



MARYLAND DEPARTMENT
OF TRANSPORTATION

STATE HIGHWAY
ADMINISTRATION



MARYLAND STATE HIGHWAY
MOBILITY REPORT **2019**
Supplement <-----

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2019

MARYLAND STATE HIGHWAY MOBILITY REPORT

Supplement ←

INTRODUCTION

The Maryland Mobility Report provides a general overview of performance and mobility trends over the past year. The Maryland Mobility Report Supplement provides additional and more in-depth information related to how Maryland is addressing recurring and non-recurring congestion related issues and what are the outcomes of the programs, policies and projects that have been implemented. The Supplement includes additional data about:

- **Traffic Volumes by County and Region**
- **Congestion Trends**
 - **Freeway Operations**
 - **Bottleneck Locations**
 - **Arterial Corridor Operations**
 - **Congestion Cost by Region**
- **Capital Projects Before and After Studies**

In addition, mapping was provided to identify locations of the various programs and projects including:

Location Mapping

- **New Sidewalk Locations**
- **Park and Ride Lot Locations**
- **Reversible, HOV and Express Toll Lanes and Managed Location Facilities Locations**
- **Public Truck Parking and Virtual Weigh Station Locations**
- **CHART Operations Center Locations**
- **Failing Intersection Level of Service Locations**

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> Traffic Volumes <

Traffic data collection occurs through continuous count stations which record volumes 24 hours a day, 365 days a year at approximately 100 locations statewide. Although, the majority of traffic data is collected every three years at the same locations for forty-eight (48) hours. These counts are factored to develop the average daily traffic on each section of roadway. The length of these sections is multiplied by the traffic volume to develop the total vehicle miles traveled (VMT). The VMT is developed on a statewide, countywide and regionwide basis. Maryland is subdivided into five geographical regions. These five geographical regions are: Baltimore Metropolitan; Washington Metropolitan; Southern Maryland; Eastern Shore; and Western Maryland (Figure 1).

BALTIMORE METROPOLITAN REGION

- Anne Arundel (AA)
- Baltimore City (BC)
- Baltimore (BA)
- Carroll (CL)
- Harford (HA)
- Howard (HO)

WASHINGTON METROPOLITAN REGION (MARYLAND COUNTIES)

- Frederick (FR)
- Montgomery (MO)
- Prince George's (PG)

SOUTHERN MARYLAND

- Calvert (CA)
- Charles (CH)
- St. Mary's (SM)

EASTERN SHORE

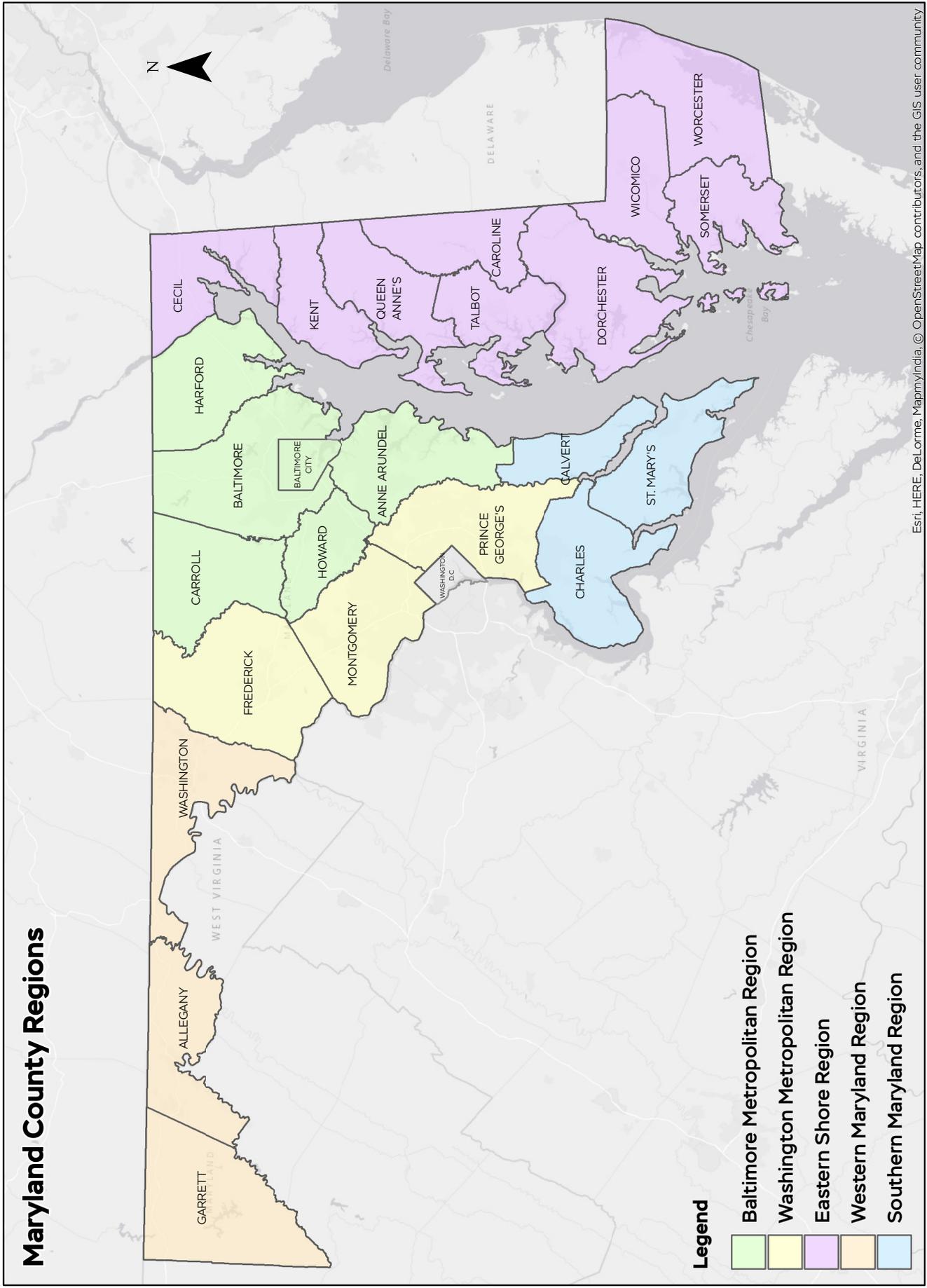
- Caroline (CO)
- Cecil (CE)
- Dorchester (DO)
- Kent (KE)
- Queen Anne's (QA)
- Somerset (SO)
- Talbot (TA)
- Wicomico (WI)
- Worcester (WO)

WESTERN MARYLAND

- Allegany (AL)
- Garrett (GA)
- Washington (WA)

The MDOT SHA county abbreviation is in parenthesis.

Figure 1



Traffic volumes by region were either flat or slightly down from 2017 (Table 1).

Table 1

VMT BY REGION (BILLIONS)					
AREA	2015	2016	2017	2018	CHANGE 2017 TO 2018
Baltimore Region	25.6	26.4	26.8	26.7	-0.1
Washington Region	19.5	20.0	20.5	20.5	0.0
Southern Region	3.0	3.1	3.0	3.0	0.0
Eastern Shore Region	5.9	6.1	6.1	6.0	-0.1
Western Region	3.3	3.4	3.5	3.4	-0.1
Total	57.3	59.0	59.9	59.6	-0.3



I-695 at I-70



→ Congestion Trends ←

A. Freeway/Expressway Fact Sheets

The highest classification of roadways are freeways and expressways. These are high speed facilities that provide the maximum capacity/ mobility. Access along these roadways is limited to interchanges and these highways are termed controlled access facilities. Analysis was performed on these roadways to evaluate various attributes such as mobility and reliability including the travel time index, planning time index, daily variability, speed, and the location of the top bottlenecks. The freeways/expressways evaluated include:

- I-70 (Pennsylvania Border to US 40 in Frederick)
- I-70 (US 40 in Frederick to I-695)
- I-81
- I-83
- I-95 (Capital Beltway to I-695 North)
- I-95 (I-695 North to Delaware State Line)
- I-97
- I-270
- I-495 Capital Beltway
- I-695 Baltimore Beltway
- I-795
- I-895
- US-50 (DC Line to William Preston Lane Bridge (Bay Bridge))
- MD 32
- MD 100
- MD 200
- MD 295

In addition to year round analysis, summer seasonal weekend analysis was performed for:

- I-95 (Tydings Bridge to Delaware State Line)
- US 50 (William Preston Lane Bridge to Easton)



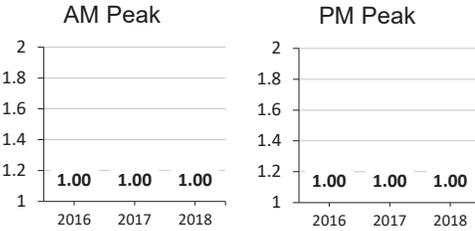
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I-70 (Part 1)

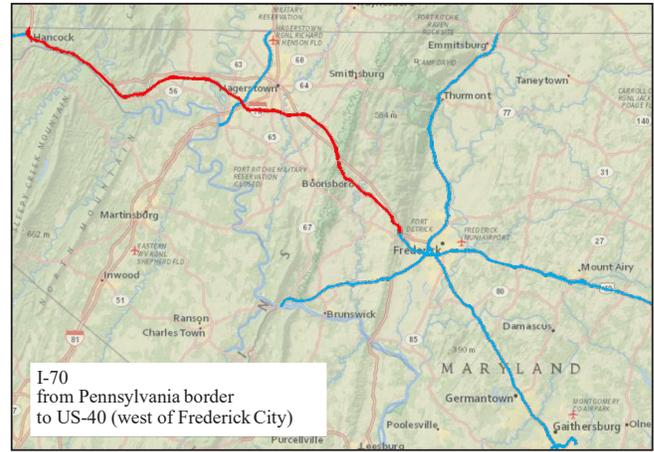
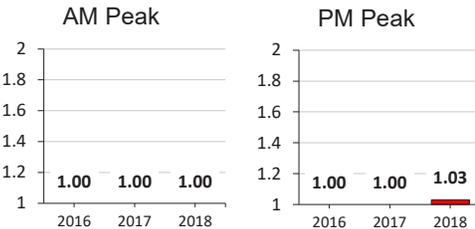
Trends^a

48 center miles carrying 52,000 vehicles every day

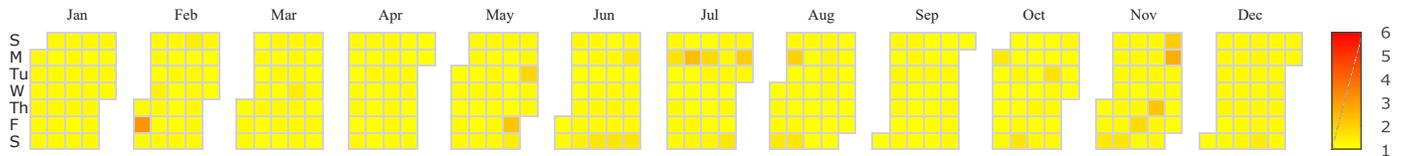
Travel Time Index^b
measure of average delay



Planning Time Index^c
measure of worst-case delay

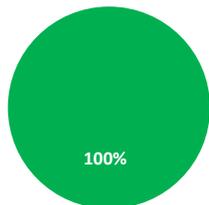


Daily Variability^d



Weekday Congestion

AM Peak Hour



100%
AM Westbound

Most Improved Segments (TTI)

1. N/A

2018
N/A

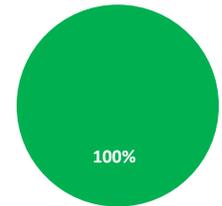
2017
N/A

Decreased Operations Segments (TTI)

1. N/A

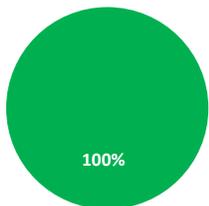
2018
N/A

2017
N/A



100%
AM Eastbound

PM Peak Hour



100%
PM Westbound

Most Improved Segments (TTI)

1. N/A

2018
N/A

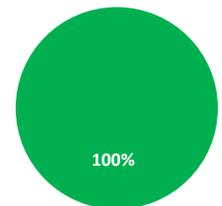
2017
N/A

Decreased Operations Segments (TTI)

1. N/A

2018
N/A

2017
N/A



100%
PM Eastbound

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.

c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.





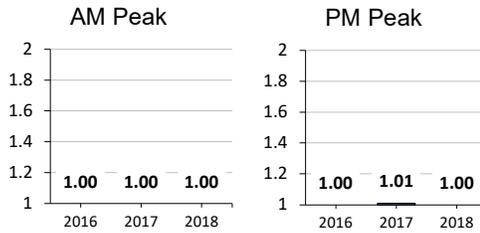
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I-70 (Part 2)

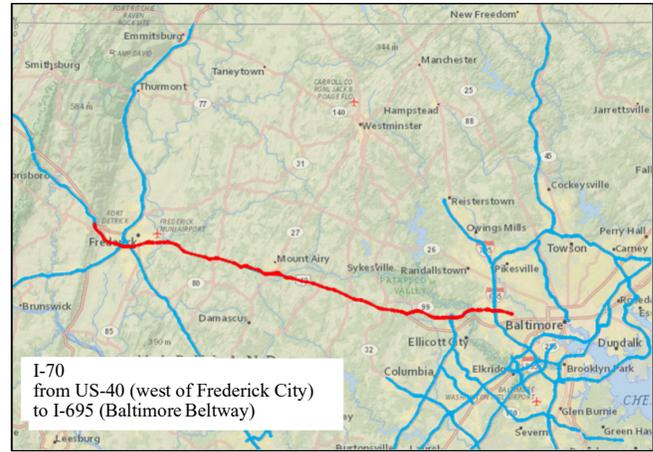
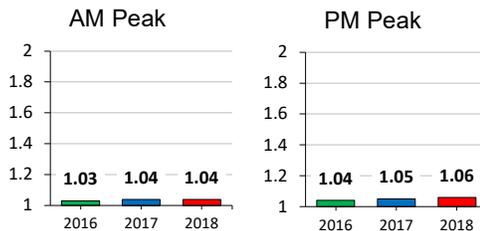
Trends^a

45 center miles carrying 72,000 vehicles every day

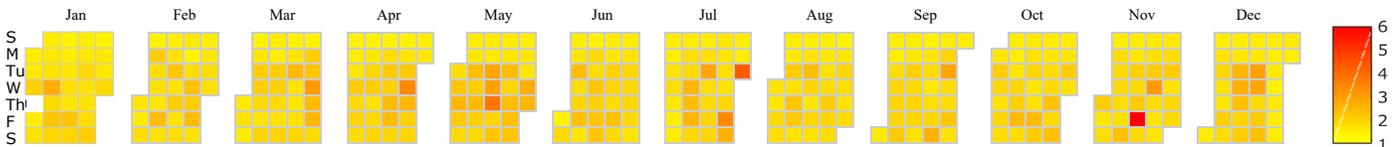
Travel Time Index^b
measure of average delay



Planning Time Index^c
measure of worst-case delay

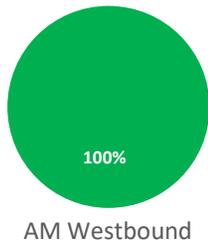


Daily Variability^d



Weekday Congestion

AM Peak Hour



Most Improved Segments (TTI)

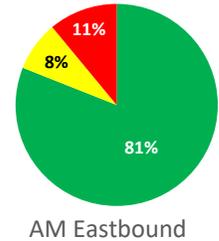
1. I-70 WB at MD 122

Year	TTI
2018	1.00
2017	1.01

Decreased Operations Segments (TTI)

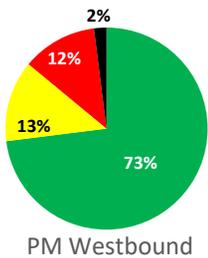
1. I-70 EB from US 29 to I-695
2. I-70 EB from US 40 to Marriottsville Rd
3. I-70 EB at US 40

Year	TTI
2018	1.25
2017	1.15
2018	1.90
2017	1.81
2018	1.54
2017	1.47



AM Eastbound

PM Peak Hour



Most Improved Segments (TTI)

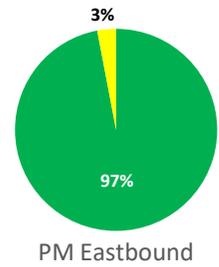
1. I-70 WB at US 15/US 340
2. I-70 WB from I-270 to US 15/MD 340
3. I-70 WB at I-270

Year	TTI
2018	1.80
2017	1.95
2018	1.66
2017	1.81
2018	1.60
2017	1.74

Decreased Operations Segments (TTI)

1. I-70 EB at I-695
2. I-70 WB at I-695
3. I-70 EB from US 29 to I-695

Year	TTI
2018	1.17
2017	1.07
2018	1.12
2017	1.07
2018	1.12
2017	1.07



PM Eastbound

Notes

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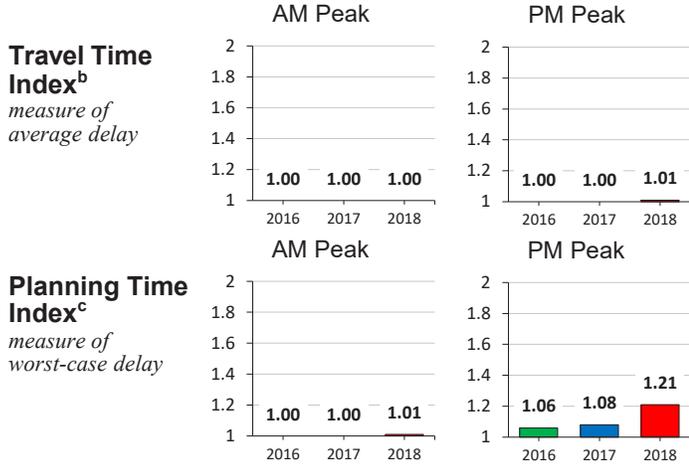




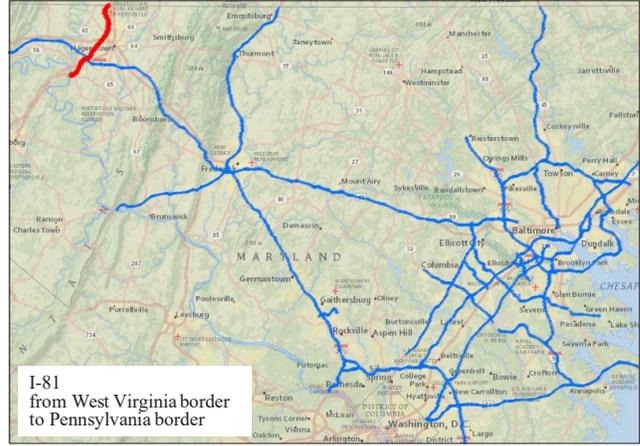
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I-81

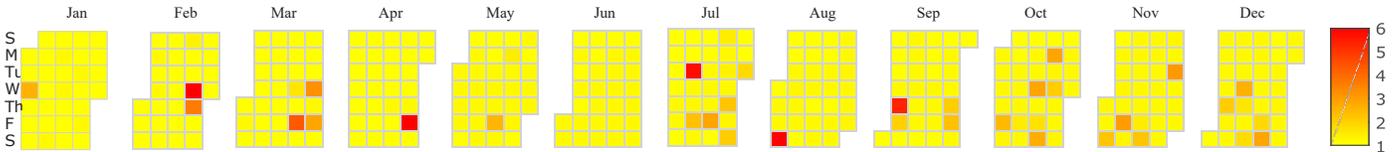
Trends^a



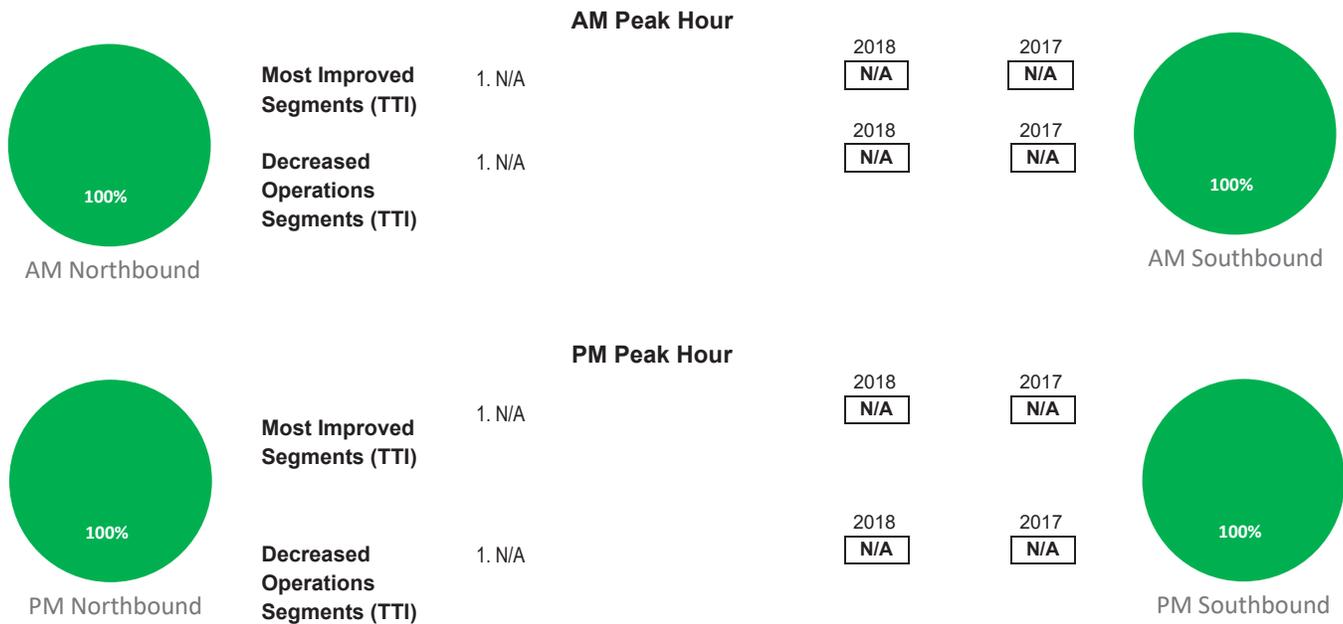
12 center miles carrying 65,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

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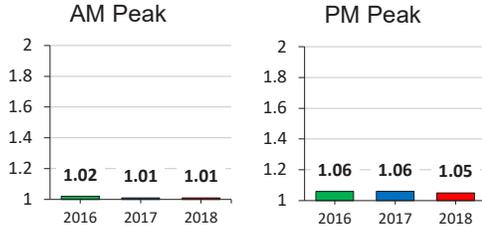


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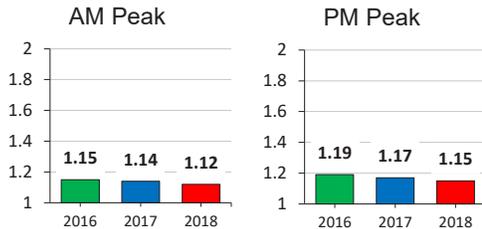
I-83

Trends^a

Travel Time Index^b
measure of average delay



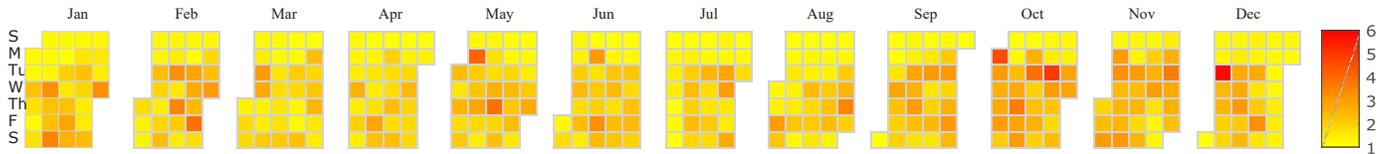
Planning Time Index^c
measure of worst-case delay



27 center miles carrying 92,000 vehicles every day

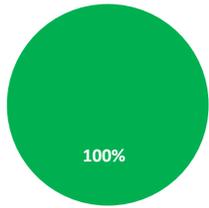


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Northbound

Most Improved Segments (TTI)

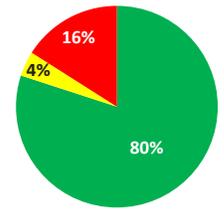
1. I-83 SB from Shawan Rd to Warren Rd
2. I-83 SB from Middletown Rd to MD 137
3. I-83 SB from MD 137 to Belfast Rd

2018	2017
1.00	1.01
1.00	1.01
1.01	1.02

Decreased Operations Segments (TTI)

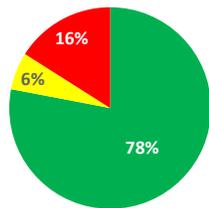
1. I-83 SB from Warren Rd to Padonia Rd
2. I-83 SB at Warren Rd
3. I-83 SB at Timonium Rd

2018	2017
1.24	1.23
1.11	1.10
1.23	1.22



AM Southbound

PM Peak Hour



PM Northbound

Most Improved Segments (TTI)

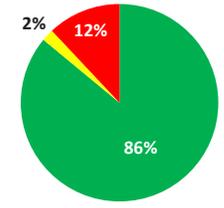
1. I-83 NB at Shawan Rd
2. I-83 NB from Warren Rd to Shawan Rd
3. I-83 NB at Warren Rd

2018	2017
1.82	2.23
1.23	1.46
1.04	1.14

Decreased Operations Segments (TTI)

1. I-83 SB at I-695/I-83 WB
2. I-83 NB from Ruxton Rd to I-695/I-83
3. I-83 NB at Ruxton Rd

2018	2017
1.79	1.68
1.16	1.07
1.11	1.05



PM Southbound

Notes

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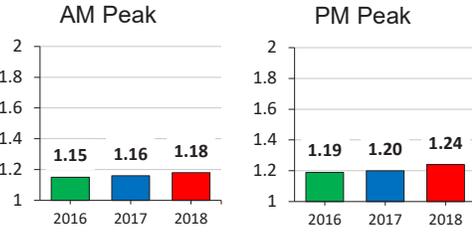


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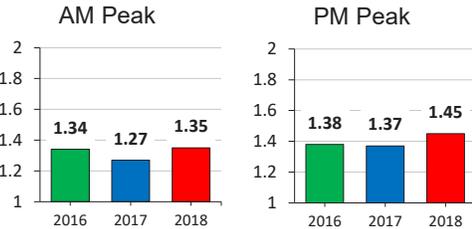
I-95 (Part 1)

Trends^a

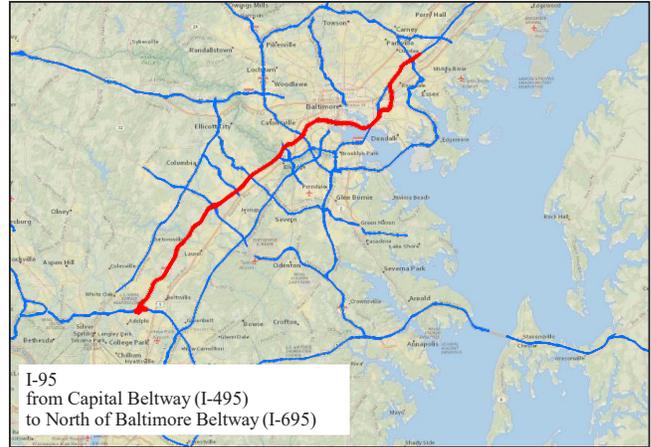
Travel Time Index^b
measure of average delay



