

HNI OVERVIEW

1.0 BACKGROUND

The Highway Needs Inventory (HNI) is a technical reference and planning document which identifies highway improvements to serve existing and projected population and economic activity in the State as well as address safety and structural problems that warrant major construction or reconstruction.

The projects identified in this document represent only an acknowledgment of need based on technical analysis and adopted local and regional transportation plans. **The HNI is not a construction program, and inclusion of a project does not represent a commitment to implementation.** The HNI is not financially constrained nor is it based on revenue forecasts.

The HNI may be considered as a compilation of projected major highway deficiencies. It is important to note that only a portion of the projects in this document will be addressed in the future through selective capital improvements. Many of these needs will remain unfulfilled because the Department does not anticipate that the gap between needs and resources can ever be completely closed, even with the infusion of new revenue.

2.0 LEGAL BASIS OF THE HNI

The development of the HNI is required under Transportation Article 8 of the Annotated Code of Maryland. Title 8, section 610 defines the HNI as "...an identification of needs for highway projects, based on latest evaluation of highway conditions and transportation needs..."

Section 611 further requires that "in calendar year 1979 and in each second year following, the Administration, following an assessment of the highway conditions and transportation needs of this State, shall prepare those proposed modifications of the highway needs inventory that it considers necessary."

3.0 SCOPE OF HNI

The HNI is based on a technical evaluation of highway conditions. The general scope and approximate cost of needed highway improvements in this document are based on the application of reasonable design standards. However, this does not preclude further considerations of alternative solutions to the problem, or the "no build" option. Ultimately, more detailed project planning studies would be conducted on potential projects to determine more precise cost estimates and acceptable solutions to the identified need. The HNI lists only major capital construction projects which entail a significant increase in traffic capacity, extensive right-of-way, high cost or major impact.

Low cost capital improvements, otherwise known as “system preservation projects” such as resurfacing, safety and spot improvements, commuter parking, beautification, bridge rehabilitation/reconstruction, drainage improvements, rail crossing elimination, traffic control improvements, and emergency work are not included in the HNI. These projects are included in the annual update of the Department’s Consolidated Transportation Program (CTP). Often these relatively low cost improvements serve to correct localized problems and to extend the time before major modernization of the facility becomes necessary. System preservation projects may in some cases result in an indefinite deferral of a major project.

4.0 ROLE OF THE HNI IN THE PLANNING PROCESS

The Maryland Department of Transportation’s planning process affects all modes and covers all aspects from policy/system planning and program development through detailed project planning and implementation. The key planning documents developed by the Department to establish the priority of various proposed highway improvements are as follows: (1) State Report on Transportation (SRT); (2) Maryland Transportation Plan (MTP); and (3) the Consolidated Transportation Program (CTP).

The HNI serves as a technical reference and reflection of these planning documents. In addition, the Department participates in the development of local and regional transportation plans which are the responsibility of local and regional planning agencies.

5.0 HNI TERMINOLOGY

There are 31,546 center line miles of roadway in the state of Maryland. Of this total, the Maryland Department of Transportation State Highway Administration (MDOT SHA) maintains 5,211 center line miles (16.5%). Although this represents less than 20 percent of the total miles of roadways in the state, these highways account for approximately 70% of the total vehicle miles of travel in the state. The 5,211 miles of highways maintained by the MDOT SHA are categorized for funding purposes as Primary and Secondary highways.

5.1 Primary System

The State Primary System consists of approximately 23 percent of the total State maintained road mileage. The State Primary System was originally adopted in 1972 and revised in 1978 in accordance with provisions of State law. The Primary System serves the state in the same manner as the Interstate System serves the nation. It has been a policy of the Department to develop the Primary System with a maximum practical degree of access control in order to provide safety to the motorist.

5.2 Secondary System

The Secondary System is a network of State routes which serve inter-regional and localized traffic. This network consists of approximately 77% of the total state maintained roadways and provides feeder and support functions to the Primary System. It also complements county highway systems.

6.0 IMPROVEMENT TYPES

For projects in the Consolidated Transportation Plan (CTP), the specific improvement type identified is also shown in the HNI. Improvement types shown for other projects in the HNI are categorical rather than specific, pending project planning studies. The project planning studies may lead to the selection of a “no build” option or a different improvement type than shown in the HNI.

