

I. PURPOSE AND NEED

The purpose and need for the Governor Harry W. Nice Memorial Bridge (Nice Bridge) Improvement Project was coordinated with the public and regulatory agencies early to ensure a clear understanding of the project from the beginning of the Project Planning process. The regulatory agencies concurred on the project's purpose and need in the *Combined Purpose and Need & Alternates Retained for Detailed Study Package* (January 2008). The complete text is available in the Environmental Assessment (EA) (July 2009) and on the project website at www.nicebridge.maryland.gov.

A. Study Area

US 301 is classified as a Rural Principal Arterial in the Charles County, Maryland and King George County, Virginia comprehensive plans. Approaching the Nice Bridge, the cross section of US 301 in Maryland and Virginia consists of a four-lane divided roadway with two 11 to 12-foot travel lanes in each direction and outside shoulders. The existing 1.7-mile long Nice Bridge has one 11-foot travel lane in each direction with no median separation and a narrow offset (approximately one foot) to the parapet. The posted speed on the bridge varies from 40 to 50 miles per hour (mph). There is a four-lane toll plaza in Maryland that provides one-way toll collection for southbound vehicles. The percentage of trucks crossing the bridge in 2006 was approximately 14 percent of the vehicle mix, with nearly 1,200 wide-load vehicle crossings annually requiring closure of one direction of traffic flow across the bridge due to the limited roadway width on the bridge. Refer to *Figure 1* for the project location map.

B. Project Purpose

The purpose of the Nice Bridge Improvement Project is to:

- Provide a crossing of the Potomac River that is geometrically compatible with the US 301 approach roadways;
- Provide sufficient capacity to carry vehicular traffic on US 301 across the Potomac River in the design year 2030;
- Improve traffic safety on US 301 at the approaches to the Potomac River crossing and on the bridge itself; and
- Provide the ability to maintain two-way traffic flow along US 301 during wide-load crossings, incidents, poor weather conditions, and when performing bridge maintenance and rehabilitation work.

C. Project Need

The proposed action is intended to address the following needs at the existing Nice Bridge crossing:

- Eliminate geometric inconsistencies, including: separation of opposing flows, number and width of travel lanes, available shoulder, and vertical grade;
- Address current and future capacity limitations of the existing two-lane bridge;
- Improve inefficient traffic operations and resulting safety issues on US 301 approach roadways and on the Nice Bridge;
- Maintain an important transportation element of the National Highway System (NHS) and Strategic Highway Network (STRAHNET);
- Provide a critical evacuation route for Southern Maryland and the Washington DC area to points south; and
- Satisfy incident management and maintenance requirements.



Gov. Harry W. Nice Mem. Bridge



Finding of No Significant Impact
October 2012

Figure 1
Project Location Map



1 in = 3 miles



As a result of the clear roadway width and Average Daily Traffic volumes, the bridge is rated functionally obsolete. Current traffic volumes are projected to double by the year 2030 resulting in a substantial increase of traffic queues and travel delays.

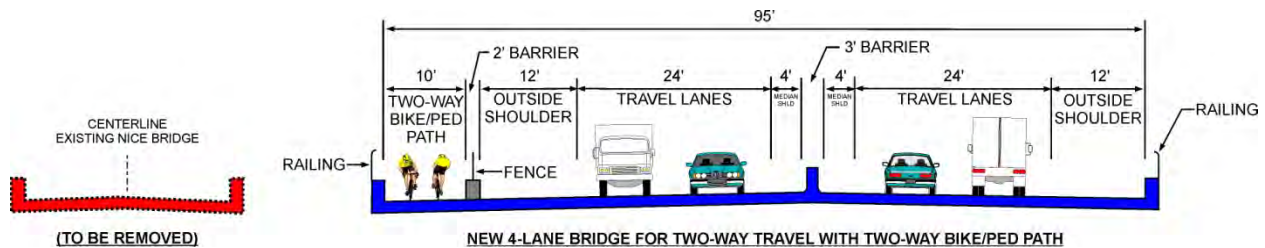
Required maintenance improvements to the Nice Bridge are anticipated to occur between 2020 and 2025, including structural improvements (i.e., replacing the bridge deck and improving load rating of structural members) and safety improvements at the approaches and on the bridge. These maintenance improvements are likely to result in substantial travel time delays as long-term, single-lane or complete bridge closures may be required. The nearest vehicular crossing of the Potomac River is 25 miles to the north, at the Woodrow Wilson Bridge on I-95. Currently, MDTA has \$14.7M programmed for FY 2014 and FY 2015 for maintenance activities (i.e., concrete deck repairs, deck sealing, and rehabilitation of the catwalk) to assist in extending the service life of the existing bridge until the Preferred Alternate can be constructed. These maintenance activities are scheduled to begin Summer 2013 with a two-year construction period.

II. PROPOSED ACTION

A. MDTA's Preferred Alternate

The Proposed Action consists of the Maryland Transportation Authority (MDTA) Preferred Alternate, Modified Alternate 7 (see mapping in *Appendix A*). The alternate was originally presented in the EA in July 2009 as Alternate 7. Modified Alternate 7 consists of the installation of a new four-lane bridge north of the existing bridge. As shown in *Figure 2*, the new bridge will provide four 12-foot travel lanes, two four-foot inside shoulders, two 12-foot outside shoulders, a median barrier to separate opposing traffic flows, and a single, 10-foot barrier-separated, two-way bicycle/pedestrian (bike/ped) path on the south side of the bridge. The bike/ped path crosses beneath the bridge on each shore to enable bicyclists and pedestrians to transition to the shoulders of US 301 without crossing the highway. Modified Alternate 7 also includes the installation of electronic toll collection from vehicles traveling at highway speeds.

Figure 2: Typical Cross Section of Proposed Action



Modified Alternate 7 will fully satisfy the project's purpose and need through the following features:

- Four 12-foot lanes will satisfy design year (2030) traffic forecasts, eliminate queues, and facilitate emergency evacuation;
- Twelve-foot outside shoulders will accommodate "wide loads," disabled vehicles, emergency responders, maintenance vehicles, and storage of plowed snow;
- The median barrier will separate opposing flows of traffic;
- The bridge cross section will be compatible with the cross section of the US 301 approach roadway in Maryland and Virginia;
- The flatter grade (3%, compared to the existing 3.75%) will better accommodate trucks, military vehicles, and bicyclists; and
- The design will satisfy current HS25 (45ton) loading requirements.