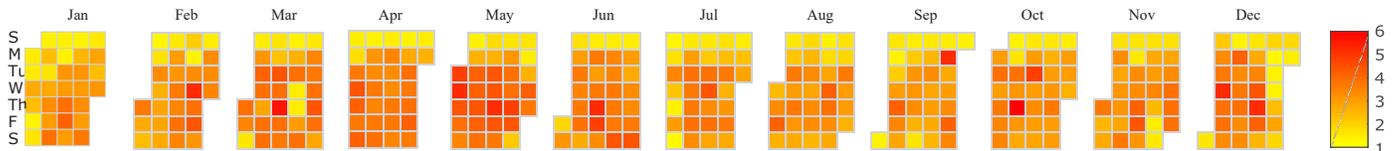
Planning Time Index^c
measure of worst-case delay



39 center miles carrying 170,000 vehicles every day

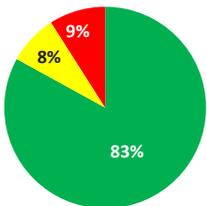


Daily Variability^d



Weekday Congestion

AM Peak Hour



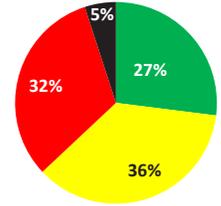
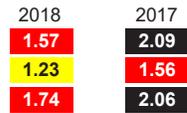
AM Northbound

Most Improved Segments (TTI)

1. I-95 SB at MD 212
2. I-95 SB from MD 200 to MD 212
3. I-95 SB from MD 212 to I-495

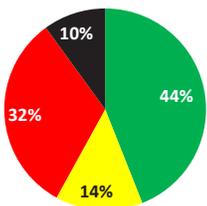
Decreased Operations Segments (TTI)

1. I-95 SB at I-495
2. I-95 SB from I-895 to US 40
3. I-95 SB at US 40



AM Southbound

PM Peak Hour



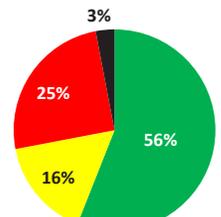
PM Northbound

Most Improved Segments (TTI)

1. I-95 SB at US 1 ALT
2. I-95 SB from US 1 ALT to I-695
3. I-95 SB from Washington Blvd to US 1 ALT

Decreased Operations Segments (TTI)

1. I-95 NB at Washington Blvd
2. I-95 NB from Washington Blvd to MD 295
3. I-95 NB from US 1 ALT to Washington Blvd



PM Southbound

Notes

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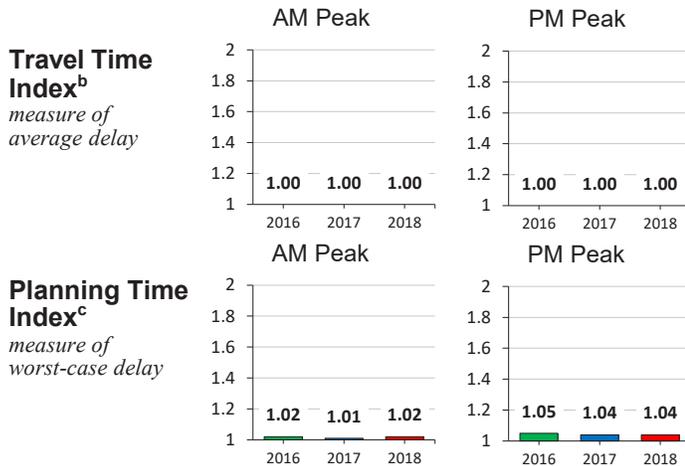




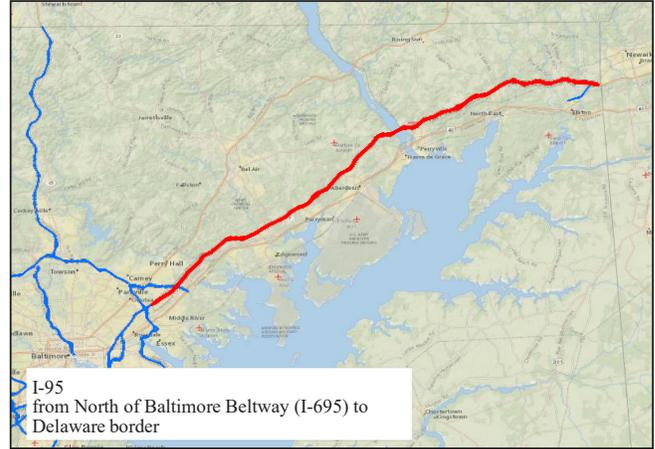
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I-95 (Part 2)

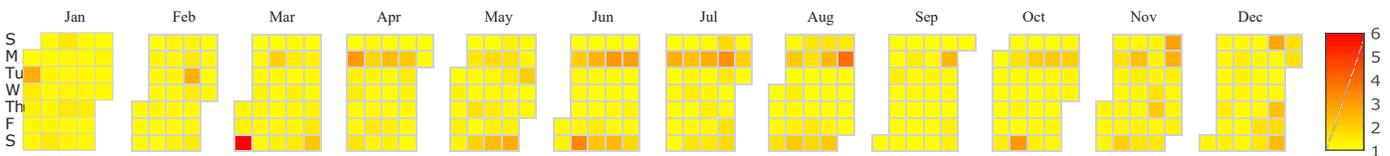
Trends^a



44 center miles carrying 105,000 vehicles every day

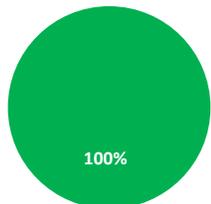


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Northbound

Most Improved Segments (TTI)

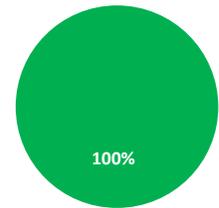
- I-95 SB from MD 275 to Tydings Memorial Bridge
- I-95 SB from MD 152 to MD 43
- I-95 SB at MD 152

	2018	2017
1.	1.01	1.08
2.	1.01	1.02
3.	1.01	1.02

Decreased Operations Segments (TTI)

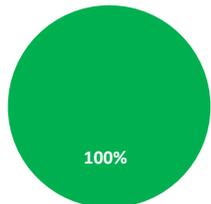
- N/A

	2018	2017
1.	N/A	N/A



AM Southbound

PM Peak Hour



PM Northbound

Most Improved Segments (TTI)

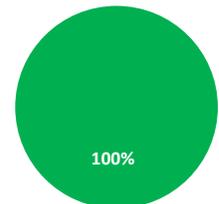
- I-95 NB at MD 43
- I-95 SB from MD 275 to Tydings Memorial Bridge
- I-95 NB from I-695 to MD 43

	2018	2017
1.	1.13	1.21
2.	1.00	1.03
3.	1.06	1.09

Decreased Operations Segments (TTI)

- I-95 NB from MD 152 to MD 24
- I-95 NB at MD 152

	2018	2017
1.	1.04	1.02
2.	1.02	1.00



PM Southbound

Notes

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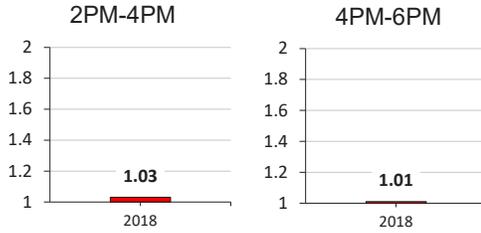
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I-95 (Tydings Memorial Bridge to Delaware Border) – Summer Weekends

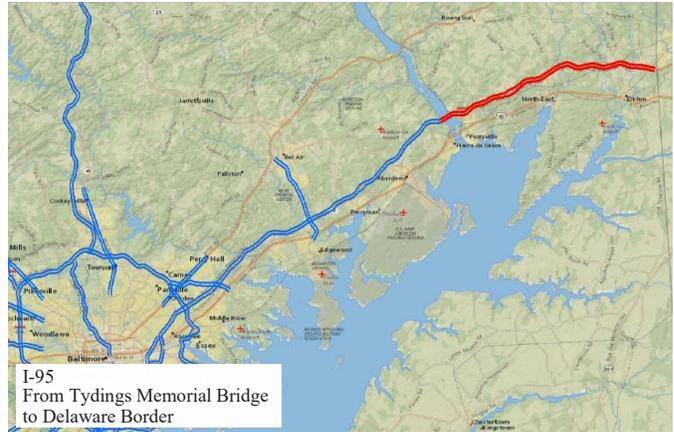
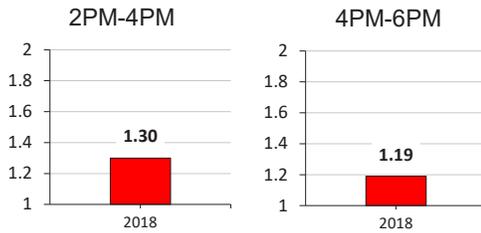
Trends^a

19 center miles carrying 76,000 vehicles every day

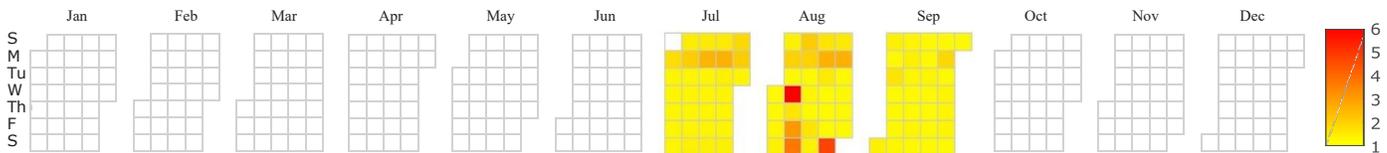
Travel Time Index^b
measure of average delay



Planning Time Index^c
measure of worst-case delay



Daily Variability^d



Weekday Congestion

Weekend congestion comparisons were not determined for the seasonal analysis.

Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



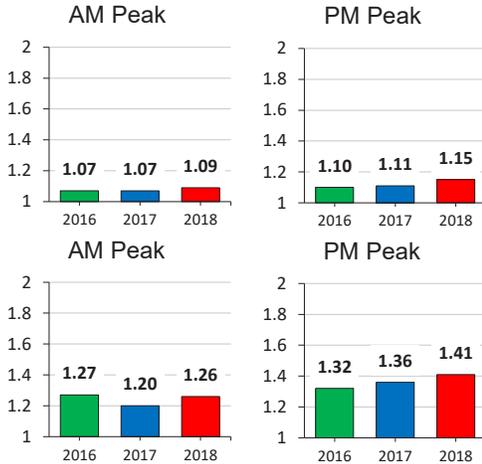


2019 Maryland State Highway Mobility Report

I-97

Trends^a

Travel Time Index^b
measure of average delay

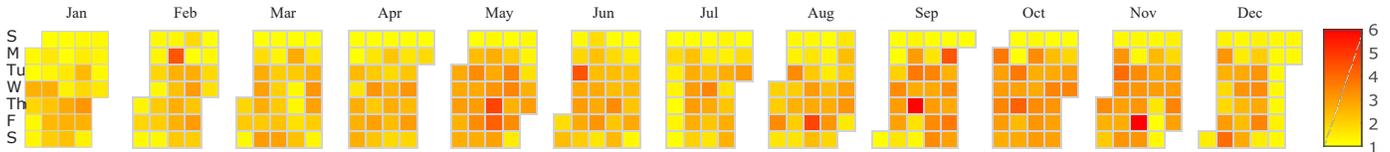


Planning Time Index^c
measure of worst-case delay

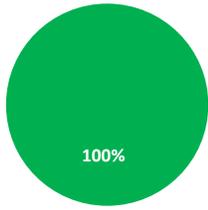
17 center miles carrying 131,000 vehicles every day



Daily Variability^d



Weekday Congestion

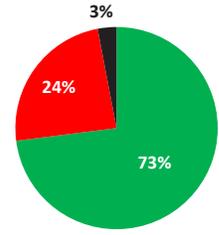


AM Northbound

Most Improved Segments (TTI)

1. I-97 NB from MD 648 to I-695
2. I-97 NB from MD 176 to MD 648

2018	2017
1.01	1.03
1.00	1.01



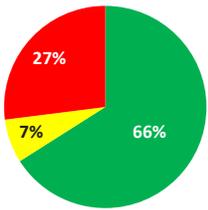
AM Southbound

Decreased Operations Segments (TTI)

1. I-97 SB at MD 3
2. I-97 SB from Benfield Blvd to MD 3
3. I-97 SB at Benfield Blvd

2018	2017
1.63	1.54
1.53	1.44
1.41	1.33

PM Peak Hour

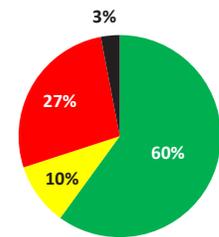


PM Northbound

Most Improved Segments (TTI)

1. I-97 NB at MD 648
2. I-97 NB from MD 648 to I-695
3. I-97 NB from MD 176 to MD 648

2018	2017
1.03	1.25
1.04	1.25
1.03	1.21



PM Southbound

Decreased Operations Segments (TTI)

1. I-97 SB at MD 32
2. I-97 SB from MD 3 to MD 32
3. I-97 SB at MD 100

2018	2017
2.09	1.79
1.66	1.39
1.50	1.28

Notes

- a - **Peak Hours** are considered as 8-9am and 5-6pm.
- b - **Travel Time Index (TTI)** is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - **Planning Time Index (PTI)** is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

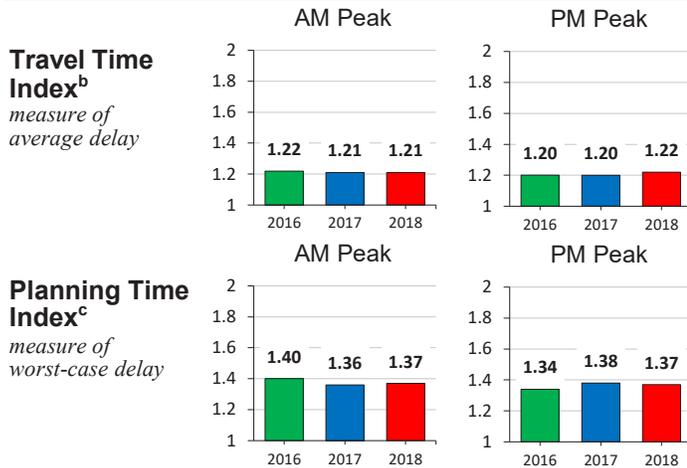




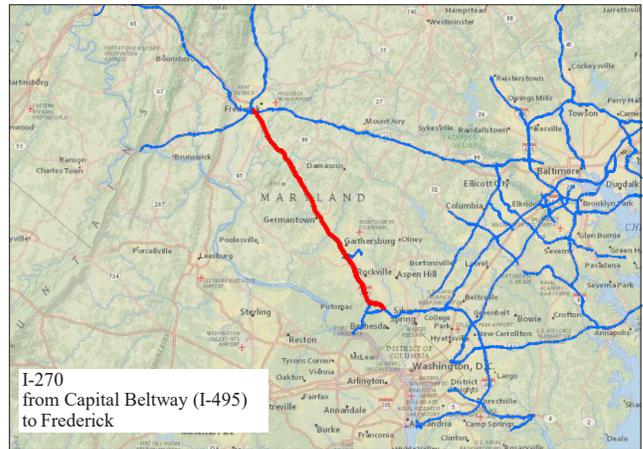
2019 Maryland State Highway Mobility Report

I-270

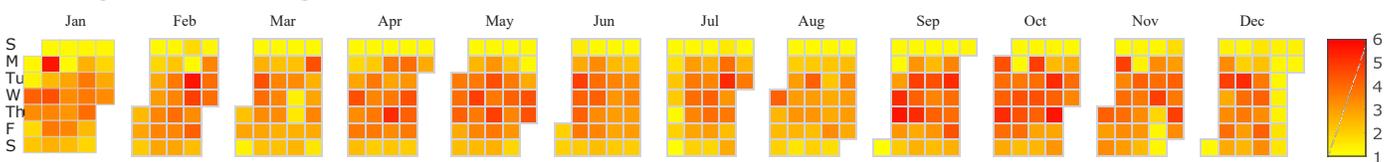
Trends^a



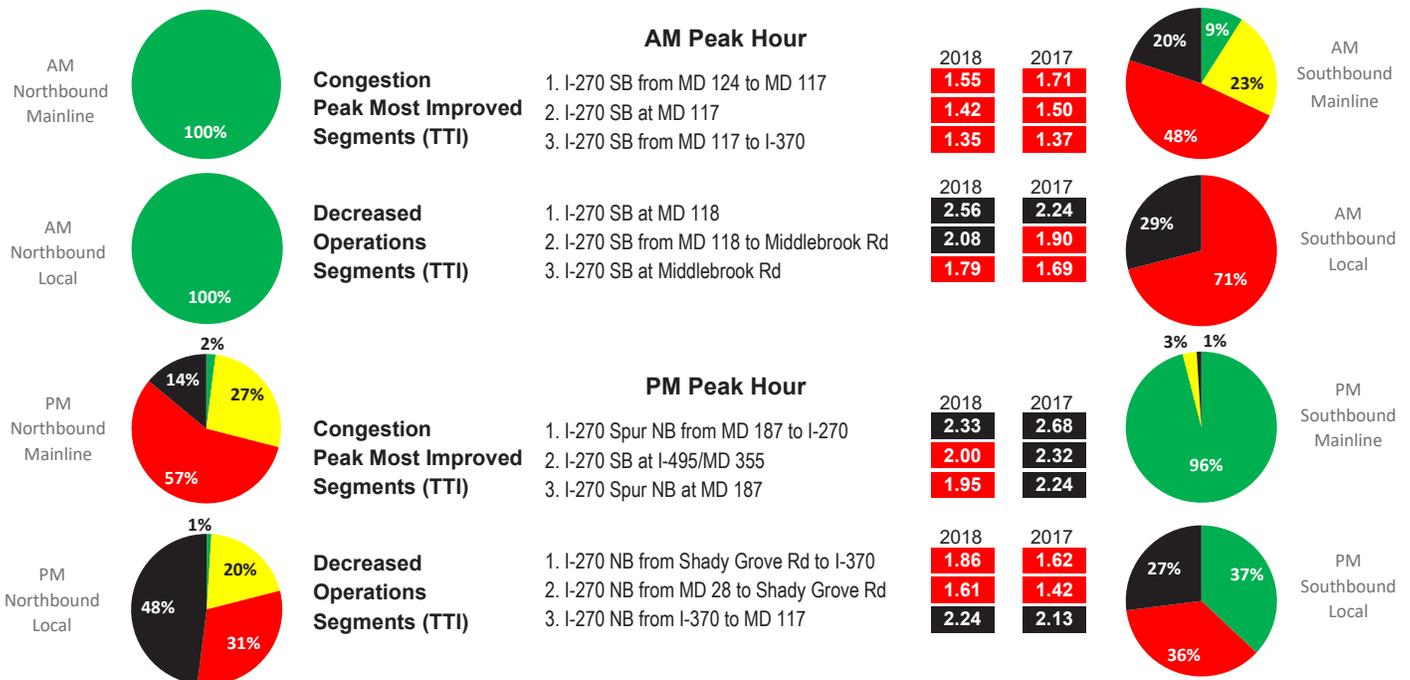
41 center miles carrying 181,000 vehicles every day



Daily Variability^d



Weekday Congestion I-270 Mainline (M) / Local (L)



Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



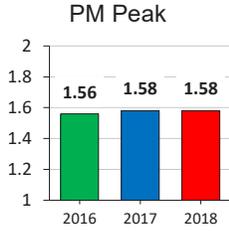
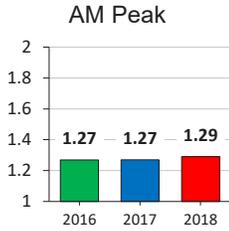


2019 Maryland State Highway Mobility Report

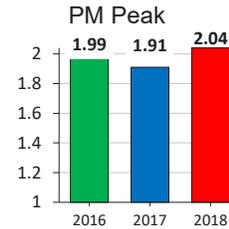
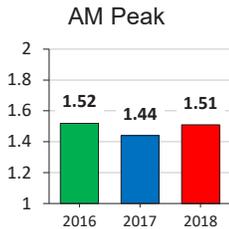
Capital Beltway

Trends^a

Travel Time Index^b
measure of average delay



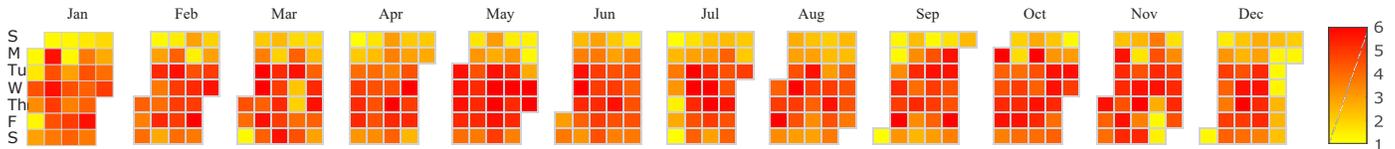
Planning Time Index^c
measure of worst-case delay



41 center miles carrying 210,000 vehicles every day

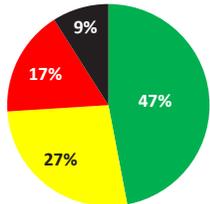


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Inner Loop

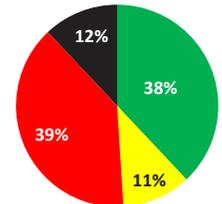
Most Improved Segments (TTI)

1. I-495 Outer Loop at MD 650
2. I-495 Inner Loop from VA State Line to Clara Barton Pkwy
3. I-495 Outer Loop from MD 650 to MD 193

Decreased Operations Segments (TTI)

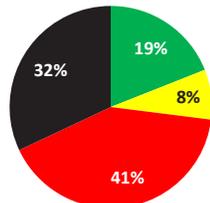
1. I-495 Outer Loop at I-270 Spur (West)
2. I-495 Outer Loop from MD 187 to I-270 Spur (West)
3. I-495 Outer Loop from I-270 Spur (West) to MD 190

2018	2017
4.32	4.61
1.48	1.68
5.07	5.12



AM Outer Loop

PM Peak Hour



PM Inner Loop

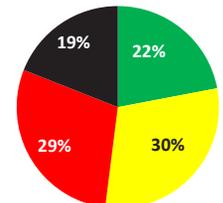
Most Improved Segments (TTI)

1. I-495 Outer Loop from I-270 Spur (West) to MD 190
2. I-495 Outer Loop at Cabin John Pkwy
3. I-495 Inner Loop at MD 355

Decreased Operations Segments (TTI)

1. I-495 Inner Loop from US 29 to MD 193
2. I-495 Inner Loop at MD 193
3. I-495 Inner Loop at US 29

2018	2017
2.27	3.12
2.39	3.21
2.76	3.31



PM Outer Loop

2018	2017
2.33	2.14
2.39	2.25
1.94	1.82

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

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c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



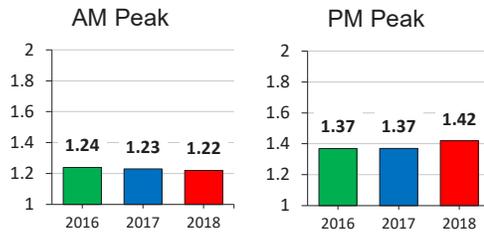


2019 Maryland State Highway Mobility Report

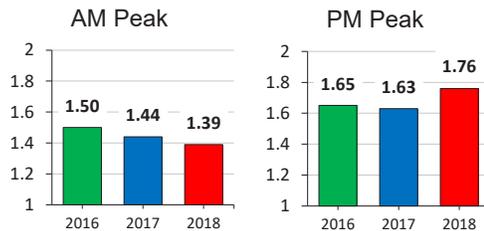
Baltimore Beltway

Trends^a

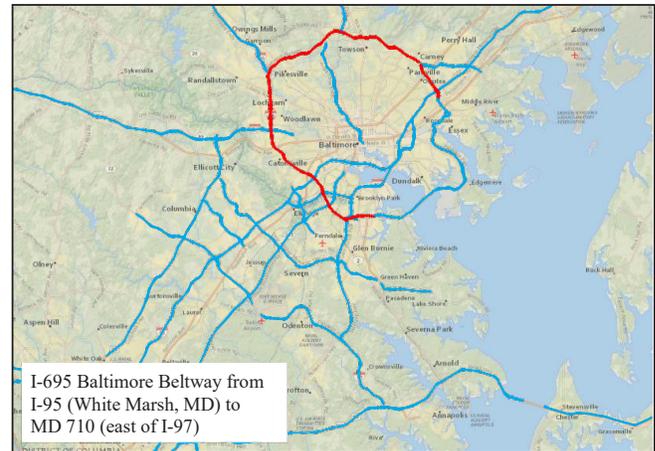
Travel Time Index^b
measure of average delay



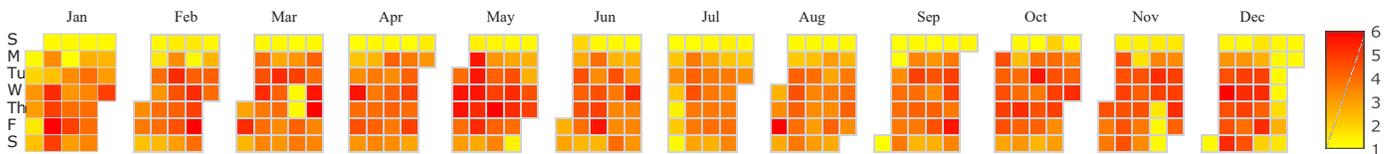
Planning Time Index^c
measure of worst-case delay



34 center miles carrying 160,000 vehicles every day

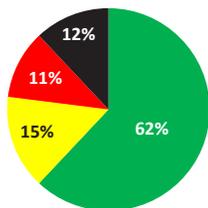


Daily Variability^d



Weekday Congestion

AM Peak Hour



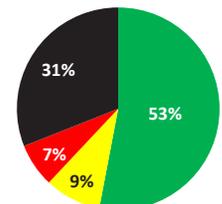
Most Improved Segments (TTI)

1. I-695 Inner Loop at I-95 (Exit 11A-B)
2. I-695 Inner Loop from I-95 (Exit 11A-B) to US 1 ALT
3. I-695 Outer Loop from US 1 to MD 43

Decreased Operations Segments (TTI)

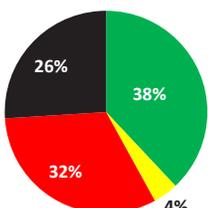
1. I-695 Outer Loop from MD 147 to MD 41
2. I-695 Outer Loop at MD 41
3. I-695 Outer Loop from MD 41 to MD 542

2018	2017
1.11	1.43
1.04	1.20
2.65	2.80



AM Outer Loop

PM Peak Hour



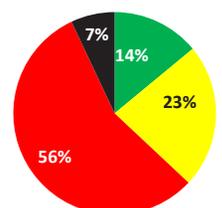
Most Improved Segments (TTI)

1. I-695 Inner Loop at Providence Rd
2. I-695 Inner Loop from Providence Rd to Cromwell Bridge Rd
3. I-695 Inner Loop from MD 146 to Providence Rd

Decreased Operations Segments (TTI)

1. I-695 Outer Loop at MD 10
2. I-695 Inner Loop from I-95 (Exit 11A-B) to US 1 ALT
3. I-695 Outer Loop from MD 2 to MD 10

2018	2017
2.58	3.22
2.43	3.06
2.87	3.47



PM Outer Loop

Notes

- a - **Peak Hours** are considered as 8-9am and 5-6pm.
 b - **Travel Time Index (TTI)** is the ratio of the *average* travel time during the peak hour to the time required under free flow.
 c - **Planning Time Index (PTI)** is the ratio of the *worst-case* travel time (95th percentile) during peak hour to the free-flow time.
 d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

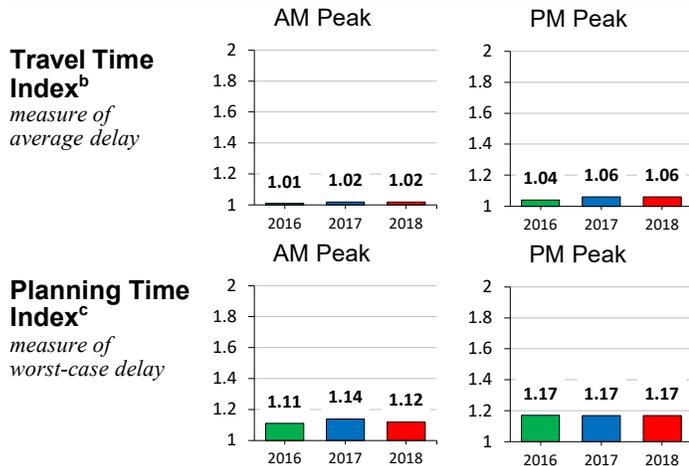




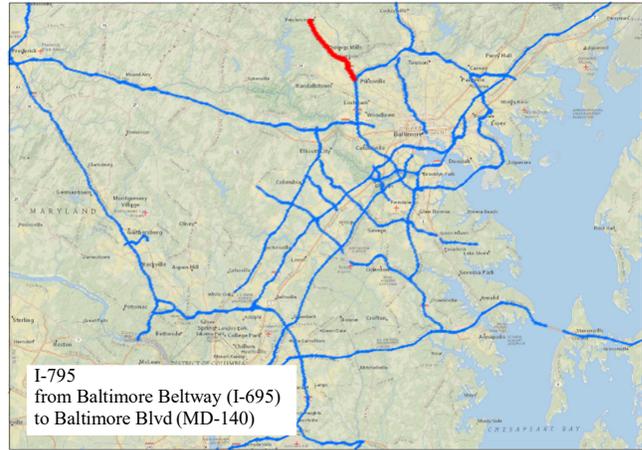
2019 Maryland State Highway Mobility Report

I-795

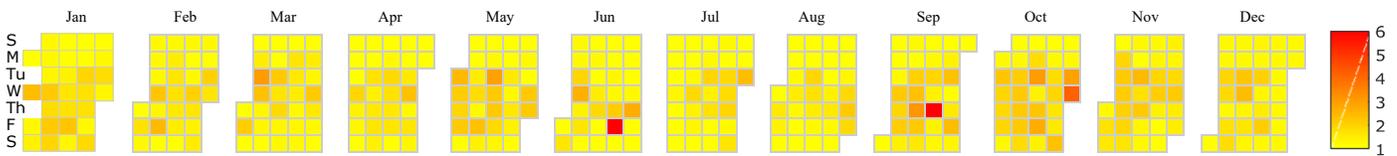
Trends^a



8 center miles carrying 84,000 vehicles every day

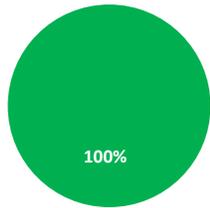


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Northbound

Most Improved Segments (TTI)

- I-795 SB from Owings Mills Blvd to I-695

2018
1.08

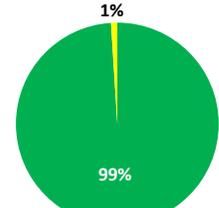
2017
1.09

Decreased Operations Segments (TTI)

- I-795 NB from I-695 to Owings Mills Blvd

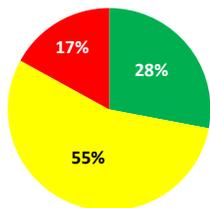
2018
1.04

2017
1.03



AM Southbound

PM Peak Hour



PM Northbound

Most Improved Segments (TTI)

- I-795 NB at Owings Mills Blvd
- I-795 NB from Owings Mills Blvd to Franklin Blvd
- I-795 NB at Franklin Blvd

2018
1.56

2017
1.62

1.15

1.17

1.02

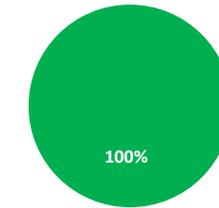
1.03

Decreased Operations Segments (TTI)

- N/A.