The improvement types used in the HNI may entail significant right-of-way acquisition, significant increases in capacity and/or significant environmental impact. The basic improvement types used in the HNI are described as follow:

6.1 Reconstruction

These are improvements where old pavement and appurtenances such as drainage structures are removed and replaced or substantially modified. Such reconstruction may apply to the existing number of lanes or dualization, adding or modifying interchanges or existing highway on the same alignment.

6.2 Construction

These are improvements of a totally new facility and appurtenances, including bridges. A new facility will generally provide a highway where none exists, or an alternate facility to an existing highway that will remain open and continue to serve through traffic.

6.3 Access Control Improvement

Control of access by definition is where the ingress and egress to abutting land, onto and/or across the highway is fully or partially restricted by public authority. Highway access can be controlled as follows:

6.3.1 Full Control

This gives preference to through traffic by providing grade separation interchanges with selected public roads only and by prohibiting intersecting at-grade and direct private driveway connections.

6.3.2 Partial Control

This gives preference to through traffic to a degree that, in addition to or in lieu of interchanges with major public roads, there may be selected at-grade intersections to public streets only.

6.3.3 Uncontrolled Access

This allows the number of points of ingress and egress to be limited only by control over the placement and the geometric design of connections as necessary for the safety of the traveling public.

6.4 Lane Definitions

The specific number of lanes is referenced only for two lane highways in the HNI, and any highway improvement needing more than two lanes is generally referred to as “multi-lane”. Where the case for a multi-lanes improvement is more firmly established; the following terms may be used:

6.4.1 Divided Highway.

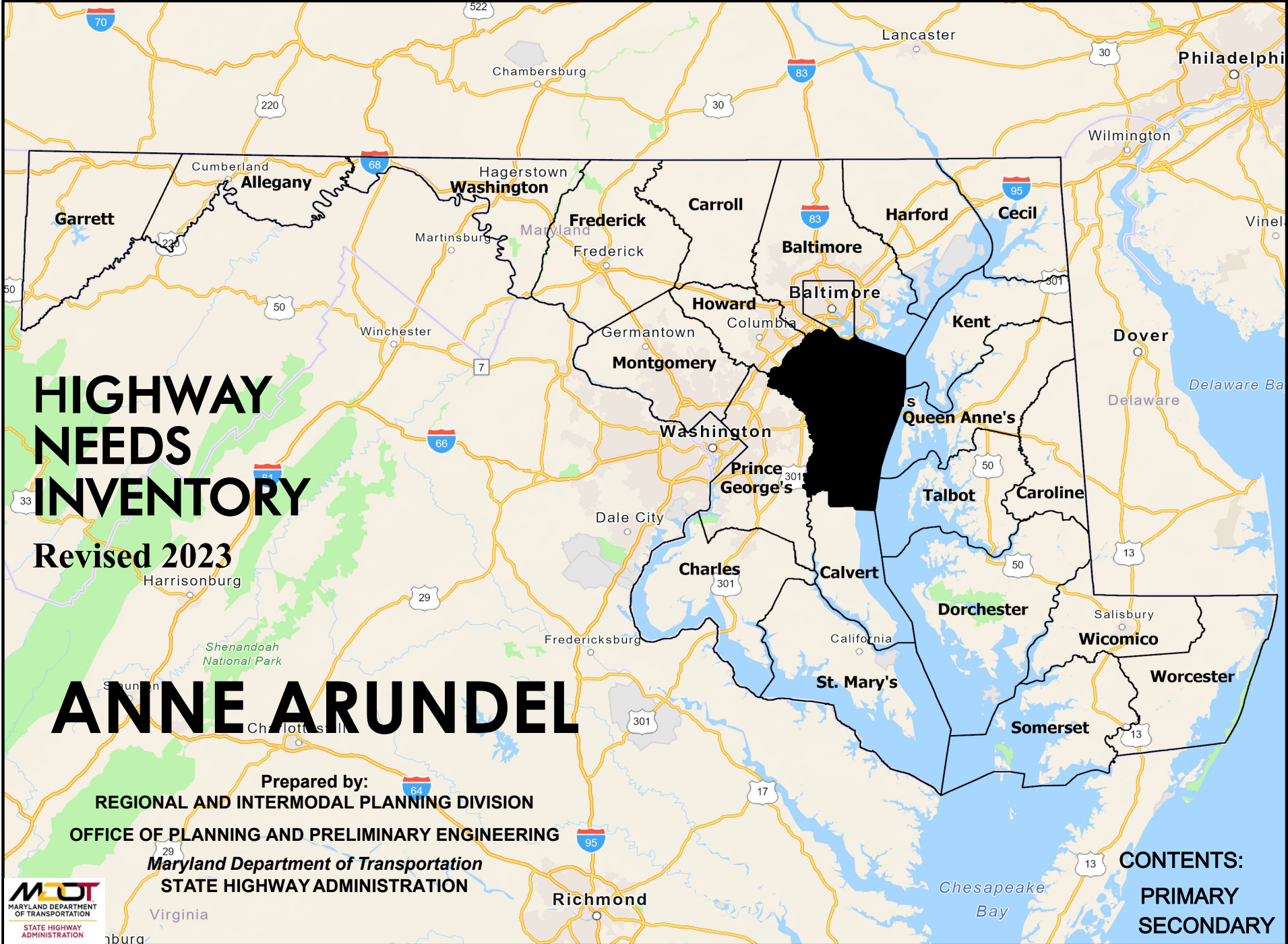
This is a multi-lane highway where opposing roadways are separated by a median or barrier.

