

Chesapeake BAY CROSSING STUDY
TIER 2 NEPA

FINAL SECTION 4(f) EVALUATION

FINAL ENVIRONMENTAL IMPACT STATEMENT

APPENDIX E

OCTOBER 2026

MDTA Maryland Transportation Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Chesapeake BAY CROSSING STUDY

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Maryland Transportation Authority

MDTA

October 2026

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ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Affects
ARDS	Alternatives Retained for Detailed Study
BOE	Board of Education
CFR	Code of Federal Regulations
DOI	Department of the Interior
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
FIDS	Forest Interior Dwelling Species
ICM	Interagency Coordination Meeting
LOD	Limits of Disturbance
LPPRP	Land Preservation, Parks, and Recreation Plan
LWCF	Land and Water Conservation Fund
M.E.	Methodist Episcopal
MD	Maryland
MDNR	Maryland Department of Natural Resources
MDTA	Maryland Transportation Authority
MHT	Maryland Historical Trust
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
OWJ	Officials with Jurisdiction
PA	Programmatic Agreement
PTSU	Part-time Shoulder User
SAV	Submerged Aquatic Vegetation
SHA	(Maryland Department of Transportation) State Highway Administration
SHPO	State Historic Preservation Office
SSPRA	Sensitive Species Project Review Area
SUP	Shared-use path
TDM	Transportation Demand Management
TSM	Transportation Systems Management
U.S.	United States
USC	United States Code
USDOT	U.S. Department of Transportation

1 INTRODUCTION

Substantive changes made to this document since the January 2026 Draft Section 4(f) Evaluation are indicated with underlined text.

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966, (49 United States Code [USC] 303(c)) is a federal law that protects significant publicly-owned public parks, recreation areas, wildlife and waterfowl refuges, and publicly- or privately-owned historic sites listed or eligible for listing in the National Register of Historic Places (NRHP). As a USDOT agency, the Federal Highway Administration (FHWA) must comply with Section 4(f) and cannot approve the use of a Section 4(f) property within a proposed transportation project unless:

- There is no feasible and prudent avoidance alternative, and the proposed project includes all possible planning to minimize harm to the property resulting from such use (23 Code of Federal Regulations [CFR] 774.3(a)); or
- FHWA determines that the use of the Section 4(f) property, including any measure(s) to minimize harm (such as avoidance, minimization, mitigation, or enhancement measures), will have a *de minimis* impact (as defined in 23 CFR 774.17) on the property (23 CFR 774.3(b)).

Some publicly-funded recreational and park lands are also afforded protection under Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965, which provides funds and matching grants to Federal, state, and local governments for the acquisition of land and water for recreational purposes. Section 6(f) states that those properties acquired or improved with LWCF appropriations shall not be converted to a use other than public outdoor recreation without the approval of the U.S. Secretary of the Interior, acting through the National Park Service (NPS), and at the request of the state delegate/state liaison officer. Under the LWCF Act, if a Section 6(f) property or a portion of a property is converted to non-recreational use, replacement of the converted property with property of reasonably equivalent usefulness and location and of at least equal fair market value is required.

This Final Section 4(f) Evaluation describes Section 4(f)/Section 6(f) resources identified within the Tier 2 study area and evaluates potential impacts to Section 4(f) and Section 6(f) properties. This Final Section 4(f) Evaluation provides the basis for final *de minimis* and permanent use determinations associated with the Preferred Alternative.

1.1 Project Background and Description of Study Area

The Chesapeake Bay is one of Maryland's most important natural, economic, and cultural resources and the largest estuary in the United States. The 64,000-square-mile watershed that flows into the Chesapeake Bay spans six states and the District of Columbia and includes 150 major rivers and over 100,000 tributaries. The Chesapeake Bay has historically shaped the region's identity, culture, and traditions.

The Bay Bridge is a two-span structure that crosses the Chesapeake Bay from Anne Arundel County on the Western Shore to Queen Anne's County on the Eastern Shore. The original span opened in 1952, and the second span opened in 1973. Today, the two-lane original span typically carries eastbound traffic, and the three-lane second span typically carries westbound traffic.

However, lanes on the bridge can be reversed to accommodate periods of heavy traffic. The approaches along U.S. 50/301 on each shore have six lanes (three lanes for each travel direction). The Bay Bridge has become one of Maryland's most iconic and recognizable landmarks, used by millions of Maryland residents and other travelers every year.

1.2 The Tiered NEPA Process

To study possible solutions that could address transportation issues, specifically as they relate to congestion, the MDTA and FHWA are conducting the Bay Crossing Study as a tiered NEPA study. The tiered approach to NEPA has allowed the MDTA and FHWA to focus on broader, planning-level decisions related to the preferred location of a potential new Bay crossing in the Tier 1 Study Environmental Impact Statement (EIS). In the subsequent Tier 2 Study EIS, the MDTA and FHWA analyzed more specific, project-level alternatives and potential impacts.

The Tier 1 Study evaluated 14 possible alternative corridor locations over a broad geographic area that spanned nearly 100 miles of the Chesapeake Bay between Harford and Cecil counties to the north and St. Mary's and Somerset counties to the south. The Tier 1 Study identified Corridor 7 as the Selected Corridor Alternative, which is a two-mile-wide and approximately 22-mile-long corridor that follows existing U.S. 50/301 and includes the location of the existing Bay Bridge.

The Tier 2 Study involves a project-level (site-specific) alternatives analysis within the Tier 1 Selected Corridor Alternative (Corridor 7). The focus of the Tier 2 Study is to identify the environmental impacts associated with alternatives to address the Tier 2 Study's Purpose and Need. This technical report supports the evaluation presented in the EIS.

1.3 Study Limits

The MDTA analyzed the traffic volumes along Corridor 7 and its interchanges to determine appropriate study limits for the Tier 2 Study. The Tier 2 western study limit has been identified as the MD 2/MD 450 interchange just east of the Severn River Bridge, and the Tier 2 eastern study limit has been identified as the U.S. 50/301 split.

2 DESCRIPTION OF THE PURPOSE AND NEED AND PROPOSED ACTION

2.1 Purpose and Need

The purpose of the Tier 2 Study is to address existing and future transportation capacity needs and access across the Chesapeake Bay and at the Chesapeake Bay Bridge approaches along the U.S. 50/301 corridor. The Tier 2 Study is evaluating measures to reduce congestion; improve travel times and reliability, mobility, and roadway deficiencies; and accommodate maintenance activities and navigation, while minimizing impacts to local communities and the environment. Five needs have been identified:

- **Adequate Capacity and Reliable Travel Times** – Capacity of the Bay Bridge and its approaches on U.S. 50/301 are not sufficient to accommodate existing and anticipated traffic demand, resulting in traffic congestion on the Bay Bridge and adjacent roadway network.

- **Mobility** – Congestion at the Bay Bridge and its approaches and subsequent spillover effects on local roadways limit the movement of people, goods, and services across the Chesapeake Bay and in adjacent communities.

- **Roadway Deficiencies** – The bridge does not meet current design standards for design or traffic operations because of the existing narrow lane widths, lack of shoulders, and other factors.

- **Existing and Future Maintenance Needs** – Due to the age and design life of the existing Bay Bridge, substantial maintenance of the facility will be needed, leading to lane closures that make incident management more difficult and cause increased traffic and congestion delays.

- **Navigation** – The existing Bay Bridge is a key constraint for the height of ships that travel the Chesapeake Bay, including to the Port of Baltimore.

The MDTA has also identified two study objectives:

- **Environmental Responsibility** – Project alternatives will be developed to avoid and minimize impacts to communities and sensitive environmental resources.

- **Cost and Financial Responsibility** – Cost and financial responsibility will be a factor when analyzing and evaluating potential solutions, with regard to the means of paying for the development, operation, and maintenance of all proposed facilities.

2.2 Proposed Action

The MDTA identified the Alternatives Retained for Detailed Study (ARDS), which are the NEPA range of reasonable alternatives for evaluation in the Tier 2 Study EIS. The ARDS include the No-Build Alternative and six build ARDS, (**Figure 2-1)**. Each build ARDS includes removing the existing eastbound and westbound Bay Bridge spans and replacing them with two new bridge spans constructed near the location of the existing Bay Bridge. The ARDS are differentiated by the number of lanes provided across the new bridge and on the approaches as well as the bridge location, and consist of:

- **Alternative A - No-Build**: retains the existing Bay Bridge, the U.S. 50/301 alignment, and the existing number of lanes: 6 lanes along U.S. 50/301 on the Western Shore, 5 lanes across the Chesapeake Bay on the existing Bay Bridge, and 6 lanes along U.S. 50/301 on the Eastern Shore;

- **Alternative B - 6-8-6 North**: 6 lanes along U.S. 50/301 on the Western Shore, 8 lanes across the Chesapeake Bay on a new bridge with one span to the north of the existing spans and one span in-between the existing spans, and 6 lanes along U.S. 50/301 on the Eastern Shore;

- **Alternative C - 6-8-6 South**: 6 lanes along U.S. 50/301 on the Western Shore, 8 lanes across the Chesapeake Bay on a new bridge with one span to the south of the existing spans and one span in-between the existing spans, and 6 lanes along U.S. 50/301 on the Eastern Shore;

- **Alternative D - 8-8-8 North**: 8 lanes along U.S. 50/301 on the Western Shore, 8 lanes across the Chesapeake Bay on a new bridge with one span to the north of the existing spans and one span in-between the existing spans, and 8 lanes along U.S. 50/301 on the Eastern Shore;

- **Alternative E - 8-8-8 South**: 8 lanes along U.S. 50/301 on the Western Shore, 8 lanes across the Chesapeake Bay on a new bridge with one span to the south of the existing spans and one span in-between the existing spans, and 8 lanes along U.S. 50/301 on the Eastern Shore;

- **Alternative F - 8-10-8 North**: 8 lanes along U.S. 50/301 on the Western Shore, 10 lanes across the Chesapeake Bay on a new bridge with one span to the north of the existing spans and one span in-between the existing spans, and 8 lanes along U.S. 50/301 on the Eastern Shore; and

- **Alternative G - 8-10-8 South**: 8 lanes along U.S. 50/301 on the Western Shore, 10 lanes across the Chesapeake Bay on a new bridge with one span to the south of the existing spans and one span in-between the existing spans, and 8 lanes along U.S. 50/301 on the Eastern Shore.

Each of the build ARDS also include an optional pedestrian/bicycle shared-use path (SUP) if financial considerations allow, tolling, transit-related improvements, TSM/TDM, stormwater management (SWM), utilities, and truck weigh and inspection stations (TWIS). These common items, in addition to the improvements associated with each build alternative, informed the development of the limits of disturbance (LOD) for each of the build ARDS. Additional detail on the ARDS can be found in the Tier 2 Study Final EIS.

2.2.1 Alternative A: No-Build

Alternative A (6-5-6), the No-Build Alternative, would retain the existing Bay Bridge, the U.S. 50/301 alignment, and the existing number of lanes. This alternative would retain six lanes on the approaches on the Eastern and Western Shores and five lanes on the two-span Bay Bridge. The No-Build Alternative will include regular maintenance of the Bay Bridge and U.S. 50/301, but no capital improvements other than currently planned and programmed projects.

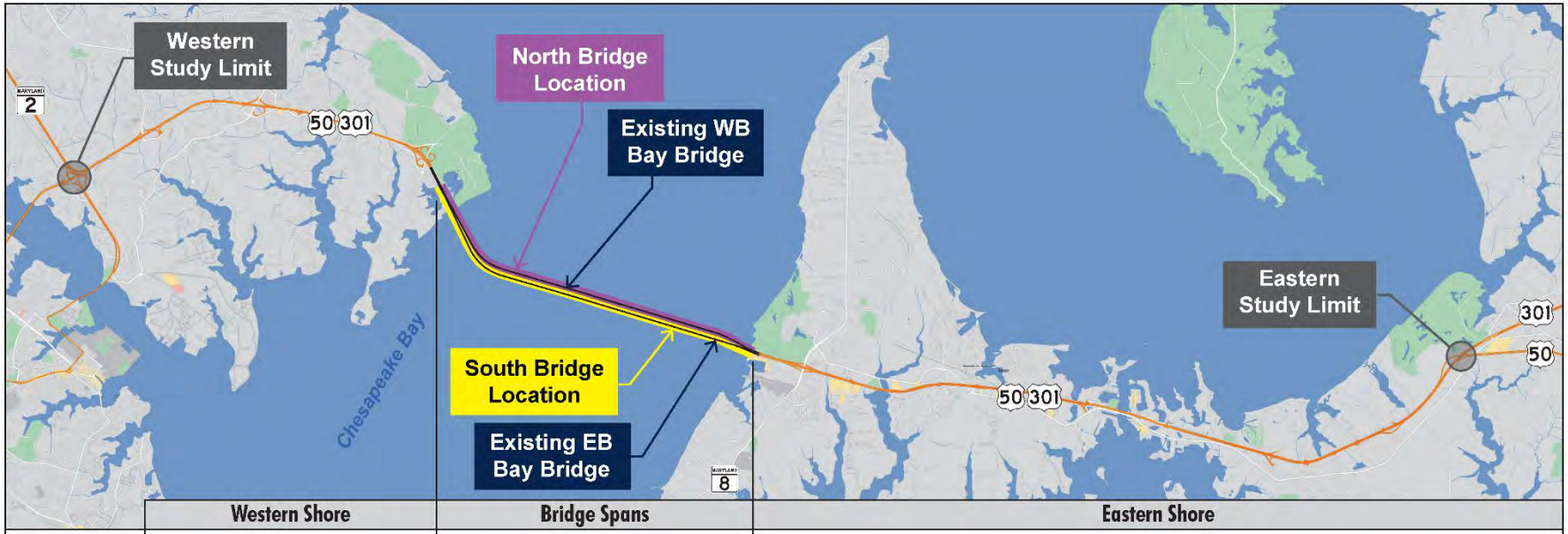
2.2.2 Alternative B: 6-8-6 North

Alternative B (6-8-6 North) would replace the existing Bay Bridge spans with two new bridge spans and would consist of six lanes along U.S. 50/301 on the Western Shore (three per direction), eight lanes on a new bridge (four per direction), and six lanes along U.S. 50/301 on the Eastern Shore (three per direction). The two new bridge spans would consist of one span to the north and one span in between the location of the existing bridge spans. The approach roadways would remain on the existing roadway alignment, except where necessary to connect to the new bridge spans. Thus, with Alternative B, the five existing bridge lanes would be increased to eight bridge lanes; however, the number of lanes on the Western Shore and Eastern Shore would not change and would remain at six total travel lanes beyond the immediate tie-ins to the new bridge spans.

2.2.3 Alternative C: 6-8-6 South

Alternative C (6-8-6 South) would replace the existing Bay Bridge spans with two new bridge spans and would consist of six lanes along U.S. 50/301 on the Western Shore (three per direction), eight lanes on a new bridge (four per direction), and six lanes along U.S. 50/301 on the Eastern Shore (three per direction). The two new bridge spans would include one span to the south and one span in between the location of the existing bridge spans. The approach roadways would remain on the existing roadway alignment, except where necessary to connect to the new bridge spans. Thus, with Alternative C, the five existing bridge lanes would be increased to eight bridge lanes; however, the number of lanes on the Western Shore and Eastern Shore would not change and would remain at six total travel lanes beyond the immediate tie-ins to the new bridge spans.

Figure 2-1: Alternatives Summary



	Western Shore	Bridge Spans	Eastern Shore
Alternative A: No-Build	6 Lanes	5 Lanes	6 Lanes
Alternative B	6 Lanes	8 Lanes NORTH	6 Lanes
Alternative C	6 Lanes	8 Lanes SOUTH	6 Lanes
Alternative D	8 Lanes	8 Lanes NORTH	8 Lanes
Alternative E	8 Lanes	8 Lanes SOUTH	8 Lanes
Alternative F	8 Lanes	10 Lanes NORTH	8 Lanes
Alternative G	8 Lanes	10 Lanes SOUTH	8 Lanes

2.2.4 Alternative D: 8-8-8 North

Alternative D (8-8-8 North) would replace the existing Bay Bridge spans with two new bridge spans and would consist of eight lanes along U.S. 50/301 on the Western Shore (four per direction), eight lanes on a new bridge (four per direction), and eight lanes along U.S. 50/301 on the Eastern Shore (four per direction). The two new bridge spans would include one span to the north and one span in between the location of the existing bridge spans. Alternative D would increase the number of lanes along the U.S. 50/301 approaches to eight lanes from the MD 2/MD 450 interchange on the Western Shore to the U.S. 50/301 split on the Eastern Shore and would generally remain on the existing roadway alignment except where necessary to connect to the new bridge spans. Thus, with Alternative D, the five existing bridge lanes would be increased to eight bridge lanes and the number of lanes on the Western Shore and Eastern Shore would increase from six total travel lanes to eight total travel lanes.

2.2.5 Alternative E: 8-8-8 South

Alternative E (8-8-8 South) would replace the existing Bay Bridge spans with two new bridge spans and would consist of eight lanes along U.S. 50/301 on the Western Shore (four per direction), eight lanes on a new bridge (four per direction), and eight lanes along U.S. 50/301 on the Eastern Shore (four per direction). The two new bridge spans would include one span to the south and one span in between the location of the existing bridge spans. Alternative E would increase the number of lanes along the U.S. 50/301 roadway approaches to eight lanes from the MD 2/MD 450 interchange on the Western Shore to the U.S. 50/301 split on the Eastern Shore and would generally remain on the existing roadway alignment except where necessary to connect to the new bridge spans. Thus, with Alternative E, the five existing bridge lanes would be increased to eight bridge lanes and the number of lanes on the Western Shore and Eastern Shore would increase from six total travel lanes to eight total travel lanes.

2.2.6 Alternative F: 8-10-8 North

Alternative F (8-10-8 North) would replace the existing Bay Bridge spans with two new bridge spans and would consist of eight lanes along U.S. 50/301 on the Western Shore (four per direction), ten lanes on a new bridge (five per direction), and eight lanes along U.S. 50/301 on the Eastern Shore (four per direction). The two new bridge spans would include one span to the north and one span in between the location of the existing bridge spans. Alternative F would increase the number of lanes along the U.S. 50/301 approach roadway to eight lanes from the MD 2/MD 450 interchange on the Western Shore to the U.S. 50/301 split on the Eastern Shore and would generally remain on the existing roadway alignment except where necessary to connect to the new bridge spans. Thus, with Alternative F, the five existing bridge lanes would be increased to ten bridge lanes and the number of lanes on the Western Shore and Eastern Shore would increase from six total travel lanes to eight total travel lanes.

2.2.7 Alternative G: 8-10-8 South

Alternative G (8-10-8 South) would replace the existing Bay Bridge spans with two new bridge spans and would consist of eight lanes along U.S. 50/301 on the Western Shore (four per direction), ten lanes on a new bridge (five per direction), and eight lanes along U.S. 50/301 on the Eastern Shore (four per direction). The two new bridge spans would include one span to the south and one span in between the location of the existing bridge spans. Alternative G would increase the number of lanes along the U.S. 50/301 approach roadway to eight lanes from the MD 2/MD 450 interchange on the Western Shore to the U.S. 50/301 split on the Eastern Shore

and would generally remain on the existing roadway alignment except where necessary to connect to the new bridge spans. Thus, with Alternative G, the five existing bridge lanes would be increased to ten bridge lanes and the number of lanes on the Western Shore and Eastern Shore would increase from six total travel lanes to eight total travel lanes.

2.2.8 Other Components of the Build Alternatives

2.2.8.1 Optional Pedestrian/Bicycle Shared-Use Path (SUP)

All proposed build ARDS include the option for the safe inclusion of a pedestrian/bicycle SUP along a new bridge. The MDTA has identified connections to existing and proposed trails and recreational facilities on the Eastern Shore and Western Shore.

2.2.8.2 Tolling

The MDTA owns and operates the Bay Bridge and uses tolls from its eight facilities to maintain and operate all their facilities. The Bay Bridge will continue to be a tolled facility and the MDTA will continue to manage it and the toll to address the current and future traffic and the associated congestion.

2.2.8.3 Transit-related Improvements

Transit-related improvements would be made through a financial commitment from the MDTA by providing a one-time investment for local transit agencies near the Bay Bridge. The same commitment would be made for all alternatives and would not be used to differentiate between alternatives.

All transit-related opportunities would be determined in the future, closer to the time of construction. The MDTA would coordinate with the Maryland Transit Administration (MTA), local governments, and local transit agencies to help them determine the opportunities. However, these agencies would determine the transit-related improvements that would be most beneficial for them at that time, and they would be separate and distinct projects from the Bay Crossing.

2.2.8.4 TSM/TDM Considerations

Two TSM/TDM improvements were considered with the build ARDS for potential implementation: congestion pricing and part-time shoulder use (PTSU) lanes.

The Bay Bridge will continue to be a tolled facility. Congestion pricing provides flexibility for toll management strategies, which the MDTA could use in the future to further reduce congestion and achieve transportation goals. Public input would be requested prior to the implementation of congestion pricing.

The shoulders on the bridge would be full width (12 and 14 feet wide) to accommodate future maintenance needs and incident management. Therefore, they would also be wide enough to accommodate a PTSU lane. Although the build ARDS have been developed to accommodate PTSU, the operation of PTSU lanes is not being included as part of the alternatives. Future implementation of PTSU is not precluded.

2.2.8.5 Stormwater Management (SWM)

A planning-level, conceptual SWM analysis was completed that identified the stormwater needs and potential treatment locations throughout the study area for each build alternative.

2.2.8.6 Utilities

The study area along U.S. 50/301 contains public utilities including: potable water, sanitary sewer, natural gas, electric power/distribution, communications, and cable television. The build ARDS would impact some of these utilities that are in close proximity to U.S. 50/301, and the impacts to these utilities and associated replacements have been included in the LOD for the build ARDS.

2.2.8.7 Truck Weigh and Inspection Stations (TWIS)

There are two existing TWIS along U.S. 50/301 between Oceanic Drive and the Bay Bridge, one in each direction. As part of the build ARDS, these facilities would be upgraded and relocated where necessary.

2.2.8.8 Limits of Disturbance (LOD)

The LOD is the proposed boundary that would include all construction, erosion and sediment control, SWM, and right-of-way offsets. The LODs for the build ARDS were developed from the proposed horizontal and vertical geometry, typical sections, roadside design, and proposed interchange modifications. For Alternatives B and C, the number of lanes on the Western Shore and Eastern Shore would not change and would remain at six total travel lanes beyond the immediate tie-ins to the new bridge spans. This would mean the limits of roadway improvements associated with Alternatives B and C would end at the immediate tie-ins to the new bridge spans, compared with the limits of roadway improvements for Alternatives D through G, which would end at the study limits (MD 2/MD 450 and the U.S. 50/301 split). Due to the shorter distance of proposed roadway modifications associated with Alternatives B and C, the LOD associated with these two build ARDS are smaller than the LOD associated with the other build ARDS.

2.3 Preferred Alternative

The Draft EIS identified Alternative C as the MDTA Recommended Preferred Alternative (RPA). After release of the Draft EIS and consideration of input from the public and agencies, Alternative C was identified as the Preferred Alternative. Additional engineering refinements were then made to the Preferred Alternative to further avoid and minimize impacts to environmental resources, including Section 4(f) and Section 6(f) properties. For purposes of this evaluation, the refined Alternative C is herein referred to as “Preferred Alternative”.

Refinements to the Alternative C conceptual design that are related to the use of Section 4(f) and Section 6(f) properties include:

- On the Western Shore, a potential SWM pond in the southwest corner of Sandy Point State Park was removed from the Preferred Alternative. This change avoided the roadway-related impact to Sandy Point State Park, which is a historic site, and Section 4(f) and Section 6(f) property.

- On the Western Shore, the proposed Skidmore Drive alignment was shifted to the north and a retaining wall was added to avoid impacts to Holly Beach Farm, which is a historic site, and Section 4(f) and Section 6(f) property.

The Preferred Alternative could include an optional SUP that would provide connectivity for bicyclists and pedestrians across the Bay Bridge where it currently does not exist. After approval of the Final EIS/Record of Decision, the MDTA will perform financial analysis and determine whether an SUP would be implemented. If the SUP is included, additional coordination would occur among other local, state, and Federal agencies regarding connections, parking, maintenance, and other features, as well as consistency with local pedestrian and bicycle plans, the 2025 Maryland State Transportation Trails Strategic Plan, and the MDOT's Complete Streets Policy.

3 DESCRIPTION OF SECTION 4(F) PROPERTIES

3.1 Overview

This section identifies and further describes each Section 4(f) property that is within proximity to the study area. **Table 3-1** and **Table 3-2** provide an overview of identified Section 4(f) parks, recreation areas, and historic sites within the study limits. **Table 3-3** identifies each property that has been acquired or improved using funds from the LWCF Act of 1965 and is thus subject to Section 6(f) protection in addition to Section 4(f). **Figure 3-1** and **Figure 3-2** provide an overview of Section 4(f) properties in the study area. Note that this evaluation organizes Section 4(f) properties first as Park/Recreation Area Properties west to east and then as Historic Sites west to east along U.S. 50/301. Note that Holly Beach Farm and Sandy Point State Park are both publicly-owned public parks and historic sites but have different park and historic site boundaries; therefore, they are both listed in **Table 3-1** and **Table 3-2**.

