggy lane
- Continuous five-foot-wide sidewalks on both sides



# Option 2: Stream Avoidance

- Avoids the stream located on the north side of MD 5 between Moakley Street and Clark's Rest Lane
- Improves MD 5 along the south side to avoid stream impacts
- Option 2 is compatible with Alternatives 3 and 4

# **Option 3: Additional Intersection Improvements**

- **Expands intersections of MD 5 at MD 243 and MD 245 by adding longer left-turn lanes to further improve operations**
- **Potential traffic signal at the MD 243 intersection with Merchants Lane**
- **Option 3 is compatible with Alternatives 3 and 4**

# Option 4: Shopping Center Modified Access

- **Changes existing right-in/right-out entrance to the Leonardtown Centre Shopping Plaza to a potential signal with a double left-turn into the shopping plaza from northbound MD 5**
- **Prohibits right-turn movement from MD 243 onto Merchants Lane and the left-out from Merchants Lane onto MD 243**
- **Reduces length of the left-turn lanes on northbound MD 5 at MD 243**
- **Option 4 is compatible with Alternatives 3 and 4**

## National Environmental Policy Act (NEPA)

Requires an assessment of a project's impacts on the natural, cultural, and human environment. An analysis of reasonable alternatives must be prepared, including minimization and mitigation for unavoidable impacts. The results of the analysis must be included in the decision-making process and made available to the public.

## Natural Environment

- Geology/Groundwater Resources ▪ Soils ▪ Surface Water
- Floodplains ▪ Wetlands ▪ Aquatic Life ▪ Wildlife

### Section 404 of the Clean Water Act, Nontidal Wetlands Protection Act

Regulates dredge and fill of Waters of the United States. Guidelines published by the Environmental Protection Agency for evaluating alternatives require that the Corps of Engineers evaluate the proposed project for environmental impacts (including historic and rare/threatened/endangered species impacts) and select the least environmentally damaging, practicable alternative.

### Endangered Species Act

Ensures that actions are not taken to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species.

## Cultural Environment

- Historic Structures ▪ Archaeological Sites

### Section 106 of the National Historic Preservation Act

Requires that agencies take into account the effects of a project on properties that are included in or eligible for the National Register of Historic Places.



## Socio-Economic Environment

- Demographics ▪ Community Facilities
- Economic Setting and Land Use ▪ Noise ▪ Air

### Section 4(f) of the US Department of Transportation Act

Requires that special effort be made to preserve publicly owned public parks and recreation areas, wildlife/waterfowl refuges and historic sites. No project which requires land from these resources may be approved unless 1) there is no feasible and prudent alternative to the use of the land and 2) the action includes all possible planning to minimize harm to the property resulting from such use.

### Clean Air Act and Clean Air Act Amendments

A microscale air quality analysis must be performed to determine if there are violations of the State or National Ambient Air Quality Standards for carbon monoxide. Also, a conformity analysis must be completed by the Metropolitan Planning Organization to make sure the Transportation Improvement Plan conforms to the State Implementation Plan.

### Farmland Protection Policy Act

Requires that federal programs minimize conversion of farmland to non-agricultural uses (does not apply to farmland that is zoned or committed (planned) for urban development).

### Executive Order 12898 (Environmental Justice)

Requires that agencies identify and address disproportionately high and adverse human health or environmental effects on minority or low-income populations.



US Army Corps  
of Engineers®

# Environmental Impacts

	Alt 1 No-Build	Alt 2	Alt 3 5-lane	Alt 4 4-lane Divided	Option 2	Option 3	Option 4
					Compatible with Alt 3 and Alt 4		
					Stream Avoidance	Additional Intersection Improv.	Shopping Center Modified Access
<b>Displacements</b>							
Residential	0	2	2	2	2	3	2
Business/Commercial	0	4	5	7	10	9	7
<b>TOTAL</b>	<b>0</b>	<b>6</b>	<b>7</b>	<b>9</b>	<b>12</b>	<b>12</b>	<b>9</b>
<b>Properties Affected</b>							
Residential	0	23	34	34	34	35	34
Business/Commercial	0	37	48	48	48	52	47
Agricultural	0	2	3	3	3	3	3
<b>TOTAL</b>	<b>0</b>	<b>62</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>90</b>	<b>84</b>
R/W Required (acres)	0	15	26	27	26	30	27
100-Year Floodplains (acres)	0	3.68	4.73	4.72	4.74	5.55	4.54
Streams (linear feet)	0	692	1,635	1,669	922	1,707	1,684
Wetlands (acres)	0	0.45	0.78	0.81	0.70	1.17	0.86
NWSSC (acres)	0	0.07	0.39	0.42	0.40	0.42	0.41
NWSSC 100-foot Buffer (acres)	0	1.06	6.63	6.50	6.18	6.51	6.16
Potential FIDS Habitat (acres)	0	0.67	0.72	0.73	0.77	0.92	0.75
Forestland Mixed Upland (acres)	0	3.14	6.96	7.35	7.17	7.52	7.10
Forested Wetland (acres)	0	0.34	0.47	0.48	0.46	0.83	0.52
Prime Farmland Soils (acres)	0	4.08	6.22	6.31	6.30	6.58	6.40
Soils of Statewide Importance (acres)	0	6.01	10.37	10.59	9.63	10.66	10.21
Green Infrastructure (acres)	0	0.88	2.67	2.75	2.69	2.93	2.67
Cultural Resources # Prop. (acres)	0 (0)	3 (0.22)	5 (0.32)	5 (0.33)	4 (0.31)	5 (0.51)	5 (0.33)
Parkland # Prop. (acres)	0 (0)	1 (0.08)	1 (0.08)	1 (0.08)	1 (0.08)	1 (0.08)	1 (0.08)
Total Cost (\$ M)	\$0	\$90-\$100	\$115-\$125	\$140-\$155	\$140-\$155	\$165-\$185	\$145-\$160