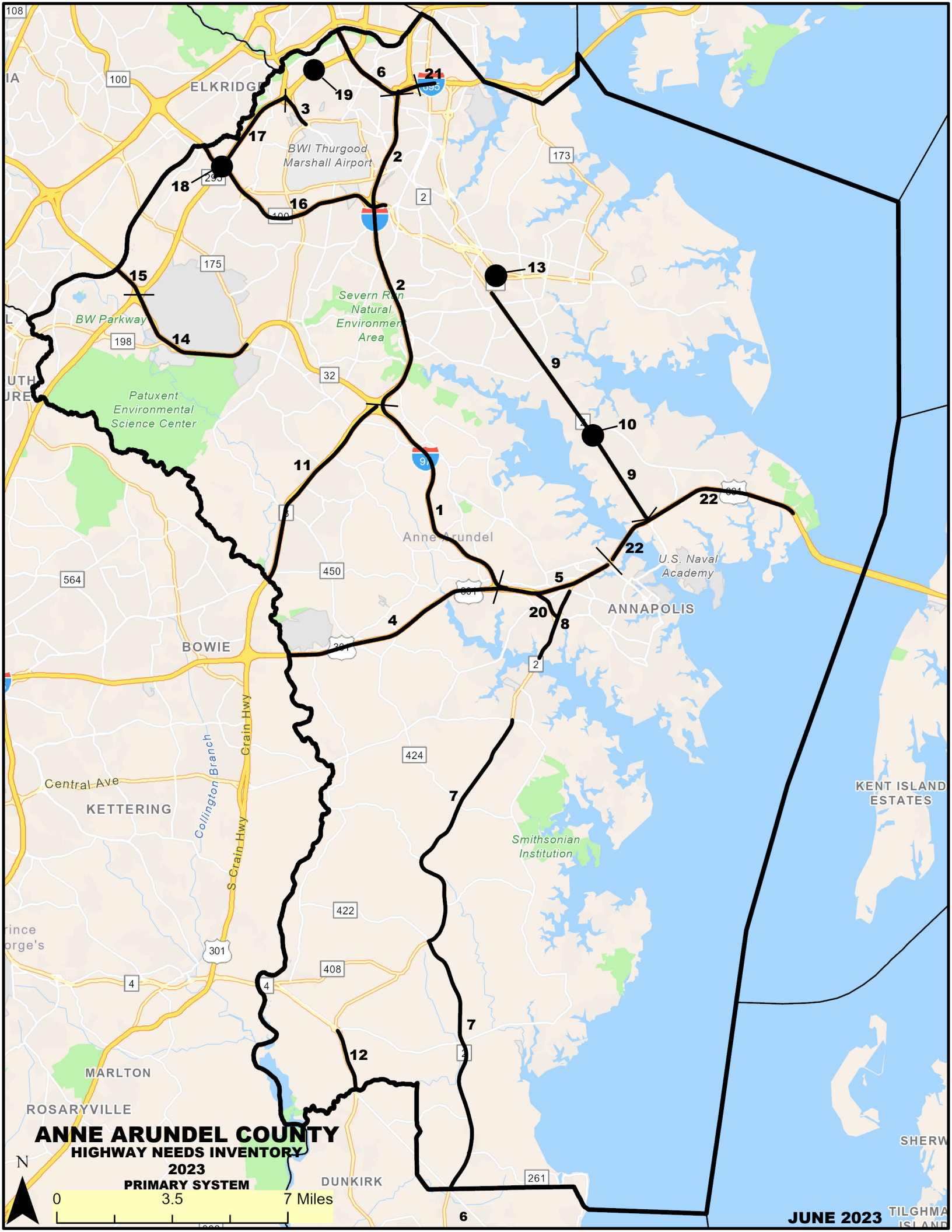
6.4.2 Freeway.