Table 3-1: Section 4(f) Park/Recreation Area Properties

Map ID	Section 4(f) Property	Size	Official(s) with Jurisdiction	Type of Section 4(f) Property
1	Broadneck Peninsula Trail	8 miles	Anne Arundel County Department of Recreation and Parks	Existing and Planned Recreational Trail
2	Holly Beach Farm (Public Park)	293 acres	Maryland Department of Natural Resources (MDNR)	Public Park
3	Sandy Point State Park (Public Park)	786 acres	MDNR	Public Park
4	Captain John Smith Chesapeake National Historic Trail	3,000 miles	NPS	Recreational Water Trail
5	Star Spangled Banner National Historic Trail	560 miles	NPS	Recreational Water Trail
6	Kent Island Water Trails	Varies	Queen Anne's County Parks & Recreation and MDNR	Recreational Water Trail
7	Terrapin Nature Park	276 acres	Queen Anne's County Parks & Recreation	Public Park
8	Eisinger Property	5.3 acres	Queen Anne's County Parks & Recreation	Planned Public Park
9	Stevensville Middle School	9.5 acres	Queen Anne's County Board of Education and Queen Anne's County Parks & Recreation	Recreation Area
10	Cross Island Trail	6.5 miles	Queen Anne's County Parks & Recreation	Recreational Trail
11	Piney Creek Nature Area	40.1 acres	Queen Anne's County Parks & Recreation	Public Park
12	Kent Narrows Landing	1 acre	Queen Anne's County Parks & Recreation	Recreation Area
13	Long Point Park	7.3 acres	Queen Anne's County Parks & Recreation	Public Park

Table 3-2: Section 4(f) Historic Sites

Map ID	Section 4(f) Property	Size	Official(s) with Jurisdiction	Ownership	NRHP Status	Type of Section 4(f) Property
14	Dutch Mill Farm Restaurant*	1.2 acres	Maryland Historical Trust (MHT)	Private	NRHP-eligible	Historic Site
15	Asbury Broadneck Methodist Church and Cemetery*	6.5 acres	MHT	Private	NRHP-eligible	Historic Site
16	Woodlyn Farm*	57.8 acres	MHT	Private	NRHP-eligible	Historic Site
17	Skidmore*	87.4 acres	MHT	Private	NRHP-eligible	Historic Site
18	Holly Beach Farm* (Historic Site)	326.2 acres	MHT	Public	NRHP-eligible	Historic Site
19	Sandy Point State Park* (Historic Site)	479 acres	MHT	Public	NRHP-eligible	Historic Site
20	Chesapeake Bay Bridge (William Preston Lane Jr. Memorial Bridge)*	4 miles/span	MHT	Public	NRHP-eligible	Historic Site
21	Eareckson House*	House Boundary Only	MHT	Private	NRHP-eligible	Historic Site
22	Stevensville Historic District*	56.8 acres	MHT	Various	NRHP-listed	Historic Site
23	Piney Narrows Yacht Haven*	18.2 acres	MHT	Private	NRHP-eligible	Historic Site
24	Kent Narrows Bridge (State Highway Administration [SHA] Bridge No. 1700600)*	663 feet	MHT	Public	NRHP-eligible	Historic Site

**Historic sites were identified through the Section 106 consultation process. Refer to the Bay Crossing Study Tier 2 Cultural Resources Technical Report for additional information on these historic sites.*

Table 3-3: LWCF Projects (Section 6(f) Properties)

Project Name	Project Type	Year
Holly Beach Farm Easement	Acquisition	2000
Sandy Point South Beach – Bathhouse Development #1	Development	1983
Sandy Point State Park – Plaza Development #2	Development	1983
Sandy Point State Park – Development #3	Development	1990
Sandy Point State Park – Development #4	Development	1993
Sandy Point State Park	Acquisition	1996
Sandy Point State Park Captain John Smith Plaza – Playground Replacement	Development	2016

Figure 3-1: Section 4(f) Property Overview (Map 1 of 2)

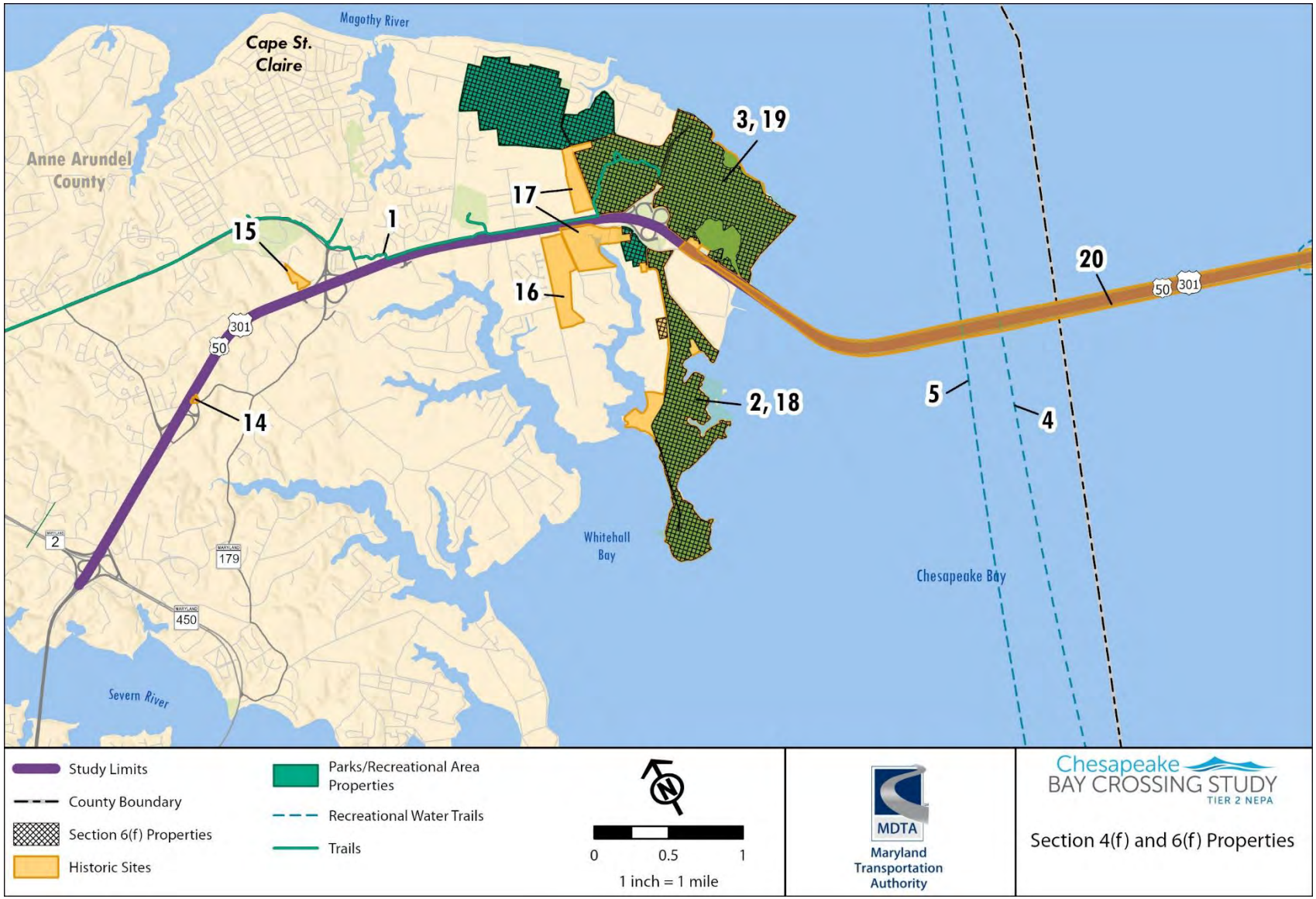


Figure 3-2: Section 4(f) Property Overview (Map 2 of 2)



3.2 Park/Recreation Area Properties

3.2.1 Broadneck Peninsula Trail

The Broadneck Peninsula Trail (**Figure 3-3**) is an approximately eight-mile recreational trail that extends along the College Parkway corridor across the northern half of the Broadneck Peninsula in Anne Arundel County. The trail has approximately 3.2 miles of completed segments, and approximately 4.8 additional miles of segments that are planned for future completion. Two planned segments of the trail are located within the study area and are currently under construction and expected to be completed by fall 2025. These segments begin at East College Parkway and Peregoy Park Place, follow U.S. 50/301 adjacent to the right-of-way of College Parkway, and terminate along Log Inn Road, with a spur into Sandy Point State Park. Anne Arundel County Department of Recreation and Parks owns and manages the trail and is the Official with Jurisdiction (OWJ).

The trail is a paved, ten-foot-wide asphalt trail that provides various recreation and transportation benefits to the public. Walking, hiking, and biking along completed segments of the trail provides opportunities for active recreational activities. Upon total completion, the trail will ultimately connect the Baltimore & Annapolis Trail to Sandy Point State Park, with multiple branches and connection points to Broadneck Library, Broadneck Park, Bay Head Park, Anne Arundel Community College, and the Maryland Transit Administration's Jones Station Road Park & Ride along the College Parkway corridor, which will further provide active transportation options in the northern half of the Broadneck Peninsula.

For completed segments, there are various access points to the trail along College Parkway, including at the intersections of Bay Dale Drive, Bellerive Drive, Green Holly Drive, and Cape St. Claire Road. Parking at the Broadneck Park and Broadneck Library parking lots allows for further access to the trail between Green Holly Drive and Destiny Circle.

There are no similarly used lands within the Broadneck Peninsula Trail vicinity.

3.2.2 Holly Beach Farm

Holly Beach Farm (**Figure 3-4**) is a 293-acre waterfront park located south of U.S. 50/301 and Sandy Point State Park and west of the Bay Bridge in Anne Arundel County. MDNR owns Holly Beach Farm and is the OWJ.

Holly Beach Farm is publicly-owned public parkland with open fields, saltwater shorelines, freshwater ponds, Chesapeake marshes and coves, coastal woodlands, and wide Bay views. Until recently, a majority of the property and shoreline were privately owned and therefore these parkland features have not been available for public use. After accepting the donation of Holly Beach Farm in March 2024, MDNR anticipates they may eventually develop the property as a natural resource management area with prescriptive and measured public access. Until further planning and management takes place, Holly Beach Farm is currently not readily accessible to the general public. The property also has an abundant historic past operating as a horse and dairy farm with gardens and estates; several of the associated dwellings and buildings remain on the public property. Refer to **Section 3.3.4** for additional historic context on Holly Beach Farm.

Holly Beach Farm is served by a single road, Holly Beach Farm Road, from Skidmore Drive, the frontage road that runs parallel to U.S. 50/301 between Whitehall Road and Oceanic Drive.

There is no other similarly used land within the vicinity of Holly Beach Farm. While Sandy Point State Park, further described in **Section 3.2.3**, is located north of Holly Beach Farm, across U.S. 50/301, and provides outdoor recreation and conservation opportunities, it is readily accessible to the public. Holly Beach Farm has broader natural resource management and conservation goals than Sandy Point State Park and is currently not readily accessible to the public.

In 2000, MDNR received $992,023 from LWCF to acquire an easement associated with the property. The acquisition included 324 acres of open space with intentions to expand Sandy Point State Park and recreational opportunities in the area. As a result of this funding, Holly Beach Farm is protected under Section 6(f) of the LWCF Act.

3.2.3 Sandy Point State Park

Sandy Point State Park (**Figure 3-5**) is a 786-acre public park located at 1100 East College Parkway, north of U.S. 50/301 near the western end of the Bay Bridge in Anne Arundel County. The southeast and east portion of the state park property is shoreline along the Chesapeake Bay. Residential property is located along the northern and western boundaries, and the Corcoran Woods is a 215-acre forested area located in the northwest portion of the park. Sandy Point State Park is also located directly north of Holly Beach Farm. The OWJ is MDNR, who also owns and manages the state park.

Sandy Point State Park is one of the most popular state parks in Maryland. It provides various recreational opportunities including access to the waters of the Chesapeake Bay and environmental education and conservation opportunities. The park features a one-mile-long swimming beach, bathhouses, three picnic areas with 12 pavilions overlooking the Chesapeake Bay, food and beverage concessions, parking lots, several playgrounds, a marina store with 22 launching ramps and six jetties for year-round fishing and boating activities, two hiking/walking trails, two youth group camping sites, and a nature center. Mezick Pond, one of the six jetties, and the southernmost portion of the South Beach all lie along U.S. 50/301, where the Bay Bridge approach span ties to U.S. 50/301. There are currently no planned facility additions to Sandy Point State Park.

Sandy Point State Park is adjacent to the north of U.S. 50/301 and is accessed via U.S. 50/301 and frontage roads East College Parkway or Oceanic Drive (using Exit 32). These frontage roads lead directly to South Beach Road inside the state park. Access into Sandy Point State Park from the Bay is available via a water vessel through Mezick Pond, near the southernmost portion of the park and between the current approach span for U.S. 50/301 and a park jetty. Additionally, once construction of the Broadneck Peninsula Trail is completed, Sandy Point State Park will also be accessible via the recreational trail along Long Inn Road.

As described in **Section 3.2.2**, Holly Beach Farm is located within the vicinity of Sandy Point State Park; however, Sandy Point State Park is a more established public recreation area and more equipped to manage events and large crowds of visitors.

Sandy Point State Park has received over $5 million in investments from the LWCF for six projects over the last 50 years. In 1966, LWCF invested $123,324 for MDNR to acquire 132.7 acres of land for the park. In 1983, LWCF financed $458,806 for two projects to construct a bathhouse (Development #1) and an outdoor plaza (Development #2) at the South Beach Area. In 1990, Sandy Point State Park received $916,702 to expand and update sanitary, comfort, and concession facilities on the South Beach and East Beach, as well as construction of a public facilities headquarters office building (Development #3). In 1993, the Park received $1,515,697 to finalize projects from Developments #1 through #3, including utility hookups, bathhouse additions, picnic shelter additions, playground additions, and construction of a new entrance road, parking lot, and contact station. Most recently, an allocation of $200,000 in 2016 provided funding to rebuild the Chesapeake Bay-themed Captain John Smith Plaza playground at the South Beach. As a result of this funding, the entire Sandy Point State Park property is protected under Section 6(f) of the LWCF Act.

3.2.4 Captain John Smith Chesapeake National Historic Trail

The Captain John Smith Chesapeake National Historic Trail (**Figure 3-6**) is a national historic water trail, approximately 3,000 miles in length, that follows the route of Captain John Smith as he explored the Chesapeake Bay and Susquehanna River between 1607 and 1609. The trail follows the coastline of the Chesapeake Bay and its major tributaries, and a segment of the trail crosses under the Bay Bridge. The trail allows access via paddling and boating activities to various visitor centers and connects users to historic sites within the Chesapeake Bay.

NPS has jurisdiction over this water trail and is the OWJ. Pursuant to 23 CFR 774.13(f), certain trails, paths, bikeways, and sidewalks, including National Historic Trails established under the National Trails System Act, are excepted from Section 4(f) requirements unless the affected trail section(s) are defined as historic sites. Since the trail segments near the Proposed Action are not considered historic sites, but are parts of the National Historic Trail, potential impacts to the Captain John Smith Chesapeake National Historic Trail do not require Section 4(f) approval and are an exception from Section 4(f) requirements. Therefore, this water trail is not discussed further in this evaluation. Regardless of this exception, the project would cross over the trail and therefore would not permanently impact its continuity.

3.2.5 Star-Spangled Banner National Historic Trail

The Star-Spangled Banner National Historic Trail (**Figure 3-7**) is a 560-mile-long national historic land and water-based trail that commemorates the War of 1812 in the Chesapeake Bay region. A segment of the water-based portion of the trail crosses under the Bay Bridge and through the study area. This trail is used for various recreational activities, including driving, biking, and paddling and connects users to historic sites within the Chesapeake Bay region.

NPS has jurisdiction over this trail and is the OWJ. Pursuant to 23 CFR 774.13(f), certain trails, paths, bikeways, and sidewalks, including National Historic Trails established under the National Trails System Act, are excepted from Section 4(f) requirements unless the affected trail section(s) are defined as historic sites. Since the trail segments near the Proposed Action are not considered historic sites, but are parts of the National Historic Trail, potential impacts to the Star-Spangled Banner National Historic Trail do not require Section 4(f) approval and are an exception from Section 4(f) requirements. Therefore, this water trail is not discussed further in this evaluation. Regardless of this exception, the project would cross over the trail and therefore would not permanently impact its continuity.

Figure 3-3: Broadneck Peninsula Trail



Figure 3-4: Holly Beach Farm (Public Park)



Figure 3-5: Sandy Point State Park (Public Park)



Figure 3-6: Captain John Smith Chesapeake National Historic Trail

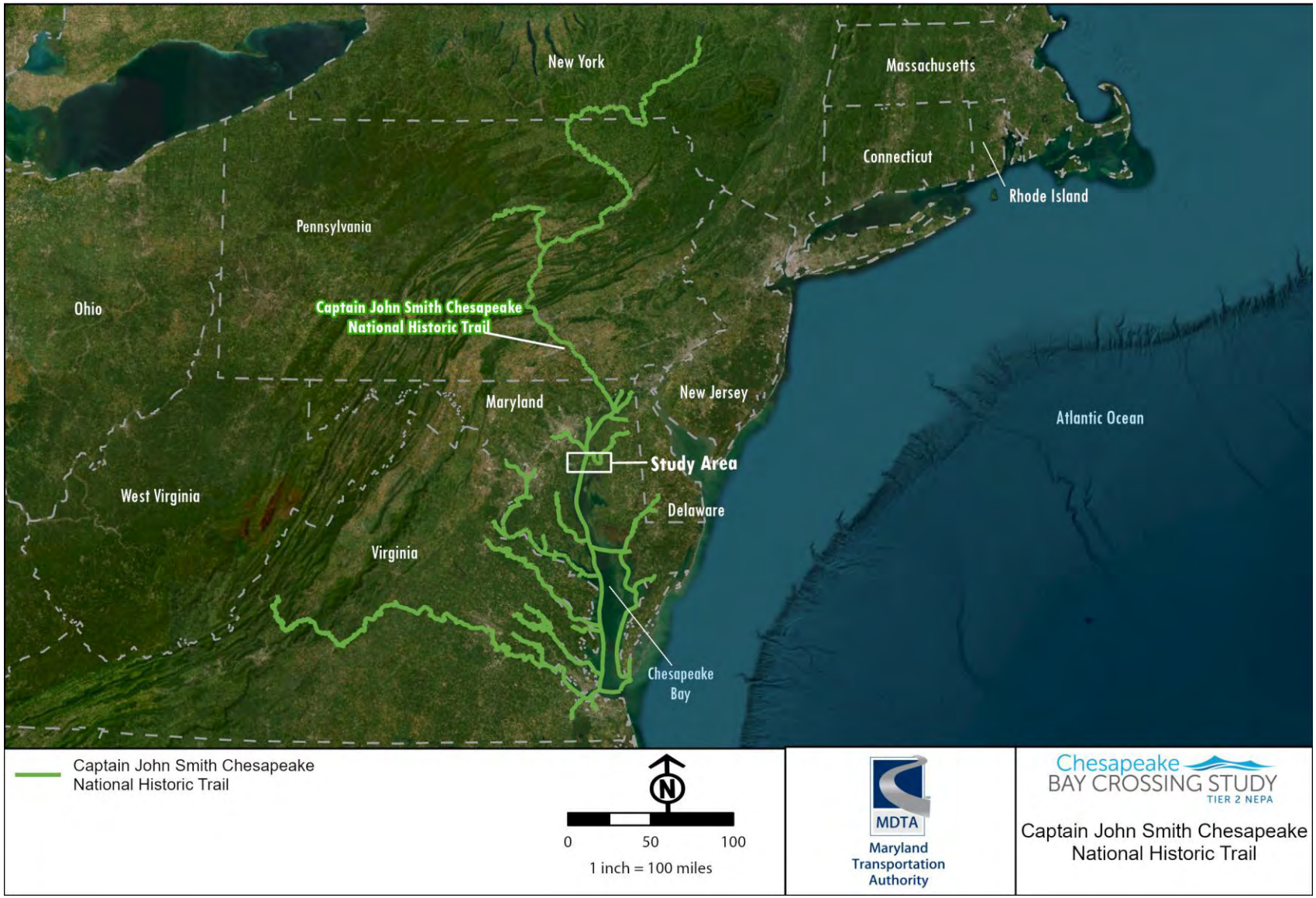
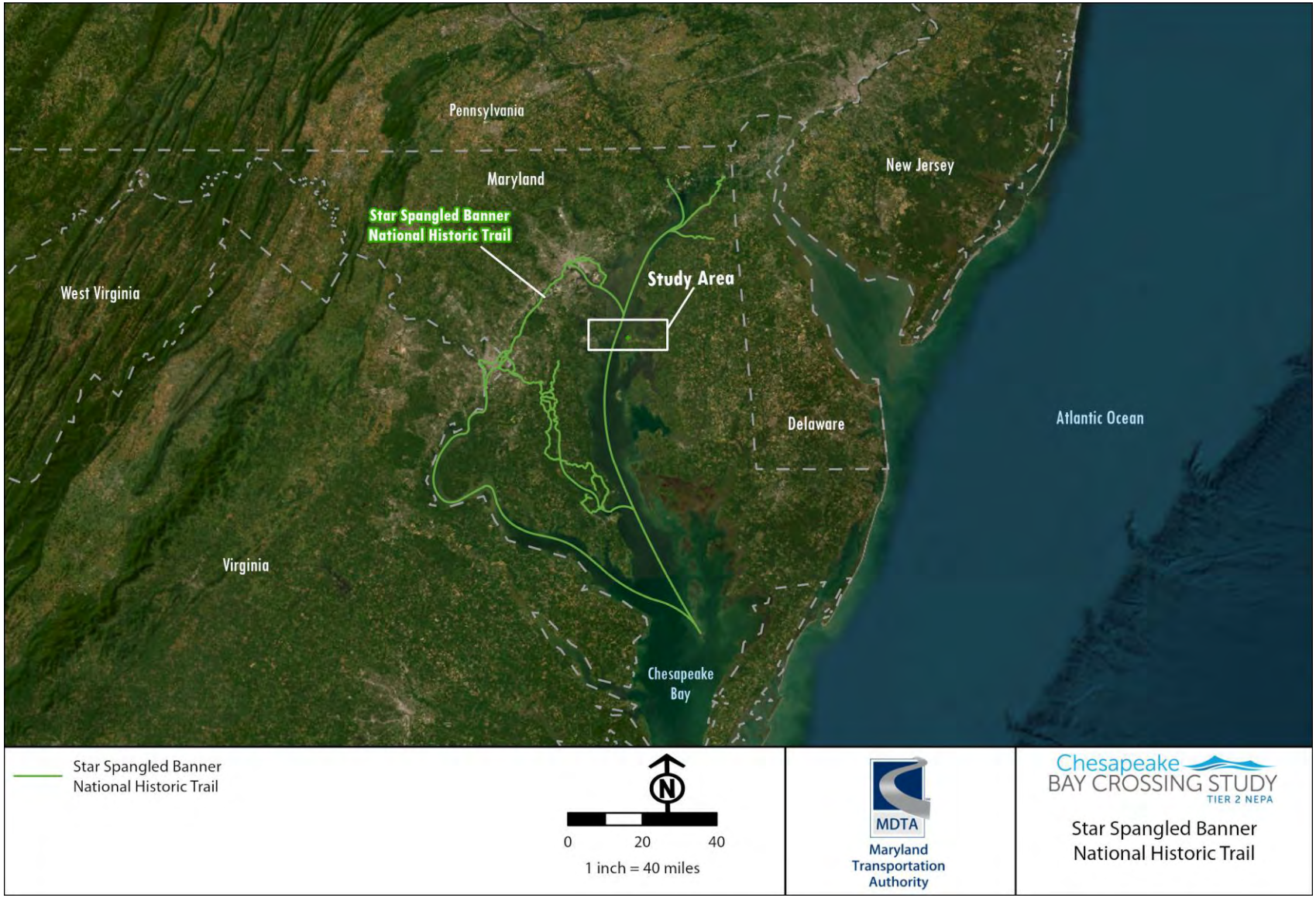


Figure 3-7: Star-Spangled Banner National Historic Trail



3.2.6 Kent Island Water Trails

The Kent Island Water Trails (**Figure 3-8**) include six different water trail routes, three of which are in the study area, and range from 1.25 miles to 3.6 miles in length. Jurisdiction of these water trails lies with Queen Anne's County Parks and Recreation Department and MDNR.

The trails stretch along the Chesapeake Bay, Eastern Bay, Chester River, Prospect Bay, Thompson Creek, and Warehouse Creek. These water-based trails allow the public access to recreation areas and open waters around the Eastern Shore. Three of these trails are near the study area: the Chesapeake Bay Trail along the western shore of Kent Island, the Kent Narrows Trail South which is located south of the Kent Narrows Bridge toward Prospect Bay, and the Kent Narrows Trail North, which is located north of the Kent Narrows Bridge toward the Chester River. The Chesapeake Bay Trail crosses under the Bay Bridge from Terrapin Nature Park before continuing south to Matapeake Park. The Kent Narrows Trail South crosses under U.S. 50/301 at the Kent Narrows Bridge from Kent Narrows Landing before continuing south to Goodhands Creek Landing. The Kent Narrows Trail North does not directly intersect U.S. 50/301 but extends east-west along the north side of the corridor from Kent Narrows Landing to Jackson Creek Landing.

The water trail provides a variety of recreational opportunities for the public, including paddle-based boating such as kayaking and canoeing. The trail also supports shoreline and on-water fishing, birdwatching, and wildlife viewing, offering users access to natural habitats and scenic waterways.

The Kent Island Water Trails are accessible at various water access locations. Parking lots and water access are available at Terrapin Nature Park, Matapeake Clubhouse and Beach, and Matapeake Fishing Pier & Ramp for the Chesapeake Bay Trail; Goodhands Creek Landing and Kent Narrows Landing for the Kent Narrows Trail South; and Kent Narrows Landing and Jackson Creek Landing for the Kent Narrows Trail North. All launch areas are publicly available.

The Captain John Smith Chesapeake National Historic Trail and Star-Spangled Banner National Historic Trail are similar recreational water trails within the vicinity of the Kent Island Water Trail within the Chesapeake Bay.

