# 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 29,265 center line miles of roadway in the state of Maryland. Of this total, the State Highway Administration (SHA) maintains 5,243 center line miles (17.92%). 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 5,243 miles of highways maintained by the State Highway Administration are categorized for funding purposes as Primary and Secondary highways.

# 5.1 Primary System

The State Primary Systems consists of approximately 1,288 miles of state maintained routes or 25 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 3,955 miles (75.45%) 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-or-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 exits, 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 by 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 gibes preference to through traffic to a degree that, in addition to or in lieu of interchanges with major public roads, there may be selected atgrade 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.

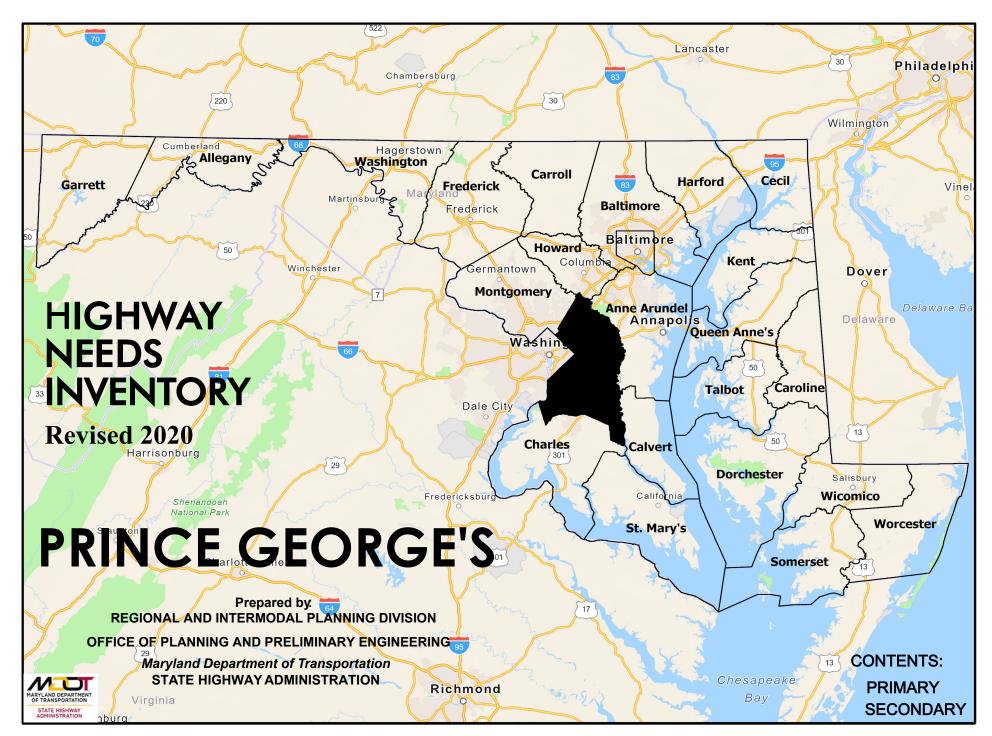
This is a multi-lane highway where opposing roadways are separated by a median or barrier.

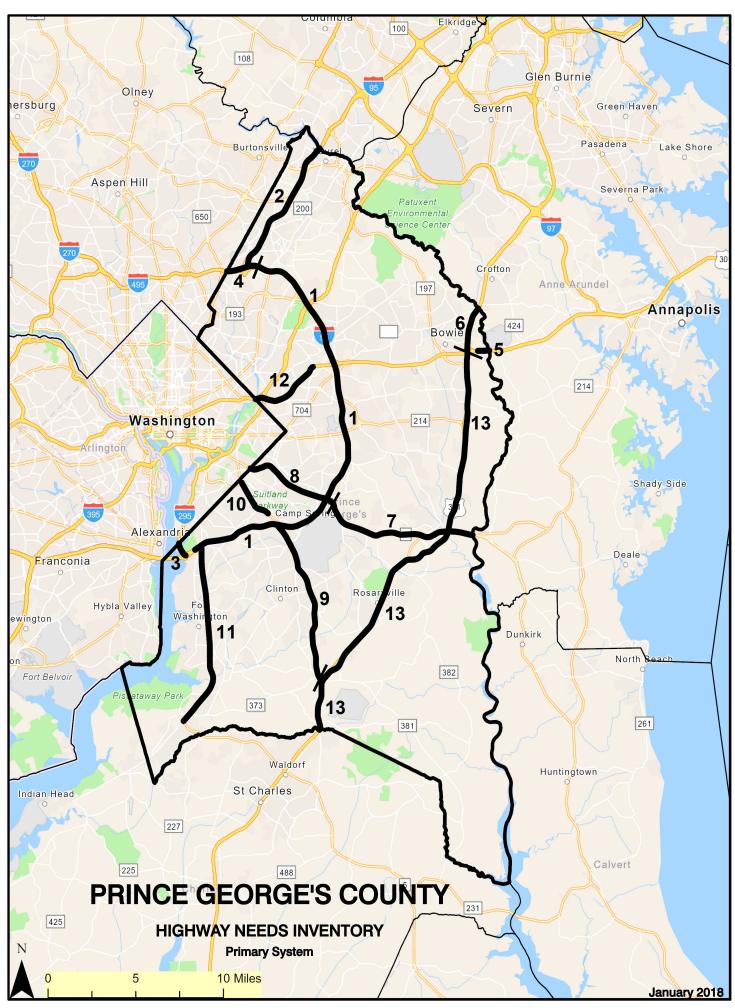
# 6.4.2 Freeway.