2018
N/A

2017
N/A



PM Southbound

Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

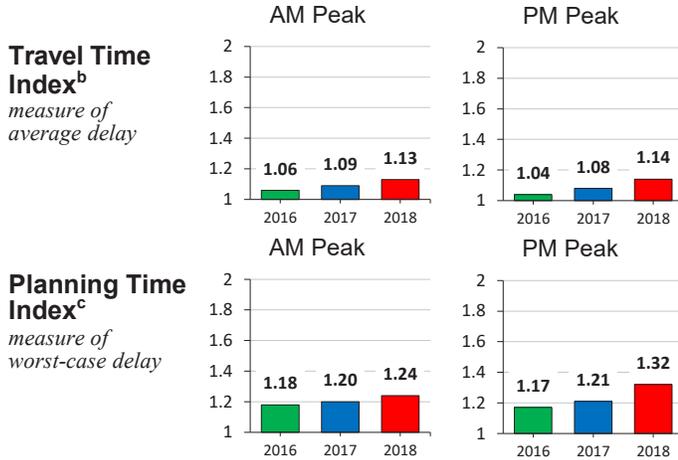




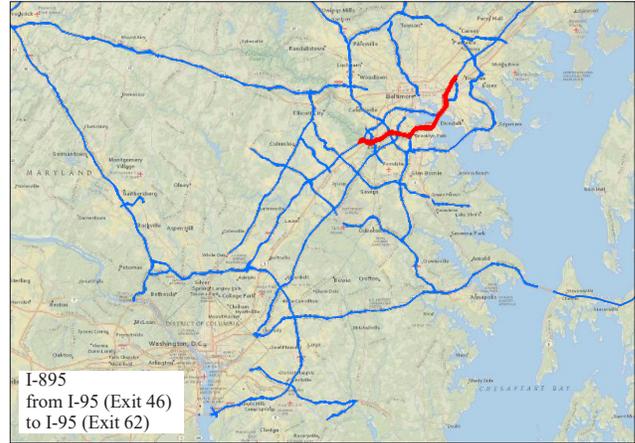
2019 Maryland State Highway Mobility Report

I-895

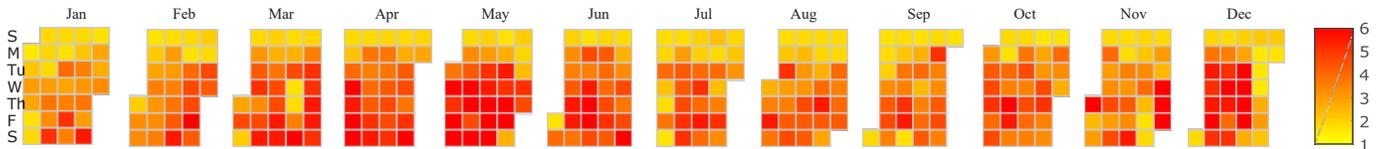
Trends^a



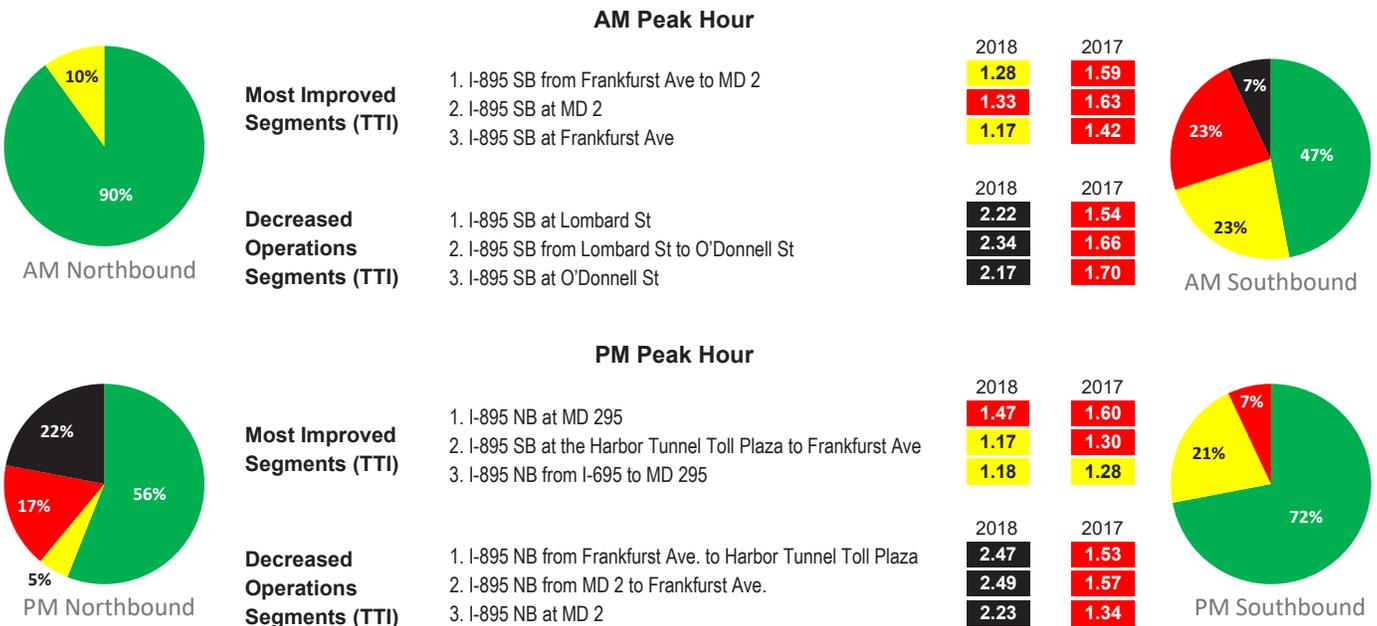
14 center miles carrying 62,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



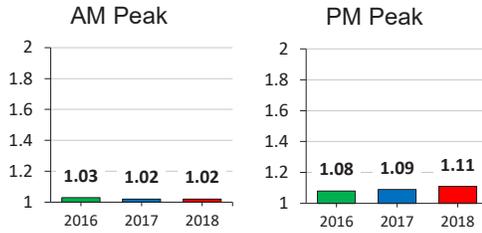


2019 Maryland State Highway Mobility Report

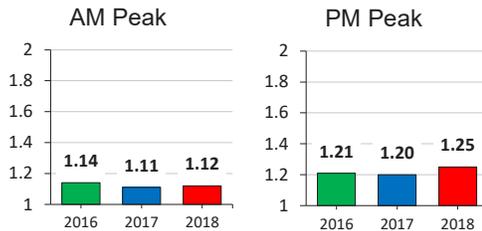
MD 32

Trends^a

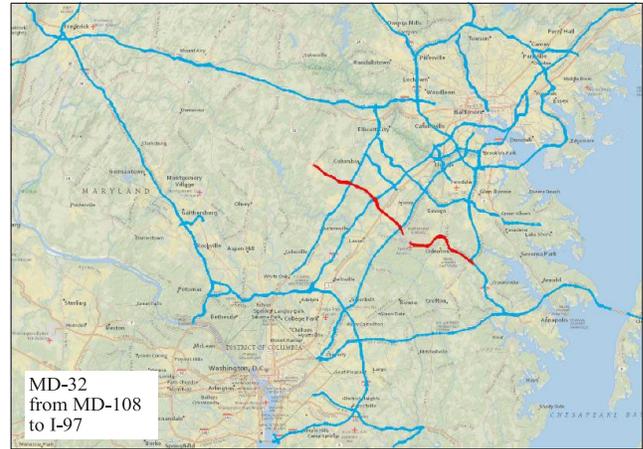
Travel Time Index^b
measure of average delay



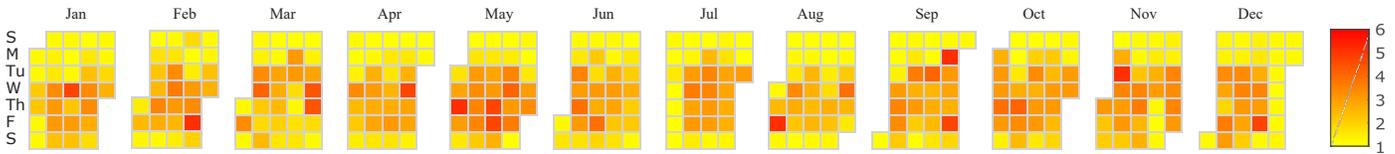
Planning Time Index^c
measure of worst-case delay



22 center miles carrying 73,000 vehicles every day

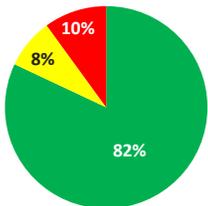


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Westbound

Most Improved Segments (TTI)

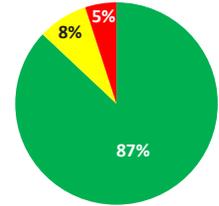
- MD 32 EB from Broken Land Pkwy to Old Columbia Rd.
- MD 32 EB from Old Columbia Rd. to US 29
- MD 32 EB at Broken Land Pkwy.

2018	2017
1.17	1.22
1.13	1.17
1.23	1.27

Decreased Operations Segments (TTI)

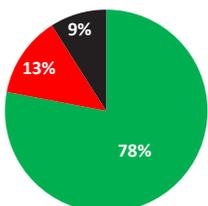
- MD 32 WB at MD 175
- MD 32 EB at I-97
- MD 32 WB from MD 175 to MD 170

2018	2017
1.88	1.79
1.44	1.40
1.60	1.56



AM Eastbound

PM Peak Hour



PM Westbound

Most Improved Segments (TTI)

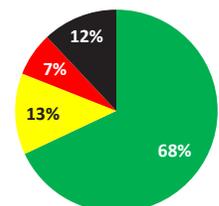
- MD 32 WB at US 1
- MD 32 WB from US 1 to I-95

2018	2017
2.22	2.26
1.41	1.43

Decreased Operations Segments (TTI)

- MD 32 EB at MD 295
- MD 32 EB from MD 295 to MD 198
- MD 32 EB at Henkels Ln/Dorsey Run Rd

2018	2017
2.18	1.80
2.71	2.54
1.44	1.27



PM Eastbound

Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



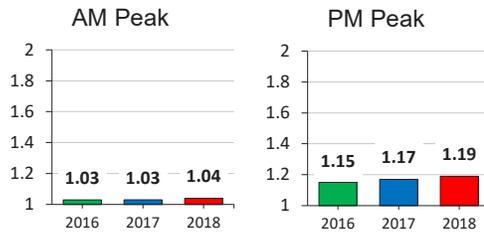


2019 Maryland State Highway Mobility Report

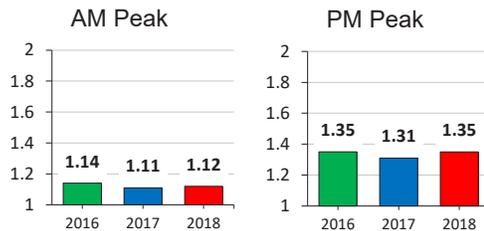
MD 100

Trends^a

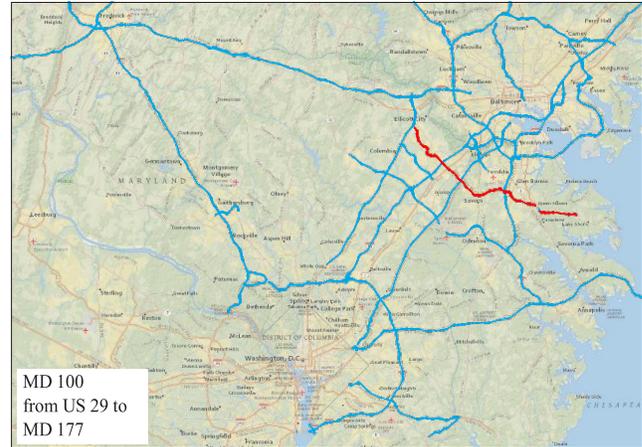
Travel Time Index^b
measure of average delay



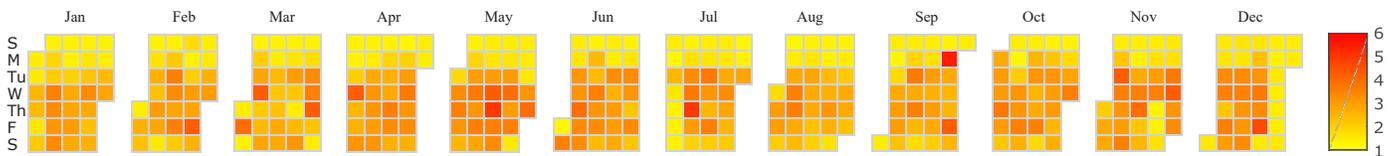
Planning Time Index^c
measure of worst-case delay



21 center miles carrying 77,000 vehicles every day

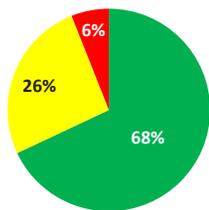


Daily Variability^d



Weekday Congestion

AM Peak Hour

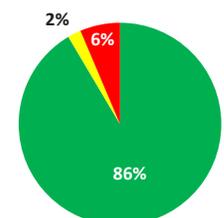


AM Westbound

Most Improved Segments (TTI)

1. MD 100 WB from I-97 to MD 170
2. MD 100 EB at MD 607
3. MD 100 EB at US 1

	2018	2017
1	1.17	1.24
2	1.32	1.37
3	1.35	1.39



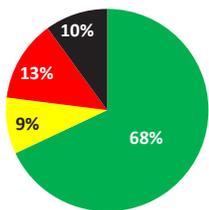
AM Eastbound

Decreased Operations Segments (TTI)

1. MD 100 EB from MD 103 to I-95
2. MD 100 EB at MD 103
3. MD 100 WB at MD 2

	2018	2017
1	1.70	1.60
2	1.37	1.28
3	1.19	1.14

PM Peak Hour

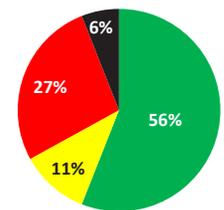


PM Westbound

Most Improved Segments (TTI)

1. MD 100 WB from MD 177 to MD 607
2. MD 100 WB at MD 607
3. MD 100 EB from MD 2 to MD 10

	2018	2017
1	1.35	1.48
2	1.53	1.61
3	1.11	1.14



PM Eastbound

Decreased Operations Segments (TTI)

1. MD 100 EB at I-97
2. MD 100 EB from I-97 to MD 174
3. MD 100 EB at MD 174

	2018	2017
1	2.92	2.21
2	2.48	2.14
3	2.17	1.92

Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.





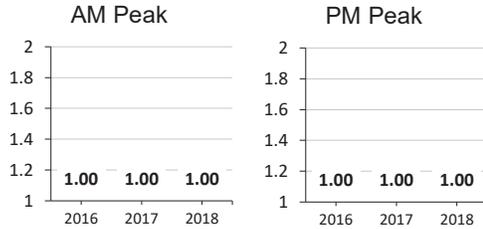
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MD 200

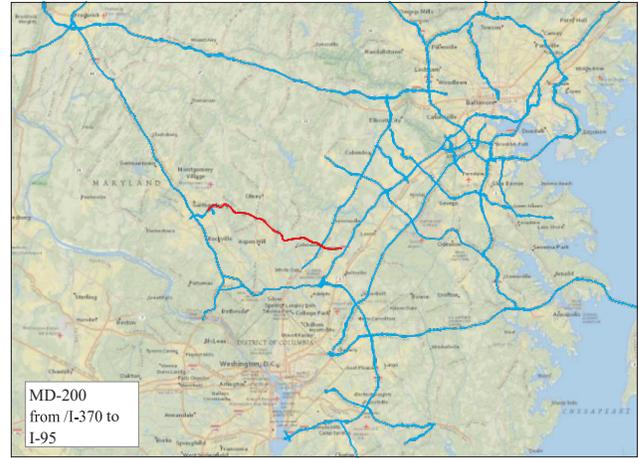
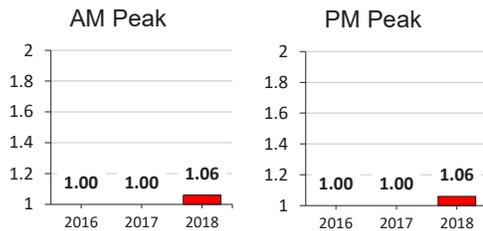
Trends^a

16 center miles carrying 55,000 vehicles every day

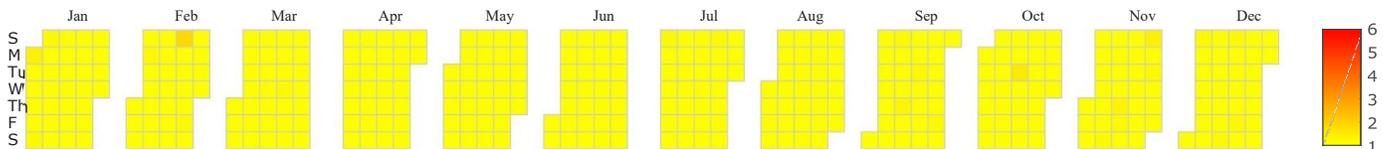
Travel Time Index^b
measure of average delay



Planning Time Index^c
measure of worst-case delay

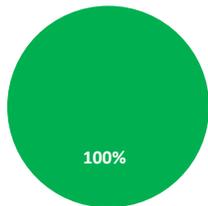


Daily Variability^d



Weekday Congestion

AM Peak Hour

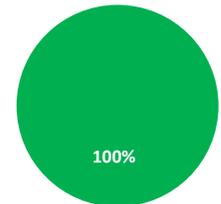


Most Improved Segments (TTI)

1. N/A

2018
N/A

2017
N/A



Decreased Operations Segments (TTI)

1. N/A

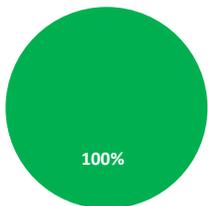
2018
N/A

2017
N/A

AM Westbound

AM Eastbound

PM Peak Hour

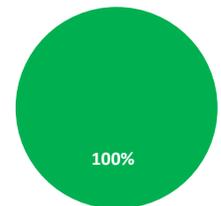


Most Improved Segments (TTI)

1. N/A

2018
N/A

2017
N/A



Decreased Operations Segments (TTI)

1. N/A

2018
N/A

2017
N/A

PM Westbound

PM Eastbound

Notes

- a - **Peak Hours** are considered as 8-9am and 5-6pm.
- b - **Travel Time Index (TTI)** is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - **Planning Time Index (PTI)** is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

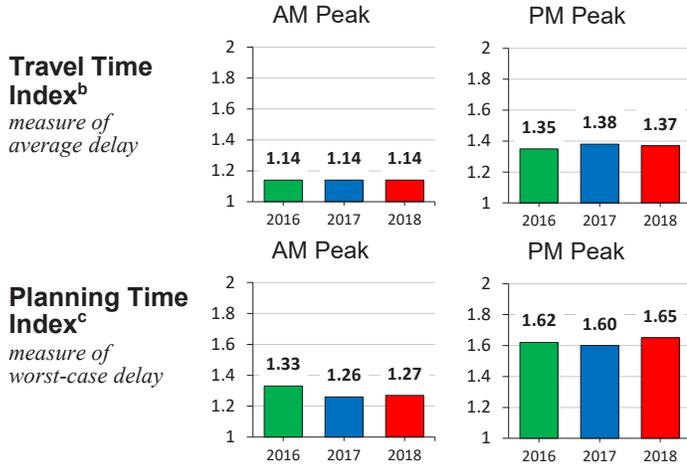




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MD-295

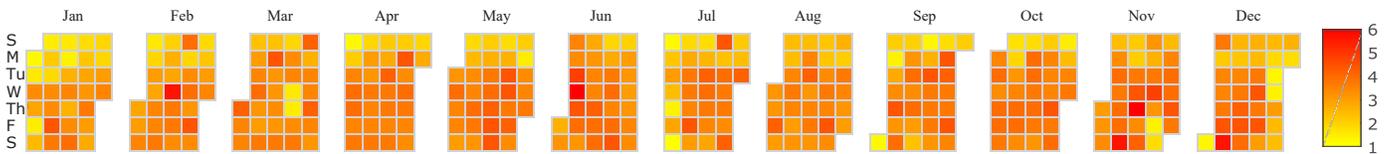
Trends^a



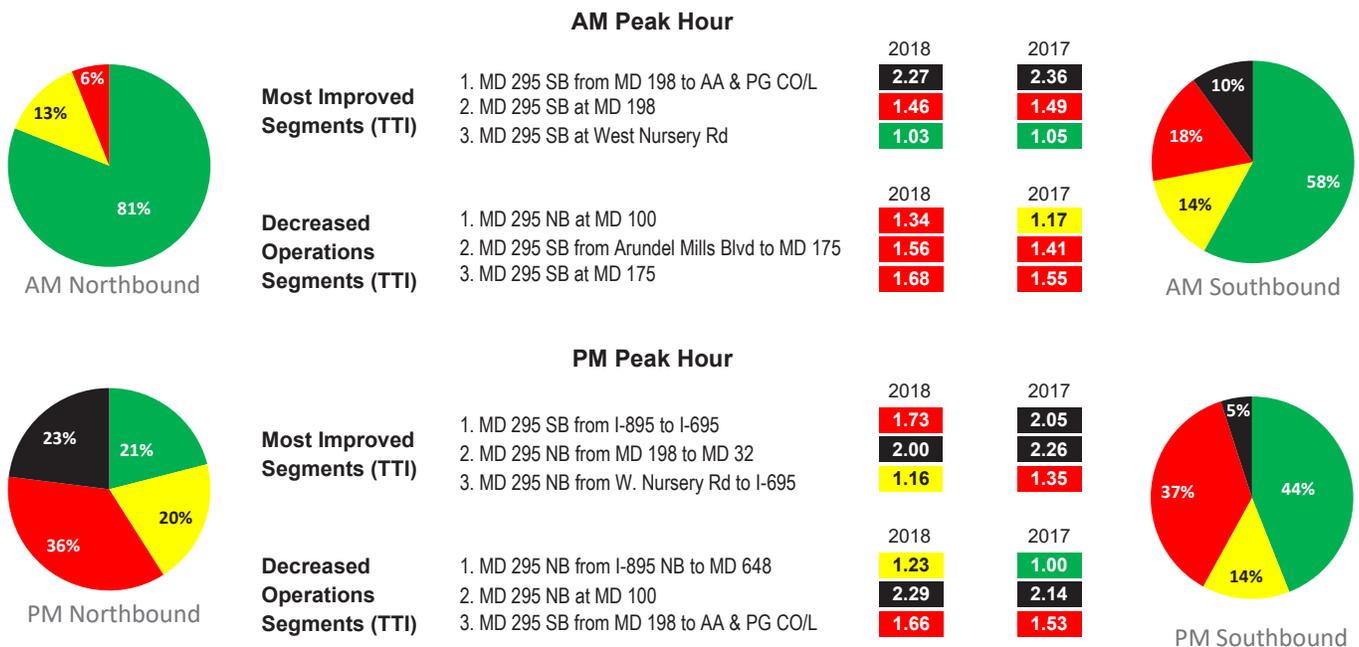
29 center miles carrying 108,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of week and month, showing seasonal and weekly trends.