3.2.7 Terrapin Nature Park

Terrapin Nature Park (**Figure 3-9**) is a 276-acre public, waterfront park located at 191 Log Canoe Circle in Queen Anne's County. The property is bounded by U.S. 50/301 to the south, the Chesapeake Bay to the west, and commercial properties to the north and east. The park includes additional parcel slivers east of MD 8. Terrapin Nature Park is owned by Queen Anne's County and managed by the County's Parks and Recreation Department, who is the OWJ.

Terrapin Nature Park has many opportunities for active and passive recreation. The park includes a 3.25-mile oyster chaff walking trail that meanders throughout the entire park into open meadows, wetlands, tidal ponds, woodlands, and a sandy shoreline overlooking the Chesapeake Bay. Two segments of this trail border U.S. 50/301 along the southern portion of the property. This trail also connects to the Cross Island Trail at the north end of the park. Other park amenities include multiple picnic areas, restroom facilities, two observation decks, a gazebo, and a ranger station. Fishing is also permitted in designated areas. Access to the park is provided on the east side of the property by vehicle from MD 8, along Skipjack Parkway or Paul Smith Parkway and

Log Canoe Circle. Parking is available at three different locations in the park. Pedestrians and bicyclists can also access the park via the Cross Island Trail along the northern property boundary. There are currently no planned facility additions to Terrapin Nature Park.

There are other similarly used lands within the vicinity of Terrapin Nature Park. Old Love Point Park and Kent Island High School are both located northeast of Terrapin Nature Park, and both offer many active recreational activities on sports fields and open recreational grounds. The Eisinger Property, another County-owned park space, is located east of Terrapin Nature Park, between MD 8 and U.S. 50/301, and also offers open space for passive and active recreation.

3.2.8 Eisinger Property

The Eisinger Property (**Figure 3-10**) is a two parcel, approximately 5.3-acre vacant property in Queen Anne's County, bounded by Love Point Road to the north, U.S. 50/301 to the south, and commercial properties to the west and east. Queen Anne's County owns the property. The County's Parks and Recreation Department manages the property and is the OWJ.

The vacant property is heavily shrubbed and forested in the eastern and southern portions including along the property boundary that is adjacent to U.S. 50/301. Thompson Creek also runs along the eastern property boundary and to the south and under U.S. 50/301. The property is not enclosed or fenced.

The Eisinger Property was privately owned until 2013, when the property was donated to Queen Anne's County and a Maryland Environmental Trust Easement was placed on the property in an effort to conserve the land and restrict development. The property is currently listed as a County Park in Queen Anne's County Property Viewer but is not listed in the County's Park Inventory in the 2022 Land Preservation, Parks, and Recreation Plan (LPPRP). Per initial coordination with Queen Anne's County, the Eisinger Property is also currently listed in the locally adopted 2016 Kent Island Transportation Plan. The recommended improvement includes the construction of a new bicycle and pedestrian bridge, across the entire Eisinger Property, to connect the Eisinger Property and Love Point Road with the shopping center located along Thompson Creek Service Road (south of U.S. 50/301). As this recommended improvement is currently only a concept identified in the Kent Island Transportation Plan, funding and a feasibility study is required to move forward. Further coordination with the County's Parks and Recreation Department reported that the County has no other plans for the Eisinger Property at this time.

The Eisinger Property is in close proximity to Terrapin Nature Park to the west and Stevensville Middle School to the east. However, the Eisinger Property does not contain designated recreational characteristics like that of Terrapin Nature Park or Stevensville Middle School.

Figure 3-8: Kent Island Water Trails



Figure 3-9: Terrapin Nature Park



Figure 3-10: Eisinger Property



3.2.9 Stevensville Middle School

Stevensville Middle School (**Figure 3-11**) is an approximately 9.5-acre educational facility located at 610 Main Street in Queen Anne's County. The property is bounded by Main Street to the north, Duke Street to the west, residential and commercial property to the east, and U.S. 50/301 to the south. This property is owned by Queen Anne's County Board of Education (BOE) and Queen Anne's County Parks and Recreation Department manages the care and maintenance of all BOE park/sporting field properties. The BOE and Queen Anne's County Parks and Recreation Department are therefore both OWJs for this property.

The Stevensville Middle School educational building is located on the northern side of the property. The southern side of the property, which borders U.S. 50/301, includes two outdoor basketball courts and one, large multipurpose field. There are currently no planned facility additions to Stevensville Middle School. While primarily used for structured education, the basketball courts and multipurpose field provide substantial walk-on recreational opportunities for the public and surrounding communities. Therefore, this school property is considered a publicly-owned, publicly accessible recreation facility, and thus a Section 4(f) property.

The recreational amenities available at Stevensville Middle School can be accessed through the property's circle drive and parking lots along Main Street and Duke Street. The basketball courts and multipurpose field are not fenced or locked and are therefore freely accessible to the public. Bayside Elementary School and Kent Island Elementary School are two elementary schools with recreational facilities similar to those of Stevensville Middle School. These elementary schools are located within the vicinity and to the north of Stevensville Middle School but outside of the study area.

3.2.10 Cross Island Trail

The Cross Island Trail (**Figure 3-12**) is a 6.5-mile-long trail that runs east-west in Queen Anne's County, extending from Terrapin Nature Park to the Chesapeake Heritage and Visitor Center at Kent Narrows. A recent expansion terminates the trail near Long Point Park in Grasonville. Queen Anne's County owns the trail and the County's Parks and Recreation Department manages the trail, who is the OWJ.

The Cross Island Trail is a multi-use recreation trail that passes through farmlands, meadows, woods, and commercial properties on the Eastern Shore. The trail is popular among pedestrians and bicyclists, and amenities include various benches, picnic tables, and restrooms for users along the trail. The trail is both unpaved and paved in many locations, and boardwalks connect trail segments over wetlands. The trail also connects users to several public lands, including Terrapin Nature Park, Old Love Point Park, Ferry Point Park, and Long Point Park, as well as boat launches, fishing areas, parking lots, and other conveniences like hotels, restaurants, and bicycle rentals. There are currently no planned facility additions to the Cross Island Trail.

The Cross Island Trail lies parallel to U.S. 50/301 at multiple locations within the study area and enhances connections to these surrounding amenities. Beginning in Terrapin Nature Park, the trail travels east through Stevensville for approximately three miles before closely aligning to Piney Creek Road along U.S. 50/301 in Chester. The trail travels for approximately two more miles adjacent to westbound U.S. 50/301 until reaching Kent Narrows. The trail then passes under the Kent Narrows Bridge and crosses back under U.S. 50/301 along Kent Narrows

Road to closely follow the north side of U.S. 50/301 for the final two miles before terminating at Long Point Park.

The Cross Island Trail is accessible at various locations. Parking lots are available at Terrapin Nature Park, Old Love Point Park, Castle Marina Road, the Chesapeake Heritage and Visitor Center, and the public lots beneath the Kent Narrows Bridge.

There are no similarly used lands within the vicinity of the Cross Island Trail.

3.2.11 Piney Creek Nature Area

Piney Creek Nature Area (**Figure 3-13**) is a 40.1-acre public park located directly north and adjacent to U.S. 50/301 in Queen Anne's County near Chester. The property is southwest of Ferry Point Park and extends out into the waters of Piney Creek. The property is owned by Queen Anne's County and is considered a Countywide Special Use Park, which generally serves the entire County and includes a unique natural setting. Queen Anne's County Parks and Recreation Department manages the property, who is the OWJ.

The property is undeveloped and features natural spaces and habitats for a variety of local flora and fauna. The property includes both tidal and non-tidal wetlands, as well as upland areas with heavy brush. This natural space provides visitors with opportunities for passive recreation and nature observation. There are currently no planned facility additions to Piney Creek Nature Area. The entire southern boundary of Piney Creek Nature Area borders U.S. 50/301. The Cross Island Trail passes through the southern end of Piney Creek Nature Area. The Kent Narrows Landing to Piney Creek & Jackson Creek segment of the Kent Island Water Trails also passes by the northern property boundary of Piney Creek Nature Area.

Access to Piney Creek Nature Area is provided at the Piney Creek Road and Nash Court intersection, west of main section of the property. A small parking area is available for users. Access into the property is also available through the Cross Island Trail.

There are other similarly used lands within the vicinity of Piney Creek Nature Area. Ferry Point Park is a nature park east of Piney Creek Nature Area that extends out into the waters of Piney Creek and the Chester River and features a variety of tidal wetlands, sandy shorelines, and other natural resources for passive recreation. Ferry Point Park is outside the study area and is therefore not analyzed in this report.

In 2002, Queen Anne's County acquired a large portion of Piney Creek Nature Area from Matson Land Company, a private corporation. During the acquisition, a Transferable Development Rights (TDR) easement was placed on the property in perpetuity. As associated with TDR easements, Queen Anne's County relinquished the right to use or develop Piney Creek Nature Area for any purpose whatsoever, except for outdoor recreational uses.

Figure 3-11: Stevensville Middle School



Figure 3-12: Cross Island Trail



Figure 3-13: Piney Creek Nature Area



3.2.12 Kent Narrows Landing

Kent Narrows Landing (**Figure 3-14**) is a 1.0-acre county recreational landing/boat ramp located at 106 Piney Narrows Road on Kent Island, adjacent to the north side of U.S. 50/301 and the Kent Narrows Bridge in Queen Anne's County. The property is owned by Queen Anne's County and is managed by the County's Public Landing Division of the Department of Parks and Recreation, who is the OWJ.

Kent Narrows Landing is primarily used for water recreation and boat launching as it provides access into the waters of Kent Narrows and the lower Chester River. Fishing, kayaking, and exploring the surrounding waterways are some of the recreational water activities available via the Kent Narrows Landing. The facility features multiple 34-foot-wide boat launching ramps, parking spaces, and restrooms. There are currently no planned facility additions to Kent Narrows Landing. Public landing permits from Queen Anne's County are required for use of the facility.

Kent Narrows Landing can be accessed by Piney Narrows Road off U.S. 50/301 and near MD 18/Main Street. The entrance road leads into the parking lot of the facility. The Kent Narrows Waterman's Boat Basin is similarly used land within the vicinity of Kent Narrows Landing. Kent Narrows Waterman's Boat Basin is located directly south of Kent Narrows Landing, on the southern edge of U.S. 50/301; however, Kent Narrows Waterman's Boat Basin is privately owned and therefore not subject to Section 4(f).

3.2.13 Long Point Park

Long Point Park (**Figure 3-15**) is a 7.3-acre public park located at 13 Jackson Creek Road in Queen Anne's County. The property is bounded by Long Point Road and U.S. 50/301 to the south, Jackson Creek Lane and open space to the west, Jackson Creek Road and forested land to the east, and residences and Jackson Creek to the north. Long Point Park is owned by Queen Anne's County and managed by the County's Parks and Recreation Department, who is the OWJ.

Long Point Park has a 1/3-mile paved walking trail, benches, and a pond surrounded by native grasses and wildflowers. A segment of the Cross Island Trail extends through the central portion of Long Point Park along the paved trail. The park is accessed from U.S. 50/301 along Long Point Road from the south and by Jackson Creek Road from the east. Parking is available at these two access locations. The park can also be accessed by pedestrians and bicyclists via the Cross Island Trail along the southern and eastern property boundary. There are currently no planned facility additions to Long Point Park.

There are no other similarly used lands within the vicinity of Long Point Park.

Figure 3-14: Kent Narrows Landing



Figure 3-15: Long Point Park



3.3 Historic Sites

3.3.1 Dutch Mill Farm Restaurant

The Dutch Mill Farm Restaurant (**Figure 3-16**) is an NRHP-eligible commercial property located at 200 Old Mill Bottom Road South in Anne Arundel County. The parcel includes 1.2 acres and is bounded by U.S. 50/301 to the northwest, a residential lot to the east, and Old Mill Bottom Road South to the southwest. The property is owned by D & G LTD Partnership and the OWJ is the MHT.

The one-story, irregular heptagon-shaped restaurant was built in 1954, is sheathed in board-and-batten siding, has a continuous concrete foundation and a parapet castellated/stepped roof with a faux smock mill centered on the roof and is original to the parcel. The parcel contains three additional structures that are non-contributing elements. The Dutch Mill Farm Restaurant has remained a popular roadside eatery with various owners and restaurant names since its construction. The windmill has remained on the building, as it is a landmark for the restaurant, even as it operates today as Red Hot & Blue.

The Dutch Mill Farm Restaurant is eligible for the NRHP under Criteria A and C. The Dutch Mill Farm Restaurant is significant under Criterion A for its association with the growing tourism industry and commercial development in Anne Arundel County related to the expansion of road networks and construction of a vehicular connection over the Chesapeake Bay. The property is also significant under Criterion C for its embodiment of the distinctive characteristics of a type of roadside eatery architecture during the interwar period, particularly through its incorporation of the windmill, when automobile-based tourism was in its infancy. The building retains integrity for the elements of location, setting, design, association, and feeling. The only contributing element for this property is the restaurant building. Non-contributing elements include the dwelling, outbuilding, and the multi-functional outbuilding. Refer to the complete description of the four Criterion for Evaluation for listing in the NRHP in the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3* and refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report* for additional information on all elements contributing to the eligibility of the Dutch Mill Farm Restaurant.

3.3.2 Asbury Broadneck Methodist Church and Cemetery

The Asbury Broadneck Methodist Church and Cemetery (**Figure 3-17**) is an NRHP-eligible property located at 657 Broadneck Road in Anne Arundel County. The parcel includes 6.49 acres and is bounded by residential properties to the west, Broadneck Road to the northeast, and U.S. 50/301 to the south. The property is owned by the Asbury Broadneck United Methodist Church and the OWJ is MHT.

The property includes a two-story brick church that was built in 1977 with a cross-gabled asphalt-shingle roof and two front-gable projections on the north façade. The cemetery is approximately 2.75 acres in size, and its lawn contains a central stream channel lined with rough-cut stone. The property also contains a one-story outbuilding built circa-1994 and a one-story concrete block outbuilding constructed in the early twentieth century. The Asbury Broadneck Methodist Church and Cemetery today maintains an active congregation.

The Asbury Broadneck Methodist Church and Cemetery is eligible for the NRHP under Criterion A and is significant under Criterion A for its association with the nineteenth-century African American community that developed on the Broadneck Peninsula. This rural African American church is the oldest remaining evidence of the larger surrounding community. The Asbury Broadneck Methodist Church and Cemetery retains its integrity of location, setting, design, materials, workmanship, association, and feeling.

Contributing elements include the church, concrete block outbuilding, and church cemetery, which is located in the northwestern portion of the parcel, farthest from U.S. 50/301. The cemetery's character-defining features include the rural setting with a stream channel dividing the cemetery, the layout of the burials in sinuous, undulating rows, and the relationship of the church buildings to the cemetery, which have historically been located south of the cemetery boundary, in closest proximity to U.S. 50/301. The 1994 outbuilding is non-contributing. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of the Asbury Broadneck Methodist Church and Cemetery.

3.3.3 Woodlyn Farm

Woodlyn Farm (**Figure 3-18**) is an NRHP-eligible property located at 1739 Whitehall Road in Anne Arundel County. The parcel includes 57.8 acres and is bounded to the north by commercial parcels, to the east by Colbert Road and wooded parcels, to the south by Woodlyn Road, and to the west by Whitehall Road. The property is owned by Folger M. Ridout, Jr., and the OWJ is MHT.

The parcel includes a circa-1860 farmhouse, a pre-1957 outbuilding, and multiple late-twentieth century and twenty-first century additions, such as a barn, wood-frame shed, wood-frame garage, metal garage, equipment sheds, chicken coop, barn, and storage container. Although the house has been altered since the nineteenth century, it retains some original features that date to the circa-1860 construction of the main block of the dwelling. The Woodlyn Farm is eligible for the NRHP under Criterion C as an early and important example of a nineteenth/early-twentieth century farmstead. The farmhouse continues to possess modest integrity to illustrate its significance associated with nineteenth and early-twentieth century farming trends. Character-defining features of the house include its two-story double pile form, side gable roof, chimneys, fenestration, six-over-six hung sash windows, and door surround with sidelights and transom. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on Woodlyn Farm.

Figure 3-16: Dutch Mill Farm Restaurant



Figure 3-17: Asbury Broadneck Methodist Church and Cemetery



Figure 3-18: Woodlyn Farm



3.3.4 Skidmore

Skidmore (**Figure 3-19**) is an NRHP-eligible historic district composed of two discontinuous residential areas located north and south of U.S. 50/301 and west of the Chesapeake Bay. The district is 87.38 acres and is divided into four sections bounded by U.S. 50/301 and Meredith Creek: Log Inn Road, Skidmore Drive, Carrs Road/Col-Mar Lane, and Colbert Road. The Log Inn Road section is north of U.S. 50/301 while the other three sections are south of U.S. 50/301. There are multiple property owners across the contributing parcels and the OWJ of the historic district is MHT.

The residential historic district contains 72 parcels across the four sections. Each section of the district is based on predominately African-American land purchases and platting in the early twentieth century, giving each section a distinct development history.

Skidmore is eligible for the NRHP under Criterion A. The historic district is an African-American community associated with the settlement of Broadneck Peninsula by African Americans, including emancipated former enslaved individuals and their descendants beginning in the nineteenth century. Skidmore is one of the few remaining African-American communities on the Broadneck Peninsula that represent this history. Skidmore retains its integrity of location, setting, design, association, and feeling. Contributing elements include the dwellings at 1464 Log Inn Road, 1430 Log Inn Road, 1405 Log Inn Road, 1420 Log Inn Road, 1470 Log Inn Road, 1460 Log Inn Road, 1450 Log Inn Road, 1448 Log Inn Road, 1446 Log Inn Road, 1440 Log Inn Road, 1434 Log Inn Road, 1432 Log Inn Road, 1478 Log Inn Road, 1468 Log Inn Road, 1414 Log Inn Road, 1456 Log Inn Road, 1381 Log Inn Road, 1381 Log Inn Road, 1442 Log Inn Road, 1476 Log Inn Road, 1458 Log Inn Road, 1454 Log Inn Road, 1436 Log Inn Road, 1474 Log Inn Road 1201 Carrs Road, 1209 Carrs Road, 1601 Col-Mar Lane, 1045 Skidmore Drive, 1603 Colbert Road, 1611 Colbert Road, 1623 Colbert Road, 1633 Colbert Road, 1657 Colbert Road, and 1655 Colbert Road. The rural, minimally developed setting within the boundaries also contributes to the district's significance. Non-contributing elements include all the other dwellings, as they were either built after the period of significance or they were built by Holly Beach Farm. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of the Skidmore district.

3.3.5 Holly Beach Farm

Holly Beach Farm (**Figure 3-20**) is an NRHP-eligible property located at 1800 Holly Beach Farm Road. The historic property boundary includes 326.2 acres over six parcels on the peninsula south of U.S. 50/301 and west of the Chesapeake Bay. It is bounded on the northeast by Skidmore Drive/Old Ferry Slip Road, the east by the MDTA and Northrop Grumman property, the southeast by Moss Pond and Goose Pond, the southwest by Whitehall Bay, and the northwest by Holly Beach Farm Road. There are multiple property owners, including MDNR, for the properties that make up the historic property boundary and the OWJ of the historic property is MHT.

The historic property includes multiple buildings, dwellings, and landscaping elements that contribute to its NRHP eligibility. Holly Beach Farm has an established history, beginning in the early 1910s as a dairy farm, supplying milk for the greater Baltimore area. Horse breeding and training on the property began in the 1920s. The property has been subdivided many times in

private and public sales. Holly Beach Farm is eligible for the NRHP under Criteria A, B, and C. Holly Beach Farm is significant under Criterion A for the farm's successful horse farm and thoroughbred breeding operation and in association with the revival of horse sports in Maryland in the early twentieth century. The property is significant under Criterion B as the property still contains buildings related to the Labrot family's significant horse racing and breeding operations. Holly Beach Farm is also significant under Criterion C as an example of a large-scale horse breeding farm and estate constructed and operated during the first half of the twentieth century. The property retains integrity of location, setting, design, materials, workmanship, feeling, and association.

Multiple buildings throughout the property are contributing elements to the NRHP eligibility, including Holly Beach Farm House, Caretaker's Quarters, and the Labrot Cemetery at 1800 Holly Beach Farm Road and the Holly Beach Farm Office; and the Brick Tenant House, Foaling Building, L-shaped stable, rectangular stable, and workshop at 1917 Holly Beach Farm Road. The Gate House and Holly Beach Farm Office on Parcel 0047 and the dwelling at 1636 Holly Beach Farm Road on Parcel 0079 are contributing elements in closest proximity to U.S. 50/301. The Gatehouse is a one-story brick building with a stone wall that marks the entrance to the farm and the Farm Office is a one-and-one-half-story Colonial Revival brick building with various decorative features. The dwelling at 1636 Holly Beach Farm Road is a one-and-one-half story Cape Code dwelling with aluminum siding and an asphalt-shingle side-gable roof and two telescoping side-gable additions. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of Holly Beach Farm.

3.3.6 Sandy Point State Park

Sandy Point State Park (**Figure 3-21**) is an NRHP-eligible property located on the northeastern edge of the Broadneck Peninsula. The historic site includes 479 acres and is bounded by the Chesapeake Bay to the southeast and east, a residential development to the northeast, Log Inn Road and a few residential parcels to the west, and U.S. 50/301 and the Bay Bridge Administration facility to the southwest. The historic site only includes the beaches and recreational areas associated with Sandy Point State Park and does not include the Corcoran Environmental Study Area located in the western portion of the park. As noted in **Section 3.2.3**, MDNR is the property owner and the OWJ over the historic site is MHT.

Sandy Point State Park is a state park associated with the civil rights movement and desegregation of recreational facilities in the 1950s. Sandy Point State Park officially opened in 1952, with racially segregated beaches and beach facilities. A series of legal challenges to the segregation of beaches and facilities at Sandy Point State Park resulted in the desegregation of all Maryland state parks and recreation areas in late 1955. Since 2003, the park has seen massive growth and development to accompany an increase in usability and annual visitors.

Sandy Point State Park is eligible for the NRHP under Criterion A for its association with social change and civil rights history. Sandy Point State Park played a significant role in the desegregation of recreational facilities as part of the Supreme Court case that expanded the application of Brown v. Board of Education and desegregated recreational facilities nationwide. Sandy Point State Park retains integrity of location, setting, design, feeling, and association. Contributing elements to the historic site include the East Beach, South Beach, Sandy Point Farmhouse, the former manager's house, the former Labrot House on Log Inn Road, the water

treatment plant, the well house, and the water tower. Non-contributing elements include all post-1956 buildings and structures on the property, including pavilions, piers, park headquarters, maintenance complex, and other assorted resources not specifically listed.

Of the contributing elements, only South Beach, the former Labrot House on Log Inn Road, and the water storage tank are proximate to U.S. 50/301. South Beach and the water tower are both located along the southern property boundary. The water tower, built in 1950, consists of a cylindrical elevated water storage tank with four round support posts, and is located approximately 0.1-mile northeast of U.S. 50/301. South Beach begins approximately 100 feet northeast of the northern span of the Bay Bridge and extends approximately 2,600 feet northeast. The beach is flat and relatively free of rocks and vegetation. The Labrot House on Log Inn Road, a one-and-one-half story Cape Code dwelling, built around 1938 with a stone foundation and a side gable roof, is located within the forested area of the park between Log Inn Road and the frontage road of U.S. 50/301, approximately 350 feet north of College Parkway. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of Sandy Point State Park.

3.3.7 Chesapeake Bay Bridge (William Preston Lane Jr. Memorial Bridge)

The Chesapeake Bay Bridge (**Figure 3-22**), an NRHP-eligible historic property, is composed of two bridge structures, a 1949-1952 eastbound bridge and a 1969-1973 westbound bridge, and carries U.S. 50/301 across the Chesapeake Bay. The bridge extends northwest to southeast from Anne Arundel County to Queen Anne's County. The bridges have concrete substructures and carry vehicles across a variety of span types, including through truss spans, simple girder spans, and steel suspension spans. The historic site's contributing elements include the eastbound and westbound bridges, the approach roads within the boundary, and the Administration Building. The Chesapeake Bay Bridge is owned and maintained by the MDTA, and the OWJ of the historic site is MHT.

Contributing resources to the historic property include both bridge structures, approach roads, and the Administration Building. Non-contributing elements include the garage, the dock, the salt shed, the flat-roof building, and the side-gable building. The eastbound bridge, completed in 1952, has two lanes and is comprised of 123 steel spans with a central cable suspension span carrying a Warren through truss. The westbound bridge, completed in 1973, has three lanes and is comprised of a main cable suspension span carrying a deck truss. Over time, the bridges, lane indicators, and tolling equipment have been continually updated to maintain safety of the transportation system. The Administrative Building, also completed in 1952, is a one-story, flat-roof brick building located immediately adjacent to the westbound side of U.S. 50/301 in Anne Arundel County. The building also has a rectangular two-story addition for toll recording equipment, offices and facilities for toll collectors, and a garage and a maintenance shop for bridge repairs.

The Chesapeake Bay Bridge is eligible for the NRHP under Criteria A and C. The bridge is significant under Criterion A in the area of transportation for its role in expanding transportation networks in Maryland and the East Coast and linking Maryland's urban areas to the Atlantic Ocean. The bridge is also significant under Criterion A for its association with suburbanization of Queen Anne's County. The bridge provided faster access to the Eastern Shore for the Western Shore citizens and spurred suburban development in Queen Anne's County. The bridge is eligible under Criterion C in the area of engineering, as the bridge is the only metal suspension bridge in the State of Maryland and is the longest fixed water crossing in the State. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of the Chesapeake Bay Bridge.

