

# 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-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.**

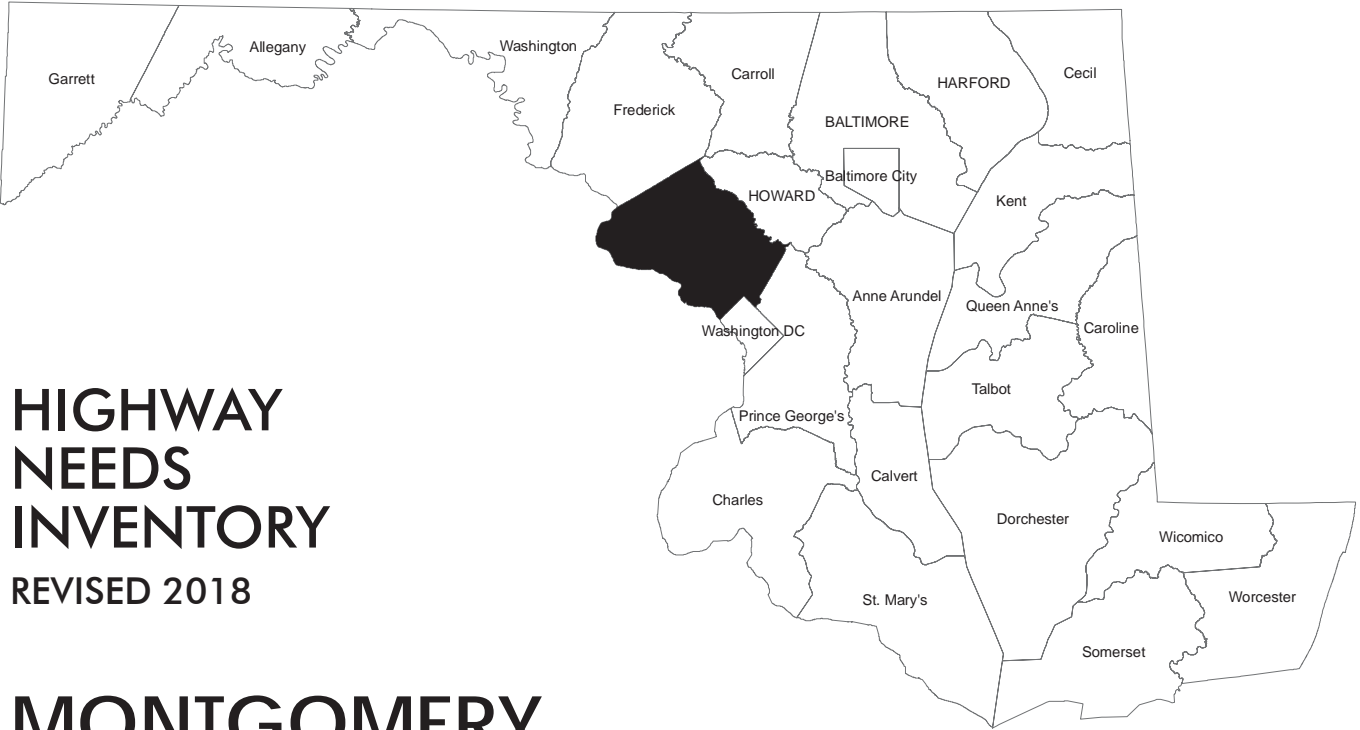
This is a multi-lane highway where opposing roadways are separated by a median or barrier.

### **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.



**HIGHWAY  
NEEDS  
INVENTORY  
REVISED 2018**

**MONTGOMERY**

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CONTENTS:  
PRIMARY  
SECONDARY