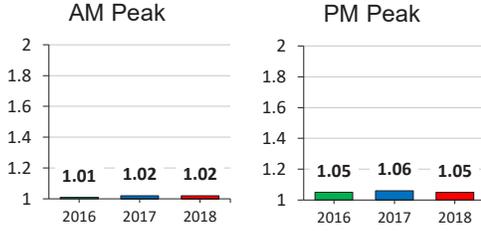


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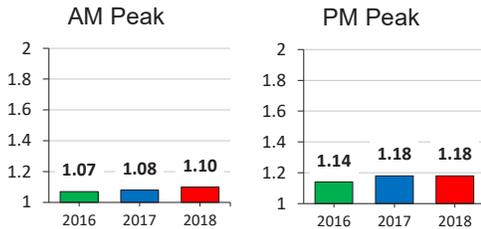
US 50

Trends^a

Travel Time Index^b
measure of average delay



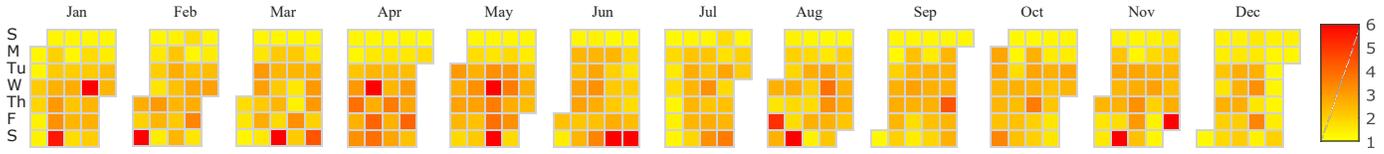
Planning Time Index^c
measure of worst-case delay



32 center miles carrying 105,000 vehicles every day

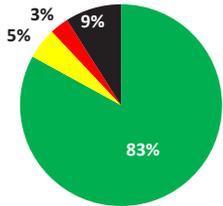


Daily Variability^d



Weekday Congestion

AM Peak Hour



Most Improved Segments (TTI)

1. N/A

2018
N/A

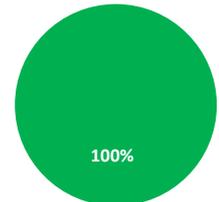
2017
N/A

Decreased Operations Segments (TTI)

1. US 50 WB at Bay Dale Dr/Ferguson Rd
2. US 50 WB from MD 2/MD 450 to Severn River Bridge
3. US 50 WB from Bay Dale Dr to MD 648

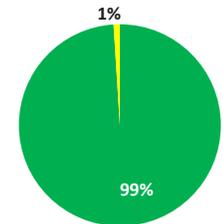
2018
1.23
1.21
1.22

2017
1.10
1.08
1.10



AM Eastbound

PM Peak Hour



Most Improved Segments (TTI)

1. US 50 EB at MD 70
2. US 50 EB from MD 2 to MD 70
3. US 50 EB at MD 2/Jennifer Rd

2018
1.53
1.48
1.36

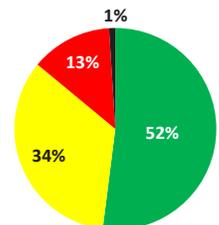
2017
2.24
2.19
1.93

Decreased Operations Segments (TTI)

1. US 50 EB from Severn River Bridge to MD 2/MD 450
2. US 50 EB at MD 2/MD 450
3. US 50 EB from MD 2/MD 450 to MD 648

2018
1.19
1.13
1.13

2017
1.06
1.02
1.01



PM Eastbound

Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
 b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
 c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
 d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

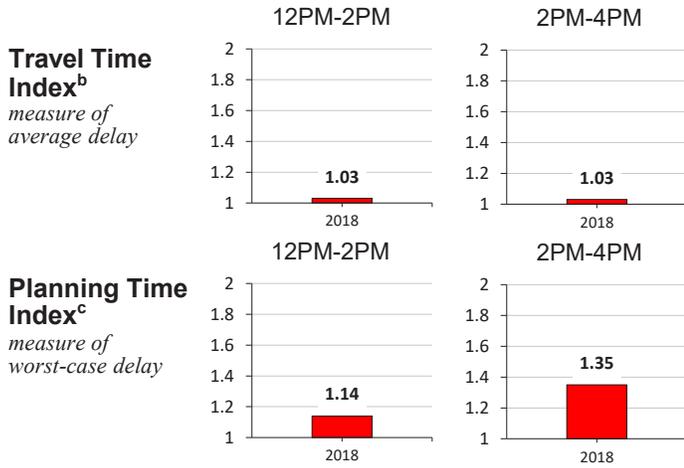




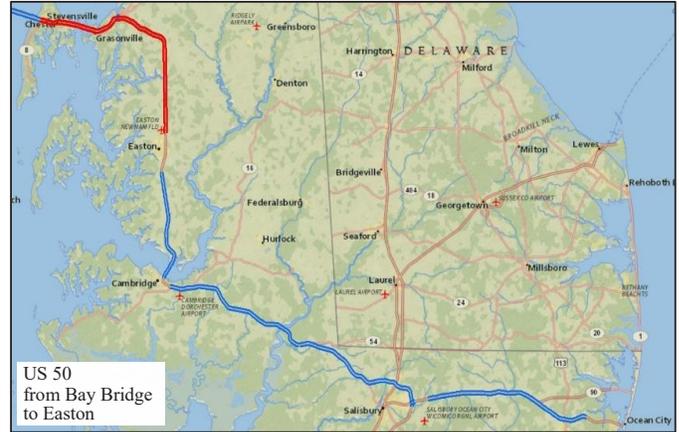
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US 50 (Bay Bridge to Easton) – Summer Weekends

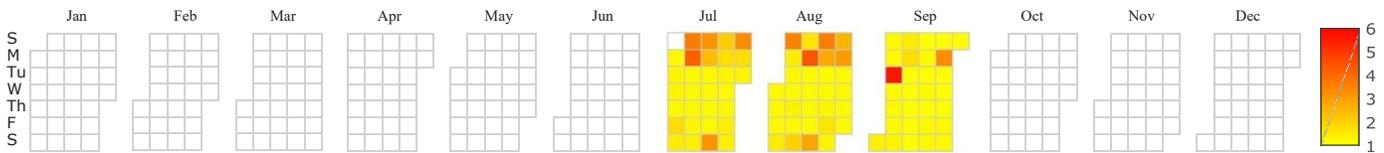
Trends^a



25 center miles carrying 67,000 vehicles every day



Daily Variability^d



Weekday Congestion

Weekend congestion comparisons were not determined for the seasonal analysis.

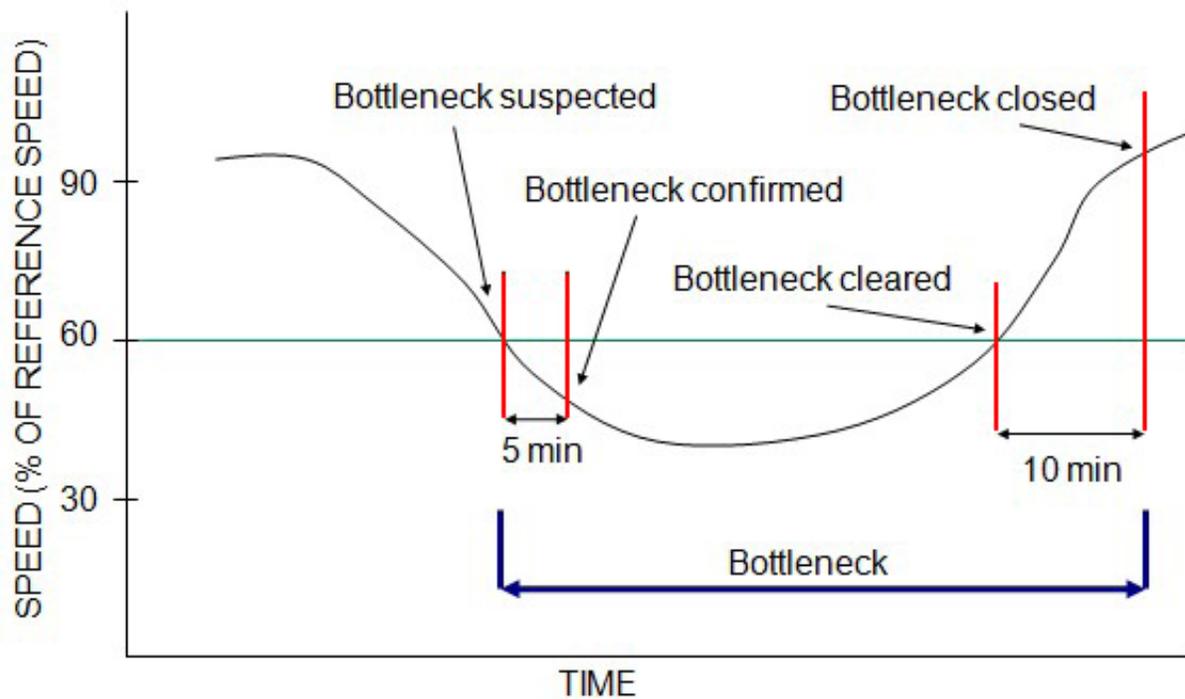
Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



B. Freeway/Expressway Bottlenecks

Another measure of congestion along the freeway/expressway system is termed bottleneck locations. A bottleneck, as defined by the Vehicle Probe Project (VPP) Suite, occurs when, “the speeds observed for a roadway segment drop below 60% of the free flow speed for a period greater than 5 minutes. Adjacent roadway segments meeting this condition are joined together to form a bottleneck queue. The duration of the bottleneck is calculated until the time speeds are greater than 60% for more than 10 minutes.” This definition uses minute-to-minute speeds available across the system to determine congestion patterns. This is graphically shown below.



The segments are analyzed by comparing the duration, intensity and frequency with which the bottlenecks occur during an entire average weekday based on vehicle probe data. The ranking is based on impact factors (computed as the number of times a bottleneck occurs on a particular segment, multiplied by its duration and the average queue length). The following pages show the top 30 bottleneck locations statewide (Figure 2 and Table 2) along with the top bottleneck locations along each individual freeway/expressway.

→ 2018 TOP 30 BOTTLENECKS ←

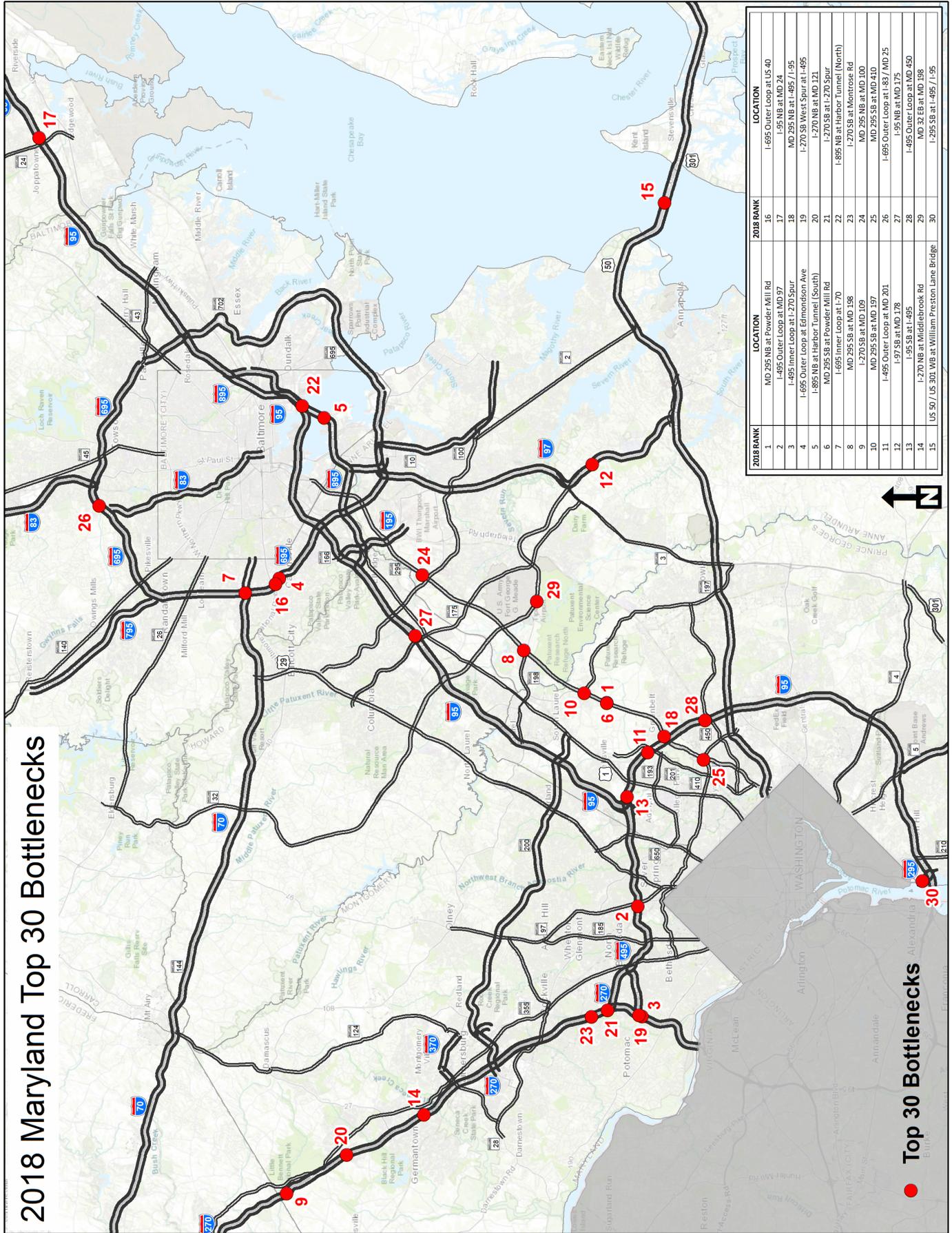
Table 2

2018 Rank	LOCATION	Road	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
1	MD 295 @ Powder Mill Rd ¹	MD 295	Northbound	363	3.0	3.0	1	0
2	I-495 @ MD 97/Georgia Ave	I-495	Outer Loop	185	3.0	2.5	3	↓ -1
3	I-495 @ I-270 Spur	I-495	Inner Loop	163	3.0	2.5	2	↑ 1
4	I-695 @ Edmondson Ave*	I-695	Outer Loop	157	4.0	2.3	8	↓ -4
5	I-895 @ Harbor Tunnel (South)	I-895	Northbound	159	3.0	1.9	0	
6	MD 295 @ Powder Mill Rd ¹	MD 295	Southbound	136	4.0	1.9	18	↓ -12
7	I-695 @ I-70	I-695	Inner Loop	156	3.0	1.9	15	↓ -8
8	MD 295 @ MD 198 ¹	MD 295	Southbound	186	3.0	1.8	12	↓ -4
9	I-270 @ MD 109	I-270	Southbound	121	3.0	1.7	9	0
10	MD 295 @ MD 197 ¹	MD 295	Southbound	165	3.0	1.4	19	↓ -9
11	I-495 @ MD 201/Kenilworth Ave	I-495	Outer Loop	109	3.0	1.4	94	↓ -83
12	I-97 @ MD 178	I-97	Southbound	133	3.0	1.2	25	↓ -13
13	I-95 @ I-495	I-95	Southbound	154	2.0	1.2	13	0
14	I-270 @ Middlebrook Rd	I-270	Northbound	62	5.0	1.1	26	↓ -12
15	US 50 @ William Preston Lane Bridge	US 50	Westbound	53	5.0	1.1	45	↓ -30
16	I-695 @ US 40*	I-695	Outer Loop	86	3.0	1.0	7	↑ 9
17	I-95 @ MD 24	I-95	Northbound	69	3.0	1.0	27	↓ -10
18	MD 295 @ I-495/I-95 ¹	MD 295	Northbound	77	3.0	1.0	6	↑ 12
19	I-270 Spur @ I-495	I-270 Spur	Southbound	197	1.0	1.0	24	↓ -5
20	I-270 @ MD 121	I-270	Northbound	126	3.0	0.9	38	↓ -18
21	I-270 @ I-270 (Spur)	I-270	Southbound	36	7.0	0.9	29	↓ -8
22	I-895 @ Harbor Tunnel (North)	I-895	Northbound	169	2.0	0.9	0	
23	I-270 @ Montrose Rd	I-270	Southbound	52	5.0	0.9	36	↓ -13
24	MD 295 @ MD 100 ¹	MD 295	Northbound	134	2.0	0.8	44	↓ -20
25	MD 295 @ MD 410 ¹	MD 295	Southbound	75	3.0	0.8	43	↓ -18
26	I-695 @ I-83/MD 25	I-695	Outer Loop	59	3.0	0.8	56	↓ -30
27	I-95 @ MD 175	I-95	Northbound	71	3.0	0.7	32	↓ -5
28	I-495 @ MD 450/Annapolis Rd	I-495	Outer Loop	75	2.0	0.7	79	↓ -51
29	MD 32 @ MD 198/Fort Meade Rd	MD 32	Eastbound	92	2.0	0.7	70	↓ -41
30	I-295 @ I-495/I-95	I-295	Southbound	42	5.0	0.7	87	↓ -57

¹ - Owned by National Park Service

* - Under Construction

Figure 2



I-70 (Part 1) Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
153	I-70 E @ MD 17/EXIT 42	Eastbound	10	4	0.2	0	
162	I-70 W @ I-81/EXIT 26	Westbound	16	3	0.2	0	
178	I-70 W @ MD 68/EXIT 18	Westbound	5	6	0.1	0	
200	I-70 W @ MD 632/DOWNSVILLE PIKE/EXIT 28	Westbound	10	3	0.1	0	
210	I-70 E @ WASHINGTON-FREDERICK COUNTY BORDER	Eastbound	7	4	0.1	575	↓ -365
233	I-70 W @ FREDERICK-WASHINGTON COUNTY BORDER	Westbound	6	4	0.1	265	↓ -32
268	I-70 W @ MD 66/EXIT 35	Westbound	9	3	0.1	178	↑ 90
292	I-70 E @ MD 68/EXIT 18	Eastbound	3	5	0.1	0	
307	I-70 W @ US 40/EXIT 32	Westbound	3	5	0.1	0	
309	I-70 W @ MD 56/EXIT 12	Westbound	2	6	0.1	0	

I-70 (Part 2) Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
34	I-70 W @ US 29/EXIT 87	Westbound	112	2	0.7	47	↓ -13
38	I-70 E @ I-695/EXIT 91	Eastbound	42	4	0.6	0	
43	I-70 E @ US 29/EXIT 87	Eastbound	31	5	0.5	0	
95	I-70 E @ MARRIOTTSDVILLE RD/EXIT 83	Eastbound	66	2	0.3	173	↓ -78
323	I-70 W @ MD 144/EXIT 56	Westbound	3	4	0.1	694	↓ -371
335	I-70 W @ MD 144/EXIT 59	Westbound	3	4	0.0	0	
375	I-70 W @ CARROLL-HOWARD COUNTY BORDER (MOUNT AIRY) (EAST)	Westbound	2	4	0.0	564	↓ -189
393	I-70 W @ MD 94/EXIT 73	Westbound	3	3	0.0	0	
421	I-70 E @ MD 97/EXIT 76	Eastbound	2	3	0.0	0	
462	I-70 E @ US 40 ALT/EXIT 49	Eastbound	5	2	0.0	613	↓ -151

I-81 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
138	I-81 S @ MD-WV STATE BORDER	Southbound	29	2	0.2	277	↓ -139
257	I-81 S @ MD 63/MD 68/EXIT 1	Southbound	8	2	0.1	519	↓ -262
269	I-81 N @ US 40/EXIT 6	Northbound	8	3	0.1	0	
277	I-81 S @ HALFWAY BLVD/EXIT 5	Southbound	6	3	0.1	0	
343	I-81 S @ US 11/EXIT 2	Southbound	2	2	0.0	0	
372	I-81 S @ US 40/EXIT 6	Southbound	6	2	0.0	420	↓ -48
378	I-81 N @ MD 63/MD 68/EXIT 1	Northbound	11	1	0.0	531	↓ -153
382	I-81 S @ MAUGANSVILLE RD/EXIT 8	Southbound	3	3	0.0	0	
554	I-81 N @ HALFWAY BLVD/EXIT 5	Northbound	3	1	0.0	371	↑ 183
563	I-81 S @ I-70/EXIT 3	Southbound	2	1	0.0	921	↓ -358

I-83 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
47	I-83 S @ I-695	Southbound	83	1	0.5	80	↓ -33
109	I-83 N @ BELFAST RD/EXIT 24	Northbound	17	4	0.3	0	
112	I-83 S @ COLD SPRING LN/EXIT 9	Southbound	26	3	0.3	144	↓ -32
128	I-83 S @ TIMONIUM RD/EXIT 16	Southbound	27	2	0.2	138	↓ -10
158	I-83 N @ SHAWAN RD/EXIT 20	Northbound	39	1	0.2	216	↓ -58
166	I-83 S @ US 1/NORTH AVE/EXIT 6	Southbound	14	3	0.2	264	↓ -98
206	I-83 N @ I-695/JONES FALLS EXPY/EXIT 23	Northbound	18	1	0.1	329	↓ -123
214	I-83 S @ MIDDLETOWN RD/EXIT 31	Southbound	19	2	0.1	291	↓ -77
227	I-83 S @ BELFAST RD/EXIT 24	Southbound	14	1	0.1	248	↓ -21
282	I-83 N @ 28TH ST/DRUID PARK LAKE DR/EXIT 7	Northbound	12	2	0.1	332	↓ -50

I-95 (Part 1) Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
13	I-95 S @ I-495/EXIT 27-25	Southbound	154	2	1.2	13	0
27	I-95 N @ MD 175/EXIT 41	Northbound	71	3	0.7	32	↓ -5
37	I-95 N @ KEITH AVE/EXIT 56	Northbound	169	2	0.6	118	↓ -81
50	I-95 S @ MD 175/EXIT 41	Southbound	68	2	0.5	63	↓ -13
52	I-95 S @ MD 216/EXIT 35	Southbound	31	4	0.5	0	
53	I-95 S @ I-895/EXIT 46	Southbound	60	2	0.5	90	↓ -37
57	I-95 S @ KEITH AVE/EXIT 56	Southbound	143	1	0.5	196	↓ -139
79	I-95 N @ MD 100/EXIT 43	Northbound	18	5	0.4	11	↑ 68
91	I-95 N @ FORT MCHENRY TUNNEL	Northbound	71	1	0.4	203	↓ -112
92	I-95 N @ HOWARD-PRINCE GEORGE'S COUNTY BORDER (LAUREL) (WEST)	Northbound	54	2	0.4	195	↓ -103

I-95 (Part 2) Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
17	I-95 N @ MD 24/EXIT 77	Northbound	69	3	1.0	27	↓ -10
48	I-95 S @ MD 24/EXIT 77	Southbound	24	6	0.5	0	↑ 48
54	I-95 S @ MD 543/EXIT 80	Southbound	57	3	0.5	83	↓ -29
94	I-95 S @ MD 272/EXIT 100	Southbound	11	8	0.3	0	
106	I-95 S @ MARYLAND HOUSE	Southbound	24	3	0.3	0	
120	I-95 N @ MD 543/EXIT 80	Northbound	16	5	0.2	0	
130	I-95 S @ MD 43/WHITEMARSH BLVD/EXIT 67	Southbound	7	8	0.2	0	
152	I-95 N @ MD 22/EXIT 85	Northbound	16	3	0.2	0	
173	I-95 N @ TYDINGS MEMORIAL BRIDGE TOLL PLAZA	Northbound	18	2	0.1	243	↓ -70
180	I-95 S @ MD 155/EXIT 89	Southbound	17	2	0.1	0	

I-97 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
12	I-97 S @ MD 178/EXIT 5	Southbound	133	3	1.2	0	
107	I-97 S @ US 301/US 50	Southbound	13	6	0.3	148	↓ -41
167	I-97 N @ I-695/EXIT 17	Northbound	20	2	0.2	0	
179	I-97 S @ MD 3/EXIT 7	Southbound	18	2	0.1	0	
189	I-97 S @ MD 100/EXIT 14	Southbound	24	1	0.1	500	↓ -311
255	I-97 N @ MD 3/EXIT 7	Northbound	8	2	0.1	274	↓ -19
313	I-97 S @ BENFIELD BLVD/EXIT 10	Southbound	6	2	0.1	0	
336	I-97 N @ MD 178/EXIT 5	Northbound	9	2	0.0	151	↑ 185
385	I-97 S @ MD 32/EXIT 7	Southbound	7	1	0.0	478	↓ -93
408	I-97 S @ MD 3 BUS/NEW CUT RD/EXIT 12	Southbound	5	1	0.0	651	↓ -243

I-270 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
9	I-270 S @ MD 109/EXIT 22	Southbound	121	3	1.7	9	0
14	I-270 N @ MIDDLEBROOK RD/EXIT 13	Northbound	62	5	1.1	0	
19	I-270-SPUR S @ I-495	Southbound	197	1	1.0	24	↓ -5
20	I-270 N @ MD 121	Northbound	126	3	0.9	38	↓ -18
21	I-270 S @ I-270 (SPUR)	Southbound	36	7	0.9	29	↓ -8
23	I-270 S @ MONTROSE RD/EXIT 4	Southbound	52	5	0.9	36	↓ -13
35	I-270-SPUR N @ I-270	Northbound	87	2	0.7	39	↓ -4
41	I-270 S @ I-270 (SOUTH)	Southbound	40	3	0.6	78	↓ -37
46	I-270 N @ I-270 (NORTH)	Northbound	156	1	0.5	93	↓ -47
60	I-270 N @ I-70/US 40	Northbound	94	2	0.5	112	↓ -52

I-495 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
2	I-495 CCW @ MD 97/GEORGIA AVE/EXIT 31	Outer Loop	185	3	2.5	3	↓ -1
3	I-495 CW @ I-270 SPUR	Inner Loop	163	3	2.5	0	
11	I-495 CCW @ MD 201/KENILWORTH AVE/EXIT 23	Outer Loop	109	3	1.4	94	↓ -83
28	I-495 CCW @ MD 450/ANNAPOLIS RD/EXIT 20	Outer Loop	75	2	0.7	79	↓ -51
39	I-495 CCW @ GREENBELT METRO DR/EXIT 24	Outer Loop	90	1	0.6	21	↑ 18
64	I-495 CCW @ I-495/I-95 EXP	Outer Loop	136	1	0.4	0	
73	I-495 CW @ MD 193/UNIVERSITY BLVD/EXIT 29	Inner Loop	45	3	0.4	60	↑ 13
87	I-495 CW @ MD 185/CONNECTICUT AVE/EXIT 33	Inner Loop	62	2	0.4	28	↑ 59
88	I-495 CW @ WOODROW WILSON MEMORIAL BRIDGE	Inner Loop	42	2	0.4	140	↓ -52
104	I-495 CW @ I-270/EXIT 35	Inner Loop	111	1	0.3	50	↑ 54

I-695 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
4	I-695 CCW @ EDMONDSON AVE/EXIT 14	Outer Loop	157	4	2.3	0	
7	I-695 CW @ I-70/EXIT 16	Inner Loop	156	3	1.9	15	↓ -8
16	I-695 CCW @ US 40/EXIT 15	Outer Loop	86	3	1.0	7	↑ 9
26	I-695 CCW @ I-83/MD 25/EXIT 23	Outer Loop	59	3	0.8	0	
32	I-695 CCW @ QUARANTINE RD/EXIT 1	Outer Loop	68	3	0.7	0	
42	I-695 CCW @ CROMWELL BRIDGE RD/EXIT 29	Outer Loop	94	2	0.5	86	↓ -44
49	I-695 CW @ SECURITY BLVD/EXIT 17	Inner Loop	196	1	0.5	147	↓ -98
65	I-695 CCW @ I-70/EXIT 16	Outer Loop	68	2	0.4	82	↓ -17
70	I-695 CW @ MD 10/EXIT 2B & 3B	Inner Loop	52	2	0.4	0	
71	I-695 CCW @ MD 295/BALTIMORE WASHINGTON PKWY/EXIT 7 (LINTHICUM HEIGHTS) (SOUTH)	Outer Loop	70	2	0.4	74	↓ -3