Figure 3-19: Skidmore



Figure 3-20: Holly Beach Farm (Historic Site)



Figure 3-21: Sandy Point State Park (Historic Site)



Figure 3-22: Chesapeake Bay Bridge (William Preston Lane Jr. Memorial Bridge)



3.3.8 Eareckson House

The Eareckson House (**Figure 3-23**) is an NRHP-eligible property located at 214 Pier One Road in Queen Anne's County. The Eareckson House sits on an irregularly shaped, flat parcel of land in an industrial park bounded by Pier 1 Road to the southwest and U.S. 50/301 to the north. The NRHP boundary has been reduced to include only the house itself, since the resource's setting does not have integrity. The property is owned by 214 Bay Manor 21666 LLC and the OWJ is MHT.

The Eareckson House is a two-and-a-half story, rectangular, center-passage, common-bond brick building, five bays across and one pile deep on a raised foundation with a side-gabled asphalt shingle roof. The Eareckson House architecture, through its simple form, reflects regional nineteenth century architecture. The area surrounding the Eareckson House is characterized by commercial development. Within the parcel itself, the house is surrounded by parking areas and mix-used development.

The house was previously determined eligible as a representative example of mid-nineteenth century rural residential architecture on Kent Island, and although the house has been substantially altered since the nineteenth century, it retains some original features that date to the nineteenth century. While the setting of the property has changed, the house remains eligible under Criterion C as a representative example of mid-19th century architecture in Queen Anne's County. Character-defining features of the house include its two-and-one-half-story, double pile form; side gable roof; fenestration; windows; and brick exterior. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on the eligibility of the Eareckson House.

3.3.9 Stevensville Historic District

The Stevensville Historic District (**Figure 3-24**) is an approximately 56.8-acre NRHP-listed historic district centered around the intersection of Love Point Road and East Main Street. The district boundary continues northeast to the intersection of Love Point Road and Old Love Point Road; north on Cockey Lane to include the old train station; southeast on Love Point Road to Cable House Road; and southeast to the intersection of E. Main and State Streets. U.S. 50/301 has formed a physical boundary to the south since it was constructed in 1948, but tree planting south of the district since the 1980s and 1990s have visually screened the district from U.S. 50/301 and subsequent development south of the highway. There are multiple property owners and the OWJ is MHT.

The majority of buildings in the historic district, both commercial and residential, were built in the late nineteenth and early twentieth centuries and are one to two-and-a-half stories tall and framed with gable roofs and siding. The commercial buildings are closely spaced and have a minimal setback from the street, while the residential buildings are generally on larger lots and have a greater setback. The downtown, commercial areas of the district have brick or concrete sidewalks.

Stevensville Historic District is significant under Criteria A and C for its association with the development of transportation and commerce on the Eastern Shore and for its architecture, with its period of significance being 1850 to 1930, the Stevensville Historic District has overall retained integrity since it was listed in the NRHP in 1986. The district retains its integrity of location, setting, design, feeling, and association. The contributing resources date prior to 1930, while the non-contributing resources either post-date 1930 or are substantially altered. See the DOE form for the list of contributing and non-contributing resources. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on the eligibility of the Stevensville Historic District.

3.3.10 Piney Narrows Yacht Haven

Piney Narrows Yacht Haven is an NRHP-eligible property located at 500 Piney Narrows Road in Queen Anne's County (**Figure 3-25**). The property is an 18.23-acre marina on the southeast side of Piney Narrows Road. It is bounded northwest and northeast by Piney Narrows Road, east by Kent Narrows, and south by U.S. 50/301 and commercial properties. There are multiple property owners and the OWJ is MHT.

The parcel includes a marina basin, a pool, and multiple buildings, docks and dock restrooms and locker rooms. The Piney Narrows Yacht Haven is also associated with the national trends of "resort marinas" and the conversion of rental boat slips to "condominium boat slips," trends which began by 1980 and continued through the decade. It is an early example of the resort marina trend, with its pool and clubhouse being constructed prior to 1978. It is also the first marina on the Chesapeake Bay, and one of the first, if not the first, in the State of Maryland as a whole, to have been converted to condominiums. The condominium regime at Piney Narrows Yacht Haven is still active.

Piney Narrows Yacht Haven is eligible for the NRHP under Criteria A and C. Piney Narrows Yacht Haven is significant under Criterion A for its strong association with waterfront tourism and leisure trends in the mid-to-late twentieth century in Queen Anne's County. The property is also significant under Criterion C for its embodiment of the mid-to-late twentieth century resort marina, with its docks, clubhouse, pool, and restrooms, and it has retained the majority of its character-defining features. Piney Narrows Yacht Haven retains its integrity of location, setting, design, materials, workmanship, association, and feeling. Contributing elements include all resources built between 1966 and 1982, including the basin, bulkheads, boardwalks, the clubhouse/office/ship's store, the pool, the docks, and restrooms Non-contributing elements include all post-1982 resources, such as the bulkhead slips, the electrical panel building, the Dock J and Dock H Lockers, and the concessions stand, and any other post-1982 features. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of the Piney Narrows Yacht Haven.

3.3.11 Kent Narrows Bridge (SHA Bridge No. 1700600)

Kent Narrows Bridge (or SHA Bridge No. 1700600) (**Figure 3-26**) is an NRHP-eligible property that carries MD 18, directly south of U.S. 50/301, over Kent Narrows connecting Kent Island to the mainland portion of Queen Anne's County. This bridge is owned and maintained by SHA and the OWJ is MHT.

The bridge was originally designed by Hardesty & Hanover and constructed in 1951 as part of Maryland's road-building campaign to better connect the Eastern and Western Shores. As part of this road-building campaign, the Kent Narrows Bridge was built to replace an overhead bascule bridge at this location. The 1951 bridge is a 12-span steel beam and bascule bridge that is approximately 663 feet long and runs northwest to southeast, carrying two lanes of vehicular traffic, one in each direction. In 1990, a new taller bridge over Kent Narrows was constructed north of the 1951 bridge. The 1951 bridge was then reverted to use for local traffic only. The Kent Narrows Bridge was an integral part of U.S. 50/301 between 1951 and 1990.

The Kent Narrows Bridge is eligible for the NRHP under Criteria A and C. The bridge is eligible under Criterion A for its association with the road-building campaign conducted by the State Roads Commission in connection with the building of the Bay Bridge and its contribution to the development of U.S. 50/301. The bridge is eligible under Criterion C as a rare example of a trunnion double-leaf bascule bridge in Maryland, one of the only three such bridges built in the 1948-1960 period in the State and one of two moveable bridges in Maryland designed by Hardesty & Hanover. The bridge is the only contributing element for this resource. Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report Volume 3: Architectural Historic Properties Identification* for additional information on all elements contributing to the eligibility of the Kent Narrows Bridge.

Figure 3-23: Eareckson House



Figure 3-24: Stevensville Historic District



Figure 3-25: Piney Narrows Yacht Haven



Figure 3-26: Kent Narrows Bridge



3.4 Archaeology

Pursuant to 23 CFR 774.13(b), archaeological sites that are on or eligible for the National Register are excepted from Section 4(f) when FHWA determines the archaeological resource *is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place*, and the OWJ has been consulted and does not object to FHWA's finding. On January 14, 2026, MHT concurred that there are no identified NRHP eligible archaeological sites within the LODs common to all build ARDS, and no identified listed or eligible archaeological sites within the LOD of the Preferred Alternative. Therefore, there are no identified archaeological sites within the LOD of the Preferred Alternative that retain value from preservation in place and would qualify as Section 4(f) properties. Refer to the *Phase I Archaeology Survey Within MDTA and SHA Right-of-Way Technical Report (Cultural Resources Technical Report Volume 4)* for additional information on archaeology associated with this study.

4 DESCRIPTION OF USE AND IMPACTS ON SECTION 4(F) PROPERTY

This section discusses the impacts to each Section 4(f) property and associated Section 4(f) use(s) that would be caused by Alternatives B through G and the Preferred Alternative. Alternative A is the no-action (or No-Build) alternative and would therefore not impact or require the use of any Section 4(f) properties. Permanent use, temporary use, constructive use, or *de minimis* (per 23 CFR 774.17) impacts are described as appropriate. Refer to **Table 4-1** for an overview of the use of each Section 4(f) property by alternative. A summary of the Section 4(f) use determinations for each property by alternative is provided in **Table 4-2**.

Pursuant to 23 CFR 774.17, a "use" of Section 4(f) property occurs:

(i) When land is **permanently incorporated** into a transportation facility.

(ii) When there is a **temporary occupancy** of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in 23 CFR 774.13(d); that is, when any of the following criteria for temporary occupancy are not met:

a. The duration of the occupancy must be less than the time needed for the construction of the project, and no change of ownership occurs;
b. Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) land are minimal;
c. There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
d. The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
e. There must be documented agreement of the OWJ over the Section 4(f) property regarding the above conditions.

(iii) When there is a **constructive use** of a Section 4(f) property. As defined in 23 CFR 774.15(a), a constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. When a constructive use determination is made, it will be based (in part) in consultation, on the foregoing identification and analysis, with the OWJ in accordance with 23 CFR 774.15(d)(3).

Per 23 CFR 774.17, a ***de minimis* impact** is one that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in either:

a. A Section 106 finding of no adverse effect or no historic properties affected on a historic property; or
b. A determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

The MDTA reviewed the Preferred Alternative, including design refinements, and determined in coordination with FHWA and the OWJs that the Proposed Action will not result in a constructive use of any Section 4(f) properties. The study area contains moderate density urban residential and business development, high traffic volumes along U.S. 50/301, and the current U.S. 50/301 alignment already in operation. Noise, visual, accessibility, or vibrational impacts from the Proposed Action will not substantially diminish Section 4(f) protected activities, features, or attributes.

At this phase of design, permanence of impacts has not been determined; therefore, for the purposes of this evaluation, all temporary and permanent impacts have been combined, and no temporary occupancy exceptions have been identified.

Table 4-1: Section 4(f) Property Use*

Property	Alternative B[1]	Alternative C[1]	Alternative D[1]	Alternative E[1]	Alternative F[1]	Alternative G[1]	Preferred Alternative[1]
Broadneck Peninsula Trail	3,140 lf 0 lf	3,140 lf 0 lf	7,240 lf 0 lf	7,240 lf 0 lf	7,260 lf 0 lf	7,260 lf 0 lf	3,070 lf 0 lf
Holly Beach Farm (Public Park)	1.2 ac 0 ac	1.2 ac 0 ac	1.2 ac 0 ac	1.2 ac 0 ac	1.2 ac 0 ac	1.2 ac 0 acre	0 ac 0 ac
Sandy Point State Park (Public Park)	1.0 ac 0.7 ac	0.6 ac 0.6 ac	1.0 ac 0.7 ac	0.6 ac 0.6 ac	1.2 ac 0.7 ac	0.6 ace 0.6 ac	0 ac 0.6 ac
Kent Island Water Trails	1,030 lf 0 lf	920 lf 0 lf	1,260 lf 0 lf	1,150 lf 0 lf	1,260 lf 0 lf	1,150 lf 0 lf	920 lf 0 lf
Terrapin Nature Park	0.7 ac 1.2 ac	0.7 ac 0.6 ac	0.7 ac 1.2 ac	0.7 ac 0.6 ac	1.1 ac 1.3 ac	1.1 ac 0.7 ac	0.7 ac 0.6 ac
Eisinger Property	<0.1 ac 0 ac	<0.1 ac 0 ac	<0.1 ac 0 ac	<0.1 ac 0 ac	0.1 ac 0 ac	0.1 ac 0 ac	<0.1 ac 0 ac
Stevensville Middle School	0.2 ac 0 ac	0.2 ac 0 ac	0.2 ac 0 ac	0.2 ac 0 ac	0.3 ac 0 ac	0.3 ac 0 ac	0.2 ac 0 ac
Cross Island Trail	0 ac 0 ac	0 ac 0 ac	4,860 lf 0 lf	4,860 lf 0 lf	4,860 lf 0 lf	4,860 lf 0 lf	0 ac 0 ac
Piney Creek Nature Area	0 ac 0 ac	0 ac 0 ac	0.6 ac 0 ac	0.6 ac 0 acre	0.6 ac 0 ac	0.6 ac 0 ac	0 ac 0 ac
Kent Narrows Landing	0 ac 0 ac	0 ac 0 ac	0.6 ac 0 ac	0.6 ac 0 ac	0.6 ac 0 ac	0.6 ac 0 ac	0 ac 0 ac
Dutch Mill Farm Restaurant	0 ac 0 ac	0 ac 0 ac	0.2[2] ac 0 ac	0.2[2] ac 0 ac	0.2[2] ac 0 ac	0.2[2] ac 0 ac	0 ac 0 ac
Skidmore	0.4 ac 0 ac	0.4 ac 0 ac	0.4 ac 0 ac	0.4 ac 0 ac	0.6 ac 0 ac	0.6 ac 0 ac	0.4 ac 0 ac
Sandy Point State Park (Historic Site)	1.0 ac 0.7 ac	0.6 ac 0.6 ac	1.0 ac 0.7 ac	0.6 ac 0.6 ac	1.2 ac 0.7 ac	0.6 ac 0.6 ac	0 ac 0.6 ac
Chesapeake Bay Bridge (William Preston Lane Jr. Memorial Bridge)	Removal of both historic bridge spans	Removal of both historic bridge spans	Removal of both historic bridge spans	Removal of both historic bridge spans	Removal of both historic bridge spans	Removal of both historic bridge spans	Removal of both historic bridge spans

* lf = linear feet; ac = acre; [1]*First number presented shows roadway impacts and the second number shows impacts from the optional SUP.* [2]*Roadway improvements at this property would result in the entire acquisition of the 1.2-acre property and demolition of the historic building.*

Table 4-2: Summary of Section 4(f) Use from Roadway Improvements*

Property	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Preferred Alternative
Broadneck Peninsula Trail	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact
Holly Beach Farm (Public Park)	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	No Use
Sandy Point State Park (Public Park)	Permanent Use (Individual Evaluation Required)	*De minimis* impact	Permanent Use (Individual Evaluation Required)	*De minimis* impact	Permanent Use (Individual Evaluation Required)	*De minimis* impact	No Use
Kent Island Water Trails	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact
Terrapin Nature Park	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact
Eisinger Property	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact
Stevensville Middle School	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact
Cross Island Trail	No Use	No Use	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	No Use
Piney Creek Nature Area	No Use	No Use	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	No Use
Kent Narrows Landing	No Use	No Use	*De minimis* impact	*De minimis* impact	*De minimis* impact	*De minimis* impact	No Use
Long Point Park[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Dutch Mill Farm Restaurant	No Use	No Use	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	No Use
Asbury Methodist Episcopal Church and Cemetery[1] (Broad Neck)	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Woodlyn Farm[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use

Property	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	**Preferred Alternative**
Skidmore[2]	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Holly Beach Farm (Historic Site)[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Sandy Point State Park (Historic Site)	Permanent Use (Individual Evaluation Required)	*De minimis* impact	Permanent Use (Individual Evaluation Required)	*De minimis* impact	Permanent Use (Individual Evaluation Required)	*De minimis* impact	No Use
Chesapeake Bay Bridge (William Preston Lane Jr. Memorial Bridge)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)	Permanent Use (Individual Evaluation Required)
Eareckson House[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Stevensville Historic District[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Piney Narrows Yacht Haven[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use
Kent Narrows Bridge[1]	No Use	No Use	No Use	No Use	No Use	No Use	No Use

*This table presents Section 4(f) uses from mainline roadway improvements only. Should the optional SUP be advanced, additional coordination between the MDTA, FHWA, and the applicable OWJs would occur to determine if the SUP improvements would result in a Section 4(f) use.

[1]*Property is included in this Final Section 4(f) Evaluation based on its proximity to the U.S. 50/301 study area. Neither the build ARDS nor the Preferred Alternative would require the acquisition of any land from this property. There is no Section 4(f) use of this property.*

[2]*There is no Section 4(f) use of this historic district as there would be no use of properties contributing to its eligibility for listing in the NRHP and no constructive use would occur.*

4.1 Park/Recreation Area Properties

4.1.1 Broadneck Peninsula Trail

4.1.1.1 Alternatives B-G

Alternatives B and C would require temporary and/or permanent incorporation of the trail beginning approximately 500 feet west of Yorktown Road and continuing east to Log Inn Road, measuring approximately 3,140 linear feet within the existing right-of way along East College Parkway.

Alternatives D and E would require temporary and/or permanent incorporation of approximately 7,240 linear feet of the trail and **Alternatives F and G** would require temporary and/or permanent incorporation of approximately 7,260 linear feet of the trail within the existing right-of-way along East College Parkway. Each alternative would impact approximately 4,000 linear feet of the trail within the transportation right-of-way and approximately 3,000 linear feet outside the transportation right-of-way.

These impacts would not adversely affect the features, attributes, or activities qualifying the trail for Section 4(f) protection. Impacts to the Broadneck Peninsula Trail for **Alternatives B through G** would be *de minimis.*

4.1.1.2 Preferred Alternative

The **Preferred Alternative** will require temporary and/or permanent incorporation of a portion of the trail beginning approximately 500 feet west of Yorktown Road and continuing east to Log Inn Road, measuring approximately 3,070 linear feet within the existing right-of-way along East College Parkway, as shown in **Appendix A, Pages 1-2**.

Access to and general connectivity of the trail will be maintained during construction; however, the trail may need to be detoured or briefly closed during certain construction periods. After construction, the trail will be restored to maintain trail continuity through the project area. Appropriate safety measures will be implemented, as necessary. Access issues, detours, and notification to trail users will be coordinated with Anne Arundel County Department of Recreation and Parks and will be further refined during more detailed design.

These impacts will not adversely affect the features, attributes, or activities qualifying the trail for Section 4(f) protection; thus, in accordance with 23 CFR 774.5, impacts to Broadneck Peninsula Trail from the **Preferred Alternative** are *de minimis*.

4.1.2 Holly Beach Farm (Public Park)

4.1.2.1 Alternatives B-G

Alternatives B through G would require temporary and/or permanent incorporation of 1.2 acres of land from the 293-acre Holly Beach Farm (public park). These alternatives would impact the vegetated area along the northern boundary of the northwestern portion of the property, just south of Skidmore Drive.

These impacts would not adversely affect the features, attributes, or activities qualifying the park for Section 4(f) protection. Impacts to Holly Beach Farm (public park) for **Alternatives B through G** would be *de minimis.*

4.1.2.2 Preferred Alternative

As discussed in **Section 2.3**, engineering refinements to the **Preferred Alternative** after publication of the Draft EIS eliminated all impacts to Holly Beach Farm (public park); therefore, the **Preferred Alternative** avoids Section 4(f) use of Holly Beach Farm (public park).

4.1.3 Sandy Point State Park

4.1.3.1 Alternatives B-G

Alternatives B through G would require temporary and/or permanent incorporation of small parts of the 786-acre Sandy Point State Park (public park).

Alternative B and D would require temporary and/or permanent incorporation of approximately 1.0 acre of Sandy Point State Park for roadway improvements and an additional 0.7 acre for optional SUP improvements. **Alternative F** would require approximately 1.2 acres for roadway improvements and an additional 0.7 acres for optional SUP improvements. **Alternatives B, D, and F** would directly impact a small, vegetated area located east of Log Inn Road and north of East College Parkway. Additionally, they would permanently incorporate a southeastern portion of the park known as "South Beach" to accommodate the construction of new bridge piers and would bridge over a portion of the beach and jetty, which is a popular fishing spot. This construction could affect boating access to Mezick Pond and the jetty.

While the beach would remain accessible via the parking area to the west, long-term restrictions would be required at the entrance to Mezick Pond, a commonly used route for boaters accessing the Chesapeake Bay from the park. These restrictions would be necessary during dredging operations, removal of the existing westbound bridge span, and construction of the new westbound span, and would remain in effect for the duration of these activities.

The roadway improvements under **Alternatives B, D, and F** would result in a permanent incorporation of a portion of South Beach, a defining feature that qualifies Sandy Point State Park as eligible for Section 4(f) protection, into a transportation facility, and therefore requires an individual evaluation. The Section 4(f) permanent use of Sandy Point State Park under these build ARDS requires an avoidance alternatives evaluation (**Section 5**), and a least overall harm analysis (**Section 6**).

Alternatives C, E, and G would require temporary and/or permanent incorporation of approximately 0.6 acre of the park property for roadway improvements and an additional 0.6 acre for optional SUP improvements. Direct impacts would occur within a small, vegetated area located east of Log Inn Road and north of East College Parkway. These alternatives would also result in temporary navigational restrictions in the Chesapeake Bay at the entrance to Mezick Pond, a commonly used route for boaters accessing the Chesapeake Bay from the park, during demolition of the existing westbound bridge span. The restrictions would be necessary to accommodate dredging operations and the removal of the existing westbound bridge span and would remain in place only for the duration of these activities.

These impacts would not adversely affect the features, attributes, or activities qualifying the park for Section 4(f) protection. Impacts to Sandy Point State Park (public park) for **Alternatives C, E, and G** would be *de minimis*.

4.1.3.2 Preferred Alternative

As discussed in **Section 2.3**, engineering refinements to the **Preferred Alternative** eliminated all physical impacts from roadway improvements to Sandy Point State Park.

The Preferred Alternative will result in temporary navigational restrictions in the Chesapeake Bay at the entrance to Mezick Pond during demolition of the existing westbound bridge span. The restrictions are necessary for temporary dredging which will be required to allow navigational access for demolition barges. Approximately one week of dredging is estimated to be required based on comparable Chesapeake Bay projects. Bridge demolition will occur both from land and water, with initial demolition activities including removal of surface elements such as barriers, parapets, signage, and portions of the deck, which would be removed by truck. During these early stages, shielding barges and other navigational controls will be used, and there will be flexibility to maintain safe passage to Mezick Pond and maintenance of vessel plan will be utilized.

After surface components are removed, more restrictive conditions in the entrance vicinity will be necessary during subsequent demolition phases for activities such as girder removal using cranes mounted on barges and cutting and removal of existing bridge piers. During certain construction periods, access may be limited to commercial or government vessels only, while recreational boating access would be temporarily prohibited for safety reasons. The MDTA will coordinate with MDNR regarding potential access restrictions.

The duration and timing of these restrictions will vary depending on the construction activity, ranging from short-term closures lasting a few hours to longer, seasonal restrictions (e.g., months-long). Any extended closures will be scheduled during the non-peak boating season to minimize impacts on recreational users. Access to the park will remain available at all other entry locations, and the restrictions will apply only to the navigational channel connecting Mezick Pond to Chesapeake Bay. These temporary navigational restrictions will not involve a permanent or physical use of park land.

Further coordination with MDNR will occur during final design to refine the timing, duration, and extent of any access restrictions and to ensure impacts to boaters are minimized to the greatest extent practicable. The MDTA will develop and coordinate a Maintenance of Access Plan with MDNR during design that includes: a schedule of anticipated activities that could result in temporary closures of Mezick Pond, procedures for communication of closures, and processes for coordinating modifications to the plan.

The **Preferred Alternative** avoids Section 4(f) use of Sandy Point State Park because all roadway-related construction activities are outside the park boundary and will not involve acquisition, occupation, or physical alteration of park property or facilities. No designated recreational features, resources, or attributes of Sandy Point State Park will be permanently affected.

Although temporary and intermittent restrictions to the navigational entrance channel to Mezick Pond will be necessary during bridge construction, these restrictions will be limited in duration, fully reversible, and will not physically impact MDNR-owned land within Sandy Point State Park. All park facilities and other primary recreational resources will remain open and operational during construction, and access to the park will continue to be available at all other entry locations. The temporary boating restrictions will be scheduled to avoid peak recreational seasons to the

greatest extent practicable and will not alter the physical condition, long-term availability, or usability of park resources.

No protected recreational features or attributes of the park will be substantially impaired. Consistent with the definitions of "use" and "constructive use" in 23 CFR 774.17 and 774.15, the temporary access restriction at the Mezick Pond entrance channel does not constitute a constructive use because it will not substantially diminish the utility of the park. Therefore, the **Preferred Alternative** will not result in a Section 4(f) use of Sandy Point State Park.

If the optional SUP improvements associated with the **Preferred Alternative** are advanced, additional coordination between the MDTA, FHWA, and MDNR would occur to determine if the improvements would result in a Section 4(f) use. Direct impacts from the optional SUP improvements would occur to the edge of the park along the vegetated southwestern property boundary, adjacent to U.S. 50/301 and around the E-Z Pass Stop-In Center, west of Mezick Pond.

4.1.4 Kent Island Water Trails

4.1.4.1 Alternatives B-G

Alternatives B and C would temporarily restrict access and hinder recreational activities along approximately 1,030 linear feet and 920 linear feet, respectively, of the Chesapeake Bay portion of the water trails.

Alternatives D, E, F, and G would temporarily restrict access and hinder recreational activities along approximately 1,260 linear feet, 1,150 linear feet, 1,260 linear feet, and 1,150 linear feet, respectively, of the water trails. The location of water trail impacts for **Alternatives D through G** are located at the portion of the water trail traversing underneath the Bay Bridge (Chesapeake Bay Trail) and the portion of the water trail under the U.S. 50/301 bridge over Kent Island Narrows (Kent Narrows Trail South).

These impacts would not adversely affect the features, attributes, or activities qualifying the trails for Section 4(f) protection. Impacts to the Kent Island Water Trails for **Alternatives B through G** would be *de minimis*.

4.1.4.2 Preferred Alternative

The **Preferred Alternative** will temporarily restrict access and hinder recreational activities along approximately 920 linear feet of the trail, as shown in **Appendix A, Page 12**. Access to the water trails in the Chesapeake Bay will be temporarily restricted during certain construction periods. Potential access issues and notification to trail users will be coordinated with Queen Anne's County Parks and Recreation Department and proper navigation signage for boaters will be approved and implemented, as necessary. Trail users will be notified of closures and detours.