This is divided highway, usually serving a principal arterial function, providing for unrestricted through traffic movement and full control of access (called an expressway under current Maryland law).

7.0 COST ESTIMATES

Cost estimates for prospective improvements are approximate, and are based on likely improvement types. The estimates are not detailed engineering estimates nor do they reflect substantive engineering analysis. These cost estimates do not imply fixed decisions, nor do they preclude alternative solutions to the problem. They merely provide the basis for a general appraisal of the total cost of all highway needs, as well as some idea of the distribution of highway needs across the State.





**ANNE ARUNDEL COUNTY
HIGHWAY NEEDS INVENTORY**

**2023
PRIMARY SYSTEM**

0 3.5 7 Miles

HIGHWAY NEEDS INVENTORY
ANNE ARUNDEL COUNTY – PRIMARY ROUTES
REVISED 2023

Map Reference 1, IS 97 from US 50/301 to north of MD 32, 7.0 miles in length, to undergo freeway reconstruction including managed lanes at a cost of \$230,900,000.

Map Reference 2, IS 97 from north of MD 32 to I-695, 10.4 miles in length, to undergo freeway reconstruction including managed lanes at a cost of \$339,100,000.

Map Reference 3, IS 195, Metropolitan Boulevard from MD 170 to MD 295, 1.1 miles in length, to undergo freeway reconstruction including an interchange at MD 170 at a cost of \$93,300,000.

Map Reference 4, IS 595, John Hanson Highway from the Prince George’s County line to I-97, 6.9 miles in length, to undergo freeway reconstruction at a cost of \$153,300,000.

Map Reference 5, IS 595, John Hanson Highway from I-97 to MD 70, 3.4 miles in length, to undergo freeway reconstruction including managed lanes at a cost of \$152,900,000.

Map Reference 6, IS 695, Baltimore Beltway from west of MD 648E to the Baltimore County line, 2.2 miles in length, to undergo freeway reconstruction including an interchange at MD 170 at a cost of \$116,800,000.

Map Reference 7, MD Route 2, Solomons Island Road from the Calvert County line to MD 214, 16.2 miles in length, to be reconstructed as a 2-lane roadway with access management at a cost of \$216,600,000.

Map Reference 8, MD Route 2, Solomons Island Road from north of South River to MD 450 in Parole, 2.2 miles in length, to undergo divided highway reconstruction at a cost of \$60,600,000.

Map Reference 9, MD Route 2, Governor Ritchie Highway from US 50/301 to MD 10, 8.4 miles in length, to undergo divided highway reconstruction at a cost of \$219,000,000.

Map Reference 10, MD Route 2, Governor Ritchie Highway at College Parkway, 0.5 miles in length, to undergo interchange construction at a cost of \$176,300,000.

Map Reference 11, MD Route 3, Robert Crain Highway from the Prince George’s County line to MD 32, 6.4 miles in length, to undergo divided highway reconstruction at a cost of \$938,200,000.

Map Reference 12, MD Route 4, Southern Maryland Boulevard from the Calvert County line to MD 258, 1.9 miles in length, to undergo divided highway reconstruction including access control improvements at a cost of \$119,800,000.

Map Reference 13, MD Route 10, Arundel Expressway at the directional ramp to eastbound MD 100, 0.3 miles in length, to undergo ramp construction at a cost of \$35,500,000.

Map Reference 14, MD Route 32, Savage Road from MD 175 to MD 295, 4.3 miles in length, to undergo freeway reconstruction at a cost of \$166,800,000.

Map Reference 15, MD Route 32, Savage Road from MD 295 to the Howard County line, 1.1 miles in length, to undergo divided highway reconstruction at a cost of \$32,500,000.

Map Reference 16, MD Route 100 from the Howard County line to I-97, 6.8 miles in length, to undergo freeway reconstruction including interchanges at a cost of \$745,700,000.

Map Reference 17, MD Route 295, Baltimore–Washington Parkway from south of MD 100 to I-195, 3.3 miles in length, to undergo freeway reconstruction at a cost of \$228,400,000.

Map Reference 18, MD Route 295, Baltimore–Washington Parkway at MD 100, 0.5 miles in length, to undergo interchange reconstruction at a cost of \$223,900,000.