I-795 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
117	I-795 N @ OWINGS MILLS BLVD/EXIT 4	Northbound	37	2	0.2	164	↓ -47
125	I-795 S @ I-695	Southbound	16	4	0.2	205	↓ -80
332	I-795 S @ FRANKLIN BLVD/EXIT 7	Southbound	12	1	0.0	468	↓ -136
447	I-795 N @ MD 128/MD 140/MD 30/EXIT 9	Northbound	3	2	0.0	636	↓ -189
537	I-795 S @ OWINGS MILLS BLVD/EXIT 4	Southbound	2	1	0.0	581	↓ -44
845	I-795 N @ FRANKLIN BLVD/EXIT 7	Northbound	0	2	0.0	496	↑ 349

I-895 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
5	I-895 N @ HARBOR TUNNEL THWY (SOUTH)	Northbound	159	3	1.9	0	
22	I-895 N @ HARBOR TUNNEL THWY (NORTH)	Northbound	169	2	0.9	0	
63	I-895 S @ HARBOR TUNNEL THWY (NORTH)	Southbound	86	1	0.4	0	
81	I-895 S @ HARBOR TUNNEL THWY (SOUTH)	Southbound	41	3	0.4	0	
85	I-895 S @ HOLABIRD AVE/EXIT 10	Southbound	66	2	0.4	131	↓ -46
163	I-895 S @ O'DONNELL ST/EXIT 11	Southbound	39	1	0.2	446	↓ -283
203	I-895 N @ MD 295/BALTIMORE WASHINGTON PKWY/EXIT 4	Northbound	53	1	0.1	355	↓ -152
225	I-895 S @ HARBOR TUNNEL TOLL PLAZA	Southbound	499	0	0.1	287	↓ -62
245	I-895 N @ CHILDS ST/EXIT 9	Northbound	72	0	0.1	236	↑ 9
246	I-895 N @ FRANKFURST AVE/SHELL RD/EXIT 8	Northbound	14	1	0.1	0	

MD 32 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
29	MD 32 E @ MD 198/FORT MEADE RD	EASTBOUND	92	2	0.7	70	↓ -41
40	MD 32 W @ US-1	WESTBOUND	90	2	0.6	81	↓ -41
66	MD 32 W @ MD 175/ANNAPOLIS RD	WESTBOUND	60	2	0.4	120	↓ -54
118	MD 32 E @ I-95	EASTBOUND	37	2	0.2	160	↓ -42
208	MD 32 E @ I-97	EASTBOUND	61	0	0.1	402	↓ -194
319	MD 32 W @ HENKELS LN/DORSEY RUN RD	WESTBOUND	19	1	0.1	453	↓ -134
327	MD 32 W @ MD 198/FORT MEADE RD	WESTBOUND	4	3	0.1	0	
409	MD 32 E @ HENKELS LN/DORSEY RUN RD	EASTBOUND	11	1	0.0	602	↓ -193
410	MD 32 E @ MD 295/BALTIMORE WASHINGTON PKWY (LAUREL)	EASTBOUND	6	2	0.0	0	
448	MD 32 E @ BROKENLAND PKWY	EASTBOUND	7	1	0.0	557	↓ -109

MD 100 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
55	MD 100 W @ MARC DORSEY STATION ACCESS RD/EXIT 7	WESTBOUND	83	2	0.5	0	
75	MD 100 E @ MD 174/QUARTERFIELD RD	EASTBOUND	76	2	0.4	182	↓ -107
116	MD 100 W @ US 29	WESTBOUND	73	1	0.3	219	↓ -103
123	MD 100 W @ OAKWOOD RD	WESTBOUND	41	2	0.2	210	↓ -87
145	MD 100 W @ MD 607/MAGOTHY BRIDGE RD	WESTBOUND	213	0	0.2	163	↓ -18
156	MD 100 E @ OAKWOOD RD	EASTBOUND	20	2	0.2	228	↓ -72
157	MD 100 E @ MD 713/RIDGE RD/EXIT 10	EASTBOUND	23	2	0.2	202	↓ -45
164	MD 100 E @ MARC DORSEY STATION ACCESS RD/EXIT 7	EASTBOUND	36	1	0.2	0	
184	MD 100 W @ I-95/EXIT 5	WESTBOUND	20	2	0.1	304	↓ -120
223	MD 100 W @ MD 174/QUARTERFIELD RD	WESTBOUND	11	3	0.1	0	

MD 200 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
617	MD 200 W @ MD 650/NEW HAMPSHIRE AVE	WESTBOUND	1	2	0.0	0	
644	MD 200 E @ I-95	EASTBOUND	2	1	0.0	914	↓ -270
725	MD 200 W @ I-370	WESTBOUND	1	1	0.0	421	↑ 304
771	MD 200 E @ MD 650/NEW HAMPSHIRE AVE	EASTBOUND	1	1	0.0	761	↑ 10
810	MD 200 W @ US 29/COLUMBIA PIKE	WESTBOUND	1	1	0.0	999	↓ -189
835	MD 200 E @ US 29/COLUMBIA PIKE	EASTBOUND	1	1	0.0	769	↑ 66
844	MD 200 W @ MD 182/LAYHILL RD	WESTBOUND	1	1	0.0	800	↑ 44
852	MD 200 W @ MD 97/GEORGIA AVE	WESTBOUND	1	1	0.0	825	↑ 27
865	MD 200 E @ MD 97/GEORGIA AVE	EASTBOUND	1	1	0.0	342	↑ 523
885	MD 200 E @ MD 182/LAYHILL RD	EASTBOUND	0	1	0.0	706	↑ 179

MD 295 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
1	MD 295 N @ POWDER MILL RD	Northbound	363	3	3.0	1	0
6	MD 295 S @ POWDER MILL RD	Southbound	136	4	1.9	0	
8	MD 295 S @ MD 198	Southbound	186	3	1.8	0	
10	MD 295 S @ MD 197/EXIT 11	Southbound	165	3	1.4	19	↓ -9
18	MD 295 N @ I-495/I-95	Northbound	77	3	1.0	6	↑ 12
24	MD 295 N @ MD 100	Northbound	134	2	0.8	44	↓ -20
25	MD 295 S @ RIVERDALE RD	Southbound	75	3	0.8	0	
33	MD 295 N @ CANINE RD	Northbound	80	2	0.7	51	↓ -18
36	MD 295 N @ ARUNDEL-PRINCE GEORGE'S COUNTY BORDER (LAUREL) (SOUTH)	Northbound	97	2	0.6	142	↓ -106
45	MD 295 N @ MD 197/EXIT 11	Northbound	38	4	0.5	0	

US 50 Top Bottlenecks

2018 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2017 Rank	Change
15	US 50 W @ WILLIAM PRESTON LANE BRIDGE	WESTBOUND	53	5	1.1	45	↓ -30
31	US 50 E @ WILLIAM PRESTON LANE BRIDGE	EASTBOUND	167	1	0.7	0	
56	US 50 E @ MD 202/LANDOVER RD	EASTBOUND	68	2	0.5	191	↓ -135
67	US 50 E @ MD 295/BALTIMORE WASHINGTON PKWY	EASTBOUND	120	1	0.4	146	↓ -79
68	US 50 W @ MD 213/CENTREVILLE RD	WESTBOUND	36	2	0.4	186	↓ -118
90	US 50 W @ MD 295/KENILWORTH AVE	WESTBOUND	30	3	0.4	88	↑ 2
99	US 50 E @ I-97/EXIT 21	EASTBOUND	19	4	0.3	0	
100	US 50 E @ MD 213/CENTREVILLE RD	EASTBOUND	21	4	0.3	260	↓ -160
136	US 50 W @ MD 313/MAIN ST/SHARPTOWN RD	WESTBOUND	10	5	0.2	275	↓ -139
147	US 50 W @ US 301/BLUE STAR MEMORIAL HWY	WESTBOUND	13	3	0.2	447	↓ -300

C. Arterial Corridor Fact Sheets

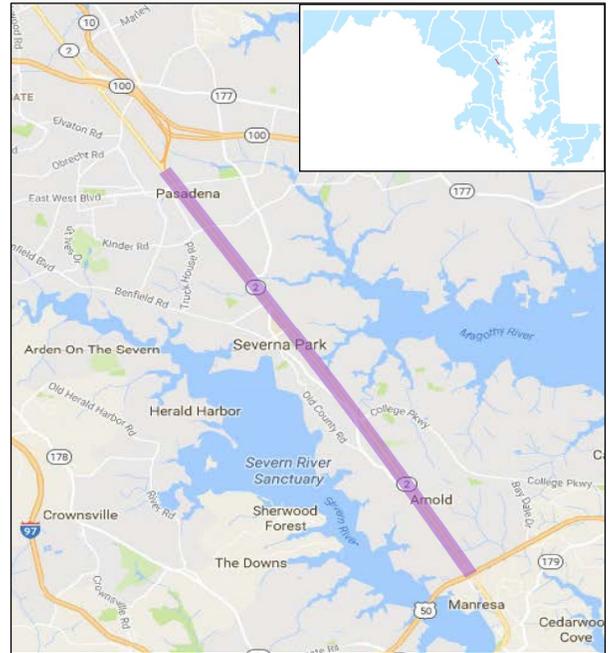
The next highest classification of roadways after freeways/expressways is arterials. These roadways provide a vital connection between the freeway/ expressway system and the local roadways. These roadways normally have multi-lanes, traffic signals, and access points either from cross streets or driveways. Arterial roadways carry the next highest volumes of traffic in comparison to freeways/ expressways.

Thirty-four corridors were selected based on observed traffic operations, traffic volumes, regional significance, and availability of data to analyze in further detail. Traffic analysis was performed to identify the most congested intersections and segments and the accompanying levels of service, TTI, and PTI on a segment basis. Various roadway characteristics such as the number of lanes, speed limits, signalized intersections, and traffic/transit ridership data were analyzed. The following corridors were analyzed:

- MD 2 - US 50/301 to MD 10
- MD 3 - US 50/301 to I-97
- MD 4 - Washington DC Line to Dower House Road
- MD 5 - I-95 to Washington DC Line
- MD 5 - US 301 to MD 223
- MD 24 - US 40 to US 1
- MD 26 - MD 32 to Baltimore City Line
- MD 28 - Riffle Ford Road to MD 97
- MD 32 - MD 108 to MD 26
- MD 43 - I-695 to US 40
- MD 45 - Baltimore City Line to Shawan Rd
- MD 97 - Washington DC Line to MD 108
- MD 124 - MD 28 to MD 108
- MD 140 - MD 97 to Baltimore City Line
- MD 175 - MD 32 to US 29
- MD 185 - Washington DC Line to MD 97
- MD 193 - MD 201 to MD 650
- MD 197 - US 301 to MD 450
- MD 201 - MD 450 to MD 212
- MD 210 - MD 228 to I-95
- MD 228 - MD 210 to US 301
- MD 355 - Washington DC Line to MD 27
- MD 355 - MD 85 to MD 26
- MD 410 - MD 650 to Pennsy Drive
- MD 410 - MD 355 to US 29
- MD 450 - MD 202 to MD 704
- MD 450 - Housley Rd to MD 2
- MD 650 - Washington DC Line to US 29
- US 1 - MD 410 to MD 198
- US 1 - Baltimore City Line to Honeygo Blvd
- US 29 - MD 97 to MD 650
- US 29 - Industrial Parkway to MD 198
- US 40 - I-70 to Cleveland Ave
- US 50 - MD 213 to MD 528
- US 301 - Billingsley Rd to MD 5

MD 2

Limits:	US 50/301 to MD 10	
Corridor Length:	8.4 miles	
Speed Limit:	50 MPH	
Travel Lanes:	2-3 (Northbound) 1-3 (Southbound)	
Signal Controlled Intersections:	12	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 648, College Pkwy, Magothy Bridge Rd, East West Blvd / Pasadena Rd, College Parkway	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA LocalLink 70	1,927
	MTA Commuter Bus 260	291



2018 AADT	Trucks	Peak Hour Traffic
49,000 - 65,000 vpd	5% - 7%	8% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	2
LOS E	0	1
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	4.7 / 1.6	2.0 / 4.2
LOS E	3.7 / 0.3	5.6 / 0.5
LOS F	0.0 / 6.5	0.8 / 3.7

LOS 'E' Intersections

MD 2 at Pasadena Rd/East-West Blvd (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	No data

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	MD 10 - Pasadena Rd/East West Blvd.	0.3				I					
	Pasadena Rd/East West Blvd. - E Earleigh Heights Rd/Magothy Bridge Rd.	0.9									
	E Earleigh Heights Rd/Magothy Bridge Rd. - MD 648/Baltimore Annapolis Blvd.	1.1									
	MD 648/Baltimore Annapolis Blvd. - Robinson Rd.	0.5									
	Robinson Rd. - College Pkwy	2.5									
College Pkwy - US 301	3.1										

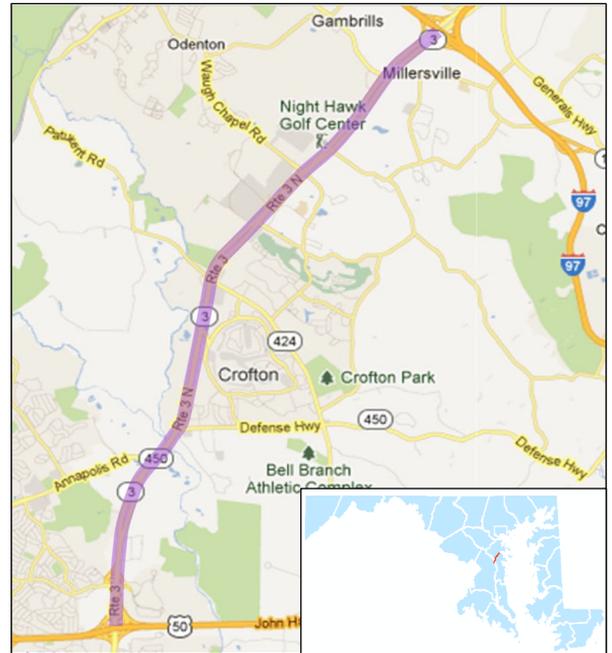
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

MD 3

Limits:	US 50/301 to I-97	
Corridor Length:	8.8 miles	
Speed Limit:	45 - 50 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	12	
Grade Separated Interchanges:	3	
Major Cross Streets:	I-97, MD 175, MD 424, Waugh Chapel Rd, Defense Hwy, MD 450, Belair Rd, US 50/301	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO B29	165



2018 AADT	Trucks	Peak Hour Traffic
72,000 - 81,000 vpd	5% - 7%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	9	7
LOS E	1	2
LOS F	0	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.1 / 1.7	3.9 / 2.4
LOS E	0.5 / 1.3	3.2 / 5.6
LOS F	1.2 / 5.8	1.7 / 0.8

LOS 'E' Intersections

MD 3 at MD 450 (AM, PM)
MD 3 (SB) at South Main Chapel Way/Directional Crossover (PM)

LOS 'F' Intersections

MD 3 at Crawford Blvd/Cronson Blvd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Patuxent Fwy (MD 32) - Annapolis Rd (MD 175)/Millersville Rd	0.8						W		
	Annapolis Rd (MD 175)/Millersville Rd - St. Stephens Ch Rd	1.2					I			
	St. Stephens Church Rd - Waugh Chapel Rd/Riedel Rd	0.5		I					I	
	Waugh Chapel Rd/Riedel Rd - John Hopkins Rd	0.8								
	Johns Hopkins Rd - Conway Rd/Davidsonville Rd (MD 424)	0.9						W		
	Conway Rd/Davidsonville Rd (MD-424)-Crawford Blvd/Cronson Blvd	0.7							W	
	Crawford Blvd/Cronson Blvd - Defense Hwy (MD 450)	1.3						W		
	Defense Hwy (MD 450) - Annapolis Rd (MD 450)	0.5							I	
	Annapolis Rd (MD 450) - Belair Drive/Melford Blvd	1.6							W	
Belair Drive/Melford Blvd - US 50	0.5							I		

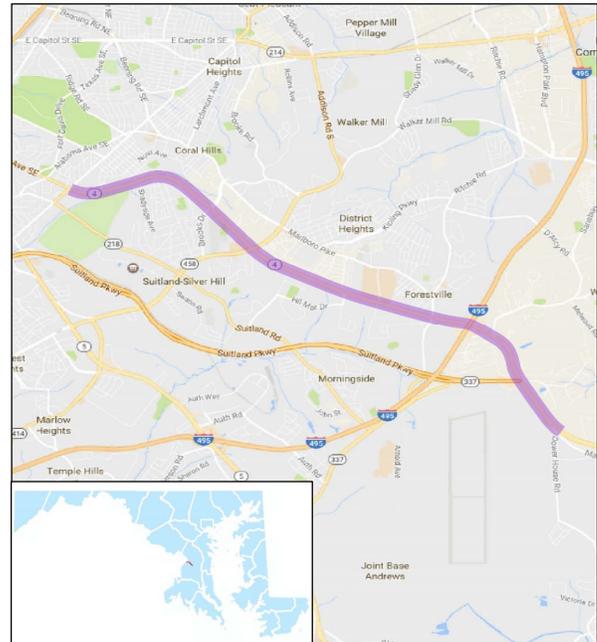
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 4

Limits:	Washington DC Line to Dower House Rd			
Corridor Length:	6.6 miles			
Speed Limit:	35 - 55 MPH			
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound			
Signal Controlled Intersections:	12			
Grade Separated Interchanges:	7			
Major Cross Streets:	MD 458, Forestville Rd, I-95, MD 337, MD 223, Dower House Rd			
Routes and Ridership	MTA Commuter Bus Routes	Avg. Daily Ridership	METRO Routes	Avg. Daily Ridership
			J12	836
	810	197	K12/K13	1,763
			V12	1,446
			The Bus Routes	Avg. Daily Ridership
830	611	20	624	
840	430	24	702	
850	179			



2018 AADT	Trucks	Peak Hour Traffic
22,000 - 78,000 vpd	3% - 7%	6.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	1	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.6 / 6.2	4.6 / 4.5
LOS E	0.0 / 0.4	1.1 / 1.2
LOS F	0.0 / 0.0	0.9 / 0.9

LOS 'E' Intersections

LOS 'F' Intersections

MD 4 at MD 337/Presidential Pkwy (AM, PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Southern Ave - Alton St/ Shadyside Ave.	0.8								
	Alton St/Shadyside Ave. - Spaulding Ave./Quarter Ave.	0.5								
	Spaulding Ave./Quarter Ave. - Brooks Dr.	0.4								
	Brooks Dr. - Silver Hill Rd. (MD 458)	0.7								
	Silver Hill Rd. (MD 458) - Parkland Dr.	0.3								
	Parkland Dr. - Walters Ln.	0.8								
	Walters Ln. - Donnell Dr.	0.4								
	Donnell Dr. - Forestville Rd.	0.6	I			I	I		I	I
Forestville Rd. - I-95/I-495	0.4							I	W	
Urban Freeway Expressway	I-95/I-495 - Old Marlboro Pike/ Westphalia Rd.	0.3								W
	Old Marlboro Pike/ Westphalia Rd. - MD 337	0.6					W			W
	MD 337 - Dowerhouse Rd.	0.8								

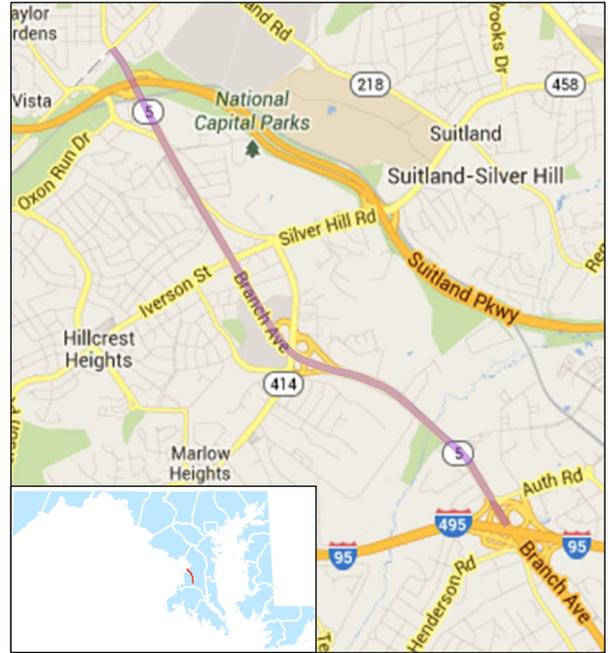
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 5

Limits:	I-95/I-495 to Washington DC Line	
Corridor Length:	3.1 miles	
Speed Limit:	30 - 35 MPH	
Travel Lanes:	(1 - 4) Northbound (1 - 4) Southbound	
Signal Controlled Intersections:	10	
Grade Separated Interchanges:	3	
Major Cross Streets:	Suitland Pkwy, MD 458, MD 414, I-95	
Routes and Ridership	Routes	Avg. Daily Ridership
	Green Line Branch Ave	5,652
	Green Line Naylor Rd	2,339
	Green Line Suitland Rd	4,569
	METRO C11/C13	321
	METRO C12/C14	523
	METRO F14	1,566
	METRO H11/H12/H13	1,175
	MTA Commuter Bus 705	969
	MTA Commuter Bus 715	687
	MTA Commuter Bus 725	274
	MTA Commuter Bus 735	459
	The Bus Route 32	732



2018 AADT	Trucks	Peak Hour Traffic
31,000 - 61,000 vpd	1% - 5%	7.5% - 9%

NOTE: The Green Line ridership data represents boardings

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	2
LOS E	0	1
LOS F	1	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	0.0 / 3.1	3.1 / 1.0
LOS E	2.5 / 0.0	0.0 / 0.6
LOS F	0.6 / 0.0	0.0 / 1.5

LOS 'E' Intersections

MD 5 at Auth Way/Simpson Rd (PM)

LOS 'F' Intersections

MD 5 at Auth Way/Simpson Rd (AM)
MD 5 at MD 637 (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Suitland Pkwy - Naylor Rd. (MD 637)	0.3	Green							
	Naylor Rd. (MD 637) - Iverson St/Silver Hill Rd (MD 458)	0.7	Green							
	Iverson St/Silver Hill Rd (MD 458) - St. Barnabas Rd. (MD 414)	0.6	Red	Green	Green	Green	Green	Green	W	
	St. Barnabas Rd. (MD 414) - I-95/I-495	1.5	Green	Green	Green	Green	Green	Green	W	

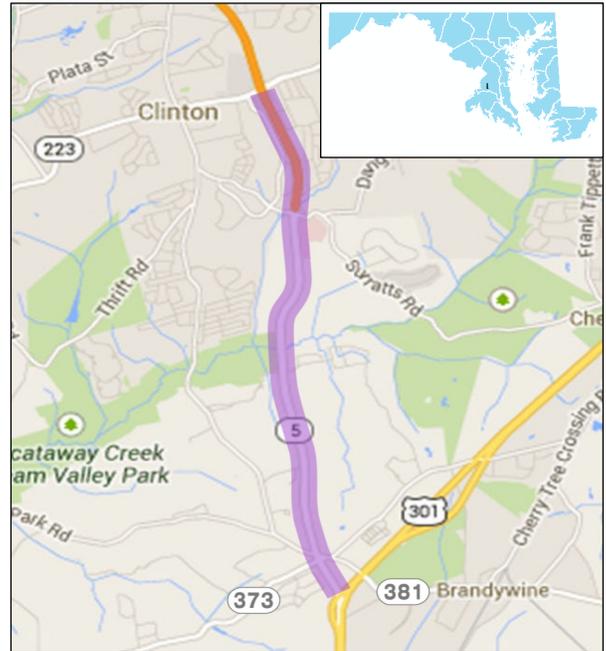
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 5

Limits:	US 301 to MD 223	
Corridor Length:	5.4 miles	
Speed Limit:	55 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	3	
Grade Separated Interchanges:	2	
Major Cross Streets:	Surratts Road MD 381, MD 373, US 301	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 705	969
	MTA Commuter Bus 715	687
	MTA Commuter Bus 725	274
	MTA Commuter Bus 735	459



2018 AADT	Trucks	Peak Hour Traffic
65,000 - 81,000 vpd	4% - 6%	6% - 6.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	0	1
LOS E	0	0
LOS F	1	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	1.3 / 5.4	5.4 / 0.0
LOS E	0.0 / 0.0	0.0 / 0.6
LOS F	4.1 / 0.0	0.0 / 4.8

LOS 'E' Intersections

LOS 'F' Intersections

MD 5 at Surratts Rd (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Woodyard Rd. (MD 223) - Surratts Rd.	1.3	W	W	W	W	W	W	W	
	Surratts Rd. - Burch Hill Rd/Earnshaw Dr.	1.6	W	W	W	W	W	W	W	
	Burch Hill Rd/Earnshaw Dr. - Brandywine Rd./ Accokeek Rd (MD 373)	1.9	W	W	W	W	W	W	W	
Rural Other Princ. Arterial	Brandywine Rd./ Accokeek Rd (MD 373) - Crain Hwy. (US 301)	0.6	W	W	W	W	W	W	W	

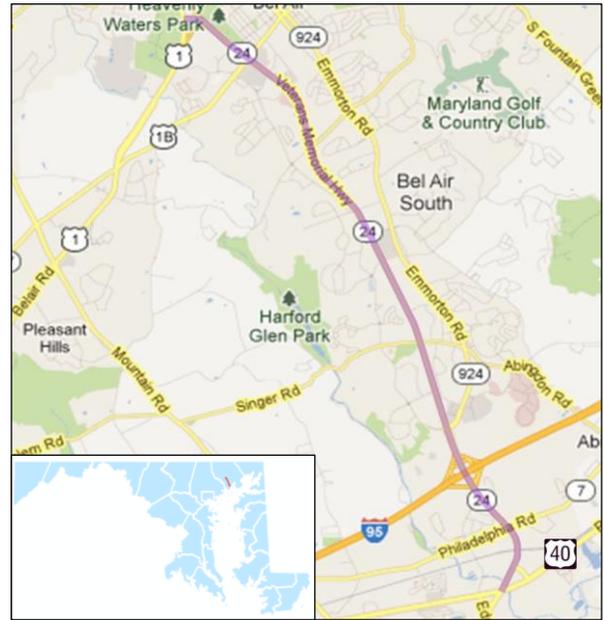
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 24

Limits:	US 40 (Pulaski Highway) to US 1 (Bel Air Bypass)	
Corridor Length:	7.9 miles	
Speed Limit:	40 - 55 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	15	
Grade Separated Interchanges:	3	
Major Cross Streets:	US 40, I-95 MD 7, MD 924, US 1 BUS., US 1	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 410	221



2018 AADT	Trucks	Peak Hour Traffic
22,000 - 72,000 vpd	2% - 5%	8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.1 / 1.6	7.3 / 3.3
LOS E	0.8 / 2.7	0.6 / 4.1
LOS F	0.0 / 3.6	0.0 / 0.5

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Bel Air Bypass (US 1) - Baltimore Pike (Bus US 1)	0.5	I				I			
	Baltimore Pike (Bus US 1) - Ring Factory Rd.	1.3								
	Ring Factory Rd. - Plumtree Rd.	0.9							W	
	Plumtree Rd. - Bel Air Pkwy	0.4							W	
	Bel Air Pkwy - Wheel Rd.	0.3								
	Wheel Rd. - Singer Rd.	1.0								
	Singer Rd. - Tollgate Rd./Emmorton Rd (MD 924)	1.0							W	
	Tollgate Rd./Emmorton Rd (MD 924) - I-95	0.6							W	
	I-95 - Edgewood Rd.	0.4								
	Edgewood Rd. - Philadelphia Rd. (MD 7)	0.4								
	Philadelphia Rd. (MD 7) - Pulaski Hwy (US 40)	0.5								
	Pulaski Hwy (US 40) - Edgewood Rd. (MD 755)	0.6								