These impacts will not adversely affect the features, attributes, or activities qualifying the trails for Section 4(f) protection; thus, in accordance with 23 CFR 774.5, impacts to Kent Island Water Trails from the **Preferred Alternative** are *de minimis*.

4.1.5 Terrapin Nature Park

4.1.5.1 Alternatives B-G

Alternatives B through G would require varying degrees of temporary and/or permanent incorporation of the 276-acre Terrapin Nature Park, primarily along the southern portion of the property, which borders U.S. 50/301, as well as along the eastern property boundary, which borders MD 8.

Alternatives B through E would require temporary and/or permanent incorporation of approximately 0.7 acre of Terrapin Nature Park for roadway improvements. **Alternatives B and D** would require an additional 1.2 acres and **Alternatives C and E** would require an additional 0.6 acre for optional SUP improvements. The area of impact includes the vegetated area along the southern portion of the property. Impacts on recreational resources from roadway improvements would include temporary detour of the walking trail during certain construction periods.

Alternative F would require temporary and/or permanent incorporation of approximately 1.1 acres of Terrapin Nature Park for roadway improvements and an additional 1.3 acres for optional SUP improvements. The area of impact includes the vegetated area along the southern portion of the property. Impacts to recreational resources from roadway improvements would include temporary detour to the walking trail during certain construction periods.

Alternative G would require temporary and/or permanent incorporation of approximately 1.1 acres of Terrapin Nature Park for roadway improvements and an additional 0.7 acre for optional SUP improvements. The area of impact includes the vegetated area along the southern portion of the property. Impacts to recreational resources from roadway improvements would include temporary detour to the walking trail during certain construction activities.

These impacts would not adversely affect the features, attributes, or activities qualifying the park for Section 4(f) protection. Impacts to Terrapin Nature Park for **Alternatives B through G** would be *de minimis*.

4.1.5.2 Preferred Alternative

The **Preferred Alternative** will require temporary and/or permanent incorporation of approximately 0.7 acre of Terrapin Nature Park for roadway improvements and an additional 0.6 acre for optional SUP improvements, as shown in **Appendix A, Pages 12-14**. The area of impact includes the vegetated area along the southern portion of the property.

Access to the park's trail along the southern property boundary will be temporarily restricted or detoured during certain construction periods; however, continuity of the trail will be maintained for the duration of construction. Trail access issues and notifications to park users will be coordinated with Queen Anne's County Department of Parks and Recreation.

These impacts will not adversely affect the features, attributes, or activities qualifying the park for Section 4(f) protection; thus, in accordance with 23 CFR 774.5, roadway improvement impacts to Terrapin Nature Park from the Preferred Alternative are *de minimis*. If the optional SUP is advanced, additional coordination between the MDTA, FHWA, and Queen Anne's County Department of Parks and Recreation would occur to determine if the improvements would result in a Section 4(f) use.

4.1.6 Eisinger Property

4.1.6.1 Alternatives B-G

Alternatives B through E would require temporary and/or permanent incorporation of less than 0.1 acre of the 5.3-acre Eisinger Property along the southern property boundary, which borders U.S. 50/301, and **Alternatives F and G** would require temporary and/or permanent incorporation of 0.1 acres of the 5.3-acre Eisinger Property along the southern property boundary, which borders U.S. 50/301.

These impacts would not adversely affect the features, attributes, or activities qualifying the park for Section 4(f) protection. Impacts to the Eisinger Property for **Alternatives B through G** would be *de minimis*.

4.1.6.2 Preferred Alternative

The **Preferred Alternative** will require temporary and/or permanent incorporation of less than 0.1 acre of the Eisinger Property along the southern property boundary, which borders U.S. 50/301, as shown in **Appendix A, Pages 14-15**.

These impacts will not adversely affect the features, attributes, or activities qualifying the park for Section 4(f) protection; thus, in accordance with 23 CFR 774.5, impacts to Eisinger Property from the **Preferred Alternative** are *de minimis*.

4.1.7 Stevensville Middle School

4.1.7.1 Alternatives B-G

Alternatives B through G would require varying degrees of temporary and/or permanent incorporation of a portion of the 9.5-acre Stevensville Middle School along the southern property boundary, which borders U.S. 50/301.

Alternatives B through E would require temporary and/or permanent incorporation of approximately 0.2 acre of the Stevensville Middle School property to accommodate roadway improvements. The area of use includes a sliver of vegetated area buffering the school property from U.S. 50/301.

Alternatives F and G would require temporary and/or permanent incorporation of approximately 0.3 acre of the Stevensville Middle School property to accommodate roadway improvements. The area of use includes a sliver of vegetated area buffering the school property from U.S. 50/301.

These impacts would not adversely affect the features, attributes, or activities qualifying the property for Section 4(f) protection. Impacts to the Stevensville Middle School for **Alternatives B through G** would be *de minimis*.

4.1.7.2 Preferred Alternative

The **Preferred Alternative** will require temporary and/or permanent incorporation of approximately 0.2 acre of the Stevensville Middle School property to accommodate roadway widening, as shown in **Appendix A, Pages 15**. The area of impact includes a sliver of vegetated area buffering the school property from U.S. 50/301. No recreational facilities will be impacted by the **Preferred Alternative**.

These impacts will not adversely affect the features, attributes, or activities qualifying the property for Section 4(f) protection; thus, in accordance with 23 CFR 774.5, impacts to Stevensville Middle School from the **Preferred Alternative** are *de minimis*.

4.1.8 Cross Island Trail

4.1.8.1 Alternatives B-G

Alternatives B and C avoid Section 4(f) use of the Cross Island Trail.

Alternatives D through G would require temporary and/or permanent incorporation of approximately 4,860 linear feet of the 6.5-mile-long Cross Island Trail, in various locations west of Business Parkway, for roadway widening, construction access, and stormwater management.

These impacts would not adversely affect the features, attributes, or activities qualifying the trail for Section 4(f) protection. Impacts to the Cross Island Trail for **Alternatives D through G** would be *de minimis*.

4.1.8.2 Preferred Alternative

The **Preferred Alternative** avoids Section 4(f) use of the Cross Island Trail.

4.1.9 Piney Creek Nature Area

4.1.9.1 Alternatives B-G

Alternatives B and C avoid Section 4(f) use of the Piney Creek Nature Area.

Alternatives D through G would require temporary and/or permanent incorporation of 0.6 acre of land from the 40.1-acre Piney Creek Nature Area for roadway improvements.

These impacts would not adversely affect the features, attributes, or activities qualifying the property for Section 4(f) protection. Impacts to Piney Creek Natura Area for **Alternatives D through G** would be *de minimis*.

4.1.9.2 Preferred Alternative

The **Preferred Alternative** avoids Section 4(f) use of the Piney Creek Nature Area.

4.1.10 Kent Narrows Landing

4.1.10.1 Alternatives B-G

Alternatives B and C avoid Section 4(f) use of Kent Narrows Landing.

Alternatives D through G would require temporary and/or permanent incorporation of 0.6 acre of the approximately 1.2 acre Kent Narrows Landing to accommodate a northern alignment shift of Piney Narrows Road towards the Kent Narrows Landing parking lot for placement of new piers on the existing road for bridge widening on U.S. 50/301.

These impacts would not adversely affect the features, attributes, or activities qualifying the property for Section 4(f) protection. Impacts to Kent Narrows Landing for **Alternatives D through G** would be *de minimis*.

4.1.10.2 Preferred Alternative

The **Preferred Alternative** avoids Section 4(f) use of Kent Narrows Landing.

4.2 Historic Sites

4.2.1 Dutch Mill Farm Restaurant

4.2.1.1 Alternatives B-G

Alternatives B and C avoid Section 4(f) use of the Dutch Mill Farm Restaurant.

Alternatives D through G would require permanent incorporation of approximately 0.2 acre of the 1.2-acre NRHP-eligible Dutch Mill Farm Restaurant property, to accommodate roadway widening. This area includes the northwestern portion of the building and parking lot closest to U.S. 50/301. These impacts would require total acquisition (1.2 acres) of the existing Dutch Mill Farm Restaurant property, and demolition of the historic building, resulting in a permanent incorporation of the property into a transportation facility and thus a Section 4(f) permanent use and individual evaluation.

The permanent incorporation of the Dutch Mill Farm Restaurant in **Alternatives D through G** requires an avoidance alternatives evaluation **(Section 5)**, and a least overall harm analysis (**Section 6**).

4.2.1.2 Preferred Alternative

The **Preferred Alternative** avoids Section 4(f) use of the Dutch Mill Farm Restaurant.

MHT concurred on February 26, 2026, that **Alternative C** does not affect Dutch Mill Farm Restaurant. The impacts from the **Preferred Alternative** do not differ from Alternative C at this location and will not impact the Dutch Mill Farm Restaurant; therefore, there is no Section 4(f) use of the property.

4.2.2 Skidmore

4.2.2.1 Alternatives B-G

Alternatives B through G would all impact Skidmore within the historic residential area south of U.S. 50/301. The build ARDS would not impact the portion of the Skidmore historic residential area north of U.S. 50/301.

Alternatives B through E would impact approximately 0.4 acres of the 87.4 acres of Skidmore for roadway improvements. **Alternatives F and G** would impact approximately 0.6 acres of Skidmore. None of these alternatives would impact contributing elements within Skidmore historic district and therefore would not result in a Section 4(f) use of the Skidmore historic district.

4.2.2.2 Preferred Alternative

The **Preferred Alternative** will impact approximately 0.4 acre of Skidmore historic district for roadway improvements, as shown in **Appendix A, Pages 3-4**. The **Preferred Alternative** will not impact the portion of the Skidmore historic residential area north of U.S. 50/301. The **Preferred Alternative** will not impact contributing elements within Skidmore historic district.

MHT concurred on February 26, 2026, that each build alternative (inclusive of the **Preferred Alternative** as it does not differ from Alternative C in this location) would result in an adverse effect to Skidmore under Section 106 of the National Historic Preservation Act (NHPA). However, the **Preferred Alternative** would not impact properties contributing to the NRHP eligibility of Skidmore. Per Question 2B of the FHWA *Section 4(f) Policy Paper*, for historic districts, Section 4(f) applies only to those properties that are considered contributing to the eligibility of a historic district; therefore, the **Preferred Alternative** will not result in a Section 4(f) use of the Skidmore historic district.

Per Question 7C of the FHWA *Section 4(f) Policy Paper*, an assessment of potential constructive use to Skidmore was conducted because the **Preferred Alternative** would require land from non-contributing properties within the historic district, and Section 106 consultation has resulted in a determination of adverse effect to the historic district as a whole. Per the Section 106 consultation, the Preferred Alternative will adversely affect Skidmore due to diminishment of the property's integrity of setting, feeling, and association contributing to the cumulative effects of highway expansion and development. The existing U.S. 50/301 corridor already divides the historic district into northern and southern portions. U.S. 50/301 also already carries high traffic volumes through the residential and business area. Noise, visual, and vibration impacts are already present from the existing roadway, and any incremental changes from the **Preferred Alternative** would not be substantial. Thus, diminishment of Skidmore will be largely caused by cumulative effects in combination with other past highway expansion projects and not result from the Preferred Alternative alone. Additionally, Skidmore's significance does not depend on attributes such as quiet or isolation, and the **Preferred Alternative** will not alter access or introduce new barriers to the district. Therefore, there would be no substantial impairment to Skidmore and the **Preferred Alternative** will not result in constructive use of Skidmore.

4.2.3 Sandy Point State Park (Historic Site)

4.2.3.1 Alternatives B-G

Alternatives B through G would require varying degrees of temporary and/or permanent incorporation the 479-acre Sandy Point State Park (historic site), primarily along the south/southeastern property boundary, which borders U.S. 50/301.

Alternative B and D would require temporary and/or permanent incorporation of approximately 1.0 acre of Sandy Point State Park for roadway improvements and an additional 0.7 acres for optional SUP improvements. **Alternative F** would involve approximately 1.2 acres for roadway improvements and an additional 0.7 acres for optional SUP improvements.

The temporary and/or permanent incorporation of a portion of Sandy Point State Park (historic site) from **Alternatives B, D, and F** would result in a permanent incorporation of South Beach, an important historical area of Sandy Point State Park, into a transportation facility. The combined effects of the temporary and permanent incorporation of the property would result in an adverse effect to the property and permanent Section 4(f) use of the historic site and therefore require an individual evaluation.

The use of Sandy Point State Park under these build ARDS requires avoidance alternatives evaluation (**Section 5)**, and a least overall harm analysis (**Section 6).**

Alternative C, E, and G would require temporary and/or permanent incorporation of approximately 0.6 acre of the park property for roadway improvements and an additional 0.6 acres for optional SUP improvements. The locations of impact from all build ARDS are the same as described in **Section 4.1.3.**

Alternatives C, E, and G would not adversely affect the historic site. No resources that contribute to the significance of Sandy Point State Park would experience a Section 4(f) use.

4.2.3.2 Preferred Alternative

As discussed in **Section 2.3**, engineering refinements to the **Preferred Alternative** eliminated all impact from roadway improvements to Sandy Point State Park (historic site); thus, the **Preferred Alternative** avoids Section 4(f) use of Sandy Point State Park (historic site) for roadway improvements. If the optional SUP is advanced, approximately 0.6 acres of the 479-acre property would be permanently or temporarily impacted and consultation with MHT would occur to determine if the improvements would result in a Section 4(f) use. The impacts from the optional SUP associated with the **Preferred Alternative** are the same as those described in **Section 4.1.3.2.**

MHT concurred on February 26, 2026, that **Alternative C** does not adversely affect Sandy Point State Park (historic site). After MHT concurred on the effect determination, the **Preferred Alternative** was refined to avoid all roadway-related impacts to Sandy Point State Park (historic site); therefore, there is no Section 4(f) use of the property.

4.2.4 Chesapeake Bay Bridge

4.2.4.1 Alternatives B-G

Alternatives B through G include the demolition of the existing NRHP-eligible Chesapeake Bay Bridge and construction of a new bridge. These activities would adversely affect the historic bridge and constitute a Section 4(f) use of the bridge. The build ARDS avoid the bridge's historic Administration Building including the approach roads within the NRHP boundary.

4.2.4.2 Preferred Alternative

The **Preferred Alternative** includes the demolition of the existing Chesapeake Bay Bridge and construction of a new bridge and will adversely affect the historic bridge, resulting in a permanent Section 4(f) use. The **Preferred Alternative** avoids the bridge's historic Administration Building. The location of the bridge and proposed work for the **Preferred Alternative** is shown in **Appendix A, Pages 5-12**.

MHT concurred on February 26, 2026, that **Alternative C** adversely affects the existing NRHP-eligible Chesapeake Bay Bridge.

The use of the Chesapeake Bay Bridge requires an avoidance alternatives evaluation (**Section 5**) and a least overall harm analysis (**Section 6**).

5 AVOIDANCE ALTERNATIVES AND ANALYSIS

This section provides an analysis of feasible and prudent avoidance alternatives. This analysis was conducted in accordance with the feasible and prudent avoidance alternatives definition in 23 CFR 774.17. Per 23 CFR 774.3, a feasible and prudent avoidance alternatives analysis is not required for *de minimis* impacts; however, the avoidance analysis includes all Section 4(f) properties, including those for which a *de minimis* impact determination is proposed

Per 23 CFR 774.17, a **feasible and prudent avoidance alternative** avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.

- An **alternative is not feasible** if it cannot be built as a matter of sound engineering judgment.
- An **alternative is not prudent** if:
    - It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
    - It results in unacceptable safety or operational problems;
    - After reasonable mitigation, it still causes severe: social, economic, or environmental impacts; disruption to established communities; disproportionate impacts to minority or low-income populations; or impacts to environmental resources protected under other federal statutes;
    - It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
    - It causes other unique problems or unusual factors; or
    - It involves multiple factors above, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

5.1 Alternative A (No-Build)

Alternative A would retain the existing Bay Bridge, the U.S. 50/301 alignment, and number of lanes (six lanes on the approaches of the Eastern and Western Shores and five lanes on the Bay Bridge) and there would be no changes to the existing study area. Regular maintenance of the Bay Bridge and U.S. 50/301 would occur but there would be no capital improvements other than currently planned and programmed projects. Because no capital improvements would be completed under this alternative, there would be no use of any Section 4(f) property identified within the study area.

While there would be no use of Section 4(f) properties from Alternative A, this alternative would not be prudent for multiple reasons. First, it would not meet the Purpose and Need. The No-

Build Alternative would not increase capacity or mobility because the existing bridge would be retained, resulting in traffic congestion on the Bay Bridge and adjacent roadway network. Additionally, the No-Build Alternative would not address roadway deficiencies because the existing bridge does not meet current design standards for design and traffic operations. The existing Bay Bridge would continue to have maintenance needs that would cause further traffic and congestion delays. Lastly, the existing bridge would remain as a constraint to navigation for large vessels traveling to the Port of Baltimore. Therefore, while Alternative A is feasible, it is not prudent because it would be unreasonable to proceed with this alternative considering the Tier 2 Study's stated Purpose and Need.

Second, leaving the existing bridge in place would require extensive maintenance work and costs (approximately $3.8 billion in maintenance costs through 2065) to allow the bridge to remain operational. The costs associated with the maintenance of the existing bridge would be increasingly expensive to fund, resulting in costs of extraordinary magnitude. Third, the existing bridge left in place would result in unacceptable operational problems because the existing bridge would not meet current design criteria standards nor the current navigational height requirements. The main Chesapeake Bay shipping channel has a vertical clearance of 186 feet under the Bay Bridge, which currently limits vessel height. A secondary channel under the existing bridge has a vertical clearance of 65 feet. To accommodate future ship traffic, the USCG requires a new crossing with 230 feet of vertical and 1,500 feet of horizontal clearance.

5.2 Tier 1 Corridor Alternatives (Corridors 1-6 & 8-14)

The Tier 1 Corridor Alternatives originate from the 2021 *Chesapeake Bay Crossing Study: Tier 1 NEPA Draft EIS* and include the 13 of the 14 preliminary Chesapeake Bay crossing location alternatives that were analyzed in that report but not advanced for further study. The Tier 1 Corridor Alternatives were not evaluated for effects to Section 4(f) resources and therefore this evaluation reconsiders them as potential avoidance alternatives. Each of the Tier 1 Corridor Alternatives assumes the existing Bay Bridge would be kept in service with regular maintenance, and there would be no improvements to U.S. 50/301 near the Bay Bridge; therefore, all Section 4(f) properties within the Tier 2 study area would be avoided. However, Corridors 1 through 6 and 8 through 14 would likely require use of other Section 4(f) properties, including potentially thousands of acres of parks and wildlife refuges that were identified during Tier 1 and additional parks and historic properties that have not been identified.

Corridors 1 through 6 and 8 through 14 are not prudent for multiple reasons. First, they do not meet the Study's Purpose and Need. Corridors 1 through 4 do not meet the Study's Purpose and Need because they would not draw enough traffic to relieve traffic congestion on the Bay Bridge relative to existing conditions and would therefore not provide adequate capacity. Corridor 5 would result in a queue of one mile or greater at the existing crossing for three hours on non-summer weekdays in 2040. This queue would be much longer than what currently occurs at the existing bridge and therefore would not meet the reliable travel times metric. Corridors 6 and 8 would be more costly, would require more financial responsibility, and would have more overall environmental impacts, especially to tidal wetlands, submerged aquatic vegetation (SAV), and oyster resources due to the need for longer crossings and more roadway along new alignments. Corridor 9 would result in a queue of four miles or greater at the existing crossing for one hour per day during summer weekends and a queue length of one mile or greater at the existing crossing for six hours on non-summer weekdays in 2040. This queue would be much longer than what currently occurs at the existing bridge and therefore would not meet the reliable travel times

metric. Corridors 10 through 14 do not meet the Study's Purpose and Need because they would not provide adequate capacity to relieve traffic congestion on the Bay Bridge relative to existing conditions.

Second, the Tier 1 Corridor Alternatives will still result in maintenance and operational costs of an extraordinary magnitude and operational challenges because the existing bridge will remain in place; refer to **Section 5.1** for the additional costs and navigational implications of keeping the existing Bay Bridge, as they would also apply alongside the selection of Corridors 1 through 6 and 8 through 14. In addition, other feasibility challenges and major environmental resource impacts could result from Corridors 1 through 6 and 8 through 14 even after reasonable mitigation. **Table 5-1** summarizes these major challenges. Refer to **Table 3-9**[1] in Chapter 3 of the *Bay Crossing Study Tier 1 Draft EIS* for the complete rationale for the elimination of Corridors 1 through 6 and 8 through 14 during the Tier 1 Study.

Table 5-1: Tier 1 Study Draft EIS Corridor Alternatives Eliminated from Consideration

Corridor Alternative	Environmental Impacts
1	Corridor 1 contained substantial environmental resources, including 3,300 acres of SAV, the highest among all corridors, and 1,600 acres of parks and wildlife refuges.
2	Corridor 2 passed through the Aberdeen Proving Ground, a U.S. Army facility located adjacent to Aberdeen, Maryland, with no apparent potential for avoidance resulting in major practical challenges. Corridor 2 contained substantial environmental resources, including 16,100 acres of prime farmland.
3	Corridor 3 would potentially cause major indirect effects on the Eastern Shore resulting from increased demand for urban development. Corridor 3 created a new, direct connection from the Baltimore area employment center to Kent County and exposed large areas of undeveloped farmland to substantial new pressure for development. Corridor 3 contained substantial environmental resources, including 17,800 acres of prime farmland and 60 miles of perennial streams.
4	Corridor 4 could potentially cause major indirect effects on the Eastern Shore resulting from increased demand for urban development. Corridor 4 created a new, direct connection from the Baltimore area employment center to Kent County and exposed large areas of undeveloped farmland to substantial new pressure for development. Corridor 4 contained substantial environmental resources, including 1,600 acres of parks and wildlife refuges, 19,300 acres of prime farmland, and 12,200 acres of Chesapeake Bay Critical Area.
5	Corridor 5 contained substantial environmental resources, including 14,900 acres of prime farmland, 6,200 acres of forested land, 15,200 acres of open water, and 1,500 acres of parks and wildlife refuges. Corridor 5 could potentially cause major indirect effects on the Eastern Shore resulting from increased demand for urban development. Corridor 5 created a new, direct connection from the Baltimore area employment center to Kent County and exposed large areas of undeveloped farmland to substantial new pressure for development.
6	Corridor 6 contained substantial environmental resources, including 18,000 acres of open water, 5,400 acres of natural oyster bars, and 900 acres of parks and wildlife refuges. Corridor 6 would have indirect effects but likely less induced growth compared to Corridors 3, 4, and 5.

[1] https://www.baycrossingstudy.com/downloads?task=download.send&id=3:chapter-3-alternatives-considered&catid=3

Corridor Alternative	Environmental Impacts
8	Corridor 8 contained substantial environmental resources, including 20,400 acres of open water, 6,500 acres of natural oyster bars, and 8,600 acres of forested land. Corridor 8 would have indirect effects but likely less induced growth compared to Corridors 3, 4, or 5.
9	Corridor 9 contained substantial environmental resources, including 8,600 acres of natural oyster bars and 11,100 acres of Chesapeake Bay Critical Area.
10	Corridor 10 contained substantial environmental resources including a large area of open water within the corridor (23,400 acres) due to relatively long required crossings. Corridor 10 also included 7,600 acres of residential land use and 9,600 acres of natural oyster bars.
11	Corridor 11 contained substantial environmental resources, including 5,100 acres of residential land use, 1,400 acres of SAV, and 4,000 acres of wetlands.
12	Corridor 12 contained substantial environmental resources, including 2,500 acres of parks and wildlife refuges, 6,200 acres of wetlands, 18,100 acres of prime farmland, 8,000 acres of Chesapeake Bay Critical Area, and 12,200 acres of Sensitive Species Project Review Areas (SSPRA).
13	Corridor 13 contained substantial environmental resources, including 5,000 acres of parks and wildlife refuges, 7,800 acres of wetlands, 16,600 acres of forested land, 19,200 acres of prime farmland, 13,200 acres of Chesapeake Bay Critical Areas, and 22,800 acres of SSPRAs. Corridor 13 passed through Blackwater National Wildlife Refuge, with no apparent opportunity for avoidance of the resource and resulting in major practical challenges.
14	Corridor 14 required the longest Chesapeake Bay crossing (17.1 miles) of all the corridor alternatives. Corridor 14 contained substantial environmental resources, including 5,600 acres of parks and wildlife refuges, 28,700 acres of open water, 1,200 acres of SAV, 4,300 acres of natural oyster bars, 4,500 acres of wetlands, 8,700 acres of Chesapeake Bay Critical Area, and 8,600 acres of SSPRAs.

The Tier 1 Corridor Alternatives (Corridors 1 through 6 and 8 through 14) would not be considered prudent because:

1) it would be unreasonable to proceed with these alternatives considering the Study's stated Purpose and Need;

2) they would likely cause severe social, economic, and/or environmental impacts after reasonable mitigation; and/or

3) they would result in additional construction costs of extraordinary magnitude.

5.3 Combined Transit/TSM/TDM Alternative

The November 2024 *Bay Crossing Study Tier 2 NEPA Notice of Intent Additional Project Information Document* analyzed a Combined Transit/TSM/TDM Alternative that would involve a combination of bus enhancements, ferry, interchange consolidation, park-and-ride facilities, congestion pricing, and PTSU lanes that would not include a new bridge or modifications to the existing number of lanes. The existing Bay Bridge would be kept in service without modification to character-defining historic elements or capacity and U.S. 50/301 would not be widened.

As a Section 4(f) avoidance alternative, the improvements would be implemented where Section 4(f) properties are not located, thereby avoiding all Section 4(f) properties.