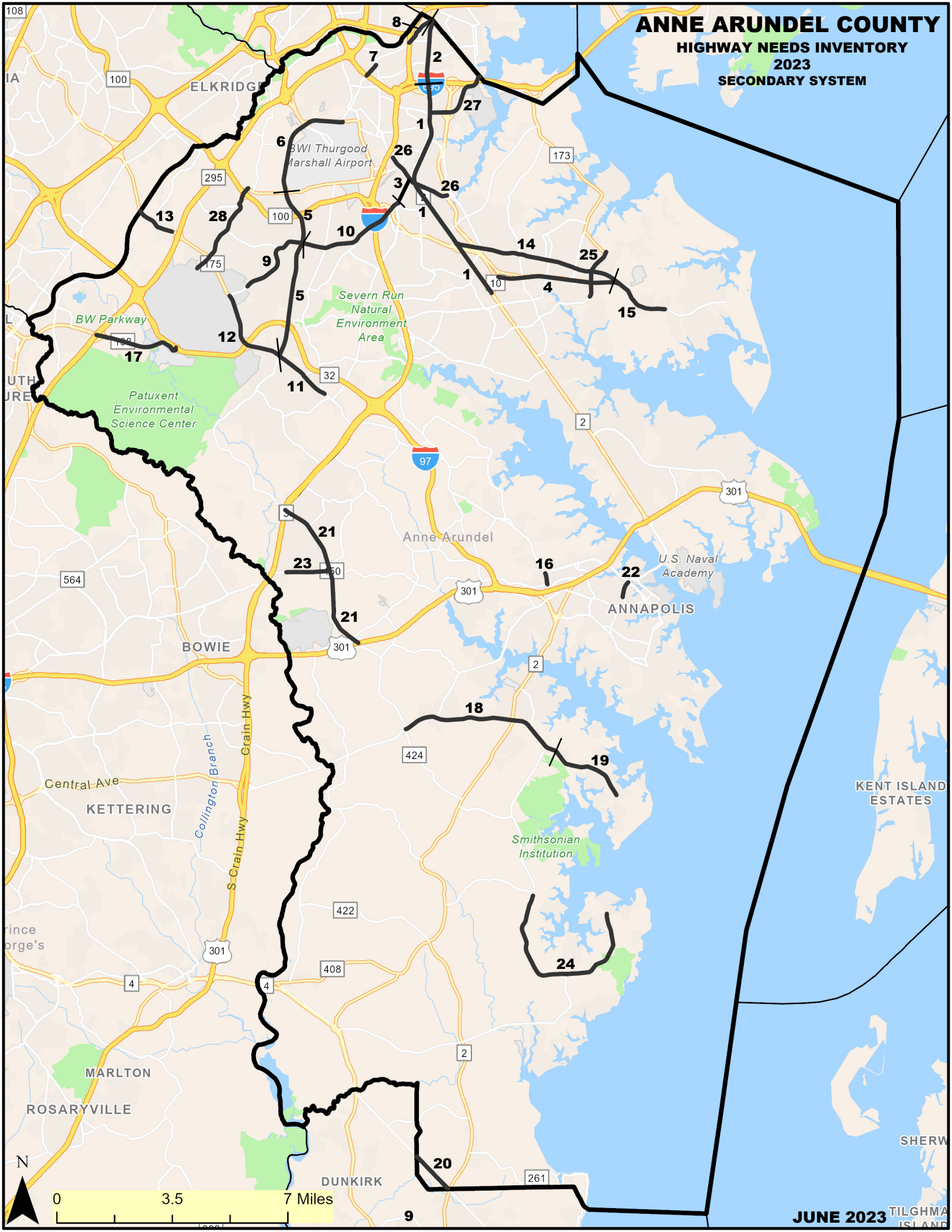
Map Reference 19, MD Route 295, Baltimore–Washington Parkway at West Nursery Road, 0.5 miles in length, to undergo interchange reconstruction at a cost of \$97,300,000.

Map Reference 20, MD Route 665, Aris Allen Boulevard from I-595 to MD 2, 1.6 miles in length, to undergo freeway reconstruction at a cost of \$394,600,000.

Map Reference 21, MD Route 695, Patapsco Freeway from west of MD 10 to I-895B (Spur), 1.4 miles in length, to undergo freeway reconstruction at a cost of \$216,000,000.

Map Reference 22, US Route 50, Blue Star Memorial Highway from MD 70 to the beginning of toll maintenance, 6.7 miles in length, to undergo freeway reconstruction including managed lanes at a cost of \$529,900,000.