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.





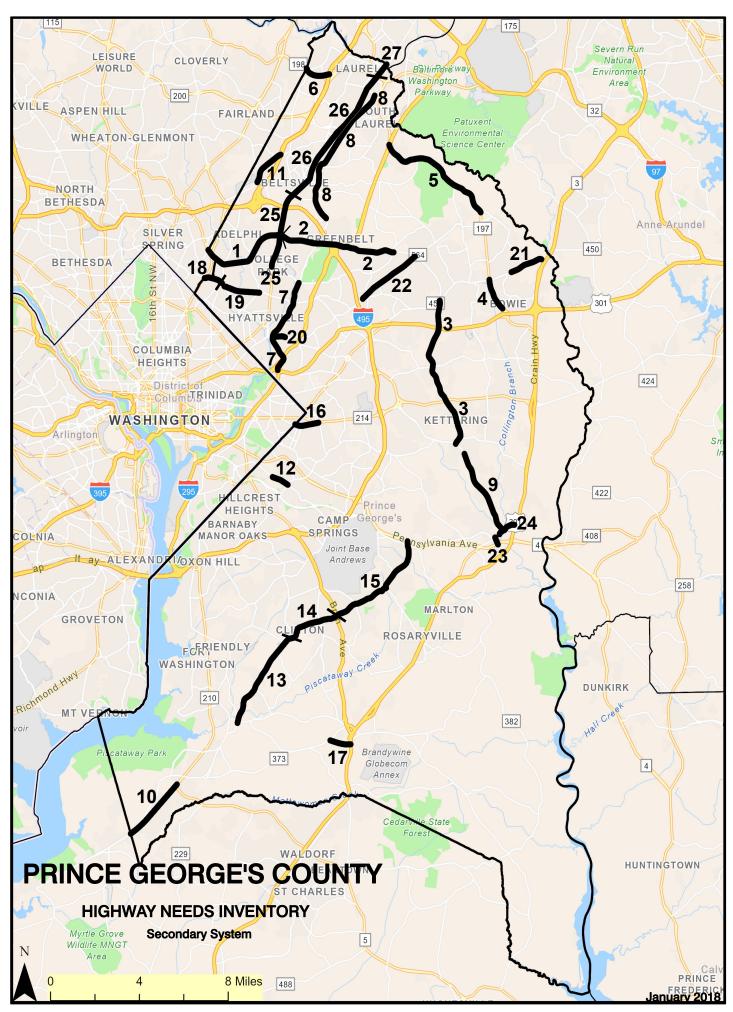
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Prince George's County - Primary (Revised 2018)

Map	Route-Route Name	County Pri	iority Improvement Type
	Limits	Length	
	IS 95 Capital Beltway	No	Freeway reconstruct (includes managed/CD lanes, and interchanges)
1	South of MD 210 to I-495	23.4	\$837,500
	IS 95	No	Freeway reconstuct (includes managed/CD lanes and interchanges)
2	I-495 to Howard County line	8.0	\$808,100
	IS 295 Anacostia Freeway	No	Freeway reconstruct (includes managed lanes and interchanges)
3	I-95 to District of Columbia line	0.8	\$16,600
	IS 495 Capital Beltway	No	Freeway reconstruct (includes managed lanes and interchanges)
4	Montgomery County line to I-95	1.8	\$226,100
	IS 595 John Hanson Highway	No	Freeway reconstruct.
5	$0.14 \mathrm{\ miles}$ East of US 301 to Anne Arundel Counline	ty 0.9	\$16,200
	MD 3 Crain Highway	No	Freeway reconstruct (includes interchange)
6	US 50 (I-595) to Anne Arundel County line	2.5	\$118,900
	MD 4 Pennsylvania Avenue	Yes	Freeway reconstruct (includes interchanges)
7	Patuxent River to I-95	9.4	\$1,155,100
	MD 4 Pennsylvania Avenue	No	Divided highway urban reconstruct
8	I-95 to District of Columbia line	4.9	\$83,300
	MD 5 Branch Avenue	Yes	Freeway reconstruct (includes managed lanes/light rail transit/interchanges)
9	US 301 to I-95	9.4	\$1,218,700
	MD 5 Branch Avenue	No	Divided highway reconstruct (includes interchange)
10	Beech Road to Suitland Parkway	1.6	\$183,800
	MD 210 Indian Head Highway	Yes	Freeway reconstruct (includes manged lanes and interchanges)
11	MD 228 to I-95	10.3	\$830,300
	US 50 John Hanson Highway	No	Freeway reconstruct (includes managed lanes)
12	DC line to MD 410	4.1	\$500,400

