

Maryland Route 5 Pedestrian Crossings - Alternative Analysis

Alternative: 1.0 No Physical Improvements

Criteria: Listed from Highest to Lowest Priority	Criteria Weight ¹	X	Criteria Score ²	=	Weighted Score ²	Advantages & Considerations
A. Improve Pedestrian Safety						
1 Reduce Vehicle Speed	3	X	0	=	0	<ul style="list-style-type: none"> • does not improve safety
2 Lighting @ Crosswalks	3	X	0	=	0	
3 Crossing Outside of Crosswalks	2	X	0	=	0	
4 Lighting Along Shoulders	1	X	0	=	0	
B. Preserve Environment						
	3	X	3	=	9	<ul style="list-style-type: none"> • No additional impervious surfaces • Existing drainage directly into river not improved
C. Preserve Archaeology						
	3	X	5	=	15	<ul style="list-style-type: none"> • Impact for ramping down from new Anne Arundel Hall and Interpretive Center to be determined
D. Costs						
	3	X	5	=	15	<ul style="list-style-type: none"> • no cost
E. Improve Bicycle Safety						
	2	X	0	=	0	<ul style="list-style-type: none"> • does not improve safety
F. Viewshed						
1 Preserve Existing Viewshed	2	X	5	=	10	<ul style="list-style-type: none"> • existing viewshed preserved • Permanent radar speed sign has some viewshed concerns • no improvement
2 Enhance Aesthetics	1	X	0	=	0	
G. Improve Vehicle Safety						
	1	X	4	=	4	<ul style="list-style-type: none"> • No improvements to already safe vehicle safety conditions
H. Improve Accessibility						
	1	X	0	=	0	<ul style="list-style-type: none"> • no impact
I. Minimize Vehicle Congestion						
	1	X	3	=	3	<ul style="list-style-type: none"> • no impact - neither better or worse
Total Score					56	

Note 1: See Recommendations for Pedestrian Safety Improvements report, Section C for definition of criteria weights.

Note 2: See Recommendations for Pedestrian Safety Improvements report, page 16 for explanation on scoring system.

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Alternative: 2.0 Improve Southern Crosswalk (stop light, lighting at crosswalk, crosswalk bump-out, etc.)

Criteria: Listed from Highest to Lowest Priority	Criteria Weight ¹	Criteria Score ²	Weighted Score ²	Advantages & Considerations
A. Improve Pedestrian Safety				
1 Reduce Vehicle Speed	3	X 3	= 9	<ul style="list-style-type: none"> Traffic light and bump-out will have some affect on vehicle speeds.
2 Lighting @ Crosswalks	3	X 5	= 15	<ul style="list-style-type: none"> Provides increased visibility of pedestrians using the crosswalks.
3 Crossing Outside of Crosswalks	2	X 0	= 0	
4 Lighting along Shoulders	1	X 0	= 0	
B. Preserve Environment				
	3	X 3	= 9	<ul style="list-style-type: none"> No additional impervious surfaces Existing drainage directly into river not improved
C. Preserve Archaeology				
	3	X 5	= 15	<ul style="list-style-type: none"> No impact
D. Costs				
	3	X 4	= 12	
E. Improve Bicycle Safety				
	2	X 3	= 6	<ul style="list-style-type: none"> Provides increased visibility of bicyclists using the crosswalks. Consider installing bollards to slow bikes entering crosswalks
F. Viewshed				
1 Preserve Existing Viewshed	2	X 4	= 8	<ul style="list-style-type: none"> Traffic Light has some viewshed concerns
2 Enhance Aesthetics	1	X 0	= 0	
G. Improve Vehicle Safety				
	1	X 2	= 2	<ul style="list-style-type: none"> Traffic lights can increase risk of rear end collisions.
H. Improve Accessibility				
	1	X 0	= 0	
I. Minimize Vehicle Congestion				
	1	X 4	= 4	<ul style="list-style-type: none"> Would have a slight impact on vehicle congestion during off peak crossing times but would improve traffic congestion during peak crossing times.
Total Score			80	

Note 1: See Recommendations for Pedestrian Safety Improvements report, Section C for definition of criteria weights.

Note 2: See Recommendations for Pedestrian Safety Improvements report, page 16 for explanation on scoring system.

Appendix 3 – Scoring of Alternatives

Maryland Route 5 Pedestrian Crossings - Alternative Analysis

Alternative: 3.0 Traffic Calming (narrow traffic lanes and shoulders, lighting, sidewalks along road, curbs, etc.)