The TSM/TDM strategies would maintain, with minimal changes, the existing use of the current bridge, roadway, and facilities so this Alternative would have no impact on residences or businesses, community facilities, streams, wetlands, floodplains, agricultural land, or forest due to the continued use of existing facilities. The implementation of a ferry would require additional infrastructure for ferry terminals and access roads. While Section 4(f) properties would be avoided, environmental impacts would occur based on ferry infrastructure location.

A Combined Transit/TSM/TDM Alternative would be feasible and have less environmental impacts and cost less than the build ARDS including the Preferred Alternative that involve construction of a new bridge (Alternatives B through G and the Preferred Alternative); however, it is not prudent because it does not meet the Tier 2 Study's Purpose and Need, would result in unacceptable operational problems, and would result in additional operation and maintenance costs of extraordinary magnitude. While this Alternative would address the mobility needs of the study, without a new structure, adequate capacity and reliable travel times are not achievable, roadway deficiency and existing and future maintenance concerns with the existing Bay Bridge would remain, and there would be no way to provide additional navigational vertical clearance. Refer to **Section 5.1** for the additional cost and navigational implications of keeping the existing Bay Bridge in place, as they would also apply alongside the implementation of a Combined Transit/TSM/TDM Alternative.

While feasible, a combined Transit/TSM/TDM Alternative **would not be considered prudent** because it:

1) would be unreasonable to proceed with this Alternative considering the Tier 2 Study's stated Purpose and Need; and

2) results in unacceptable safety or operational problems.

3) would result in additional construction costs of extraordinary magnitude.

5.4 Full Tunnel Alternative

The November 2024 *Bay Crossing Study Tier 2 NEPA Notice of Intent (NOI) Additional Project Information Document* analyzed an Alternative that included a full tunnel that would cross under the entire width of the Chesapeake Bay, be roughly four miles long, and include tunnel entrance and exit portals, ventilation structures or islands, and an emergency egress route. This Alternative would not include a new bridge or modifications to the existing Bay Bridge.

The Alternative presented in the NOI has been modified to provide a potential Section 4(f) avoidance alternative. As an avoidance alternative, the tunnel would be constructed only where Section 4(f) properties are not located, thereby avoiding all Section 4(f) properties. This would require leaving the Bay Bridge spans in place and extending the tunnel farther west and east along U.S. 50/301 at an additional cost and length than originally analyzed in the NOI in order to avoid Section 4(f) properties at the tunnel's approach/tie-in points. Tunnel approaches would need to be designed along U.S. 50/301 and far enough from the existing ramps to avoid all Section 4(f) properties. Dredging of sediment for tunnel borings could disturb contaminants or hazardous

materials settled within the water column and shorelines. The tunnel would also have restrictions on the transport of certain hazardous materials that would disrupt local/regional deliveries and long-distance transport of hazardous materials. The tunnel would also not be able to support an SUP due to safety and security concerns.

While feasible, a full tunnel would not be a prudent alternative. Due to mobility disruptions related to hazardous materials transportation and lack of accommodation for pedestrians and bicycles, a full tunnel alternative does not meet the Tier 2 Study's Purpose and Need. Additionally, a full tunnel Section 4(f) avoidance alternative would: 1) have substantial environmental resource impacts to the Chesapeake Bay bottom from borings for the tunnel portals and ventilation structures, and 2) be approximately two to three-and-a-half times more expensive to construct and potentially much more depending on the exact length needed to avoid Section 4(f) properties at the approaches, even after reasonable mitigation. Refer to **Section 5.1** for the additional cost and navigational implications of keeping the existing Bay Bridge in place, as they would also apply alongside the implementation of a Full Tunnel Alternative.

While feasible, a Full Tunnel Alternative **would not be considered prudent** because it:

1) would be unreasonable to proceed with a tunnel considering the Tier 2 Study's stated Purpose and Need;

2) would likely cause severe social, economic, and/or environmental impacts after reasonable mitigation;

3) would result in unusual factors; and/or

4) would result in additional construction costs of extraordinary magnitude.

5.5 New Location Alternative Options A and B: Off Existing Corridor 7

Section 4(f) use of all resources identified within the study area would be avoided by re-routing the location of U.S. 50/301 (including the proposed bridge) to the north or south of the existing Bay Bridge while leaving the existing bridge in place and in service for local traffic. The New Location Alternative includes two sub-Alternatives (Options A and B) that are further described below and shown in **Figure 5-1**. Both sub-Alternatives consider the generally acceptable ranges of dimensions for roadway elements and typical applications on different types of roadway facilities, as further documented in *A Policy on the Geometric Design of Highways and Streets* by the American Association of State Highway and Transportation Officials (AASHTO, 2018). Both sub-Alternatives assume the 6-8-6 lane pattern (6 lanes along U.S. 50/301 on the Western Shore, 8 lanes across the Chesapeake Bay on a new bridge, and 6 lanes along U.S. 50/301 on the Eastern Shore) with two new bridge spans, would require the construction of new bridge approaches on both the Eastern and Western Shores, and use a 150-foot buffer off the centerline to estimate impacts.

5.5.1 Option A: North of Existing Corridor 7

New Location Alternative Option A would reroute U.S. 50/301 and include a new bridge across the Chesapeake Bay north of the existing Bay Bridge, as shown in **Figure 5-1**. New Location Alternative Option A would relocate U.S. 50/301 beginning directly east of the U.S. 50/301 and Cape St. Claire Road interchange, where E College Parkway and U.S. 50/301 begin to travel

parallel and adjacent to each other. The new alignment would consist of six lanes and travel north/northeast through the Woods Landings neighborhood, east of Little Magothy River and west of and parallel to Bay Head Road, avoiding the Corcoran Environmental Study Area portion of Sandy Point State Park. Where Bay Head Road turns northwest, the eight-lane bridge spans would begin to jet out into the Chesapeake Bay. New Location Alternative Option A would then span across the Bay in a southeast direction, avoiding the Sandy Point Shoal Light. South of the Sandy Point Shoal Light, the bridge would continue to travel east/southeast and connect to the Eastern Shore north of Terrapin Nature Park between Walker Road and Price Farm Lane. Once reconnected to the Eastern Shore, U.S. 50/301 would continue east with six lanes through the northern neighborhood of Stevensville and then travel south/southeast, crossing Castle Marina Road through northern Chester residential properties. New Location Alternative Option A would then rejoin the original U.S. 50/301 alignment at the Piney Creek Road and Whites Heritage Lane intersection. The connectivity of the Cross Island Trail on the Eastern Shore would not be disturbed during construction or post-construction of New Location Alternative Option A.

New Location Alternative Option A would completely avoid impacts on all Section 4(f) properties in the study area. However, with the assumed 6-8-6 lane pattern, it is estimated that between the U.S. 50/301 lane shifting on the Eastern and Western Shores, this new roadway would require approximately 170 acres of additional right-of-way, approximately 128 acres of residential property, and approximately 5 acres of commercial property, which would result in the displacement of residences and businesses. The remaining 37 acres of additional right-of-way include agricultural land, natural areas, and other lands not classified as residential or commercial property. New Location Alternative Option A would intersect neighborhood areas, disrupting the existing cohesion of communities on both shores. For the bridge portion of New Location Alternative Option A, various Chesapeake Bay resources would be impacted, including approximately: 78 acres of benthic habitat; 45 acres of public shellfishery areas; 4 acres of oyster sanctuaries; 58 acres of historic oyster bottom; 37 acres of waterfowl nesting area; and 235 acres of tidal surface waters.

Other resources that were estimated to be impacted by New Location Alternative Option A would include approximately 30 acres of forest interior dwelling species (FIDS) habitat; 19 acres of forested land; 16 acres of agricultural land; 133 acres of Chesapeake Bay Critical Area; 30 acres of 100-year floodplain areas; and 5 acres of SAV.

5.5.2 Option B: South of Existing Corridor 7

New Location Alternative Option B would reroute U.S. 50/301 and include a new bridge across the Bay Bridge that is south of the existing Bay Bridge, as shown in **Figure 5-1**. For New Location Alternative Option B, U.S. 50/301 would be rerouted, beginning west of the U.S. 50/301 and MD 2 interchange along Winchester Road. This alignment would consist of six lanes and travel northeast through the Forest Meadows neighborhood, crossing MD 179, before turning south into the Pendennis Mount peninsula between Mill Creek and Whitehall Creek before approaching the Chesapeake Bay. The new eight-lane bridges would have an approach between Bowdoin Point and Sharps Point and then travel across the Bay, south of the Holly Beach Farm and the existing Bay Bridge. The Western Shore approach would occur between Matapeake Park/Matapeake Ferry Terminal and the Bay City historic district. Once the Eastern Shore is reached, U.S. 50/301 would continue east/southeast with six lanes, crossing MD 8 and traveling north adjacent to MD 8, where it would reconnect with the existing U.S. 50/301 alignment along Thomspon Creek Road.

New Location Alternative Option B would completely avoid impacts on all Section 4(f) properties in the study area. However, with the assumed 6-8-6 lane pattern, it is estimated that the roadway segments of this alignment would require approximately: 213 acres of right-of-way, 74 acres of residential property, 4 acres of commercial property, and 3 acres of community facility property area (or 2 community facilities), resulting in the displacement of residences and businesses. The remaining 132 acres include agricultural land, natural areas, and other lands not classified as residential or commercial property. The bridge portion of New Location Alternative Option B would impact approximately: 116 acres of benthic habitat; 70 linear feet of horseshoe crab habitat; 43 acres of public shellfishery areas; 3 acres of oyster plantings; 55 acres of historic oyster bottom; 67 acres of waterfowl nesting areas; and 207 acres of tidal surface waters of Chesapeake Bay resources. Other resources that are estimated to be impacted by this avoidance alternative include approximately: 117 acres of FIDS habitat; 59 acres of forested land; 44 acres of agricultural land; 105 acres of Chesapeake Bay Critical Area; and 15 acres of 100-year floodplain areas.

While feasible, neither sub-location Alternative would meet the Purpose and Need of the Tier 2 Study because both involve leaving the existing bridge in place and in service for local traffic. Refer to **Section 5.1** for the additional cost and navigational implications of keeping the existing Bay Bridge in place, as they would also apply alongside the implementation of either sub-location Alternative. Although New Location Alternatives Options A and B would both avoid Section 4(f) properties in the study area, these Alternatives would involve substantial re-routing of U.S. 50/301 on land and through the Chesapeake Bay. Even after reasonable mitigation, these re-alignments would cause severe social and natural environmental impacts to residences, businesses, FIDS habitat, floodplains, forests, farmland, Chesapeake Bay Critical Area, and many Chesapeake Bay resources, like species habitats, public fishing areas, waterfowl nesting areas, and tidal area surface waters.

While feasible, New Location Alternatives Options A and B, **would not be considered prudent** because:

1) it would be unreasonable to proceed with either Alternative considering the Tier 2 Study's stated Purpose and Need;

2) they would still cause severe social, economic, and/or environmental impacts after reasonable mitigation; and/or

3) they would result in additional maintenance and/or construction costs of extraordinary magnitude.

5.6 Alignment Shift Avoidance Alternative

The Alignment Shift Avoidance Alternative would maintain a very similar alignment to that which currently exists, with the exception of the bridge. Section 4(f) use of all resources identified within the study area would be avoided by shifting the location of U.S. 50/301 (including the proposed bridge) directly south of the existing Bay Bridge while leaving the existing bridge in place and in service for local traffic, avoiding Section 4(f) use of the historic Chesapeake Bay Bridge. The Alignment Shift Avoidance Alternative assumes the 6-8-6 lane pattern, would require construction of new bridge approaches on both the Eastern and Western shores, and would consider the general acceptable ranges of dimensions for roadway elements and typical applications on

different types of roadway facilities, as further documented in *A Policy on the Geometric Design of Highways and Streets* (AASHTO, 2018). Refer to **Figure 5-1** for the location of the Alignment Shift Avoidance Alternative in relationship to the existing bridge and study area.

The Alignment Shift Avoidance Alternative would begin with the expansion of U.S. 50/301 into a six-lane highway west of the U.S. 50/301 and Oceanic Drive interchange, extending in a direction perpendicular to Log Inn Road. U.S. 50/301 would then travel slightly south of the current alignment to incorporate a new Western Shore bridge approach that is south and parallel to Old Ferry Slip Road over Westinghouse Bay. The new two-span bridge would extend over the Chesapeake Bay with eight lanes, approximately 800 feet directly south of the existing Bay Bridge. The second bridge approach would arrive on the Eastern Shore, crossing through the Bay Bridge Marina and reconnecting with U.S. 50/301 just west of the U.S. 50/301 and MD 8 interchange.

While the Alignment Shift Avoidance Alternative would avoid all Section 4(f) properties within the study area, this Alternative would cause several other social and environmental impacts. With a 150-foot buffer off the centerline, it is estimated that approximately: 33 acres of right-of-way, 2 acres of residential property, 14 acres of commercial property, and 17 acres of community facility property area (or 1 community facility) would be impacted by the space required for this new alignment. The bridge portion of the Alignment Shift Avoidance Alternative would impact approximately 21 acres of benthic habitat, 16 acres of public shellfishery areas, 12 acres of oyster plantings, 37 acres of historic oyster bottom, 26 acres of waterfowl nesting areas, and 174 acres of tidal surface waters. Other resources that were estimated to be impacted by the Alignment Shift Avoidance Alternative include approximately: 2 acres of FIDS habitat; 6 acres of forested land; 52 acres of Chesapeake Bay Critical Area; and 33 acres of 100-year floodplain areas. The Alignment Shift Avoidance Alternative may also impact historic properties that lie along the potential alignment that have not yet been identified. These social and environmental impacts are generally more than those associated with the build ARDS including the Preferred Alternative, particularly more than those associated with Alternatives B and C (see **Table 6-3**). While the Section 4(f) properties analyzed in this evaluation would be avoided, these social and environmental impacts would not support the environmental responsibility objective of the Tier 2 Study's Purpose and Need.

The Alignment Shift Avoidance Alternative would operate in addition to the existing bridge, and additional traffic capacity would be achieved through an increase in the number of lanes traveling across the Bay. In turn, mobility and the movement and goods and services across the Bay would also increase and roadway deficiencies would be addressed with an updated bridge design. However, navigational needs would not be met with the existing bridge left in place as larger ships traveling through the Chesapeake Bay may only be able to clear the new Alignment Shift Avoidance Alternative bridge. Refer to **Section 5.1** for the additional cost and navigational implications of keeping the existing Bay Bridge in place, as they would also apply alongside the implementation of an Alignment Shift Alternative. The existing bridge left in place would not meet current design criteria standards. Even with the new Alignment Shift Avoidance Alternative bridge in place, congestion from maintenance of the existing bridge may occur. Therefore, this Alternative may still cause some congestion traveling across the Bay, would not address roadway deficiencies or meet the navigational requirements, and would not meet the Tier 2 Study's Purpose and Need.

While feasible, the Alignment Shift Avoidance Alternative **would not be considered prudent** because it:

1) would be unreasonable to proceed with this Alternative considering the Tier 2 Study's stated Purpose and Need; and

2) would result in additional maintenance costs of extraordinary magnitude.

5.7 Avoidance Alternatives and Analysis Summary

Section 5.1 through **Section 5.6** describe seven avoidance alternatives that would not impact any currently identified Section 4(f) resources for the Tier 2 Study. Each alternative was then analyzed in accordance with the definition of feasible and prudent avoidance alternatives, per 23 CFR 774.17. A summary comparison of all avoidance alternatives is provided in **Table 5-2**.

Following completion of the analysis, it was determined that no feasible and prudent avoidance alternative exists. Therefore, a least overall harm analysis was conducted and is presented in **Section 6**.

Figure 5-1: New Location Alternatives and Alignment Shift Avoidance Alternative

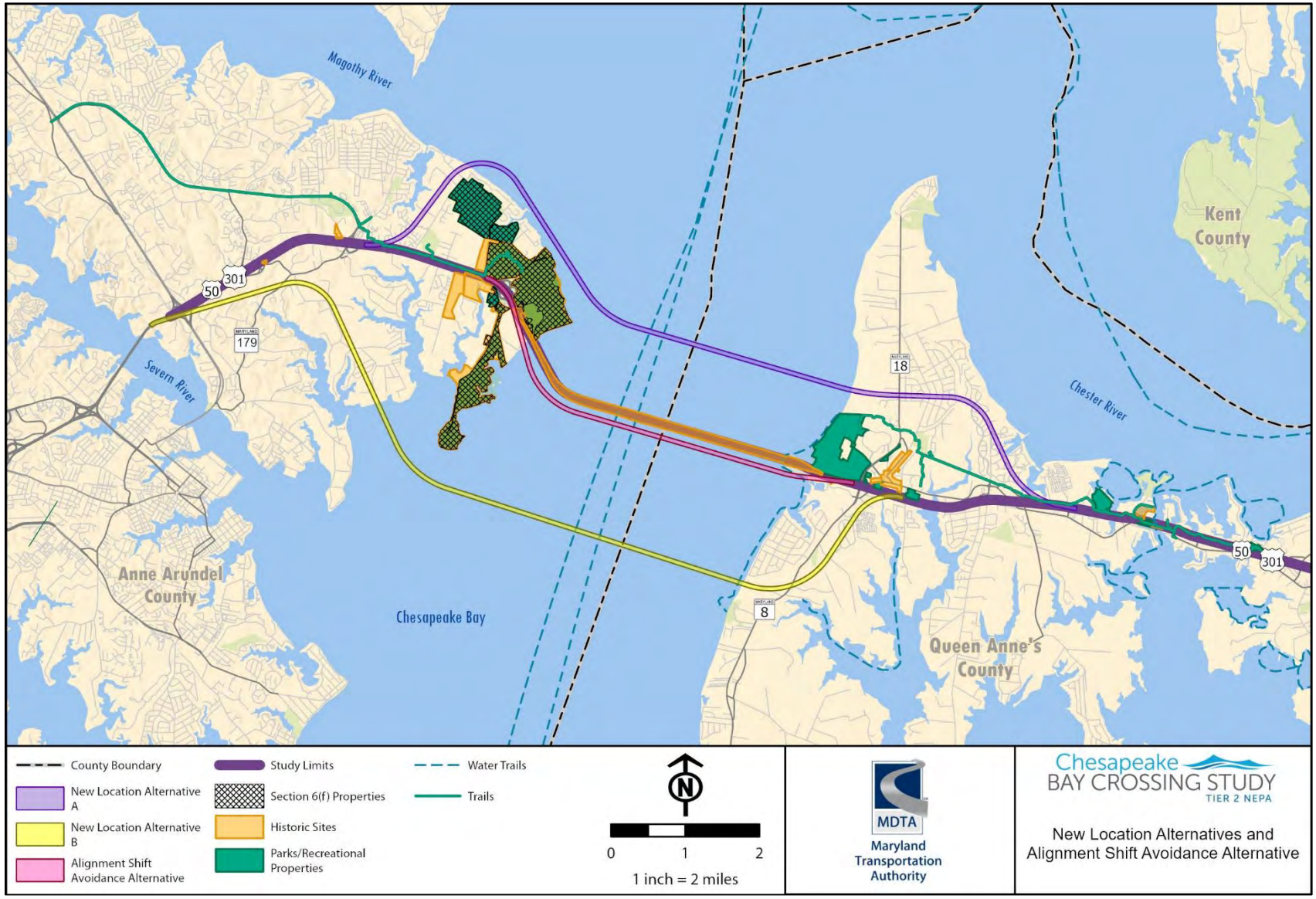


Table 5-2: Comparison of Avoidance Alternatives

Section 4(f) Analysis	Tier 1 Corridor Alternatives	Combined Transit/TSM/TDM Alternative	Full Tunnel Alternative	New Location Alternative Option A	New Location Alternative Option B	Alignment Shift Avoidance Alternative
Feasible						
Could the Alternative be built with sound engineering judgement?	Yes[1]	Yes	Yes	Yes	Yes	Yes
Prudent						
Does the Alternative result in a compromise that is unreasonable to proceed with the project considering the Tier 2 Study's Purpose and Need?	Yes; the alternative would not meet the Purpose and Need based on a variety of reasons described above, does not meet navigational needs	Yes; the alternative would not draw enough traffic to relieve congestion on the existing Bay Bridge relative to existing conditions and issues associated with leaving the Bay Bridge in place would persist, does not meet navigational needs	Yes; the alternative would create mobility disruptions related to hazardous materials transportation and lack of accommodations for pedestrian and bicycles, does not meet navigational needs	Yes; the alternative would not meet navigational needs or address the roadway deficiencies on the existing Bay Bridge, does not meet navigational needs	Yes; the alternative would not meet navigational needs or address the roadway deficiencies on the existing Bay Bridge, does not meet navigational needs	Yes; the alternative would not meet navigational needs or address the roadway deficiencies on the existing Bay Bridge, does not meet navigational needs
Does the Alternative result in unacceptable safety or operational problems?	Yes; by leaving the existing Bay Bridge in place it would continue to deteriorate and not meet current bridge design criteria	Yes; by leaving the existing Bay Bridge in place it would continue to deteriorate and not meet current bridge design criteria	Yes; by leaving the existing Bay Bridge in place it would continue to deteriorate and not meet current bridge design criteria	Yes; by leaving the existing Bay Bridge in place it would continue to deteriorate and not meet current bridge design criteria	Yes; by leaving the existing Bay Bridge in place it would continue to deteriorate and not meet current bridge design criteria	Yes; by leaving the existing Bay Bridge in place it would continue to deteriorate and not meet current bridge design criteria

Section 4(f) Analysis	Tier 1 Corridor Alternatives	Combined Transit/TSM/TDM Alternative	Full Tunnel Alternative	New Location Alternative Option A	New Location Alternative Option B	Alignment Shift Avoidance Alternative
After reasonable mitigation, does the alternative still result in severe social, economic, or environmental impacts; severe disruption to established communities; severe disproportionate impacts to minority/low-income populations; severe impacts to resources protected under other Federal statutes?	Yes; severe environmental and social impacts and disruption to communities	No	Yes; severe environmental resource impacts to the Chesapeake Bay bottom, limited impact to communities	Yes; severe environmental and social impacts and disruption to communities	Yes; severe environmental and social impacts and disruption to communities	No
Does the Alternative result in additional construction, maintenance, or operational costs of extraordinary magnitude?	Yes; major costs associated with construction in addition to maintaining the existing Bay Bridge	Yes; low cost to implement; however, leaving the existing Bay Bridge in place would require extensive maintenance costs	Yes; major costs associated with construction in addition to maintaining the existing Bay Bridge	Yes; major costs associated with construction in addition to maintaining the existing Bay Bridge	Yes; major costs associated with construction in addition to maintaining the existing Bay Bridge	Yes; major costs associated with construction in addition to maintaining the existing Bay Bridge
Does the Alternative cause other unique problems or unusual factors?	No	No	Yes; restrictions on the transport of certain hazardous materials would disrupt the local/ regional deliveries and long-distance transport of hazardous materials	No	No	No
Does the Alternative involve multiple factors, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude?	Yes; could potentially cause major indirect effects on the Eastern Shore, severe impacts to other resources, excessive costs	No	Yes; numerous impacts associated with tunnel boring, excessive costs	Yes; severe impacts to other resources changing land use at and surrounding the new corridor, excessive costs	Yes; severe impacts to other resources changing land use at and surrounding the new corridor, excessive costs	No

[1]Corridor 2 passed through the Aberdeen Proving Ground, a U.S. Army facility located adjacent to Aberdeen, Maryland, with no apparent potential for avoidance resulting in major practical challenges.

6 MINIMIZATION AND MITIGATION OF HARM

6.1 All Possible Planning to Minimize Harm

"All possible planning," as defined in 23 CFR 774.17, includes all reasonable measures to minimize harm or mitigate for adverse impacts and effects to Section 4(f) properties. An analysis of all possible planning to minimize harm for Alternatives B through G and the Preferred Alternative is documented in this section. In evaluating whether a minimization measure to avoid use of a Section 4(f) property is reasonable, FHWA must consider Section 4(f)'s preservation purpose and (i) the views of the OWJs over the Section 4(f) properties; (ii) whether the costs of minimization are reasonable in light of the adverse impacts to the Section 4(f) property and the benefits of the minimization measure to the Section 4(f) property; and impacts or benefits of the minimization measure to communities or environmental resources outside the Section 4(f) property.

Per 23 CFR 774.17, a *de minimis* impact determination subsumes the requirement for all possible planning to minimize harm because impacts have already been reduced to a *de minimis* level. Therefore, properties with *de minimis* impact determinations are not discussed herein.

Mitigation was considered for Section 4(f) uses associated with the build ARDS and the Preferred Alternative that cannot be avoided or further minimized. Mitigation is proportionate to the severity of the impact on the Section 4(f) property, was coordinated with the appropriate OWJs over the impacted properties and is included in this Final Section 4(f) Evaluation.

6.1.1 Methodology for Establishing Limits of Disturbance

The MDTA developed LODs for each build ARDS and the Preferred Alternative, representing the area that includes all construction, erosion and sediment control, stormwater management, and right-of-way offsets. The LODs were developed at a conceptual level and the Preferred Alternative LOD was further refined after publication of the Draft EIS. In general, the LOD was set 30 feet beyond the edge of work (toe of slope, top of slope, retaining wall, etc.). A standard minimization application of three progressively narrower roadside typical sections was employed to avoid, then minimize, impacts to environmentally sensitive resources. Additional information regarding the development of the LODs can be found in Chapter 2 of the Final EIS. At Section 4(f) properties, the roadside typical section was reduced to avoid or minimize impacts to Section 4(f) properties. Where the Section 4(f) property could not be avoided, the impact was minimized with retaining walls. The roadside typical sections were applied to the LODs from widest to narrowest to the greatest extent necessary to comply with regulatory requirements and to accommodate existing conditions along the study area.