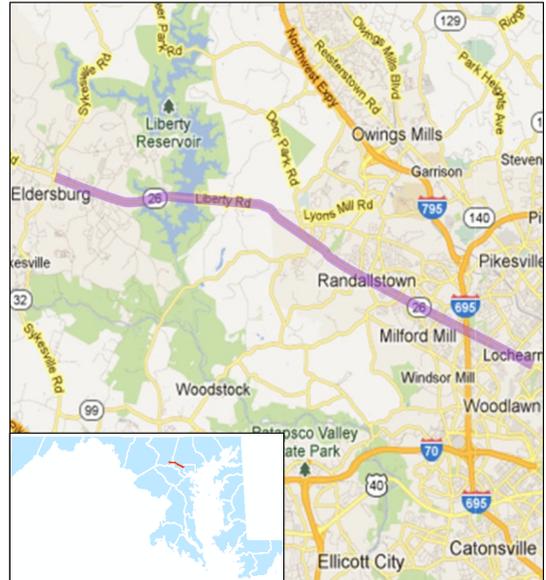
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 26

Limits:	MD 32 (Sykesville Road) to Baltimore City Line
Corridor Length:	14.1 miles
Speed Limit:	35 - 50 MPH
Travel Lanes:	(1 - 2) Eastbound (1 - 3) Westbound
Signal Controlled Intersections:	27
Grade Separated Interchanges:	1
Major Cross Streets:	MD 32, Mariottsville Rd, Old Court Rd, Courtleigh Dr, Rolling Rd, I-695



Routes and Ridership	Routes	Avg. Daily Ridership	2018 AADT	Trucks	Peak Hour Traffic
	CityLink Lime Route	6,290			
	MTA LocalLink 81	1,709			
	MTA LocalLink 37	2,698			
			9,000 - 47,000 vpd	3% - 5%	6.5% - 10.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	15	14
LOS E	0	0
LOS F	1	2

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	12.3 / 9.0	12.3 / 7.8
LOS E	1.3 / 4.2	1.8 / 4.1
LOS F	0.5 / 0.9	0.0 / 2.2

LOS 'E' Intersections

LOS 'F' Intersections

MD 26 at Lord Baltimore Dr/Ramp 5 from I-695 SB (Including Ramp 8 & Spurs) (AM,PM)
MD 26 @ Croyden Rd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Sykesville Rd. (MD 32) -Georgetown Blvd.	0.3								
	Georgetown Blvd.- Ridge Rd./Oklahoma Rd	0.7								
	Ridge Rd./Oklahoma Rd. - Oakland Mills Rd.	2.0								
Rural Minor Arterial	Oakland Mills Rd. - Wards Chapel Rd.	1.7								
	Wards Chapel Rd. - Lyons Mill Rd.	1.2								W
Urban Other Principal Arterial	Lyons Mill Rd. - Deer Park Rd.	1.3								
	Deer Park Rd. - Marriottsville Rd.	0.2								
	Marriottsville Rd. - Offutt Rd.	1.5								
	Offutt Rd.- Greens Ln/McDonogh Rd.	0.2								
	Greens Ln/McDonogh Rd. - Brenbrook Dr.	0.6								
	Brenbrook Dr. - Old Court Rd.	0.3								
	Old Court Rd. - Rolling Rd.	0.8								
	Rolling Rd. - Milford Mill Rd.	0.4								W
	Milford Mill Rd. - Washington Ave.	0.5					I			
	Washington Ave. - I-695	0.3								
	I-695 -St. Lukes Lane	1.0								
St. Lukes Lane - Patterson Ave.	0.3									
Patterson Ave. - Northern Parkway/Baltimore City	0.8									

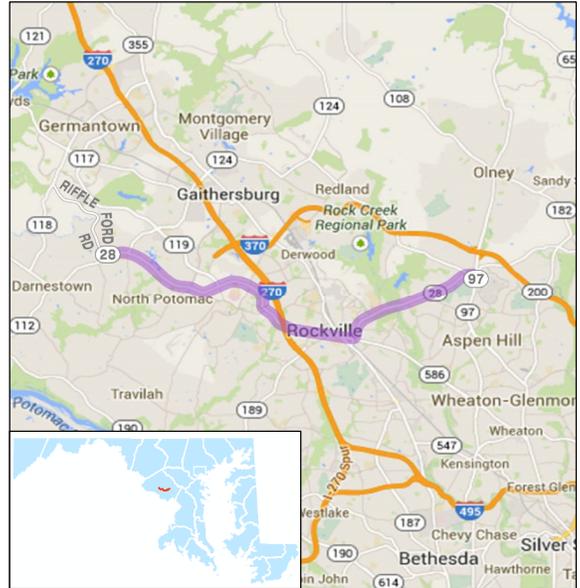
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 28

Limits:	Riffle Ford Rd to MD 97	
Corridor Length:	11.9 miles	
Speed Limit:	40 - 50 MPH	
Travel Lanes:	(1 - 3) Eastbound (1 - 3) Westbound	
Signal Controlled Intersections:	30	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 124, MD 119, Shady Grove Dr, Gude Dr, I-270, MD 189, MD 355, MD 115, MD 97	
Routes and Ridership	Routes	Avg. Daily Ridership
	Ride On Route 46	2,747
	Ride On Route 48	1,620
	Ride On Route 52	123
	Ride On Route 54	1,482
	Ride On Route 56	1,582
	Ride On Route 63	694
	Ride On Route 66	170
Ride On Route 76	692	



2018 AADT	Trucks	Peak Hour Traffic
22,000 - 50,000 vpd	3% - 5%	7.5% - 9%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	7	7
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	7.0 / 6.2	5.9 / 8.6
LOS E	3.3 / 2.5	3.1 / 2.9
LOS F	1.6 / 3.2	2.9 / 0.4

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI						
			AM		PM		AM		PM				
			EB	WB	EB	WB	EB	WB	EB	WB			
Urban Other Principal Arterial	Riffle Ford Rd. - Quince Orchard Rd (MD 124)	0.5											
	Quince Orchard Rd (MD 124) - Muddy Branch Rd.	2.1											
	Muddy Branch Rd. - Great Seneca Hwy (MD 119)	0.8											
	Great Seneca Hwy (MD 119) - Shady Grove Rd.	0.9											
	Shady Grove Rd. - Falls Grove Dr/Gude St.	0.4							W				
	Falls Grove Dr/Gude St. - Darnestown Rd.	0.5											
	Darnestown Rd. - I-270	0.7								I			
	I-270 - Great Falls Rd./Van Buren St.	0.9											
	Great Falls Rd./Van Buren St. - Rockville Pike (MD 355)	0.6											
	Rockville Pike (MD 355) - Veirs Mill Rd (MD 586)/1st St (MD 911)	0.4											
	Veirs Mill Rd (MD 586)/1st St (MD 911) - Gude Dr.	0.9											
	Gude Dr. - Baltimore Rd.	1.0											
	Baltimore Rd. - Emory Ln./Bel Pre Rd.	0.7											W
	Emory Ln./Bel Pre Rd. - Muncaster Mill Rd. (MD 115)	1.3											
Muncaster Mill Rd. (MD 115) - Georgia Ave. (MD 97)	0.2							W		W			

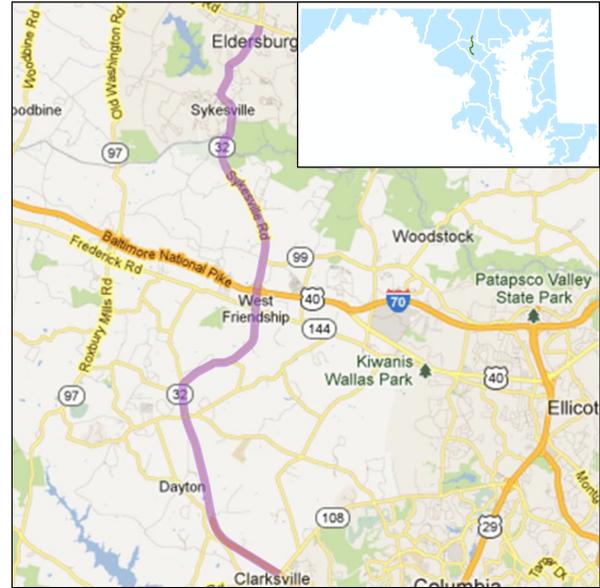
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 32

Limits:	MD 108 (Clarksville Pike) to MD 26 (Liberty Road)	
Corridor Length:	16.3 miles	
Speed Limit:	40 - 50 MPH	
Travel Lanes:	(1 - 2) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	11	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 108, Burntwoods Rd, MD 144, I-70, MD 99, MD 26	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2018 AADT	Trucks	Peak Hour Traffic
20,000 - 30,000 vpd	6% - 8%	7.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	16.3 / 3.0	10.9 / 15.5
LOS E	0.0 / 4.5	0.0 / 0.8
LOS F	0.0 / 8.8	5.4 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	Liberty Rd. (MD 26) - Springfield Ave. (MD 851)	2.2									
	Springfield Ave. (MD 851) - Sandosky Rd./Raincliffe Rd.	0.7									
	Sandosky Rd./Raincliffe Rd. - Friendship Rd. (MD 851)	0.8						I			
Rural Minor Arterial	Friendship Rd. (MD 851) - River Rd.	1.7									
	River Rd. - Old Frederick Rd. (MD 99)	1.3									
	Old Frederick Rd. (MD 99) - I-70/US-40	0.8									
Rural Other Principal Arterial	I-70/US 40 - Frederick Rd. (MD 144)	0.4									
	Frederick Rd. (MD 144) - Burntwoods Rd./Andrea Dr.	3.0									
	Burntwoods Rd./Andrea Dr. - Clarksville Pike (MD 108)	5.4		W							

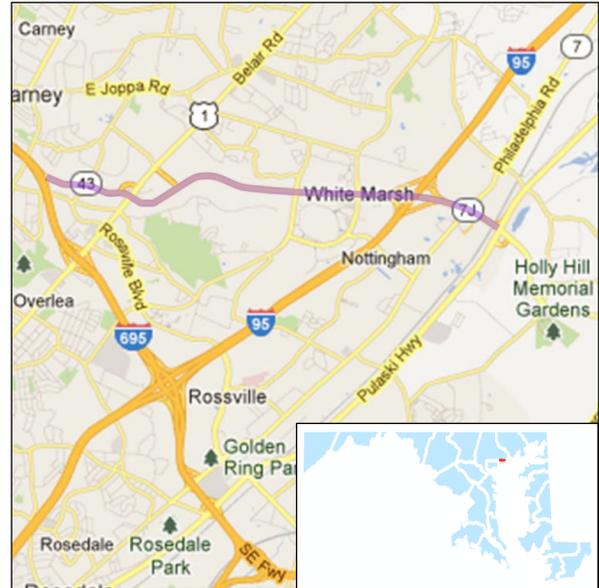
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 43

Limits:	I-695 to US 40	
Corridor Length:	6.0 miles	
Speed Limit:	45 - 50 MPH	
Travel Lanes:	2 Eastbound 2 Westbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	5	
Major Cross Streets:	I-695, US 1, Perry Hall Blvd, Honeygo Blvd, I-95, MD 7, US 40	
Routes and Ridership	Routes	Avg. Daily Ridership
	CityLink Brown Route	7,723
	MTA LocaLink 120	484



2018 AADT	Trucks	Peak Hour Traffic
29,000 - 54,000 vpd	2% - 4%	7.5% - 9%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	4
LOS E	0	1
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.3 / 2.4	4.1 / 3.5
LOS E	0.7 / 2.9	0.9 / 1.6
LOS F	0.0 / 0.7	1.0 / 0.9

LOS 'E' Intersections

MD 43 at Honeygo Blvd (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Freeway Expressway	I-695 - Walther Blvd	0.6	Green	Red	Yellow	Yellow	Green	Red	Green	Green
	Walther Blvd - Belair Rd (US 1) SB	0.4	Green	Red	Yellow	Yellow	Green	Red	Green	Green
	Belair Rd (US 1) SB - Belair Rd (US 1) NB	0.6	Green	Green	Yellow	Green	Green	Green	Green	Green
	Belair Rd (US 1) NB - Perry Hall Blvd	1.8	Green	Green	Yellow	Green	Green	Green	Green	Green
	Perry Hall Blvd - Honeygo Blvd	0.7	Yellow	Green	Red	Yellow	Yellow	Yellow	Yellow	Yellow
	Honeygo Blvd - I-95	0.9	Green	Yellow	Red	Yellow	Green	Yellow	Green	Green
	I-95 - Philadelphia Rd	0.6	Green	Green	Yellow	Green	Green	Green	Green	Green
Philadelphia Rd - Pulaski Hwy (US 40)	0.4	Green	Yellow	Green	Green	Green	Green	Green	Green	

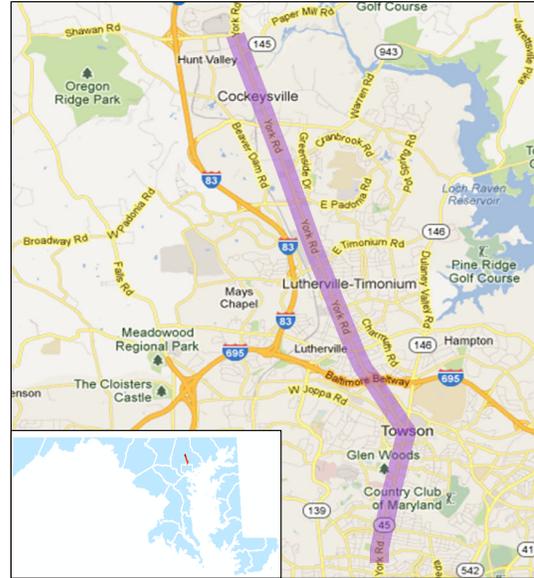
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 45

Limits:	Baltimore City Line to Shawan Road	
Corridor Length:	9.3 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(1 - 2) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	31	
Grade Separated Interchanges:	1	
Major Cross Streets:	Stevenson Ln, Towsontown Blvd, Joppa Rd, Fairmount Ave, I-695, MD 131, Timonium Rd, Padonia Rd, Warren Rd, Shawan Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	Light RailLink Hunt Valley	756
	Light RailLink Pepper Rd	164
	Light RailLink McCormick Rd	451
	Light RailLink Gilroy Rd	232
	Light RailLink Warren Rd	286
	Light RailLink Timonium Rd	998
	Light RailLink Timonium BP	322
	Light RailLink Lutherville	821
	CityLink Red Route	11,795
	MTA LocalLink 52	279
MTA LocalLink 53	4,050	
MTA LocalLink 93	1,277	



2018 AADT	Trucks	Peak Hour Traffic
16,000 - 42,000 vpd	2% - 5%	6.5% - 8.5%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	8	8
LOS E	0	0
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.9 / 1.6	8.9 / 2.1
LOS E	3.0 / 4.2	0.0 / 4.4
LOS F	0.4 / 3.5	0.4 / 2.8

LOS 'E' Intersections

LOS 'F' Intersections

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	Shawan Rd. - Paper Mill Rd. (MD 145)	0.3									
	Paper Mill Rd. (MD 145) - Warren Rd. (MD 483)	1.2									
	Warren Rd. (MD 483) - Cranbrook Rd.	0.8									
	Cranbrook Rd. - Padonia Rd.	0.5									
	Padonia Rd. - Timonium Rd.	1.1									I
	Timonium Rd. - Ridgely Rd	0.8									
	Ridgely Rd. - Bellona Ave./Margate Rd.	0.5									
	Bellona Ave./Margate Rd. - Seminary Ave. (MD 131)	0.2									
	Seminary Ave. (MD 131) - I-695	0.5									
I-695 - Fairmount Ave	0.3									I	
Fairmount Ave. - Bosley Ave.	0.2										
Urban Minor Arterial	Bosley Ave. - Dulaney Valley Rd. (MD 146)/Joppa Rd.	0.4									I
Urban Other Principal Arterial	Dulaney Valley Rd. (MD 146)/Joppa Rd. - Towsontown Blvd.	0.3									
	Towsontown Blvd. - Burke Ave.	0.2							W		
	Burke Ave. - Stevenson Ln.	0.8									I
	Stevenson Ln. - Regester Ave.	0.4									
	Regester Ave. - Lake Ave.	0.8									I

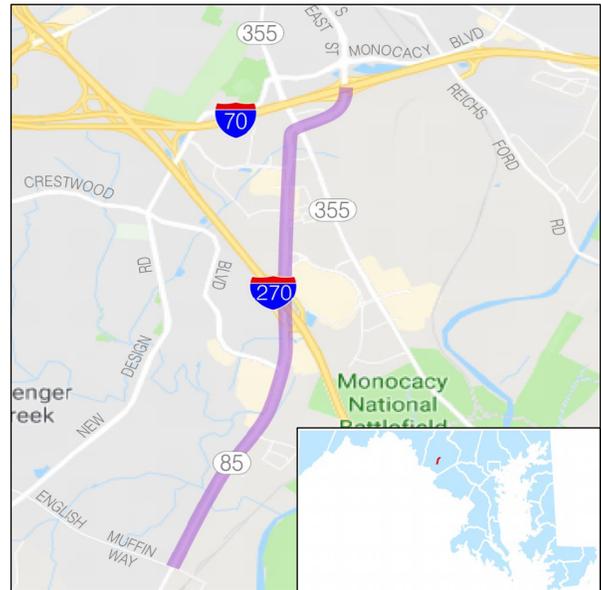
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 85

Limits:	English Muffin Way to I-70	
Corridor Length:	3.5 miles	
Speed Limit:	40 MPH	
Travel Lanes:	(1 – 3) Northbound (1 – 3) Southbound	
Signal Controlled Intersections:	13	
Grade Separated Interchanges:	2	
Major Cross Streets:	Executive Way, Crestwood Blvd / Shockley Way, I-270, Spectrum Dr, Francis Scott Key Dr, MD 355, I-70	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2018 AADT	Trucks	Peak Hour Traffic
17,000 - 52,000	4% - 12%	7.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	5
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	1.9 / 0.0	3.5 / 1.9
LOS E	0.0 / 1.9	0.0 / 1.6
LOS F	1.6 / 1.6	0.0 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	I-70 - MD 355	0.4	Red	Green	Red	Yellow	Yellow	Green	Yellow	Green
	MD 355 - Guilford Rd.	0.3	Red	Green	Red	Yellow	Yellow	Green	Yellow	Green
	Guilford Rd. - Grove Rd.	0.3	Red	Green	Red	Yellow	Yellow	Green	Yellow	Green
	Grove Rd. - Spectrum Dr.	0.3	Red	Green	Red	Yellow	Yellow	Green	Yellow	Green
	Spectrum Dr. - I-270	0.3	Red	Green	Red	Yellow	Yellow	Green	Yellow	Green
	I-270 - Crestwood Blvd.	0.4	Green	Green	Yellow	Green	Green	Yellow	Green	Green
	Crestwood Blv. - Executive Way	0.5	Green	Green	Yellow	Green	Green	Yellow	Green	Green
Executive Way / Shockley Dr. - English Muffin Way	1.0	Green	Green	Yellow	Green	Green	Yellow	Green	Green	

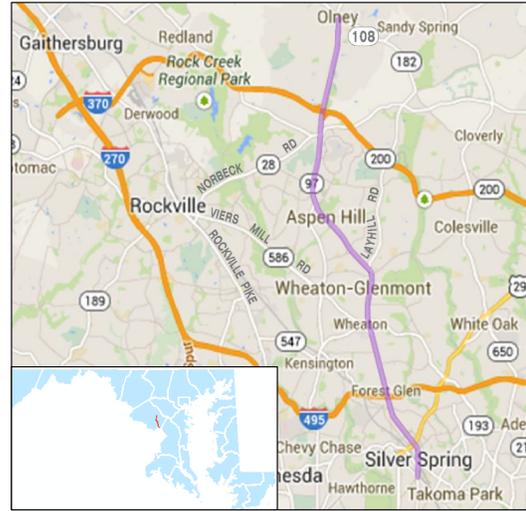
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 97

Limits:	Washington DC Line to MD 108	
Corridor Length:	12.7 miles	
Speed Limit:	30 - 45 MPH	
Travel Lanes:	(3 - 4) Northbound (3 - 4) Southbound	
Signal Controlled Intersections:	48	
Grade Separated Interchanges:	1	
Major Cross Streets:	US 29, I-495, MD 586, Randolph Rd, MD 193, MD 182, MD 28, MD 200, MD 108	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO Q1/Q2/Q4/ Q6	6,154
	METRO Y2/Y7/Y8	6,978
	Ride On Route 10	2,166
	Ride On Route 26	2,519
	Ride On Route 31	100
	Ride On Route 33	265
	Ride On Route 41	474
	Ride On Route 51	210
Ride On Route 52	123	
Ride On Route 53	239	



2018 AADT	Trucks	Peak Hour Traffic
30,000 - 69,000 vpd	2% - 5%	6.5% - 8%

Segment Operations

Level of Service	Northbound	Southbound
	AM / PM (Miles of Roadway)	AM / PM (Miles of Roadway)
LOS D or Better	10.1 / 4.3	7.5 / 6.1
LOS E	2.1 / 5.0	2.3 / 6.2
LOS F	0.5 / 3.4	2.9 / 0.4

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	10	10
LOS E	1	1
LOS F	0	0

LOS 'E' Intersections

- MD 97 at Dennis Ave (AM)
- MD 97 at Shorefield Rd (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	No data

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI						
			AM		PM		AM		PM				
			NB	SB	NB	SB	NB	SB	NB	SB			
Urban Other Principal Arterial	Olney Sandy Spring/Laytonsville Rd. (MD 108) - Emory Lane	1.9											
	Emory Lane - Norbeck Rd. (MD 28)	1.2											
	Norbeck Rd. (MD 28) - Rossmoor Blvd.	0.5											
	Rossmoor Blvd. - Bel Pre Rd.	0.6											
	Bel Pre Rd. - Connecticut Ave. (MD 185)	0.7											
	Connecticut Ave. (MD 185) - Hewitt Ave.	0.6											
	Hewitt Ave. - May St./Rippling Brook Dr.	0.5											
	May St./Rippling Brook Dr. - Layhill Rd. (MD182)	1.1											
	Layhill Rd. (MD 182) - Randolph Rd.	0.2											
	Randolph Rd. - Shorefield Rd.	0.4											
	Shorefield Rd. - Arcola Ave.	0.4											
	Arcola Ave. - University Blvd. (MD 193)	0.4											
	University Blvd. (MD 193) - Veirs Mill Rd. (MD 586)	0.4											
	Veirs Mill Rd. (MD 586) - Dennis Ave.	0.8											
	Dennis Ave. - I-495	0.8											
	I-495 - 16th St. (MD390)	0.5											
	16th St. (MD390) - Spring St	0.6											
	Spring St. - Colesville Rd (US29)	0.3											
	Colesville Rd (US29) - Sligo Ave.	0.4											
Sligo Ave. - East-West Hwy/Philadelphia Ave. (MD 410)	0.2												
East-West Hwy/Philadelphia Ave(MD 410) - Eastern Ave / DC Line	0.2												

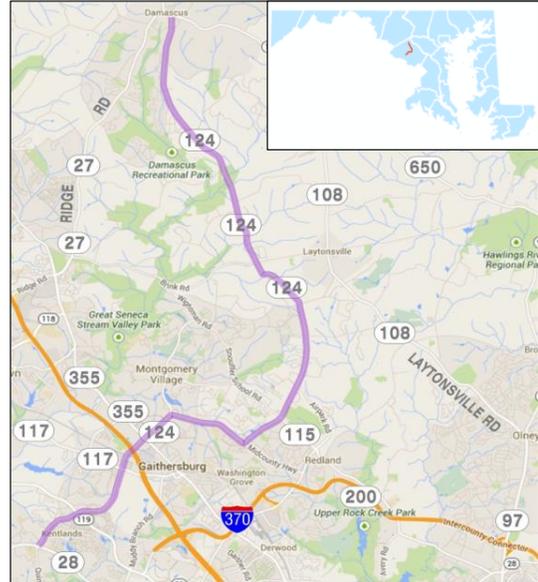
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 124

Limits:	MD 28 to MD 108	
Corridor Length:	16.7 miles	
Speed Limit:	30 - 50 MPH	
Travel Lanes:	(1 - 4) Northbound (1 - 4) Southbound	
Signal Controlled Intersections:	31	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 28, MD 119, MD 117, I-270, MD 355, MD 115, MD 108	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 201	373
	Ride On 56	1,582
	Ride On 58	1,172
	Ride On 59	2,587
	Ride On 90	611



2018 AADT	Trucks	Peak Hour Traffic
12,000 - 73,000 vpd	2% - 7%	6.5% - 10.5%

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	16.0 / 13.6	13.6 / 13.7
LOS E	0.7 / 1.9	1.8 / 2.3
LOS F	0.0 / 1.2	1.3 / 0.7

Intersection Operations

Signalized Intersections*	AM Peak Hour	PM Peak Hour
LOS D or Better	7	6
LOS E	0	1
LOS F	0	0

LOS 'E' Intersections
MD 124 at MD 355 (PM)

LOS 'F' Intersections

Color Key	
TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Minor Arterial	Main St. (MD 108) - Hawkins Creamery Rd.	1.0									
	Hawkins Creamery Rd. - Log House Rd/ Low Meadow Dr.	1.2									
	Log House Rd/ Low Meadow Dr. - Rocky Rd.	2.4									
	Rocky Rd. - Brink Rd.	1.4									
	Brink Rd. - Warfield Rd.	1.3									
	Warfield Rd. - Fieldcrest Rd./ Hadley Farms Dr.	0.7									
	Fieldcrest Rd./ Hadley Farms Dr. - Airpark Rd.	1.1									
	Airpark Rd. - Snouffer School Rd./Muncaster Mill Rd (MD 115)	0.7									
Urban Other Principal Arterial	SnoufferSchlRd/MncterMillRd (MD 115) - MdCityHwy/WoodfieldRd.	0.9									
	Midcounty Hwy./Woodfield Rd. - Goshen Rd.	1.1									
	Goshen Rd. - Montgomery Village Dr /Midcounty Hwy	0.6									
	MontgomeryVillage/MidcountyHwy - Frederick Rd/Ave (MD 355)	0.7									
	Frederick Rd/Ave (MD 355) - I-270	0.4									
	I-270 - Clopper Rd. /Diamond Av (MD 117)	0.5									
Clopper Rd./Diamond Av (MD 117) - Gt Seneca Hwy (MD 119)	1.5										
Great Seneca Hwy. (MD 119) - Darnestown Rd. (MD 28)	1.2										

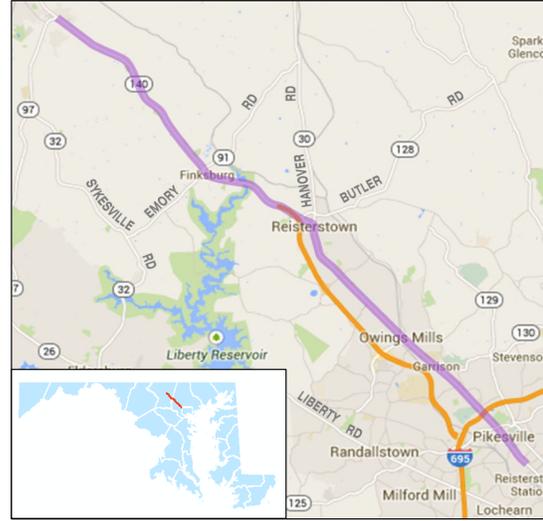
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 140