Prince George's County - Primary (Revised 2018)

Map Route-Route Name Ref. Limits		County Pr Length		
	US 301	Crain Highway	No	Freeway reconstruct (includes service roads/access management and managed lanes
13	Charles Cou	nty line to US 50(I-595)	24.0	\$1,386,700



Prince George's County - Secondary (Revised 2018)

	Route-Route Name	County Pri	iority Improvement Type
Ref.	Limits	Length	Cost (\$000)
	MD 193 University Boulevard	No	Divided highway reconstruct
1	Montgomery County line to US 1	4.1	\$150,900
	MD 193 Greenbelt Road	No	Divided highway reconstruct
2	US 1 to Good Luck Road	5.3	\$160,600
	MD 193 Enterprise Road	No	Divided highway reconstruct
3	MD 450 to MD 202	6.6	\$125,600
	MD 197 Collington Road	Yes	Divided highway reconstruct
4	Kenhill Drive to MD 450	1.4	\$43,100
1	MD 197 Laurel Bowie Road	No	Divided highway reconstruct
5	Jericho Park Road to B/W Parkway	5.6	\$116,700
	MD 198 Sandy Spring Road	No	Divided highway reconstruct
6	Montgomery County line to I-95	1.2	\$21,300
	MD 201 Kenilworth Avenue	No	Divided highway reconstruct (including transit)
7	US 50 to Paint Branch Parkway	4.3	\$96,000
	MD 201 EX	No	Multi-lane construct
8	Cherrywood Lane to Cherry Lane	7.1	\$225,500
	MD 202 Largo Road	No	Divided highway reconstruct/construct
9	MD 725 to south of Black Swan Road	4.0	\$74,900
	MD 210 Indian Head Highway	No	Divided highway reconstruct (includes managed lanes)
10	Charles County line to MD 228 Relocated	2.9	\$42,900
	MD 212 Powder Mill Dr.	No	Divided highway reconstruct
11	Pleasant Acres Drive to I-95	1.6	\$30,900
	MD 218 Suitland Road	No	Multi-lane reconstruct
12	Arnold Road to MD 458	0.8	\$12,000
	MD 223 Piscataway Road	No	Multi-lane reconstruct
13	Floral Park to Temple Hill Road	4.6	\$163,700
	MD 223 Woodyard Road	No	Multi-lane reconstruct
14	Temple Hill Road to MD 5	2.2	\$51,500

Prince George's County - Secondary (Revised 2018)

_	Route-Route	Name	County Pri	
Ref.	Limits		Length	Cost (\$000)
	MD 223	Woodyard Road	No	Multi-lane reconstruct
15	MD 5 to MD	4	5.0	\$260,300
	MD 332	Old Central Avenue	No	Multi-lane urban reconstruct
16	District of Co	lumbia line to MD 214	1.1	\$24,600
	MD 373 Ex		No	Multi-lane construct
17	MD 373 to U	S 301	0.9	\$38,800
	MD 410	East-West Highway	No	Divided highway reconstruct
18	MD 650 to M	ID 212	0.9	\$16,900
	MD 410	East-West Highway	No	Divided highway urban reconstruct
19	Ager Road to	MD 500	1.6	\$31,300
	MD 450	Annapolis Road	No	Urban reconstruct
20	MD 201 to 54	4th Street	0.6	\$12,600
	MD 450	Annapolis Road	No	Divided highway reconstruct
21	Stonybrook D	Or. to 0.3 mile W. of MD 3	1.3	\$28,700
	MD 564	Lanham Severn Road/9th St.	No	Divided highway reconstruct
22	MD 450 to M	ID 193	3.0	\$109,100
	MD 717	Water Street	No	2 lane reconstruct (includes Western Branch bridge)
23	Begin SHA M	Maintenance S. of MD 4 to MD 725	0.3	\$6,500
	MD 725	Marlboro Pike	No	Multi-lane reconstruct
24	Governor Ode	en Bowie Drive to US 301	0.8	\$19,200
	US 1	Baltimore Avenue	Yes	Multi-lane urban reconstruct
25	College Ave.	to Sunnyside Avenue	2.6	\$57,600
	US 1	Baltimore Avenue/Second Street	No	Multi-lane urban reconstruct
26	Sunnyside Av	ve. to Domer Ave.	6.0	\$114,100
	US 1	Washington Blvd/2nd Street	No	Multi-lane urban reconstruct
27	Domer Avenu	ue to Howard County line	1.0	\$19,400