ANNE ARUNDEL COUNTY
HIGHWAY NEEDS INVENTORY
2023
SECONDARY SYSTEM



0 3.5 7 Miles

JUNE 2023

HIGHWAY NEEDS INVENTORY
ANNE ARUNDEL COUNTY – SECONDARY ROUTES
REVISED 2023

Map Reference 1, MD Route 2, Governor Ritchie Highway from MD 10 to MD 695, 7.2 miles in length, to undergo multi-lane reconstruction at a cost of \$163,100,000.

Map Reference 2, MD Route 2, Governor Ritchie Highway from MD 695 to the Baltimore City line, 1.9 miles in length, to undergo multi-lane reconstruction at a cost of \$75,400,000.

Map Reference 3, MD Route 3 Business, Crain Highway from 5th Avenue to MD 2, 2.3 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$68,100,000.

Map Reference 4, MD Route 100, Paul T. Pitcher Memorial Highway from MD 10 to MD 177, 3.7 miles in length, to undergo freeway reconstruction including interchanges at a cost of \$539,500,000.

Map Reference 5, MD Route 170, Telegraph Road from MD 175 to MD 176, 5.2 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$108,500,000.

Map Reference 6, MD Route 170, Aviation Boulevard from MD 176 to MD 162, 3.5 miles in length, to undergo multi-lane reconstruction at a cost of \$70,600,000.

Map Reference 7, MD Route 170, Camp Meade Road from I-695 to MD 648, 0.4 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$7,400,000.

Map Reference 8, MD Route 170, Camp Meade/Belle Grove Road from I-895 to MD 2, 1.0 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$30,500,000.

Map Reference 9, MD Route 174, Reece Road from the beginning of state maintenance to MD 170, 2.5 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$76,400,000.

Map Reference 10, MD Route 174, Quarterfield Road from MD 170 to MD 3 Business, 3.5 miles in length, to undergo multi-lane reconstruction at a cost of \$98,000,000.

Map Reference 11, MD Route 175, Annapolis Road from Burns Crossing Road to MD 170, 1.8 miles in length, to undergo multi-lane reconstruction at a cost of \$51,500,000.

Map Reference 12, MD Route 175, Annapolis Road from MD 170 to Reece Road, 2.7 miles in length, to undergo multi-lane reconstruction at a cost of \$160,800,000.

Map Reference 13, MD Route 175, Jessup Road from Race Road to the Howard County line, 1.2 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$37,400,000.

Map Reference 14, MD Route 177, Mountain Road from MD 2 to MD 100, 5.1 miles in length, to undergo multi-lane reconstruction at a cost of \$137,200,000.

Map Reference 15, MD Route 177, Mountain Road from MD 100 to South Carolina Avenue, 1.8 miles in length, to undergo multi-lane reconstruction at a cost of \$66,500,000.

Map Reference 16, MD Route 178, Generals Highway from MD 450 to Bestgate Road, 0.3 miles in length, to undergo multi-lane reconstruction at a cost of \$9,100,000.

Map Reference 17, MD Route 198, Laurel/Fort Meade Road from MD 295 to MD 32, 2.7 miles in length, to undergo multi-lane reconstruction including an interchange at MD 295 at a cost of \$209,800,000.

Map Reference 18, MD Route 214, Central Avenue from MD 424 to MD 468, 4.8 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$66,100,000.

Map Reference 19, MD Route 214, Central Avenue from MD 468 to Triton Beach Road, 2.8 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$86,600,000.

Map Reference 20, MD Route 260, Chesapeake Beach Road from the Calvert County line to the Calvert County line, 1.4 miles in length, to undergo multi-lane reconstruction at a cost of \$21,400,000.

Map Reference 21, MD Route 424, Davidsonville Road from I-595 (US 50) to MD 3, 4.9 miles in length, to undergo multi-lane reconstruction at a cost of \$149,100,000.

Map Reference 22, MD Route 435, Taylor Avenue from the beginning of state maintenance to MD 70, 0.5 miles in length, to undergo 2-lane reconstruction with access management at a cost of \$10,200,000.

Map Reference 23, MD Route 450, Defense Highway from Baldwin Avenue to MD 424, 1.3 miles in length, to undergo multi-lane reconstruction at a cost of \$46,500,000.

Map Reference 24, MD Route 468, Shadyside Road/Muddy Creek Road from the beginning of SHA maintenance at Shady Side to MD 255, 6.2 miles in length, to undergo 2-lane reconstruction at a cost of \$130,800,000.