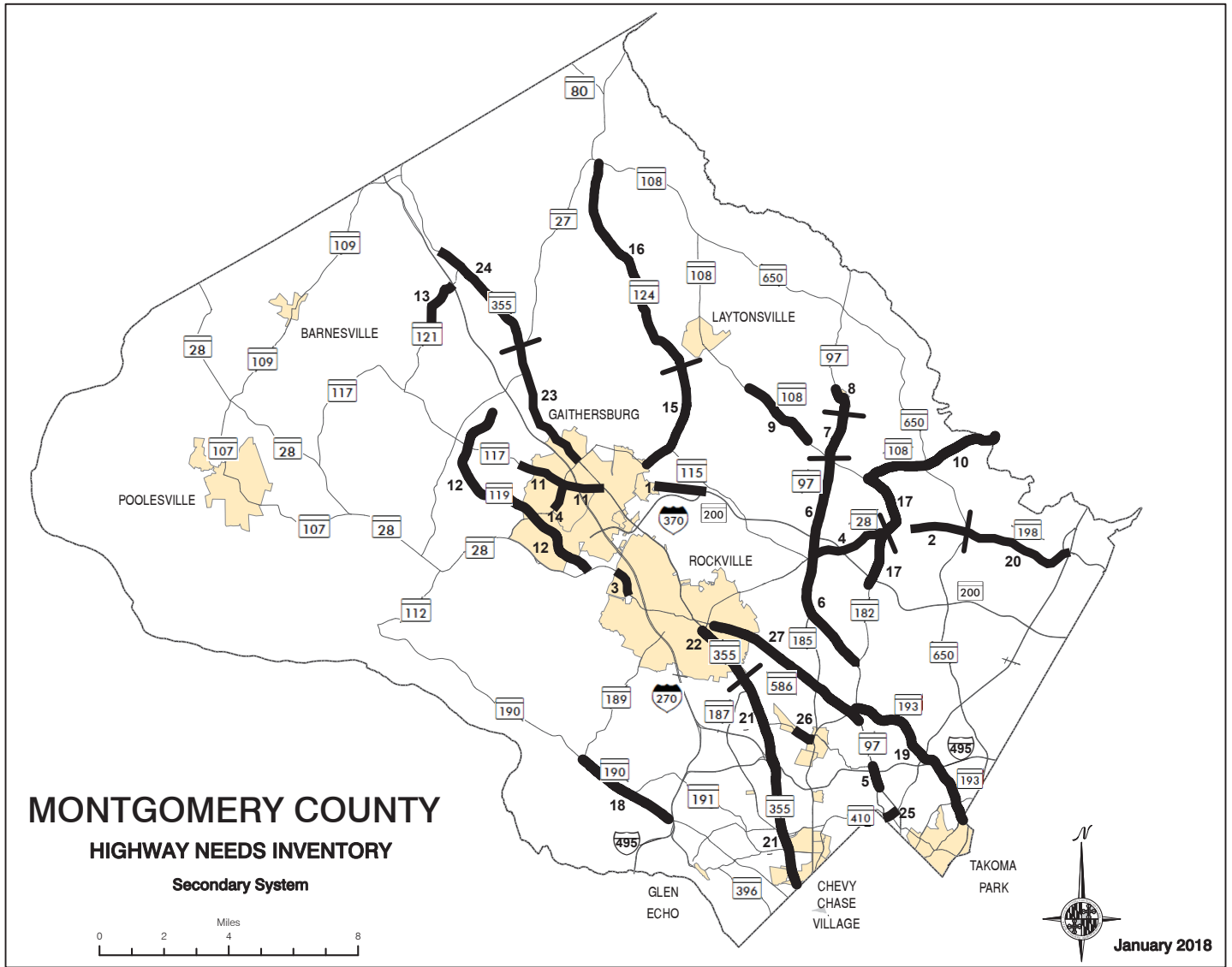


# HIGHWAY NEEDS INVENTORY

Montgomery County - Primary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
1	IS 270 I-495 to I-370	Eisenhower Memorial Highway	Yes 9.3	Freeway reconstruct (includes managed lanes/interchange) \$1,497,800
2	IS 270 I-370 to to Frederick County line	Eisenhower Memorial Highway	Yes 13.2	Freeway reconstruct (managed lanes/interchanges) \$1,550,300
3	IS 270 Y I-495 to I-270	Eisenhower Memorial Highway	Yes 2.1	Freeway Reconstruct (includes managed lanes/interchanges) \$638,600
4	IS 370 I-270 to MD 200		No 2.1	Freeway reconstruct (includes managed lanes) \$546,200
5	IS 495 American Legion Bridge to PG County line	Capital Beltway	Yes 14.4	Freeway reconstruct (includes managed lanes) \$1,237,700
6	US 29 MD 97 to MD 650	Colesville Road	Yes 3.9	Divided highway reconstruct (includes managed lanes/bus lanes) \$282,100
7	US 29 MD 650 to Howard County line	Columbia Pike	Yes 7.5	Freeway reconstruct (includes managed lanes/bus lanes/interchanges) \$1,119,000