6.1.2 Individual Property Minimization and Mitigation of Harm

Methods to minimize harm to individual properties were evaluated to determine the ability to mitigate impacts to Sandy Point State Park (historic site and public park), the Dutch Mill Farm Restaurant, and the Chesapeake Bay Bridge under each of the build ARDS and the Preferred Alternative, if applicable. These methods are considered minimization and mitigation of harm as they do not avoid the use of all Section 4(f) properties and therefore are not applicable to the Avoidance Alternatives discussion in **Section 5**.

6.1.2.1 Sandy Point State Park

Improvements under **Alternatives C, E, and G** would be *de minimis*; therefore, all possible planning to minimize harm is already incorporated by reducing impacts to a *de minimis* level.

Alternatives B, D, and F would require permanent incorporation of Sandy Point State Park (historic site and public park). A southern alignment shift to minimize harm at this park property would result in an alignment similar to Alternatives C, E, and G.

Public Park

Mitigation measures for publicly-owned public parks and recreational facilities could include parkland replacement, enhancement of existing parkland, providing new, replacing, or relocating park amenities or facilities, and/or restoration of affected areas and would be proportional to the severity of the impact to the property.

Historic Site

Mitigation measures could include preparation of a Cultural Landscape Report/Historic Structure Report, photographic survey documentation, or on-site or digital interpretive materials or signage and would be outlined in a Programmatic Agreement (PA).

As discussed in **Section 2.3**, engineering refinements to the **Preferred Alternative** after publication of the Draft EIS eliminated all roadway-related impacts to Sandy Point State Park (public park and historic site); therefore, the **Preferred Alternative** avoids Section 4(f) use of the park and all possible planning to minimize harm has occurred. If the optional SUP is advanced, the MDTA and FHWA will coordinate with the OWJs (MDNR and MHT) to determine if the improvements would result in a Section 4(f) use of Sandy Point State Park.

6.1.2.2 Dutch Mill Farm Restaurant

Alternatives B, C, and the **Preferred Alternative** avoid use of the Dutch Mill Farm Restaurant property; therefore, planning to minimize harm is not required for these alternatives.

Alternatives D through G would require permanent incorporation of the entire Dutch Mill Farm Restaurant property. Minimization of harm to the Dutch Mill Farm Restaurant under these alternatives would require avoiding this specific property by shifting the proposed improvements along U.S. 50/301 to the north at the location of the property. North of U.S. 50/301 in this location there is a convenience store and gas station, office building, motel, high-density residential complex, and single-family housing, all accessed from Old Mill Bottom Road, which runs parallel to U.S. 50/301. A northward alignment shift under these alternatives to minimize harm to the Dutch Mill Farm Restaurant could impact these various commercial and residential buildings, likely requiring total acquisitions and displacements. Given the impact to surrounding businesses,

residences, and local roads, a northward alignment shift to avoid Dutch Mill Farm Restaurant is not considered a reasonable measure to minimize harm. Mitigation measures could include preservation of the restaurant's windmill, photographic or digital documentation of the restaurant, or on-site or digital exhibit panels or signs and would be outlined in a PA.

6.1.2.3 Chesapeake Bay Bridge

Alternatives B through G, and the Preferred Alternative would all require permanent incorporation of the Chesapeake Bay Bridge as they would demolish and replace the existing structure. Individual minimization through avoidance of the bridge could only be achieved through the alternatives presented in **Section 5.5** and **Section 5.6**.

Pursuant to Section 106 of the NHPA, the MDTA, FHWA, SHA, MD State Historic Preservation Officer (SHPO) (MHT) and the Advisory Council on Historic Preservation (ACHP) executed a PA to resolve adverse effects on August 6, 2026. In general, mitigation measures agreed upon as part of the Section 106 process satisfy the requirement to include all possible planning to minimize harm for historic properties under Section 4(f). Specific mitigation measures stipulated in the PA include:

- Preparation of a Maryland Inventory of Historic Properties (MIHP) Addendum Form for the bridge prior to the demolition of each span;
- Digital documentation of each bridge span using 3D laser scanning, LiDAR, and/or high-definition photogrammetry, prior to demolition of the first span;
- Fabrication of interpretive panels to be installed at publicly accessible locations near the bridge;
- Creation of online interpretive content about the history and significance of the bridge, published prior to the start of construction of the first new bridge span; and
- Design of a playground/interactive outdoor interpretive area that features elements that reflect the design of the bridge, to be installed in a publicly accessible area of Sandy Point State Park.

6.2 Least Overall Harm Analysis

Pursuant to 23 CFR 774.3(c)(1), if the avoidance analysis determines that there is no feasible and prudent avoidance alternative, then only the alternative that causes the least overall harm may be approved by FHWA. The build ARDS described in **Section 2.2** and the Preferred Alternative described in **Section 2.3** are included in the least overall harm analysis below. As presented in **Section 5**, based on the final avoidance alternative analysis, this Final Section 4(f) Evaluation demonstrates that there is no feasible and prudent avoidance alternative; therefore, a least overall harm analysis is necessary to determine which remaining alternative(s) may be approved by FHWA.

23 CFR 774.3(c)(1) identifies seven factors for identifying the alternative with the least overall harm:

> (i) The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
>
> (ii) The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
>
> (iii) The relative significance of each Section 4(f) property;
>
> (iv) The views of the official(s) with jurisdiction over each Section 4(f) property;
>
> (v) The degree to which each alternative meets the purpose and need for the project;
>
> (vi) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
>
> (vii) Substantial differences in costs among the alternatives.

The build ARDS (Alternatives B, C, D, E, F and G) and Preferred Alternative are included in the least overall harm analysis presented in this section. Refer to **Table 6-1** for a summary of the least overall harm analysis.

6.2.1 Factor (i)

The ability to mitigate adverse impacts to the Chesapeake Bay Bridge would be comparable for Alternatives B, C, D, E, F, and G and the Preferred Alternative. Each alternative would include the same mitigation measures. Specific mitigation measures are specified in the Section 106 PA for the Preferred Alternative and are discussed in **Section 6.1.2.3**.

There would be no adverse impacts to Sandy Point State Park (historic site and public park) under Alternatives C, E, and G, and there would be no impact to the property from roadway improvements associated with the Preferred Alternative; therefore, no Section 4(f) mitigation is required.

For Alternatives B, D, and F, mitigation opportunities for Sandy Point State Park are available but would not avoid use of the beach area. For the public park, mitigation could include parkland replacement, enhancement of existing areas, vegetation restoration, or new/replacement amenities. For the historic site, mitigation could include preparation of a Cultural Landscape Report/Historic Structure Report, photographic survey documentation, or on-site or digital interpretive materials or signage and would be outlined in a PA.

Alternatives B, C, and the Preferred Alternative avoid impacts to the Dutch Mill Farm Restaurant; therefore, no mitigation is required. For Alternatives D, E, F, and G, mitigation could potentially include preparation of a Cultural Landscape Report/Historic Structure Report, 3D photogrammetry documenting the restaurant, or on-site or digital exhibit panels or signs and would be outlined in a PA.

6.2.2 Factor (ii)

Each of the build ARDS would require the use of Section 4(f) properties.

- **Alternative B** would require use of nine properties, six of which would be *de minimis*.
- **Alternative C** would require use of nine properties, eight of which would be *de minimis*.
- **Alternative D** would require use of 13 properties, nine of which would be *de minimis*.
- **Alternative E** would require use of 13 properties, eleven of which would be *de minimis*.
- **Alternative F** would require use of 13 properties, nine of which would be *de minimis*.
- **Alternative G** would require use of 13 properties, eleven of which would be *de minimis*.

The **Preferred Alternative** will require use of six properties, five of which are *de minimis*.

After mitigation, the remaining harm from Alternatives B, C, D, E, F, and G and the Preferred Alternative to the protected activities, attributes, and features that qualify the Chesapeake Bay Bridge as a Section 4(f) property are similar in severity, as these alternatives all result in the bridge's demolition and mitigation would include the same mitigation measures outlined in the PA, as discussed in the analysis for Factor (i).

The level of harm to Sandy Point State Park (historic site and public park) under Alternatives C, E, and G would be minor (*de minimis*). Potential mitigation for Sandy Point State Park is described in the analysis for Factor (i); however, even after all feasible mitigation measures are incorporated, Alternatives B, D, and F would still result in substantial and unavoidable adverse harm to the Sandy Point State Park's (historic site and public park) recreational beach and fishing jetty areas. A portion of the beach and fishing area would be incorporated into a transportation use. This impact cannot be offset or replaced within the park or elsewhere because this area of the park provides unique recreational opportunities, is a defining feature of the property, and cannot be re-established elsewhere. There are no practicable mitigation measures that would reduce this loss to a less-than-significant level. Therefore, the harm remains severe and unavoidable under these alternatives. The Preferred Alternative avoids roadway-related impacts to Sandy Point State Park. If the optional SUP is advanced, the level of harm to Sandy Point State Park (historic site and public park) is anticipated to be minor (*de minimis*).

There would be no harm to the Dutch Mill Farm Restaurant under Alternatives B, C, or the Preferred Alternative. After mitigation, the remaining harm from Alternatives D, E, F, and G to the protected activities, attributes, and features that qualify the Dutch Mill Farm Restaurant as a Section 4(f) property would be similar in severity. Alternatives D, E, F, and G would each result in acquisition of the entire historic site and include the same mitigation measures outlined in a PA, as discussed in the analysis for Factor (i).

6.2.3 Factor (iii)

Each of the Section 4(f) properties within the study area are considered valuable and significant based on the specific activities, features, or attributes that qualify the property for Section 4(f) protection. The properties differ in resource type and characteristics and therefore, the MDTA has not identified a substantive difference in the significance of Section 4(f) properties in the study corridor. Additionally, all OWJs noted that each Section 4(f) property under their jurisdiction had substantial value. Thus all Section 4(f) properties in the study corridor have been considered equally significant so as not to reduce the relative significance of any one property, and weighing the relative significance of one property compared to another is not appropriate. As a result, this

factor does not have any influence on the alternatives comparison in this least overall harm analysis.

6.2.4 Factor (iv)

MHT concurred with the Section 106 effect determinations for the Chesapeake Bay Bridge, Sandy Point State Park (historic site), and Dutch Mill Farm Restaurant on February 26, 2026. MHT concurred with the following determinations:

- All build ARDS would adversely affect the Chesapeake Bay Bridge.
- Alternatives C, E, and G would have no adverse effect on Sandy Point State Park. Alternatives B, D, and F would adversely affect Sandy Point State Park.
- Alternatives B and C would have no adverse effect on Dutch Mill Farm Restaurant. Alternatives D, E, F, and G would adversely affect Dutch Mill Farm Restaurant.

The MDTA worked closely with MHT throughout the Section 106 process to develop the PA addressing the Preferred Alternative's adverse effect on the Chesapeake Bay Bridge. The MHT concurred with the measures incorporated into the PA to avoid, minimize, and mitigate impacts and subsequently signed the Section 106 PA that was executed on August 6, 2026. MDTA's consultation with MHT and their signing of the PA indicates their agreement with Alternative C as the Preferred Alternative.

The OWJs for the recreational Section 4(f) properties, including MDNR, Anne Arundel County, and Queen Anne's County, provided preliminary comments on anticipated impacts prior to publication of the *Draft Section 4(f) Evaluation*. Following publication of the *Draft Section 4(f) Evaluation* and the opportunity for public review and comment, additional coordination occurred with the OWJs regarding Section 4(f) impacts from the Preferred Alternative. All OWJs concurred in writing that the Preferred Alternative will not adversely affect the activities, features, or attributes that qualify their properties (Broadneck Peninsula Trail, Kent Island Water Trails, Terrapin Nature Park, Eisinger Property, and Stevensville Middle School) for protection under Section 4(f). Additional details on OWJ coordination are provided in **Section 8**.

This factor does not have any influence on the alternatives' comparison in this least overall harm analysis.

6.2.5 Factor (v)

Alternatives B, C, D, E, F, G, and the Preferred Alternative would meet the Tier 2 Study's Purpose and Need by increasing capacity across the Bay Bridge, increasing mobility through the study corridor, addressing the bridge's roadway deficiencies and existing and future maintenance needs, and increasing the vertical clearance of the Bay Bridge. Each of these alternatives' ability to meet the purpose and need is substantially equal. For additional discussion on the ability of the ARDS to address the purpose and need, refer to Chapter 2 of the Final EIS.

6.2.6 Factor (vi)

Adverse impacts to resources not protected by Section 4(f) would be approximately equivalent for Alternatives B and C. Some of the impacts would include two commercial property displacements; delineated wetlands – 5.9 acres (Alternative B) and 5.6 acres (Alternative C); Chesapeake Bay Critical Areas – 166.5 acres (Alternative B) and 164.1 acres (Alternative C);

tidal surface waters – 130.7 acres (Alternative B) and 131.9 acres (Alternative C); 100-year FEMA floodplain – 33.5 acres (Alternative B) and 35.6 acres (Alternative C); essential fish habitat – 133.2 acres (Alternative B) and 136.0 acres (Alternative C); historic oyster bottom – 24.8 acres (Alternative B) and 24.1 acres (Alternative C).

Impacts to environmental resources not protected by Section 4(f) would be approximately equivalent for Alternatives D and E, and overall, greater than those associated with Alternatives B and C. Some of the impacts would include seven commercial property displacements; delineated wetlands – 11.5 acres (Alternative D) and 11.2 acres (Alternative E); Chesapeake Bay Critical Areas – 397.7 acres (Alternative D) and 395.4 acres (Alternative E); tidal surface waters – 130.7 acres (Alternative D) and 131.9 acres (Alternative E); 100-year FEMA floodplain – 57.0 acres (Alternative D) and 59.0 acres (Alternative E); essential fish habitat – 140.4 acres (Alternative F) and 143.4 acres (Alternative G); historic oyster bottom – 28.7 acres (Alternative D) and 28.0 acres (Alternative E).

Impacts to environmental resources not protected by Section 4(f) would be approximately equivalent for Alternatives F and G and overall, greater than those associated with Alternatives D and E. Some of the impacts would include two commercial property and one residential property displacement; delineated wetlands – 12.1 acres (Alternative F) and 11.6 acres (Alternative G); Chesapeake Bay Critical Areas – 402.0 acres (Alternative F) and 398.8 acres (Alternative G); tidal surface waters – 134.1 acres (Alternative F) and 135.0 acres (Alternative G); 100-year FEMA floodplain – 59.1 acres (Alternative F) and 60.7 acres (Alternative G); essential fish habitat – 133.2 acres (Alternative B) and 136.0 acres (Alternative C); historic oyster bottom – 29.5 acres (Alternative F) and 28.9 acres (Alternative G).

As discussed in **Section 2.3**, Alternative C was refined after it was identified as the Preferred Alternative to further avoid and minimize impacts to environmental resources, including several resources not protected by Section 4(f). While most of the Preferred Alternative impacts to environmental resources not protected by Section 4(f) are similar to impacts of Alternative C, the Preferred Alternative further eliminated all community displacements; reduced total property impacts to 18.2 acres or 45 total properties; reduce community facility impacts to 7.8 acres or seven community facilities; reduced Chesapeake Bay Critical Area impacts to 162.5 acres; reduced FID habitat impacts to 11.4 acres; reduced forested area impacts to 57.6 acres; the eliminated of all conservation easement impacts; and reduced habitat connectivity network impacts to 7.2 acres.

Reference **Table 6-3** and **Table 6-4** for a full comparison of resource impacts from each build ARDS, the Preferred Alternative, and the optional SUP.

6.2.7 Factor (vii)

The design, construction, and right-of-way cost of each alternative included in the least overall harm analysis are included below. Alternatives B, C, and the Preferred Alternative would cost substantially less than Alternatives D through G.

- Alternative B: approximately $15.1 to $16.6 billion
- Alternative C: approximately $14.8 to $16.4 billion
- Alternative D: approximately $17.5 to $19.0 billion
- Alternative E: approximately $17.3 to $18.8 billion
- Alternative F: approximately $19.5 to $21.1 billion
- Alternative G: approximately $19.2 to $20.8 billion
- Preferred Alternative: approximately $14.8 to $16.4 billion

The optional SUP would cost an additional $1.2 to $1.3 billion for any of these alternatives.

Table 6-1: Final Least Overall Harm Analysis

23 CFR 774.3(c)(1) Factor	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Preferred Alternative
i. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property) *(Chesapeake Bay Bridge)*	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge, would be addressed in a PA	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge, would be addressed in a PA	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge, would be addressed in a PA	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge, would be addressed in a PA	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge, would be addressed in a PA	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge, would be addressed in a PA	Ability to mitigate adverse impacts to the Chesapeake Bay Bridge is addressed in the PA
i. *(Sandy Point State Park (historic site))*	Ability to mitigate adverse impacts to the Sandy Point State Park (historic site), would be addressed in a PA	No adverse impacts to Sandy Point State Park (historic site), mitigation not required	Ability to mitigate adverse impacts to the Sandy Point State Park (historic site), would be addressed in a PA	No adverse impacts to Sandy Point State Park (historic site), mitigation not required	Ability to mitigate adverse impacts to the Sandy Point State Park (historic site), would be addressed in a PA	No adverse impacts to Sandy Point State Park (historic site), mitigation not required	No impacts to Sandy Point State Park (historic site), mitigation not required
i. *(Sandy Point State Park (public park))*	Limited ability to mitigate adverse impacts to Sandy Point State Park (public park)	No adverse impacts to Sandy Point State Park (public park), Section 4(f) mitigation not required	Limited ability to mitigate adverse impacts to Sandy Point State Park (public park)	No adverse impacts to Sandy Point State Park (public park), Section 4(f) mitigation not required	Limited ability to mitigate adverse impacts to Sandy Point State Park (public park)	No adverse impacts to Sandy Point State Park (public park), Section 4(f) mitigation not required	No impacts to Sandy Point State Park (public park), mitigation not required

23 CFR 774.3(c)(1) Factor	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	**Preferred Alternative**
i. *(Dutch Mill Farm Restaurant)*	No impacts to the Dutch Mill Farm Restaurant, mitigation not required	No impacts to the Dutch Mill Farm Restaurant, mitigation not required	Ability to mitigate adverse impacts to the Dutch Mill Farm Restaurant, would be addressed in a PA	Ability to mitigate adverse impacts to the Dutch Mill Farm Restaurant, would be addressed in a PA	Ability to mitigate adverse impacts to the Dutch Mill Farm Restaurant, would be addressed in a PA	Ability to mitigate adverse impacts to the Dutch Mill Farm Restaurant, would be addressed in a PA	No impacts to the Dutch Mill Farm Restaurant, mitigation not required
ii. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection *(Chesapeake Bay Bridge)*	Severe harm (demolition) to the Chesapeake Bay Bridge	Severe harm (demolition) to the Chesapeake Bay Bridge	Severe harm (demolition) to the Chesapeake Bay Bridge	Severe harm (demolition) to the Chesapeake Bay Bridge	Severe harm (demolition) to the Chesapeake Bay Bridge	Severe harm (demolition) to the Chesapeake Bay Bridge	Severe harm (demolition) to the Chesapeake Bay Bridge
ii. *Sandy Point State Park (historic site and public park)*	Substantial harm to Sandy Point State Park (historic site and public park)	Minor harm, proposed *de minimis* impact to Sandy Point State Park (historic site and public park)	Substantial harm to Sandy Point State Park (historic site and public park)	Minor harm, proposed *de minimis* impact to Sandy Point State Park (historic site and public park)	Substantial harm to Sandy Point State Park (historic site and public park)	Minor harm, proposed *de minimis* impact to Sandy Point State Park (historic site and public park)	No harm to Sandy Point State Park (historic site and public park)
ii. *(Dutch Mill Farm Restaurant)*	No harm to the Dutch Mill Farm Restaurant	No harm to the Dutch Mill Farm Restaurant	Severe harm (demolition of historic building) to the Dutch Mill Farm Restaurant	Severe harm (demolition of historic building) to the Dutch Mill Farm Restaurant	Severe harm (demolition of historic building) to the Dutch Mill Farm Restaurant	Severe harm (demolition of historic building) to the Dutch Mill Farm Restaurant	No harm to the Dutch Mill Farm Restaurant

23 CFR 774.3(c)(1) Factor	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Preferred Alternative
iii. The relative significance of each Section 4(f) property	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis.	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis	All Section 4(f) properties in the study area are currently considered to be equally significant. Therefore, this factor does not have any influence on the alternatives comparison in this least overall harm analysis
iv. The views of the official(s) with jurisdiction over each Section 4(f) property	OWJs provided additional comments in spring 2026 following their review of the Draft Section 4(f) Evaluation. Views of the OWJs were considered and did not substantially alter findings of the Final Section 4(f) Evaluation.	OWJs provided additional comments in spring 2026 following their review of the Draft Section 4(f) Evaluation. Views of the OWJs were considered and did not substantially alter findings of the Final Section 4(f) Evaluation.	OWJs provided additional comments in spring 2026 following their review of the Draft Section 4(f) Evaluation. Views of the OWJs were considered and did not substantially alter findings of the Final Section 4(f) Evaluation.	OWJs provided additional comments in spring 2026 following their review of the Draft Section 4(f) Evaluation. Views of the OWJs were considered and did not substantially alter findings of the Final Section 4(f) Evaluation.	OWJs provided additional comments in spring 2026 following their review of the Draft Section 4(f) Evaluation. Views of the OWJs were considered and did not substantially alter findings of the Final Section 4(f) Evaluation.	OWJs provided additional comments in spring 2026 following their review of the Draft Section 4(f) Evaluation. Views of the OWJs were considered and did not substantially alter findings of the Final Section 4(f) Evaluation.	OWJs over Broadneck Peninsula Trail, Kent Island Water Trails, Terrapin Nature Park, Eisinger Property, and Stevensville Middle School concurred with the *de minimis* impact determination. MHT signed the Section 106 PA that was executed on August 6, 2026.
v. The degree to which each alternative	Reasonable and would sufficiently	Reasonable and would sufficiently	Reasonable and would sufficiently	Reasonable and would sufficiently	Reasonable and would sufficiently	Reasonable and would sufficiently	Reasonable and would sufficiently

23 CFR 774.3(c)(1) Factor	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	**Preferred Alternative**
meets the Purpose and Need for the project	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.	address the Tier 2 Study's Purpose and Need to a similar degree as all other build ARDS.
vi. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)	In general, would have less adverse impacts to environmental resources that are not protected by Section 4(f) (i.e., to streams, wetlands, open water, floodplains, forested areas, and species habitat) compared to Alternatives D through G.	In general, would have less adverse impacts to environmental resources that are not protected by Section 4(f) (i.e., to streams, wetlands, open water, floodplains, forested areas, and species habitat) compared to Alternatives D through G.	In general, would have more adverse impacts to environmental resources that are not protected by Section 4(f) (i.e., to streams, wetlands, open water, floodplains, forested areas, and species habitat) compared to Alternatives B and C.	In general, would have more adverse impacts to environmental resources that are not protected by Section 4(f) (i.e., to streams, wetlands, open water, floodplains, forested areas, and species habitat) compared to Alternatives B and C.	In general, would have more adverse impacts to environmental resources that are not protected by Section 4(f) (i.e., to streams, wetlands, open water, floodplains, forested areas, and species habitat) compared to Alternatives D and E.	In general, would have more adverse impacts to environmental resources that are not protected by Section 4(f) (i.e., to streams, wetlands, open water, floodplains, forested areas, and species habitat) compared to Alternatives D and E.	In general, would have less adverse impacts to environmental resources that are not protected by Section 4(f) (e.g., wetlands, floodplains, species habitat, and forested areas) compared to all build ARDS.
vii. Substantial differences in costs among the alternatives	$15.1 to $16.6 billion	$14.8 to $16.4 billion	$17.5 to $19.0 billion	$17.3 to $18.8 billion	$19.5 to $21.1 billion	$19.2 to $20.8 billion	$14.8 to $16.4 billion

Table 6-2: Property Impacts by the Build ARDS and Preferred Alternative

Property Impact Type	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Preferred Alternative
Partial Acquisitions (# of properties)	46	46	204	204	207	207	45
Residential Displacements[1] (# of properties)	0	0	0	0	1	1	0
Business/Other Displacements[1, 2] (# of properties)	2	2	7	7	7	7	0
Total Property Impact (# of properties)	48	48	211	211	215	215	45
Total Property Impact[3] (acres)	**20.5 acres**	**20.8 acres**	**82.0 acres**	**82.3 acres**	**86.2 acres**	**86.4 acres**	**18.2 acres**

[1]*All property owners, from whom partial or total property right-of-way would be obtained, would be compensated and paid fair market value for the affected property. The compensation value would be proportionate to the amount of property taken. Residential property owners would receive relocation assistance in accordance with Federal and state requirements.*

[2]*Other Properties impacted is equal to the sum of impacted properties with non-residential zoning designations, including Commercial/Employment, Industrial, Mixed-Use, Park/Open Space, Planned Unit/Planned Community, and Transportation. These properties may include community facilities.*

[3]*Total right-of-way acreage requirements differ from total land use conversion acreage due to differences in GIS base layer boundaries. Right-of-way acreage requirements are calculated by applying the LOD over precise property line boundaries, while land use conversion acreage is calculated by applying the LOD over the Maryland Department of Planning (MDP) 2018 Statewide land use data (released 2024).*

Table 6-3: Environmental Resource Impacts from the ARDS and Preferred Alternative without the Optional SUP