Limits:	MD 97 to Baltimore City Line	
Corridor Length:	20.4 miles	
Speed Limit:	30 - 55 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	51	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 97, MD 91, I-795, MD 30, MD 940, Painters Mill Rd MD 130, I-695, Old Court Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA LocalLink 83	3,552
	MTA LocalLink 87	1,668
	MTA LocalLink 89	1,727



2018 AADT	Trucks	Peak Hour Traffic
17,000 - 54,000 vpd	1% - 9%	6.5% - 8.5%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	24	23
LOS E	0	1
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	15.7 / 13.5	16.6 / 7.1
LOS E	4.7 / 3.7	3.8 / 8.2
LOS F	0.0 / 3.2	0.0 / 5.1

LOS 'E' Intersections

MD 140 at McDonogh Rd/Craddock Ln (PM)

LOS 'F' Intersections

Color Key	
TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

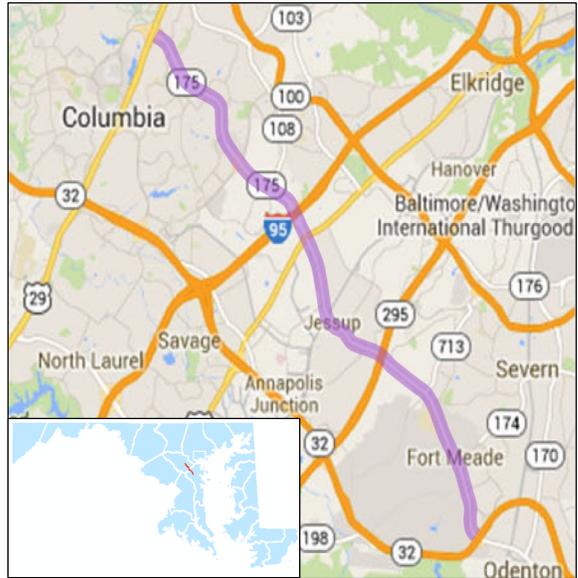
Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	New Washington Rd (MD 97) Malcom Dr. - Reese Rd.	2.5									
	Reese Rd. - Green Mill Rd./Suffolk Rd.	2.2									
	Green Mill Rd./Suffolk Rd. - Emory Rd/Gamber Rd (MD 91)	1.9									W
Urban/Rural Other P. Arterial	Emory Rd/Gamber Rd (MD 91) - Butler Rd. (MD 795)	3.4									I
Urban Other Principal Arterial	Butler Rd. (MD 795) - Hanover Rd. (MD 30)	0.4									
	Hanover Rd. (MD 30) - Glyndon Dr/Glyndon Trace Dr.	0.7									
	Glyndon Dr/ Glyndon Trace Dr. - Berrymans Ln.	0.4									
	Berrymans Ln. - Franklin Blvd./Cherry Hill Rd.	0.7									
	Franklin Blvd./Cherry Hill Rd. - Dolfield Blvd/ Richmar Rd.	1.2									
	Dolfield Blvd/ Richmar Rd. - Pleasant Hill Rd.	0.5									
	Pleasant Hill Rd. - Owings Mills Blvd. (MD 940)	1									
	Owings Mills Blvd. (MD 940) - Painters Mill Rd.	0.4									
	Painters Mill Rd. - Greenspring Valley Rd (MD 130)	1.2									
	Greenspring Valley Rd (MD 130) - McDonogh Rd./Craddock Ln.	0.6									
	McDonogh Rd./ Craddock Ln. - I-695	1.2									
	I-695 - Old Court Rd.	0.6									
	Old Court Rd. - Sudbrook Ln	0.4									
	Sudbrook Ln. - Slade Ave/Milford Mill Rd.	0.5									
Slade Ave/Milford Mill Rd. - Baltimore City Line/Fallstaff Rd	0.6										

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 175



Limits:	MD 32 (Patuxent Freeway) to US 29 (Columbia Pike)	
Corridor Length:	12.2 miles	
Speed Limit:	35 - 50 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 4) Southbound	
Signal Controlled Intersections:	19	
Grade Separated Interchanges:	5	
Major Cross Streets:	MD 32, MD 174, MD 713, MD 295, US 1, I-95, Snowden River Pkwy, US 29	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 310	298
	MTA Commuter Bus 320	181

2018 AADT	Trucks	Peak Hour Traffic
19,000 - 74,000 vpd	2% -12%	7.5% - 9.5%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	9	7
LOS E	1	3
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	9.8 / 5.8	10.9 / 5.7
LOS E	2.4 / 3.5	1.3 / 5.2
LOS F	0.0 / 2.9	0.0 / 1.3

LOS 'E' Intersections

- MD 175 at Ramps 3&4 to & from MD 32 EB (AM)
- MD 175 at Mapes Rd/Charter Oaks Blvd (PM)
- MD 175 at MD 108 (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

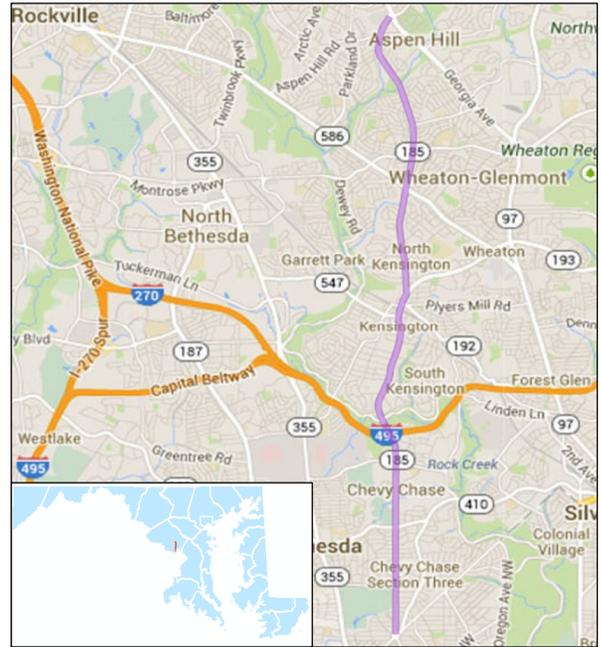
Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Columbia Pike (US 29) - Thunder Hill Rd.	0.6								
	Thunder Hill Rd. - Tamar Dr	1.1								I
	Tamar Dr - Dobbin Rd.	0.9								
	Dobbin Rd - Snowden River Pkwy	0.6								
	Snowden River Pkwy - Waterloo Rd (MD 108)	0.8								
	Waterloo Rd (MD 108) - I-95	0.7								
Urban Minor Arterial	I-95 - Washington Blvd (US 1)	0.5								
	Washington Blvd (US 1) - Dorsey Run Rd.	1.3								
	Dorsey Run Rd. - MD 295	1.6								W
	MD 295 - Ridge Rd/Rockenbach Rd (MD 713)	1.1					W			
	Ridge Rd/Rockenbach Rd. (MD 713) - Reece Rd	1.3							W	W
	Reece Rd - Charter Oaks Blvd.	0.6								
Charter Oaks Blvd. - MD 32	1.1					I				

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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 185



Limits:	Washington DC Line to MD 97	
Corridor Length:	8.3 miles	
Speed Limit:	30 - 45 MPH	
Travel Lanes:	(3 - 4) Northbound (3 - 4) Southbound	
Signal Controlled Intersections:	26	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 410, I-495, MD 547, MD 193, MD 586, Randolph Rd, MD 97	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO L8	2,091
	Ride On Route 1	1,028
	Ride On Route 5	1,579
	Ride On Route 11	572
	Ride On Route 26	2,519
	Ride On Route 33	265
	Ride On Route 41	474

2018 AADT	Trucks	Peak Hour Traffic
36,000 - 73,000 vpd	3% - 4%	7.5% - 9%

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.6 / 3.0	1.8 / 5.2
LOS E	0.6 / 1.9	3.1 / 1.5
LOS F	0.0 / 3.4	3.4 / 1.6

Intersection Operations

Signalized Intersections*	AM Peak Hour	PM Peak Hour
LOS D or Better	9	9
LOS E	1	2
LOS F	1	0

LOS 'E' Intersections

MD 185 at MD 410 (AM, PM)
MD 185 at MD 192 (PM)

LOS 'F' Intersections

MD 185 at Aspen Hill Rd (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Georgia Ave. (MD 97) - Aspen Hill Rd.	0.3	Green	Yellow	Green	Yellow	Green	W	I	Yellow
	Aspen Hill Rd. - Randolph Rd.	0.4	Green	Yellow	Green	Yellow	Green	Green	Green	Green
	Randolph Rd. - Veirs Mill Rd. (MD 586)	1.7	Green	Green	Green	Green	Green	Green	Green	Green
	Veirs Mill Rd. (MD 586) - University Blvd. (MD 193)	1.4	Green	Red	Green	Yellow	Green	W	Green	Green
	University Blvd (MD 193) - Saul Rd.	1.2	Green	Green	Green	Green	Green	Green	Green	Green
	Saul Rd. - I-495	0.6	Yellow	Red	Green	Yellow	Green	Green	Green	Green
	I-495 - Jones Bridge Rd.	0.5	Green	Red	Yellow	Green	Green	Green	Green	Green
	Jones Bridge Rd. - East West Hwy (MD 410)	0.8	Green	I	I	Red	Green	I	Red	Yellow
	East West Hwy (MD 410) - Bradley Ln. (MD 191)	0.8	Green	Yellow	I	Red	Green	Yellow	I	Yellow
Bradley Ln. (MD 191) - Western Ave/DC Line	0.6	Green	Green	Green	Green	Green	Green	Green	Green	

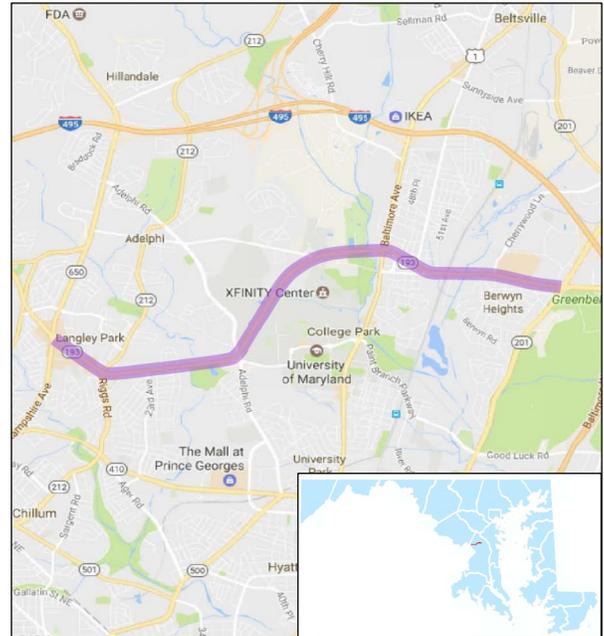
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

MD 193

Limits:	MD 201 to MD 650	
Corridor Length:	5.5 miles	
Speed Limit:	35 - 45 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	20	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 201, 63rd Ave, 62nd Ave, Cherrywood Ln / 60th Ave, Rhode Island Ave, US 1, Metzertott Rd / Paint Branch Dr, Adelphi Rd, Riggs Rd, MD 650	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C2, C4	8,737
	METRO F6	1,547
	METRO F8	1,104
	METRO G14/G12	2,514
	METRO J4	800
	METRO R2/R1	3,320
	The Bus Route 15X	252
The Bus Route 18	859	



2018 AADT	Trucks	Peak Hour Traffic
30,000 - 50,000 vpd	2% - 3%	7% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	13	12
LOS E	1	0
LOS F	0	2

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.5 / 0.0	3.9 / 1.9
LOS E	0.0 / 2.6	0.0 / 3.5
LOS F	0.0 / 2.9	1.6 / 0.7

LOS 'E' Intersections

MD 193 at MD 212 (AM)

LOS 'F' Intersections

MD 193 at Metzertott Rd/Paint Branch Dr (PM)
MD 193 at Cherrywood Ln/60th Ave (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			EB	WB	EB	WB	EB	WB	EB	WB	
Urban Other Principal Arterial	New Hampshire Ave. (MD 650) - Riggs Rd. (MD 212)	0.6									
	Riggs Rd. (MD 212) - Adelphi Rd.	1.3						I		I	
	Adelphi Rd. - Metzertott Rd.	1.3									
	Metzertott Rd. - Greenbelt Rd.	1.0									
	Greenbelt Rd. - Cherrywood Ln./60th Ave	0.6								W	
	Cherrywood Ln./60th Ave. - MD 201	0.7								W	

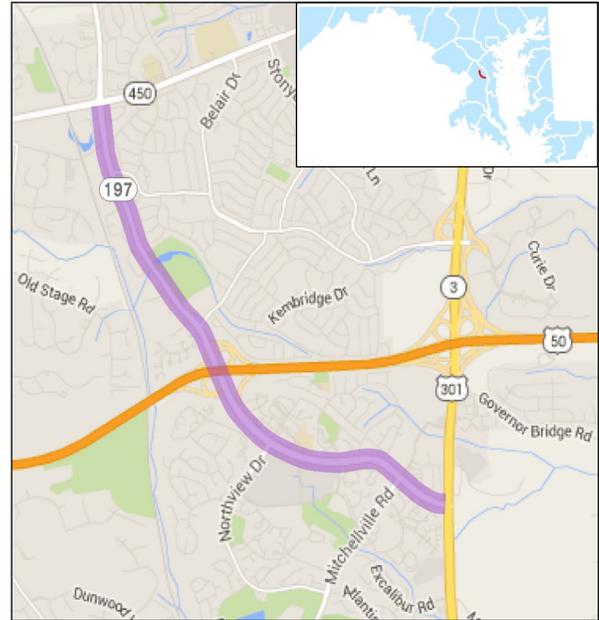
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 197

Limits:	US 301 to MD 450	
Corridor Length:	3.2 miles	
Speed Limit:	40 - 45 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 3) Southbound	
Signal Controlled Intersections:	11	
Grade Separated Interchanges:	1	
Major Cross Streets:	US 301, Mitchellville Rd, Northview Dr, US 50, Kenhill Dr, MD 450	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO B21/B22	395
	METRO B24	778
	METRO B29	165
	METRO C28	393



2018 AADT	Trucks	Peak Hour Traffic
18,000 - 32,000 vpd	2% - 3%	8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	4
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	1.5 / 0.2	3.2 / 1.3
LOS E	1.7 / 1.3	0.0 / 1.9
LOS F	0.0 / 1.7	0.0 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	> 2.5
No data	

* Available count data.

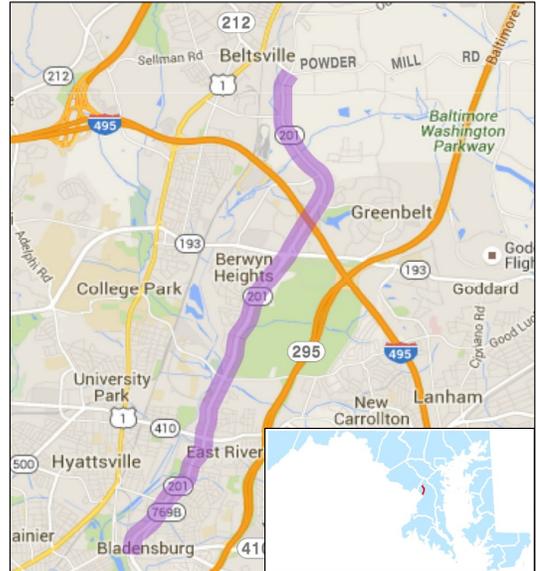
Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	MD 450 - Old Annapolis Rd.	0.2									
	Old Annapolis Rd. - US 50	1.2									
	US 50 - US 301	0.5									
		1.3	I		I			I			

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 201



Limits:	MD 450 to MD 212	
Corridor Length:	7.4 miles	
Speed Limit:	40 - 50 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 3) Southbound	
Signal Controlled Intersections:	19	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 450, Decatur St, MD 769B, Riverdale Rd, MD 410, Paint Branch Pkwy, Good Luck Rd, MD 193, I-95 / I-495, Cherrywood Ln, Sunnyside Ave, Beaver Dam Rd, MD 212	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO R12	1,353
	METRO F6	1,547
	METRO 87	537
	The Bus Route 11	324
	The Bus Route 14	411
	The Bus Route 15X	252
	The Bus Route 16	789

2018 AADT	Trucks	Peak Hour Traffic
22,000 - 54,000 vpd	6% - 11%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	8	8
LOS E	0	0
LOS F	1	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.4 / 2.1	5.2 / 3.1
LOS E	0.0 / 2.5	1.6 / 2.8
LOS F	0.0 / 2.8	0.6 / 1.5

LOS 'E' Intersections

LOS 'F' Intersections
MD 201 at MD 410 (AM, PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	No data

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Minor Arterial	MD212 - Sunnyside Ave.	0.6	Green	Black	Yellow	Black	Green	Red	W	
	Sunnyside Ave. - Cherrywood Ln.	0.9	Green	Green	Red	Yellow	Green	Red	Yellow	
	Cherrywood Ln. - Ivy Ln.	0.3	Green	Green	Yellow	Green	Green	Yellow	Green	
	Ivy Ln. - Crescent Rd.	0.2	Green	Green	Yellow	Green	Green	Yellow	Green	
	Crescent Rd. - I-495/I-95	0.5	Green	Green	Green	Green	Green	Green	Green	
Urban Other Freeways and Expressways	I-495/I-95 - MD193	0.5	Green	Green	Green	Green	Green	Green	Green	
	MD193 - Paint Branch Ave./Good Luck Rd.	1.6	Green	Yellow	Green	Green	Green	W	Green	
Urban Other Principal Arterial	Paint Branch Ave./Good Luck Rd. - Sarvis Ave.	0.2	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	Sarvis Ave. - River Rd.	0.2	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	River Rd. - Rittenhouse St.	0.3	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	Rittenhouse St. - MD410	0.2	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	MD410 - Riverdale Rd.	0.2	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	Riverdale Rd. - Jefferson St.	0.2	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	Jefferson St. - Edmonston Rd.	0.3	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	Edmonston Rd. - Decatur St.	0.4	Green	Green	Yellow	Red	Green	W	Yellow	
	Decatur St. - Buchanan St.	0.2	Green	Green	Yellow	Red	Green	Yellow	Yellow	
	Buchanan St. - Upshur St./Tilden Rd.	0.3	Green	Green	Yellow	Red	Green	Yellow	Yellow	
Upshur St./Tilden Rd. - MD450	0.3	Green	Green	Yellow	Red	Green	Yellow	Yellow		

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

MD 210



Limits:	MD 228 to I-95	
Corridor Length:	10.3 miles	
Speed Limit:	40 - 45 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	10	
Grade Separated Interchanges:	1	
Major Cross Streets:	I-95, Livingston Rd, MD 373, MD 228	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO D13/D12/D14	3,521
	MTA Commuter Bus 610	750
	MTA Commuter Bus 620	821
	MTA Commuter Bus 630	402
	MTA Commuter Bus 640	525
	MTA Commuter Bus 650	759
	The Bus Route 35	452
	The Bus Route 35s	13
The Bus Route 37	147	

2018 AADT	Trucks	Peak Hour Traffic
25,000 - 80,000 vpd	3% - 4%	6% - 7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	5
LOS E	3	3
LOS F	2	1

Segment Operations

Level of Service	Northbound	Southbound
	AM / PM (Miles of Roadway)	AM / PM (Miles of Roadway)
LOS D or Better	6.6 / 9.5	10.3 / 5.4
LOS E	0.0 / 0.8	0.0 / 2.4
LOS F	3.7 / 0.0	0.0 / 2.5

LOS 'E' Intersections

- MD 210 at MD 373/Livingston Rd (AM, PM)
- MD 210 at Fort Washington Rd (AM, PM)
- MD 210 at Farmington Rd (AM)
- MD 210 at Livingston Rd/Palmer Rd (PM)

LOS 'F' Intersections

- MD 210 at Livingston Rd/Kerby Hill Rd (AM, PM)
- MD 210 at Wilson Bridge Dr (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Freeway Expressway	I-495/I-95 - Livingston Rd./Kerby Hill Rd.	1.8				I					
	Livingston Rd./Kerby Hill Rd. - Palmer Rd.	1.0						W			W
	Palmer Rd. - Old Fort Rd.	0.7				I					W
	Old Fort Rd. - Fort Washington Rd.	0.9									
	Fort Washington Rd. - Livingston Rd./Swan Creek Rd.	1.1						W			
	Livingston Rd./Swan Creek Rd. - Washington Ln.	0.8									I
	Washington Ln. - Farmington Rd.	2.1									
	Farmington Rd. - Livingston Rd. (MD 373)	1.4									W
Livingston Rd. (MD 373) - Berry Rd. (MD 228)	0.5										

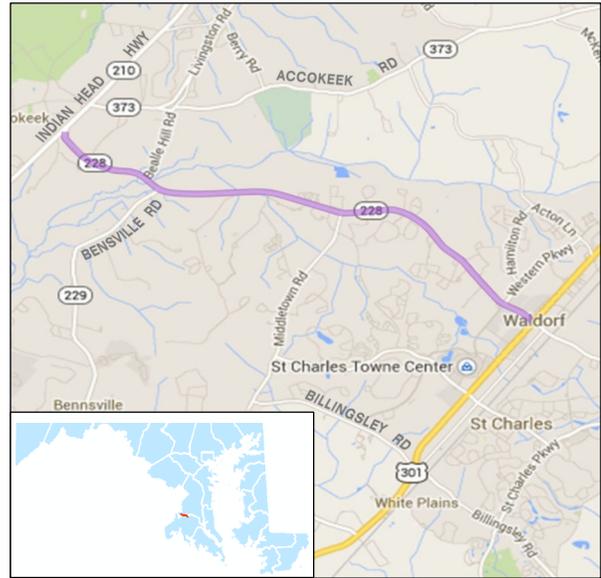
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 228

Limits:	MD 210 to US 301	
Corridor Length:	6.8 miles	
Speed Limit:	35 - 50 MPH	
Travel Lanes:	(2 - 3) Eastbound 2 Westbound	
Signal Controlled Intersections:	11	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 210, MD 229, US 301	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA 610	750
	MTA 620	821
	MTA 630	402
MTA 650	759	



2018 AADT	Trucks	Peak Hour Traffic
36,000 - 40,000	2%	7% - 7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	5
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	6.8 / 5.3	6.8 / 6.8
LOS E	0.0 / 0.0	0.0 / 0.0
LOS F	0.0 / 1.5	0.0 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			EB	WB	EB	WB	EB	WB	EB	WB	
Urban Other Principal Arterial	Indian Head Hwy (MD 210) - Manning Rd	0.5									
	Manning Rd - Bensville Rd (MD 229)	1.0					W	W	W		
	Bensville Rd (MD 229) - Bunker Hill Rd.	1.3									
	Bunker Hill Rd. - Middletown Rd./Ironwood Dr.	1.0									
	Middletown Rd./Ironwood Dr. - Western Pkwy	2.6									
	Western Pkwy - Crain Highway (US 301)	0.4									

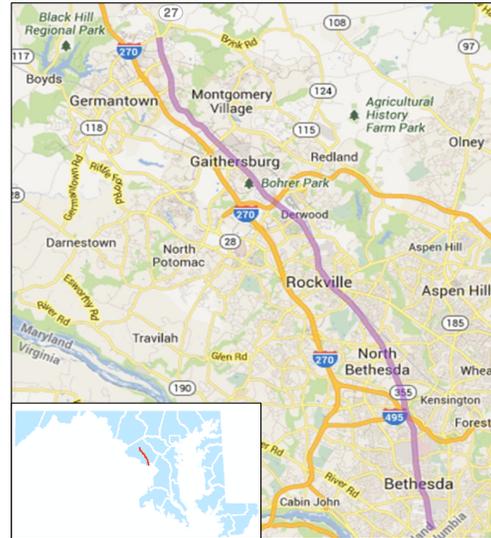
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 355

Limits:	Washington DC Line to MD 27			
Corridor Length:	19.7 miles			
Speed Limit:	25 - 45 MPH			
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound			
Signal Controlled Intersections:	80			
Grade Separated Interchanges:	3			
Major Cross Streets:	MD 27, MD 118, Middlebrook Rd, MD 124, MD 117 I-370, Shady Grove Rd, MD 28, Montrose Pkwy, MD 187, MD 547, MD 410, MD 191			
Routes and Ridership	Ride On Routes	Avg. Daily Ridership	METRO Routes	Avg. Daily Ridership
	5	1,579	J1/J2/J3	5,017
	30	575	Q1/Q2/Q4/Q6	6,154
	34	2,250	Red Line Routes	Avg. Daily Ridership
	42	368	Shady Grove	11,902
	46	2,747	Rockville	4,084
	55	5,010	Twinbrook	3,935
	59	2,587	White Flint	3,611
	67	82	Grosvenor	5,238
	70	624	Strathmore	5,238
	75	502	Medical Center	5,510
81	156	Bethesda	9,484	
83	365			



2018 AADT	Trucks	Peak Hour Traffic
29,000 - 60,000 vpd	1% - 4%	7% - 9%

NOTE: The Red Line ridership data represents boardings

Intersection Operations

Signalized Intersections*	AM Peak Hour	PM Peak Hour
LOS D or Better	36	31
LOS E	0	3
LOS F	0	2

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	16.5 / 9.5	11.8 / 10.9
LOS E	2.4 / 2.0	5.7 / 6.3
LOS F	0.8 / 8.2	2.2 / 2.5

LOS 'E' Intersections

- MD 355 at Cedar Dr (PM)
- MD 355 at Pooks Hill Rd (PM)
- MD 355 at MD 124 (PM)

LOS 'F' Intersections

- MD 355 at Jones Bridge Rd/Center Dr (PM)
- MD 355 at Tuckerman Ave (North Intersection) (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Ridge Rd. (MD 27) -Germantown Rd. (MD 118)	0.9	I	I	I	I	I	I	I	
	Germantown Rd. (MD 118) - Middlebrook Road	0.8								
	Middlebrook Road - Christopher Ave.	2.3								
	Christopher Ave. - Montgomery Village Ave (MD 124)	0.3								
	Montgomery Village Ave. (MD 124) - Odendhal Ave.	0.4								
	Odendhal Ave - Summit Ave.	1.0								
	Summit Ave. - Shady Grove Rd./I-370	1.2					I			
	Shady Grove Rd./I-370 - Redland Blvd.	1.0								
	Redland Blvd. - Gude Dr.	0.8								
	Gude Dr. - Washington St.	1.0								
	Washington St. - Veirs Mill Rd/ Jefferson St (MD 28)	0.9								
	Veirs Mill Rd/Jefferson St (MD 28) - Wootton Pkwy (MD 911)	0.4								
	Wootton Pkwy (MD 911) - Montrose Pkwy	2.1								
	Montrose Pkwy - Strathmore Ave (MD 547)	1.3								
	Strathmore Ave (MD 547) -Grosvenor Lane	0.9	I				I			
	Grosvenor Lane - I-495	0.3								
	I-495 - Cedar Lane	0.9								
Cedar Lane - Jones Bridge Rd.	0.6					I				
Jones Bridge Rd - Montgomery Avenue (MD 410)	0.9						W			
Montgomery Avenue (MD 410) - Bradley Blvd./Lane (MD 191)	0.5									
Bradley Blvd./Lane (MD 191) - Dorset Ave	0.7									
Dorset Ave. - DC Line	0.5						I	I		