## HIGHWAY NEEDS INVENTORY

Montgomery County - Secondary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
1	CO 5221EX Midcounty Highway Ext. - Western connector Shady Grove to MD 200	No	1.8	Divided highway construct \$318,000
2	CO 7445 Norbeck Road Norwood Road to MD 650	No	1.8	Divided highway reconstruct \$134,900
3	MD 28 Key West Avenue Darnestown Road to Shady Grove Road	No	1.3	Multi-lane reconstruct (includes Shady Grove Rd interchange) \$269,900
4	MD 28 Norbeck Road MD 97 to MD 182	Yes	2.6	Divided highway reconstruct \$96,400
5	MD 97 Georgia Avenue MD 390 to MD 192	Yes	0.7	Urban divided highway reconstruct \$24,000
6	MD 97 Georgia Avenue MD 182 to MD 108	No	7.1	Divided highway reconstruct (includes interchanges and transit) \$197,300
7	MD 97 Georgia Avenue MD 108 to Prince Phillip Drive	No	0.4	Divided highway reconstruct \$9,600
8	MD 97 RE Gold Mine Rd. to N. of Brookeville	No	0.8	2 lane construct \$24,900
9	MD 108 Olney Laytonsville Road Muncaster Road to Bowie Mill Road	No	2.4	Divided highway reconstruct \$115,500
10	MD 108 Sandy Spring/Ashton Road MD 182 to Howard County line	No	4.2	2 lane reconstruct \$196,100
11	MD 117 Clopper Road/Diamond Avenue Waring Station Road to MD 117A	No	3.2	Urban divided highway reconstruct \$150,700
12	MD 119 Great Seneca Highway MD 28 to Middlebrook Road	No	7.5	Urban divided reconstruct (includes interchanges). \$202,300
13	MD 121 Clarksburg Road West Old Baltimore Road to I-270	No	1.6	Divided highway reconstruct \$39,200

## HIGHWAY NEEDS INVENTORY

Montgomery County - Secondary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
	MD 124 Quince Orchard Road	No	Urban divided highway reconstruct (including transit)	
14	Dosh Drive to MD 117	1.0	\$37,200	
	MD 124 Woodfield Road	No	Urban divided highway reconstruct	
15	Midcounty Highway to Warfield Road	3.6	\$153,700	
	MD 124 Woodfield Road	No	4 lane divided reconstruct	
16	Warfield Road to MD 108	7.5	\$392,700	
	MD 182 Layhill/Norwood/Dr. Bird Road	No	Divided highway reconstruct	
17	North of Bel Pre Road to MD 108	3.7	\$200,600	
	MD 190 River Road	No	2 lane reconstruct	
18	MD 189 to Begin Divided West of I-495	3.0	\$48,300	
	MD 193 University Blvd	No	Multi-lane reconstruct (includes transit)	
19	MD 97 to Prince George's County line	5.2	\$224,700	
	MD 198 Spencerville Road	Yes	Divided highway reconstruct	
20	MD 650 to US 29A	3.7	\$159,200	
	MD 355 Wisconsin Ave	Yes	Multi-lane reconstruct (includes interchanges and transit)	
21	DC line to Montrose Parkway	6.6	\$276,700	
	MD 355 Rockville/Frederick Road	Yes	Multi-lane reconstruct (includes interchanges & transit)	
22	Montrose Parkway to MD 124	8.8	\$356,500	
	MD 355 Frederick Road	Yes	Divided highway reconstruct (includes interchange & transit)	
23	MD 124 to MD 27	4.3	\$146,300	
	MD 355 Frederick Road	Yes	Muti-lane reconstruct/construct (includes BRT)	
24	MD 27 to Snowden Farm Parkway	3.7	\$222,300	
	MD 384 Colesville Road	Yes	Urban divided highway reconstruct (includes transit, and BRT)	
25	MD 390 to US 29/MD 97	0.5	\$20,700	
	MD 547 Strathmore/Knowles Avenue	No	2 lane urban reconstruct	
26	Weymouth St to MD 185	0.8	\$26,100	

# HIGHWAY NEEDS INVENTORY

Montgomery County - Secondary

(Revised 2018)

<b>Map Ref.</b>	<b>Route-Route Name Limits</b>	<b>County</b>	<b>Priority</b>	<b>Improvement Type</b>
			<b>Length</b>	<b>Cost (\$000)</b>
	MD 586 Veirs Mill Road		Yes	Divided highway reconstruct (includes interchange, and BRT)
27	MD 911 to MD 97		5.8	\$188,000