Resource Type*	Resource	Unit	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Preferred Alternative
			No-Build, 6-5-6	6-8-6 North	6-8-6 South	8-8-8 North	8-8-8 South	8-10-8 North	8-10-8 South	6-8-6 South
Alternative Area[1]	Total Length of Build Alternative	miles	N/A	8.3	8.3	20.4	20.4	20.4	20.4	8.3
	Total Area of Build Alternative	acres	N/A	357.2	357.2	858.5	858.7	879.6	879.2	348.5
Community Resources	Residential Property Displacements	#	0	0	0	0	0	1	1	0
	Commercial Property Displacements	#	0	2	2	7	7	7	7	0
	Partial Acquisitions	#	0	46	46	204	204	207	207	45
	Total Property Impact	#	0	48	48	211	211	215	215	45
	Total Property Impact	acres	0	20.5	20.8	82.0	82.3	86.2	86.4	18.2
	Number of Community Facilities	#	0	8	8	26	26	26	26	7
	Community Facility Property Area	acres	0	9.2	9.5	16.3	16.6	18.2	18.4	7.8
	Number of Parks	#	0	4	4	9	9	9	9	2
	Park Property Area	acres	0	2.8	2.4	3.9	3.5	4.7	4.2	0.8
Historic Resources	Number of Historic Properties[2]	#	0	3	3	4	4	4	4	2
	Historic Property Area	acres	0	1.4	1.0	1.6	1.2	2.0	1.4	0.4
	Agricultural Land	acres	0	0	0	1.5	1.5	1.5	1.5	0

Resource Type*	Resource	Unit	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Preferred Alternative
			No-Build, 6-5-6	6-8-6 North	6-8-6 South	8-8-8 North	8-8-8 South	8-10-8 North	8-10-8 South	**6-8-6 South**
Natural Resources	100-Year Floodplain Area	acres	0	33.5	35.6	57.0	59.0	59.1	60.7	35.6
	Wetlands (Field Delineated)	acres	0	5.9	5.6	11.5	11.2	12.1	11.6	5.6
	Surface Waters - Non-tidal	acres	0	0.1	0.1	0.9	0.9	0.9	0.9	0.1
		linear ft	0	700	670	3520	3490	3600	3550	670
	Surface Waters – Tidal[3]	acres	0	1.1	1.0	4.9	4.7	5.4	5.3	1.0
		linear ft	0	290	290	860	860	900	900	290
	Chesapeake Bay Tidal Water Impacts[4]	acres	0	130.7	131.9	130.7	131.9	134.1	135.0	131.9
	Critical Areas	acres	0	166.5	164.1	397.7	395.4	402.0	398.8	162.5
	Critical Area (100-ft) Buffer	acres	0	19.0	17.7	28.2	26.9	28.8	27.3	17.7
	Submerged Aquatic Vegetation (2019-2023)	acres	0	0.4	0	0.7	0.4	0.9	0.4	0
	Public Shellfishery Areas	acres	0	5.6	6.1	8.8	9.3	9.3	9.8	6.1
	Oyster Sanctuaries	acres	0	0.6	0.6	1.1	1.1	1.6	1.6	0.6
	Natural Oyster Bars	acres	0	9.4	10.2	12.6	13.3	13.8	14.6	10.2
	Essential Fish Habitat	acres	0	133.2	136.0	137.0	139.8	140.4	143.5	136.0

Resource Type*	Resource	Unit	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Preferred Alternative
			No-Build, 6-5-6	6-8-6 North	6-8-6 South	8-8-8 North	8-8-8 South	8-10-8 North	8-10-8 South	6-8-6 South
	Waterfowl Staging and Concentration Areas	acres	0	7.1	2.5	7.1	2.5	7.1	2.5	2.5
	FIDS Habitat	acres	0	12.1	12.1	33.3	33.3	34.5	34.5	11.4
	SSPRA Habitat	#	0	7	7	8	8	8	8	7
		acres	0	110.0	109.4	119.4	118.8	122.5	121.2	109.1
	Forest Areas	acres	0	60.3	59.5	147.9	147.2	155.2	153.9	57.6
Noise	Noise Sensitive Areas	#	0	28	28	35	35	38	39	28
Other Resources/ Preservation Areas	Conservation Easements	acres	0	2.1	1.7	2.1	1.7	2.3	1.7	0
	Habitat Connectivity Network	acres	0	8.0	8.0	34.7	34.7	36.5	36.5	7.2
	Local Protected Land	acres	0	0.7	0.7	1.4	1.4	1.9	1.9	0.7
	Environmental Trust Easements	acres	0	2.1	0	4.7	4.7	4.7	4.7	0
Cost Estimate		2025 $	$3.8 Billion[5]	$15.1 - $16.6 Billion	$14.8 - $16.4 Billion	$17.5 - $19.0 Billion	$17.3 - $18.8 Billion	$19.5 - $21.1 Billion	$19.2 - $20.8 Billion	$14.8 - $16.4 Billion

**This table includes key impacts, further details can be found in respective Technical Reports.*

[1]*Not representative of impacts. Includes the total area of the build ARDS, including existing right-of-way.*

[2]*Historic properties include also two bridges, the Chesapeake Bay Bridge and the MD 18 Kent Narrows Bridge. These historic bridges are not included in impact area calculation.*

[3]*Impacts do not include the Chesapeake Bay proper*

[4]*Includes impacts from the new bridge construction and old bridge pier removal.*

[5]*Estimated cost of maintenance and rehabilitation of the existing bridge spans from 2024 through 2065.*

Note: Green shading represents the lowest impact per category by alternative (excluding the No-Build, which would not have any direct impacts).

Table 6-4: Summary of Environmental Impacts from the SUP Option for Each of the ARDS and Preferred Alternative

Resource Type*	Resource	Unit	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Preferred Alternative
			No-Build, 6-5-6	6-8-6 North	6-8-6 South	8-8-8 North	8-8-8 South	8-10-8 North	8-10-8 South	6-8-6 South
Community Resources	Total Area of Additional Right-of-way	acres	0	2.2	2.0	2.2	2.0	2.2	1.9	2.0
	Total Property Impact	#	0	2	2	2	2	2	2	0
	Total Property Impact	acres	0	1.8	1.2	1.8	1.2	1.9	1.2	1.2
	Number of Community Facilities	#	0	2	2	2	2	2	2	0
	Community Facility Property Area	acres	0	1.8	1.2	1.8	1.2	1.9	1.2	1.2
	Number of Parks	#	0	2	2	2	2	2	2	0
	Park Property Area	acres	0	1.9	1.2	1.9	1.2	2.0	1.3	1.2
Historic Resources	Number of Historic Properties[1]	#	0	1	1	1	1	1	1	0
	Historic Property Area	acres	0	0.7	0.6	0.7	0.6	0.7	0.6	0.6
Natural Resources	Agricultural Land	acres	0	0	0	0	0	0	0	0
	100-Year Floodplain Area	acres	0	1.6	1.4	1.6	1.4	1.9	1.4	1.3
	Wetlands (Field Delineated)	acres	0	0.7	0.7	0.7	0.7	0.8	0.7	0.7
	Surface Waters - Non-tidal	acres	0	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1
		linear ft	0	20	30	20	30	0	50	30
	Surface Waters – Tidal[1]	acres	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		linear ft	0	0	0	0	0	0	0	0
	Chesapeake Bay Tidal Water Impacts[2]	acres	0	1.9	1.9	1.9	1.9	1.9	2.0	1.9
	Critical Areas	acres	0	3.4	2.5	3.4	2.5	3.3	2.6	2.5
	Critical Area (100-ft) Buffer	acres	0	1.2	1.0	1.2	1.0	1.2	1.0	1.0

Resource Type*	Resource	Unit	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Preferred Alternative
			No-Build, 6-5-6	6-8-6 North	6-8-6 South	8-8-8 North	8-8-8 South	8-10-8 North	8-10-8 South	6-8-6 South
	Submerged Aquatic Vegetation (2019-2023)	acres	0	0.3	0	0.3	0	0.4	0	0
	Public Shellfishery Areas	acres	0	0.5	0.6	0.5	0.6	0.5	0.6	0.4
	Oyster Sanctuaries	acres	0	0	0	0	0	0	0	0
	Natural Oyster Bars	acres	0	0.8	0.9	0.8	0.9	0.8	0.9	0.6
	Essential Fish Habitat	acres	0	4.0	4.0	4.0	4.0	4.2	4.3	2.4
	FIDS Habitat	acres	0	0.2	0.2	0.2	0.2	0.1	0.2	0.2
	SSPRA Habitat	#	0	0	0	0	0	0	0	0
		acres	0	4.3	4.5	4.3	4.5	4.2	4.6	3.5
	Forest Areas	acres	0	0.5	0.2	0.5	0.2	0.5	0.2	1.4
Noise	Noise Sensitive Areas	#	0	0	0	0	0	0	0	0
Other Resources/ Preservation Areas	Conservation Easements	acres	0	0.7	0.6	0.7	0.6	0.7	0.6	0
	Habitat Connectivity Network	acres	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Local Protected Land	acres	0	1.2	0.6	1.2	0.6	1.3	0.7	0.6
	Environmental Trust Easements	acres	0	0	0	0	0	0	0	0
Cost Estimate		2025 $	$0.0	$1.3 Billion	$1.2 Billion	$1.3 Billion	$1.2 Billion	$1.3 Billion	$1.2 Billion	$1.2 Billion

*This table includes key impacts, further impact details can be found in respective Technical Reports.

[1] *Impacts do not include the Chesapeake Bay proper.*

[2] *Includes impacts from new bridge construction and old bridge pier removal.*

6.3 Least Overall Harm Analysis Summary

Consistent with 23 CFR 774.3(c), MDTA evaluated the alternatives using the seven least overall harm factors. The following provides a summary of the least overall harm evaluation for each criterion:

- Factor i: Alternative C (the Preferred Alternative) would have the best ability to mitigate adverse impacts given that only one Section 4(f) property, the Chesapeake Bay Bridge, would require mitigation.
- Factor ii: Alternative C (the Preferred Alternative) would have the least severity of remaining harm because it would only require a greater than *de minimis* Section 4(f) use of the Chesapeake Bay Bridge.
- Factor iii: As stated in **Section 6.2.3**, this factor does not influence the alternatives comparison in this least overall harm analysis.
- Factor iv: The views of the OWJs were considered but did not substantially alter the findings of this least overall harm analysis.
- Factor v: Alternatives B, C, D, E, F, G, and the Preferred Alternative would each meet the Tier 2 Purpose and Need to a substantially equal extent.
- Factor vi: In general, Alternatives B and C (the Preferred Alternative) would have less adverse impacts to environmental resources that are not protected by Section 4(f) when compared to Alternatives D, E, F, or G.
- Factor vii: Alternatives B and C (the Preferred Alternative) would cost substantially less than Alternatives D, E, F, or G.

Based on this least overall harm analysis, Alternative C (the Preferred Alternative) would have the least overall harm.

7 SECTION 6(F)

Compliance with Section 6(f) of the LWCF Act is required for any land acquired from Sandy Point State Park and/or Holly Beach Farm, as these properties were acquired or improved using funds from the LWCF Act. Section 6(f) requires that any park land converted to anything other than public outdoor recreation must be replaced with land of equal or greater recreational and monetary value. Coordination with the Maryland Liaison Officer at NPS would occur, should any land from Sandy Point State Park and/or Holly Beach Farm be needed for the Proposed Action.

7.1 Sandy Point State Park

Alternatives B through G would all impact Sandy Point State Park as a result of roadway improvements, ranging from 0.6 to 1.2 acres. Each of the build ARDS would also require either 0.6 acres or 0.7 acres for construction of the optional SUP. However, since the land required for the optional SUP would remain designated for public outdoor recreation use, it may not trigger a Section 6(f) land conversion pending NPS determination that the SUP meets the criteria of a public facility. Coordination with NPS is described in **Section 8**. The roadway improvement and optional SUP impacts from each of the build ARDS to Sandy Point State Park are presented in **Table 7- 1**. Of the 786-acre property, each of the build ARDS would require less than one percent of the total park property.

As discussed in **Section 2.3**, engineering refinements to the **Preferred Alternative** eliminated all roadway-related impacts to Sandy Point State Park; therefore, proposed roadway improvements will not result in any conversion of Section 6(f) land. Construction of the optional SUP would still result in 0.6 acres of impact to the edge of Sandy Point State Park adjacent to U.S. 50/301. The optional SUP improvements would enhance and support outdoor recreational use; therefore, a Section 6(f) conversion is not anticipated. If the optional SUP is advanced, the MDTA and FHWA would coordinate with MDNR and NPS regarding its development, construction, and any associated Section 6(f) requirements.

Table 7-1: Roadway Improvement Impacts to Sandy Point State Park

Alternative B[1]	Alternative C[1]	Alternative D[1]	Alternative E[1]	Alternative F[1]	Alternative G[1]	Preferred Alternative[1]
1.0 acre/ 0.7 acre	0.6 acre/ 0.6 acre	1.0 acre/ 0.7 acre	0.6 acre/ 0.6 acre	1.2 acres/ 0.7 acre	0.6 acre/ 0.6 acre	0 acre/ 0.6 acres

[1]*First number presented shows roadway impacts and the second number shows impacts from the optional SUP.*

7.2 Holly Beach Farm

Alternatives B through G would all result in 1.2 acres of roadway improvement impacts to Holly Beach Farm. Of the 309-acre property, each of the build ARDS would require less than one percent of the total park property.

As discussed in **Section 2.3**, engineering refinements to the **Preferred Alternative** avoided impacts to Holly Beach Farm; therefore, the proposed improvements will not result in any conversion of Section 6(f) land.

8 COORDINATION

8.1 Officials with Jurisdiction

There are five OWJs over parkland in the study area: NPS, MDNR, Anne Arundel County Department of Recreation and Parks, Queen Anne's County Parks and Recreation Department, and Queen Anne's County BOE. There is one OWJ over historic sites in the study area: MHT. Individual Section 4(f) Evaluations are also provided to the U.S. Department of Interior (DOI) Office of Environmental Compliance for review.

The *Draft Section 4(f) Evaluation* was circulated to the OWJs for review and comment during the Draft EIS comment period from January 23, 2026, to March 9, 2026. OWJ comments were reviewed and considered but did not identify deficiencies or substantively alter the findings or conclusions of the *Draft Section 4(f) Evaluation*; therefore, no changes to the analysis were required for the *Final Section 4(f) Evaluation* as a result of OWJ comments. All agency comments and responses are provided in **Appendix H** of the Final EIS. All agency coordination that has occurred is described in more detail in this section.

8.1.1 U.S. Department of Interior (DOI)/ NPS

NPS is the agency within the U.S. DOI with responsibility for consultation related to Section 4(f). NPS is also the OWJ over Captain John Smith Chesapeake National Historic Trail and the Star-Spangled Banner National Historic Trail.

U.S. DOI/NPS also serves as the oversight agency for any land conversions that may be required from Sandy Point State Park or Holly Beach Farm, in accordance with Section 6(f) of the LWCF Act, and provides approval of any land transfer in accordance with covenants and restrictions stipulated in deeds for those properties.

NPS agreed to be a cooperating agency in the development of the EIS on June 22, 2023. Coordination has continued throughout the development of the Tier 1 and Tier 2 EIS including participation in Interagency Coordination Meetings (ICM) and written correspondence. As a cooperating agency, NPS must provide concurrence on major project milestones. NPS provided concurrence on the Purpose and Need on August 6, 2024, and concurrence on the ARDS on March 11, 2025.

Outside of regular ICMs, an individual meeting was held with NPS on August 2, 2024, to discuss the Tier 2 Study Noise Methodology. Items discussed at this meeting included the noise study area, noise activity categories and criterion for LWCF properties in the corridor, noise thresholds for wildlife, and noise and lighting indirect and cumulative effects. At this meeting, NPS expressed interest in potential minimization and mitigation efforts for noise and lighting as the Tier 2 Study progresses.

An additional meeting was attended by NPS on September 5, 2025. The preliminary Section 4(f) and Section 6(f) impacts and anticipated Section 4(f) determinations were shared with the NPS at this meeting. NPS provided initial feedback and questions on these findings at that time.

Another coordination meeting was held with NPS and MDNR on January 16, 2026, to review the anticipated *de minimis* impacts to Section 4(f) properties from the MDTA RPA and discuss the *de minimis* impact determination process. Potential Section 6(f) impacts to and mitigation measures

for Sandy Point State Park and Holly Beach Farm were also discussed. During this meeting, NPS and MDNR were informed that prior to the Final EIS, additional mitigation efforts for Section 4(f) and Section 6(f) resources would be developed and documented to further minimize or completely avoid impacted resources.

8.1.2 Maryland Department of Natural Resources

MDNR is the OWJ over state-owned public parks and recreation facilities within the State of Maryland including Sandy Point State Park, Kent Island Water Trails, and Holly Beach Farm. MDNR accepted the invitation to be a cooperating agency in the development of the EIS on June 4, 2023.

Coordination with MDNR has occurred throughout the Tier 1 and Tier 2 Study process including regular participation in ICMs and written correspondence. As a cooperating agency, MDNR must provide concurrence on major project milestones. MDNR provided concurrence on the Purpose and Need on July 23, 2024, and concurrence on the ARDS on March 31, 2025.

During the alternative development process, MDNR expressed concern over impacts to Sandy Point State Park from the preliminary alternatives, specifically regarding structure type. A meeting was held with MDNR on August 1, 2024, to discuss preliminary alternatives and their anticipated effects to Sandy Point State Park. The meeting also included a discussion of architectural surveys of structures on both Sandy Point State Park and Holly Beach Farm. Potential mitigation at Sandy Point State Park or with other MDNR projects was discussed, including reforestation opportunities at the park and possible living shorelines at Holly Beach Farm.

Another coordination meeting was held with MDNR on September 5, 2025. The preliminary Section 4(f) and Section 6(f) impacts and anticipated Section 4(f) determinations were shared with MDNR at this meeting. MDNR provided initial feedback and questions on these findings at that time and indicated preference against the northern alignments and any alternative or improvement that would impact the park.

An additional coordination meeting was held with MDNR and NPS on January 16, 2026, as discussed in **Section 8.1.1**. A follow-up meeting was held with MDNR on February 2, 2026, to discuss Section 6(f) mitigation requirements and potential replacement properties, as well as Section 106 mitigation and next steps.

MDNR was notified via email on March 2, 2026, that engineering refinements for the Preferred Alternative resulted in avoidance of mainline roadway impacts to both Sandy Point State Park and Holly Beach Farm, removing the potential for Section 6(f) land conversion of these properties.

8.1.3 Anne Arundel County Department of Recreation and Parks

Anne Arundel County's Department of Recreation and Parks is the OWJ over county-owned public parks and recreation facilities in Anne Arundel County, including the Broadneck Peninsula Trail. Anne Arundel County is a participating agency in the development of the EIS and has participated in ICMs since Tier 2 Study announcement and initiation in 2022. As a participating agency, Anne Arundel County has been provided the opportunity to review and comment on all coordination points of the Tier 2 Study.

A coordination meeting was held with Anne Arundel County on August 26, 2025. The preliminary Section 4(f) impacts and anticipated Section 4(f) determinations were shared with the County at this meeting. The County provided initial feedback and questions on these findings at that time.

8.1.4 Queen Anne's County Parks and Recreation Department

Queen Anne's County's Parks and Recreation Department is the OWJ over county-owned public parks and recreation facilities in Queen Anne's County. Queen Anne's County is a participating agency in the development of the EIS and has been provided with the opportunity to review and comment on all coordination points of the Tier 2 Study. Queen Anne's County has also participated in ICMs since the Tier 2 Study was initiated.

Initial coordination with Queen Anne's County occurred in January 2025, regarding the Eisinger Property and its Section 4(f) applicability. The Department of Public Works for Queen Anne's County identified the Eisinger Property in the Kent Island Transportation Plan and the need for funding and a feasibility study to determine if a pedestrian overpass into the property is sensible. The Department of Parks & Recreation for Queen Anne's County then identified that there is not currently any other plans for the site.

A coordination meeting was held with Queen Anne's County on August 26, 2025. The preliminary Section 4(f) impacts and anticipated Section 4(f) determinations were shared with the County at this meeting. The County provided initial feedback and questions on these findings at that time.

8.1.5 Queen Anne's County Board of Education

On February 6, 2026, the Department of Public Works for Queen Anne's County requested that Queen Anne's County BOE be included in impact coordination; therefore, Queen Anne's County BOE is included as another OWJ over Stevensville Middle School.

8.1.6 Maryland Historical Trust

MHT is the SHPO, and a participating agency in the development of the Tier 2 EIS. MHT is the OWJ for historic sites in the study area, including Dutch Mill Farm Restaurant, Skidmore, Sandy Point State Park (historic site), and the Chesapeake Bay Bridge. The MDTA, on behalf of and in coordination with FHWA, initiated the Section 106 process on May 10, 2018. During the Tier 1 Study, consulting parties were invited to participate in the consultation on November 29, 2018, and on April 9, 2019. This phase involved identifying historic properties within the Area of Potential Effects (APE), as documented by the MDTA. Section 106 decisions made during the Tier 1 Study established that only properties within the Preferred Corridor Alternative (Corridor 7) would proceed for further consideration. Additionally, commitments recorded in the Tier 1 Study included deferring the identification of historic properties and continuing the Section 106 process in the Tier 2 Study.

The MDTA resumed the Section 106 consultation during the Tier 2 Study with a letter sent on August 9, 2023, to MHT, ACHP, Federal agencies, Federally-recognized tribes, and other consulting parties, such as state agencies, state-recognized tribes and organizations, associations, and individuals with a demonstrated legal or economic interest in the project and the preservation of historic properties within the Tier 1 Study Preferred Corridor Alternative. Prior to completion of the Draft EIS, consulting party meetings were held on February 29, 2024, May 7, 2025, and October 30, 2025, all attended by FHWA. The first meeting provided an overview of the Tier 2 Study and the Section 106 process for the study, along with a draft schedule of

activities. The second meeting covered general Tier 2 Study updates and progress on identifying historic properties under Section 106. The third meeting included further study updates, a revised APE, a preliminary list of adversely affected properties, and an outline for PA development. A consulting party meeting was held on May 1, 2026, to discuss the PA and mitigation for impacts to historic sites.

Refer to the *Bay Crossing Study Tier 2 Cultural Resources Technical Report* for additional information on coordination with MHT and the Section 106 process.

8.2 Public Engagement

The Tier 2 Study public engagement process began in August 2022, with the availability of the Study website (baycrossingstudy.com), which provided study materials, notification of the September 2022 Open Houses, and opportunity to comment.

Three Public Open House series, each including one virtual and two in-person meetings, were held for the Tier 2 Study. The first series was held in September 2022. This series summarized the results of the Tier 1 Study, described the objectives of the Tier 2 Study, and provided the opportunity for the public to ask questions and provide feedback on the objectives. The next series for the Tier 2 Study was held in September 2023, which presented the Tier 2 Study's proposed Purpose and Need and the alternatives development process and provided the public with the opportunity to ask the study team questions and provide feedback on the information presented. The third series was held in December 2024 and provided the public with the opportunity to learn about and provide comments on the proposal for the Bay Bridge and the proposed ARDS.

In June 2023, the MDTA held a Virtual Listening Meeting for the public to hear about project updates and provide feedback on transit, bicycle, and pedestrian considerations in the Tier 2 Study area. During the meeting, the MDTA conducted live polling and provided the opportunity for the public to provide comments and suggestions regarding methods to consider transit service and bicycle/pedestrian facilities in the Tier 2 Study.

The Tier 2 Study Draft EIS was published on January 23, 2026. The MDTA and FHWA held one virtual and two in-person public hearings, on February 9, 2026, February 10, 2026, and February 12, 2026, respectively. The public had an opportunity to review and comment on the *Draft Section 4(f) Evaluation* concurrently with the Tier 2 Study Draft EIS during the comment period from January 23, 2026, to March 9, 2026. Two comments from the public were received regarding Section 4(f) properties, both in support of avoiding adverse impacts on Sandy Point State Park. No other public comments on Section 4(f) or Section 6(f) impacts were received during the Draft EIS public comment period. All public comments and responses are provided in **Appendix G** of the Final EIS.

8.3 *De Minimis* Impact Determinations

For parks, recreation areas, or wildlife and waterfowl refuges, the OWJ over the Section 4(f) property must be informed of the intent to make a *de minimis* impact determination, and an opportunity for public review and comment must be provided. Public notification and opportunity to review occurred as part of the Draft EIS and the intent to make a *de minimis* impact determination was documented in the *Draft Section 4(f) Evaluation*. All public comments on the Draft EIS related to Section 4(f) properties and subsequent opportunity for public review related to the intent to make *de minimis* impact determinations were reviewed. No public comments specific to the *de minimis* impact determinations for the Broadneck Peninsula Trail, Kent Island Water Trails, Terrapin Nature Park, Eisinger Property, or Stevensville Middle School were received and the OWJs were notified that no comments were received regarding their respective properties. In addition, the MDTA sent a request for written agreement from each OWJ that the impacts to specific properties under their jurisdiction will not adversely affect the features, attributes, or activities qualifying those properties for protection under Section 4(f). The OWJs over the five recreational properties concurred that the Preferred Alternative will not adversely affect the properties per 23 CFR 774.5(b), as required by regulation. This concurrence does not represent OWJ support of the Preferred Alternative as defined in the Final EIS. Section 4(f) compliance and a *de minimis* determination is separate and distinct from other Federal requirements and should not be construed as the OWJ supporting the Preferred Alternative. Refer to **Appendix B** for copies of this correspondence.

Upon fulfilling the requirements set forth in 23 CFR 774.5(b), FHWA made Section 4(f) *de minimis* impact determinations on June 22, 2026, for the five recreational properties impacted by the Preferred Alternative.

9 CONCLUSION

This Final Section 4(f) Evaluation has been prepared in accordance with 23 CFR 774 and FHWA's *Section 4(f) Policy Paper* (2012). Based on the information presented in the *Draft Section 4(f) Evaluation* and this *Final Section 4(f) Evaluation*, FHWA and the MDTA have concluded that there is no feasible and prudent alternative to the use of the Chesapeake Bay Bridge, and that the Proposed Action includes all possible planning to minimize harm, and the Preferred Alternative is the alternative with the least overall harm.

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