# Identified Historic Properties

(Listed on or eligible for the National Register of Historic Places)

- Buena Vista (SM-52) - 1840s Greek Revival-style house (Listed)
- St. Mary's Academy (SM-422) - 1930s period Academy Building with Art Deco details/school architecture
- Gough Farm (SM-331) - American four-square house with Colonial Revival-style details; includes outbuildings
- Port of Leonardtown (Old State Highway Administration Garages) (SM-883) - 1930s building type (masonry SRC garages) - This is also a park
- Drury-Saunders House (SM-540) - Queen Anne-style house

# Environmental Site Design

- Mandated by the Stormwater Management Act of 2007
- Intended to mimic pre-development conditions
- Uses several smaller facilities instead of a few large ones
- More project-area oriented

## Impacts in MD 5 Project Area

- May require partial acquisitions of several properties
- Facilities are typically along MD 5
- Final acreages will be determined during design

# BICYCLE FAQ

## Why are bicyclists allowed on the road?

Bicyclists are vehicle drivers, too. By law, “vehicle” means “any device in, on, or by which any individual or property is or might be transported or towed on a highway.” (Section 11-176, Annotated Code of Maryland) Every person operating a bicycle in a public area has all the rights granted to and is subject to all the duties required of the driver of a vehicle. (Section 21-1202, Annotated Code of Maryland)

## Why are bicyclists allowed to ride next to cars that are going fast?

Bicyclists are prohibited on roadways with a posted maximum speed greater than 50 mph unless a continuous paved shoulder or bicycle lane is provided. In addition, a person may not ride a bicycle on an expressway or on any controlled-access highway with signs stating that bicycles are prohibited.

## There’s a hiker/biker trail right next to the road. Shouldn’t bicyclists be riding there?:

Maryland law requires SHA to include bicycle accommodations in roadway construction projects whenever appropriate and feasible. That’s because not everyone who rides a bicycle does so for the same purpose. Hiker/biker trails are shared-use paths suitable for joggers, pedestrians, dog-walkers, children, babies in strollers, inexperienced or recreational cyclists, and others who enjoy exercising and spending time outdoors. Individuals who use a bicycle as their primary means of transportation may find that on-road bicycle accommodations better suit their needs. By removing themselves from the “mix” of hiker/biker trail-users, on-road bicyclists can reach their destinations more efficiently and lessen the risk that trail-users will find themselves in the path of bicyclists focused on getting from Point A to Point B as quickly as possible.

## Shouldn’t bicyclists ride on sidewalks?

The law allows bicyclists to ride on sidewalks only in Montgomery County. Not permitting bicycles on sidewalks minimizes conflicts between bicyclists and pedestrians.

## Isn’t it a law that bicyclists have to wear a helmet?

In Maryland, everyone under age 16 is required to wear a helmet when riding a bicycle on public property. Some local jurisdictions have requirements for helmet use that are tougher than State law. Wearing a helmet is a good safety measure for everyone who rides a bike: 85 percent of head and brain injuries resulting from bicycle crashes could be prevented if riders wore bicycle safety helmets.

## Every day as I drive downtown I see bicyclists and motorists behaving in rude and dangerous ways. Whatever happened to common courtesy?

Motorists and bicyclists who share the road—especially in heavily traveled urban and suburban areas—need to look out for one another. Motorists should leave at least three feet between their vehicles and any bicycles they pass, and bicyclists should leave at least three feet between themselves and parked cars. By law, bicycles are vehicles: motorists should treat them as such, and bicyclists should obey all traffic laws, including those that govern left- and right-turns, lights and stop signs, right-of-way, and proper lane position.

I bike—where can I get more information on bicycling in Maryland?

Additional information is available on SHA’s website at [www.marylandroads.com](http://www.marylandroads.com), click on Bicycling under EXPLORE MD, or by telephone at 1-888-204-4828.

Handout materials are also available at the bicycling station during today’s meeting.

# AS VEHICLE OPERATORS ON MARYLAND ROADS BICYCLISTS HAVE RIGHTS AND RESPONSIBILITIES

**It's the law:**  
 Section 21-1202 Annotated Code of Maryland

**It's MDOT Policy:**  
 Twenty-Year Bicycle and Pedestrian Access Master Plan

"Vehicle" means any device in, on, or by which any individual or property is or might be transported or towed on a highway.  
*Annotated Code of Maryland*

**As part of roadway construction projects, SHA provides on-road features like these:**



wide outside lane for bicycle compatibility



minimum four-foot-wide shoulder



bicycle lane/pocket  
 bike lane markings



bicycle signage

**And off-road features like:**



shared-use path (hiker/biker trail)



**Bicycles provide a valuable transportation option for many people and will help Maryland meet our state's long-term transportation needs.**

# Next Steps

- Evaluate and address public/agency comments *Summer 2012*
- Identify SHA's Preferred Alternative and Conceptual Mitigation *Fall 2012*
- Obtain Location/Design Approval *Spring 2013*