Criteria: Listed from Highest to Lowest Priority	Criteria Weight ¹	Criteria Score ²	Weighted Score ²	Advantages & Considerations
A. Improve Pedestrian Safety				
1 Reduce Vehicle Speed	3	X 5	= 15	<ul style="list-style-type: none"> • Traffic Calming has been proven to be effective slowing vehicle speeds. • Provides increased visibility of pedestrians using the crosswalks. • Slower vehicle speeds will improve safety for pedestrians crossing outside of the crosswalks. • Sidewalks along Route 5 will remove pedestrians from shoulders and lead them to crosswalks. • Realignment of crosswalk near Freed of conscious Monument towards St. John's Pond inlet will increase use of the crosswalk. • Lighting will be provided.
2 Lighting @ Crosswalks	3	X 5	= 15	
3 Crossing Outside of Crosswalks	2	X 5	= 10	
4 Lighting along Shoulders	1	X 5	= 5	
B. Preserve Environment				
	3	X 5	= 15	<ul style="list-style-type: none"> • Reduce impervious surfaces • Opportunity to treat existing drainage to St. John's Pond and St. Mary's River. • Potential limited impact for storm water management.
C. Preserve Archaeology				
	3	X 5	= 15	
D. Costs				
	3	X 1	= 3	<ul style="list-style-type: none"> • Bike lanes provided • Consider installing bollards to slow bikes entering crosswalks • Slower vehicle speeds will improve safety for bicyclists.
E. Improve Bicycle Safety				
	2	X 5	= 10	
F. Viewshed				
1 Preserve Existing Viewshed	2	X 5	= 10	<ul style="list-style-type: none"> • Viewshed preserved and enhanced. • Would improve the viewshed and provide a sense of arrival at St. Mary's City.
2 Enhance Aesthetics	1	X 5	= 5	
G. Improve Vehicle Safety				
	1	X 4	= 4	<ul style="list-style-type: none"> • slower speeds improve safety.
H. Improve Accessibility				
	1	X 0	= 0	
I. Minimize Vehicle Congestion				
	1	X 3	= 3	<ul style="list-style-type: none"> • Minimal impact
Total Score			110	

Note 1: See Recommendations for Pedestrian Safety Improvements report, Section C for definition of criteria weights.

Note 2: See Recommendations for Pedestrian Safety Improvements report, page 16 for explanation on scoring system.

Maryland Route 5 Pedestrian Crossings - Alternative Analysis

Alternative: 4.0 Footbridge

Criteria: Listed from Highest to Lowest Priority	Criteria Weight ¹	X	Criteria Score ²	=	Weighted Score ²	Advantages & Considerations
A. Improve Pedestrian Safety						
1 Reduce Vehicle Speed	3	X	0	=	0	<ul style="list-style-type: none"> • May increase speeds. • The existing crosswalk is removed, eliminating the problem.
2 Lighting @ Crosswalks	3	X	4	=	12	
3 Crossing Outside of Crosswalks	2	X	0	=	0	
4 Lighting along Shoulders	1	X	0	=	0	
B. Preserve Environment						
	3	X	2	=	6	<ul style="list-style-type: none"> • Increased impervious surfaces will require treatment. • Opportunity to provide treatment of existing drainage to St. John's Pond and St. Mary's River. • Impacts to archaeological sites will need to be managed and mitigated if necessary.
C. Preserve Archaeology	3	X	1	=	3	
D. Costs	3	X	1	=	3	
E. Improve Bicycle Safety	2	X	3	=	6	<ul style="list-style-type: none"> • Most bike traffic will go over bridge
F. Viewshed						
1 Preserve Existing Viewshed	2	X	0	=	0	<ul style="list-style-type: none"> • The viewshed would be impacted.
2 Enhance Aesthetics	1	X	0	=	0	
G. Improve Vehicle Safety	1	X	5	=	5	<ul style="list-style-type: none"> • Potential for accidents at current crosswalk is reduced.
H. Improve Accessibility	1	X	5	=	5	<ul style="list-style-type: none"> • Accessibility improved from Campus Center to Historic Campus.
I. Minimize Vehicle Congestion	1	X	5	=	5	<ul style="list-style-type: none"> • Congestion at current crosswalk would be significantly reduced.
Total Score					45	

Note 1: See Recommendations for Pedestrian Safety Improvements report, Section C for definition of criteria weights.

Note 2: See Recommendations for Pedestrian Safety Improvements report, page 16 for explanation on scoring system.

Maryland Route 5 Pedestrian Crossings - Alternative Analysis

Alternative: 5.0 Tunnel

Criteria: Listed from Highest to Lowest Priority		Criteria Weight ¹	Criteria Score ²	Weighted Score ²	Advantages & Considerations
A. Improve Pedestrian Safety	1 Reduce Vehicle Speed	3	X 0	= 0	<ul style="list-style-type: none"> • May increase speeds. • The existing crosswalk is removed, eliminating the problem.
	2 Lighting @ Crosswalks	3	X 4	= 12	
	3 Crossing Outside of Crosswalks	2	X 0	= 0	
	4 Lighting along Shoulders	1	X 0	= 0	
B. Preserve Environment		3	X 1	= 3	<ul style="list-style-type: none"> • Increased impervious surfaces will require treatment. • Opportunity to provide treatment of existing drainage to St. John's Pond and St. Mary's River.
C. Preserve Archaeology		3	X 0	= 0	<ul style="list-style-type: none"> • Potential significant impacts to archaeological resources.
D. Costs		3	X 0	= 0	
E. Improve Bicycle Safety		2	X 0	= 0	<ul style="list-style-type: none"> • Bicyclists will find other routes other than the tunnel due to switchbacks.
F. Viewshed	1 Preserve Existing Viewshed	2	X 5	= 10	<ul style="list-style-type: none"> • Existing viewshed preserved • Deep ramping would negatively affect the landscape.
	2 Enhance Aesthetics	1	X 0	= 0	
G. Improve Vehicle Safety		1	X 5	= 5	<ul style="list-style-type: none"> • Potential for accidents at current crosswalk is reduced.
H. Improve Accessibility		1	X 0	= 0	<ul style="list-style-type: none"> • the extent of switchback ramping will create an extended travel distances.
I. Minimize Vehicle Congestion		1	X 5	= 5	<ul style="list-style-type: none"> • Congestion at current crosswalk would be significantly reduced.
Total Score				35	

Note 1: See Recommendations for Pedestrian Safety Improvements report, Section C for definition of criteria weights.

Note 2: See Recommendations for Pedestrian Safety Improvements report, page 16 for explanation on scoring system.