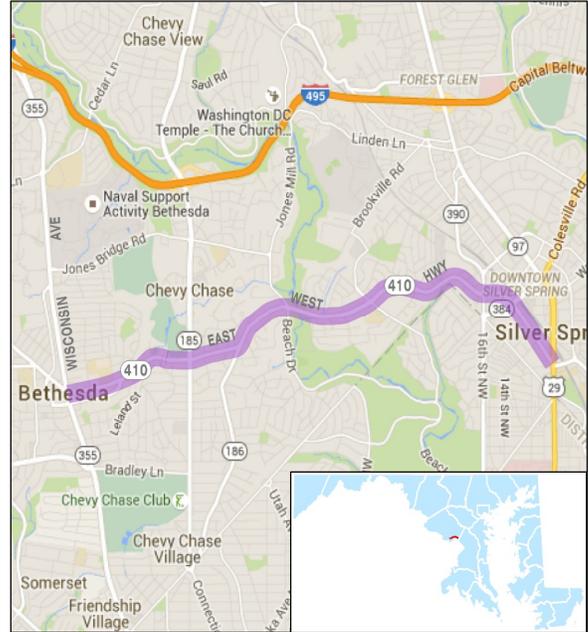
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

MD 410

Limits:	MD 355 to US 29	
Corridor Length:	3.8 miles	
Speed Limit:	25 - 35 MPH	
Travel Lanes:	(1 - 2) Eastbound (1 - 2) Westbound	
Signal Controlled Intersections:	19	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 355, Montgomery Ave, MD 185, MD 186, Beach Dr / Jones Mill Dr, Grubb Rd, MD 390, MD 384, US 29	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO J1/J2/J3	5,017
	Ride On Route 1	1,028
	Ride On Route 2	524
	Ride On Route 11	572
	Ride On Route 18	553
	Ride On Route 28	681



2018 AADT	Trucks	Peak Hour Traffic
15,000 - 27,000 vpd	2% - 3%	8% - 10%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	6
LOS E	1	1
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	3.8 / 0.2	0.5 / 3.1
LOS E	0.0 / 2.2	2.2 / 0.7
LOS F	0.0 / 1.4	1.1 / 0.0

LOS 'E' Intersections

MD 185 at MD 410 (AM, PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Montgomery Ave. - MD 185	0.5			I			I		
	MD 185 - Beach Dr.	0.9					I			
	Beach Dr. - Meadowbrook Ln.	0.2								
	Meadowbrook Ln. - Grubb Rd.	0.5								
	Grubb Rd. - Washington Ave.	0.4								
	Washington Ave. - Rosemary Hill Dr.	0.4						W	W	
	Rosemary Hill Dr. - MD 390	0.2								
	MD 390 - Colesville Rd.	0.2		W				W	I	
	Colesville Rd. - Shopping Center	0.1								
	Shopping Center - Blair Mill Rd.	0.2								
Blair Mill Rd. - US 29	0.2									

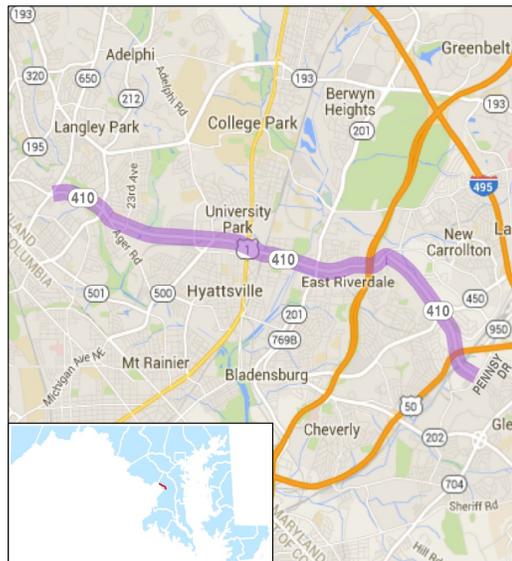
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 410

Limits:	MD 650 to Pennsy Drive	
Corridor Length:	7.7 miles	
Speed Limit:	30 - 45 MPH	
Travel Lanes:	(1 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	20	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 650, MD 212, Ager Rd, Belcrest Rd, MD 500, US 1, MD 201, MD 295, Riverdale Rd, MD 450, US 50, Pennsy Dr	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C4/C2	8,737
	METRO F4	5,187
	METRO F6	1,547
	METRO 86/83/83x	3,547
	The Bus Route 13	284
	The Bus Route 14	411
The Bus Route 18	859	



2018 AADT	Trucks	Peak Hour Traffic
18,000 - 49,000 vpd	3% - 6%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	12	8
LOS E	1	2
LOS F	1	3

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	6.3 / 0.0	2.7 / 3.4
LOS E	1.0 / 3.8	3.0 / 4.0
LOS F	0.4 / 3.9	2.0 / 0.3

LOS 'E' Intersections

US 1 at MD 410/Adelphi Rd (AM, PM)
MD 410 at US 50 EB Ramps 3&5 (including Ramps 4&6) (PM)

LOS 'F' Intersections

MD 201 at MD 410 (AM, PM)
MD 212 at MD 410 (PM)
MD 500 at MD 410/Adelphi Rd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI					
			AM		PM		AM		PM			
			EB	WB	EB	WB	EB	WB	EB	WB		
Urban Other Principal Arterial	MD 650 - MD 212	0.9		W					W			
	MD 212 - Ager Rd.	0.2										
	Ager Rd. - 23rd Ave.	0.3										
	23rd Ave. - Toledo Terrace	0.5										
	Toledo Terrace - Editors Park Dr.	0.1										
	Editors Park Dr. - Pr. George's Plaza	0.1										
	Pr. George's Plaza - Belcrest Rd.	0.3										
	Belcrest Rd. - MD 500/Adelphi Rd.	0.4	W					W	I	W	I	
	MD 500/Adelphi Rd. - US 1/Baltimore Ave.	0.5								W		
	US 1/Baltimore Ave. - Taylor Rd.	0.5										
	Taylor Rd. - Kenilworth Ave./MD201	0.5										
	Kenilworth Ave./MD 201 - Mustang Dr.	0.5										
	Mustang Dr. - 64th Ave.	0.2									I	
	64th Ave. - Baltimore-Washington Pkwy.	0.1										
	Baltimore-Washington Pkwy.-Veterans Pkwy.	0.3									I	
	Veterans Pkwy.- Annapolis Rd./MD 450	1.1										
	Annapolis Rd./MD 450 - Ellin Rd.	0.5										
	Ellin Rd. - US 50/John Hanson Hwy.	0.4							I	W	I	
US50/John Hanson Hwy. - Pennsy Dr.	0.3											

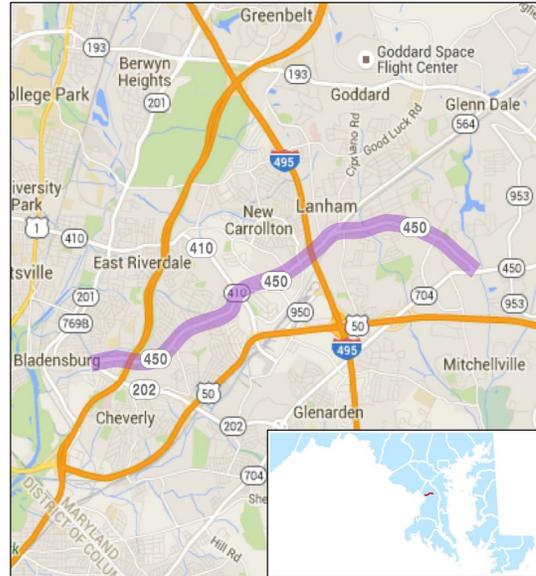
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 450

Limits:	MD 202 to MD 704	
Corridor Length:	6.3 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(2 - 4) Eastbound (2 - 4) Westbound	
Signal Controlled Intersections:	22	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 202, MD 295, Ardwick Ardmore Rd / Surrey Ln MD 410, Riverdale Rd, 85th Ave, I-95 / I-495, MD 564, Whitfield Chapel Rd, Forbes Blvd, MD 704	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO B24	778
	METRO B27	176
	METRO F4	5,187
	METRO F13	677
	METRO G12/G14	2,514
	METRO T18	3,541
	The Bus Route 15X	252
The Bus Route 16	789	



2018 AADT	Trucks	Peak Hour Traffic
29,000 - 66,000 vpd	3%	7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	6
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	6.3 / 4.6	5.5 / 4.6
LOS E	0.0 / 1.1	0.0 / 0.6
LOS F	0.0 / 0.6	0.8 / 1.1

LOS 'E' Intersections **LOS 'F' Intersections**

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	No data

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Minor Arterial	MD 202 - 56th Ave.	0.2	Green	Red	Green	Green	Green	Green	Green	
	56th Ave. - 57th Ave.	0.2	Green	Green	Green	Green	Green	Green	Green	
	57th Ave. - MD 295 (Balt/Wash Pkwy)	0.4	Green	Green	Green	Green	Green	Green	Green	
	MD 295 - 65th Ave.	0.2	Green	Green	Green	Green	Green	Green	Green	
	65th Ave. - Cooper Ln.	0.3	Green	Green	Green	Green	Green	Green	Green	
	Cooper Ln. - 68th Ave.	0.2	Green	Green	Green	Green	Green	Green	Green	
	68th Ave. - 71st Ave.	0.4	Green	Green	Green	Green	Green	Green	Green	
	71st Ave. - Ardwick-Ardmore Rd.	0.3	Green	Green	Red	Yellow	Green	Green	Green	
	Ardwick-Ardmore Rd. - Gallatin Rd.	0.2	Green	Green	Green	Green	Green	W	Green	
	Gallatin Rd. - MD 410 (Veterans Pkwy)	0.1	Green	Green	Green	Green	Green	Green	Green	
	MD 410 (Veterans Pkwy) - Harkins Rd./Finns Ln.	0.4	Green	Green	Green	Green	Green	Green	Green	
	Harkins Rd./Finns Ln. - Riverdale Rd.	0.4	Green	Green	Green	Green	Green	Green	Green	
	Riverdale Rd. - 85th Ave.	0.2	Green	Green	Green	Green	Green	Green	Green	
	85th Ave. - I-495	0.1	Green	Green	Green	Green	Green	Green	Green	
	I-495 - Princess Garden Pkwy	0.3	Green	Green	Green	Green	Green	Green	Green	
	Princess Garden Pkwy - Whitfield Chapel Rd.	0.4	Green	Green	Green	Green	Green	Green	Green	
	Whitfield Chapel Rd. - Carter Ave.	0.6	Green	Green	Green	Green	Green	Green	Green	
Carter Ave. - Forbes Blvd.	0.7	Green	Green	Green	Green	Green	Green	Green		
Forbes Blvd. - MD 704	0.7	Green	Green	Green	Green	Green	Green	Green		

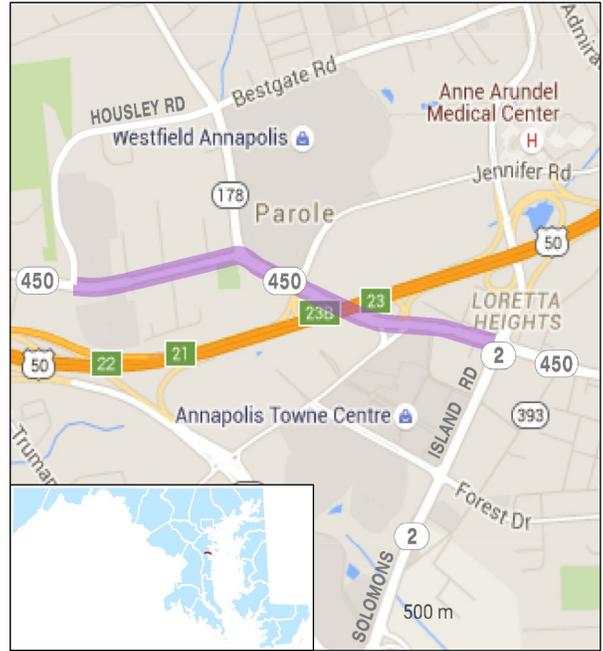
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 450

Limits:	Housley Rd to MD 2	
Corridor Length:	1.2 miles	
Speed Limit:	35 MPH	
Travel Lanes:	(1 - 2) Eastbound 2 Westbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 450, MD 178, Jennifer Rd, US 50, Riva Rd, MD 2	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 210	51
	MTA Commuter Bus 220	595
	MTA Commuter Bus 230	585



2018 AADT	Trucks	Peak Hour Traffic
32,000 - 43,000 vpd	2% - 5%	7.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	1.2 / 0.7	1.0 / 0.4
LOS E	0.0 / 0.5	0.2 / 0.6
LOS F	0.0 / 0.0	0.0 / 0.2

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Minor Arterial	Housley Rd. - MD 178	0.4	Green	Green	Green	Green	Green	Green	Green	
	MD 178 - Jennifer Rd.	0.2	Green	Yellow	Yellow	Red	Green	Yellow	Yellow	
Urban Other Principal Arterial	Jennifer Rd. - Riva Rd.	0.3	Green	Green	Green	Green	Green	Green	I	
	Riva Rd. - MD 2	0.3	Green	Green	Yellow	Yellow	Green	Yellow	Green	

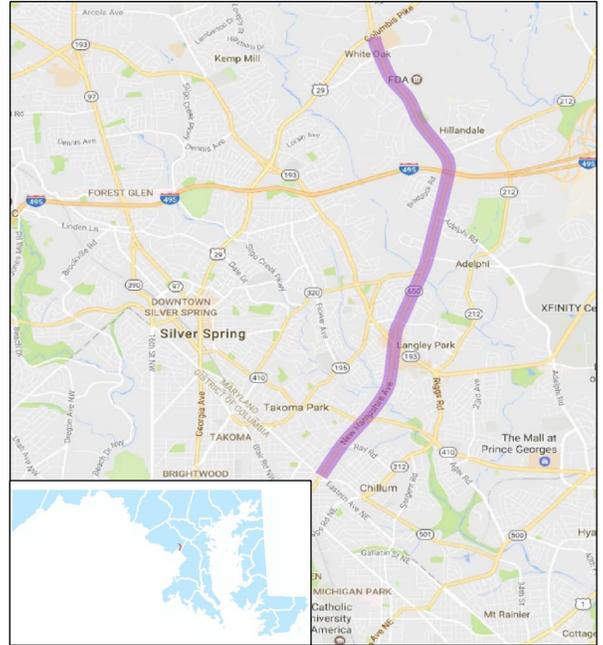
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 650

Limits:	Washington DC Line to US 29	
Corridor Length:	6.0 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(3 - 4) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	30	
Grade Separated Interchanges:	2	
Major Cross Streets:	Eastern Ave, MD 410, MD 193, Piney Branch Rd, MD 320, Adelphi Rd, Powder Mill Rd, US 29	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C8	2,206
	METRO K6	5,328
	METRO K9	1,132
	METRO Z2	668
	MTA Commuter Bus 204	250
	Ride On Route 10	2,166
	Ride On Route 16	2,296
	Ride On Route 18	553
	Ride On Route 20	2,411
Ride On Route 22	451	
Ride On Route 24	254	
Ride On Route 25	413	



2018 AADT	Trucks	Peak Hour Traffic
37,000 - 80,000 vpd	2% - 5%	7% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	8	8
LOS E	1	1
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	4.7 / 2.7	3.8 / 2.5
LOS E	1.3 / 0.2	2.2 / 1.2
LOS F	0.0 / 3.1	0.0 / 2.3

LOS 'E' Intersections

MD 650 at Oakview Dr (AM, PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	US 29 - Lockwood Dr.	0.3	Green	Yellow	Green	Yellow	Green	I	Green	Green
	Lockwood Dr. - Powder Mill Rd.	1.5	Green	Yellow	Green	Red	Green	W	Green	Green
	Powder Mill Rd. - I-495	0.4	Yellow	Yellow	Red	Red	Yellow	W	W	I
	I-495 - Adelphi Rd.	0.4	Yellow	Green	Red	Red	Yellow	Green	Green	Green
	Adelphi Rd. - Metzertott Rd.	0.5	Yellow	Green	Red	Green	Yellow	Green	Green	Green
	Metzertott Rd. - MD 320	0.2	Green	Green	Yellow	Yellow	Green	Green	Green	Green
	MD 320 - MD 193	0.9	Green	Green	Green	Yellow	Green	I	Green	Green
	MD 193 - MD 410	1.0	Green	Green	Red	Green	Green	I	I	Green
MD 410 - Eastern Ave./DC line	0.8	Green	Green	Red	Green	Green	I	W	W	

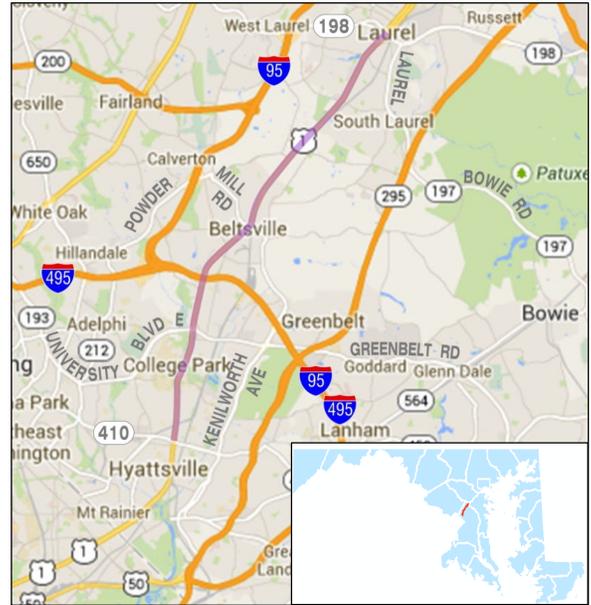
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 1

Limits:	MD 410 to MD 198	
Corridor Length:	10.7 miles	
Speed Limit:	35 - 50 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	40	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 410, MD 193, I-495, Rhode Island Ave, MD 212, Muirkirk Rd, Contee Rd, Cherry Lane, MD 198	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO 83/83x/86	3,547
	METRO 89/89M	638
	Green Line Greenbelt	5,924
	Green Line College Park	4,846
The Bus Route 17	998	



2018 AADT	Trucks	Peak Hour Traffic
20,000 - 47,000 vpd	3% - 5%	6.5% - 8%

NOTE: The Green Line ridership data represents boardings

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	16	14
LOS E	1	3
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	9.7 / 2.5	10.1 / 4.7
LOS E	1.0 / 6.8	0.6 / 2.7
LOS F	0.0 / 1.4	0.0 / 3.3

LOS 'E' Intersections

- US 1 at MD 410 (AM, PM)
- US 1 at MD 430/Metzerott Rd (PM)
- US 1 at Edgewood Rd (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	Gorman Ave (MD 198) - Cherry Ln.	0.6									
	Cherry Ln. - Cypress St.	0.7									
	Cypress St. - Contee Rd.	0.5									
	Contee Rd. - Muirkirk Rd.	1.3									
	Muirkirk Rd. - Ritz Way	0.4									
	Ritz Way - Powder Mill Rd. (MD212)	1.8									
	Powder Mill Rd. (MD 212) - Rhode Island Ave.	0.6									
	Rhode Island Ave. - I-495/I-95	1.0									
	I-495/I-95 - Cherry Hill Rd.	0.3									
	Cherry Hill Rd. - Greenbelt Rd./Metzerott Rd.	1.1									
	Greenbelt Rd./Metzerott Rd. - Campus Dr./Paint Branch Pkwy	0.7									
	Campus Dr./Paint Branch Pkwy - Guilford Rd/Dr	0.8									
Guilford Rd/Dr - East West Hwy (MD 410)	0.9										

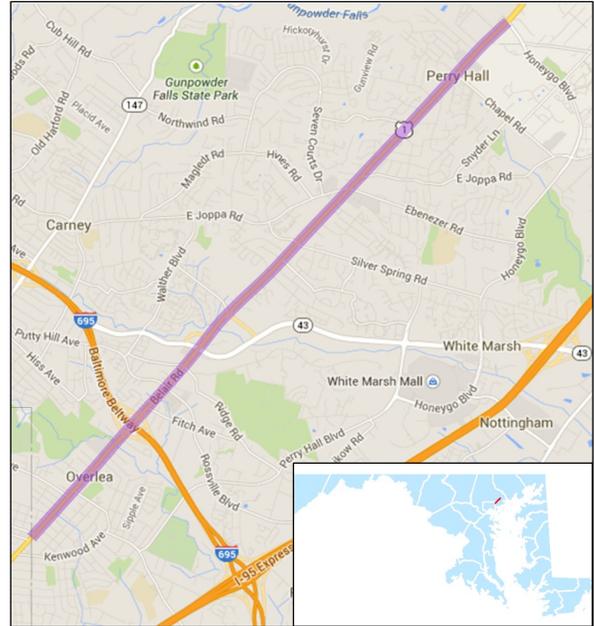
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 1

Limits:	Baltimore City Line to Honeygo Blvd	
Corridor Length:	5.6 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	23	
Grade Separated Interchanges:	2	
Major Cross Streets:	Taylor Ave, Fullerton Ave, I-695, Rossville Blvd, Putty Hill Ave / Ridge Rd, MD 43, Silver Spring Rd, E. Joppa Rd / Ebenezer Rd, Honeygo Blvd	
Routes and Ridership	Routes	Avg. Daily Ridership
	CityLink Brown Route	7,223
	MTA LocalLink 33	973
	MTA LocalLink 36	2,409



		2018 AADT	Trucks	Peak Hour Traffic
		27,000 - 46,000 vpd	2% - 3%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	19	18
LOS E	0	1
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.6 / 2.1	4.9 / 3.5
LOS E	0.0 / 2.5	0.0 / 1.4
LOS F	0.0 / 1.0	0.7 / 0.7

LOS 'E' Intersections

US 1 at Rossville Blvd (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	Chapel Rd. - Joppa Rd.	1.3									
	Joppa Rd. - Silver Spring Rd.	0.6									
	Silver Spring Rd. - White Marsh Blvd. (MD 43)/Dunfield Rd.	1.2									
	White Marsh Blvd. (MD 43)/Dunfield Rd. - Rossville Blvd.	0.8									
	Rossville Blvd. - I-695	0.4			I						
	I-695 - Fullerton Ave.	0.7									
Fullerton Ave. - Fleetwood Ave.	0.6										

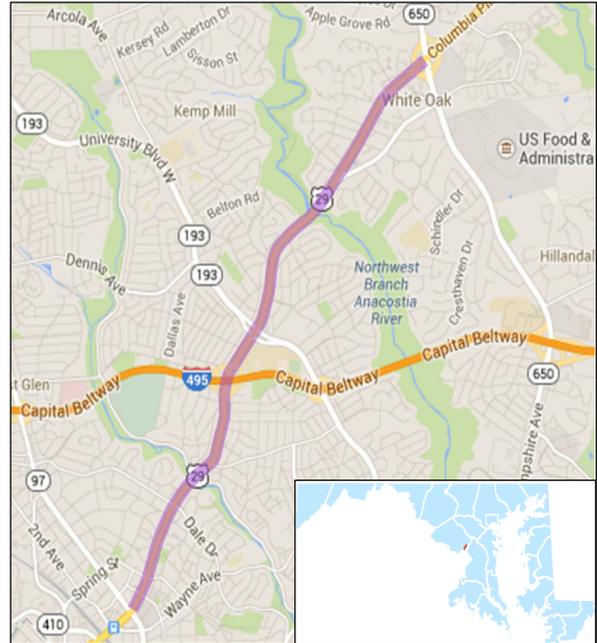
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 29

Limits:	MD 97 to MD 650			
Corridor Length:	3.8 miles			
Speed Limit:	35 - 45 MPH			
Travel Lanes:	(3 - 4) Northbound (2 - 4) Southbound			
Signal Controlled Intersections:	13			
Grade Separated Interchanges:	2			
Major Cross Streets:	MD 97, Spring St / Cedar St, Dale Dr, Sligo Creek Pkwy / St Andrews Way, I-495, MD 193, Lockwood Dr, MD 650			
Routes and Ridership	Ride On Routes	Avg. Daily Ridership	METRO Routes	Avg. Daily Ridership
			Z2	668
			Z6	2,540
			Z7	508
	8	575	Z8	2,788
			Z11	828
			MTA Commuter Bus Routes	Avg. Daily Ridership
			9	1,338
			12	1,173
13	173	201	373	
14	670	305	597	
21	268	315	486	
22	451	325	256	



2018 AADT	Trucks	Peak Hour Traffic
28,000 - 68,000 vpd	2% - 4%	7.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.5 / 0.5	1.0 / 0.8
LOS E	0.4 / 2.3	0.8 / 2.7
LOS F	0.0 / 1.0	2.0 / 0.3

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	New Hampshire Ave. (MD 650) - Lockwood Dr.	0.9		I					I	W
	Lockwood Dr. - University Blvd. (MD 193)	1.1								
	University Blvd. (MD 193) - I-495	0.3								
	I-495 - Franklin Ave.	0.5								
	Franklin Ave. - Dale Dr.	0.3		I						
	Dale Dr. - Cedar St./Spring St.	0.5								
	Cedar St./Spring St. - Georgia Ave. (MD 97)	0.2								

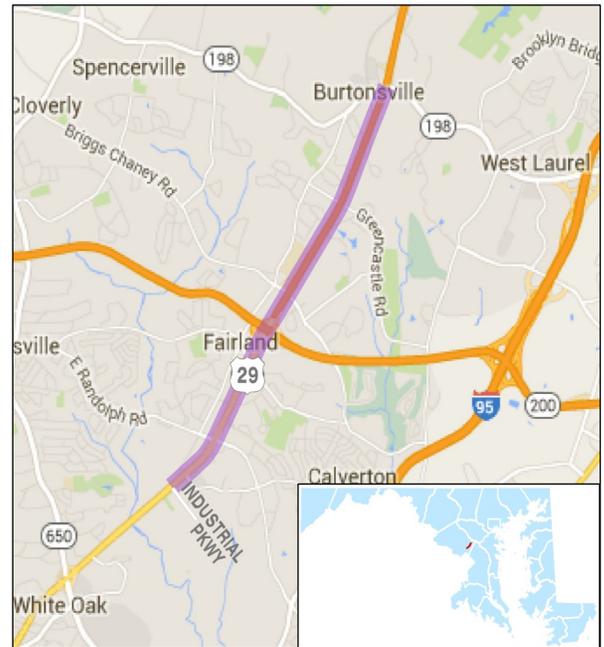
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 29

Limits:	Industrial Pkwy to MD 198	
Corridor Length:	4.5 miles	
Speed Limit:	50 - 55 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	4	
Major Cross Streets:	Industrial Parkway, Tech Rd E Randolph Rd / Cherry Hill Rd Musgrove Rd, Fairland Rd, MD 200, Briggs Chaney Rd, Blackburn Rd, MD 198	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO Z7	508
	METRO Z8	2,788
	METRO Z11	828
	Ride On Route 10	2,166



2018 AADT	Trucks	Peak Hour Traffic
61,000 - 66,000 vpd	2% - 3%	7.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	1	1
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	4.5 / 2.0	2.6 / 3.7
LOS E	0.0 / 0.0	0.0 / 0.8
LOS F	0.0 / 2.5	1.9 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	MD 198 - Greencastle Rd.	1.2	Green	Red	Green	Green	Yellow	W	Green	
	Greencastle Rd. - Fairland Rd.	1.8	Green	Green	Red	Green	Green	I	Green	
	Fairland Rd. - Musgrove Rd.	0.5	Green	Green	Green	Green	Green	Green	Yellow	
	Musgrove Rd. - Tech Rd./Old Columbia Pike	0.3	Green	Green	Green	Green	Green	Green	Yellow	
	Tech Rd./Old Columbia Pike - Industrial Pkwy.	0.7	Green	I	Red	Green	Green	I	Yellow	

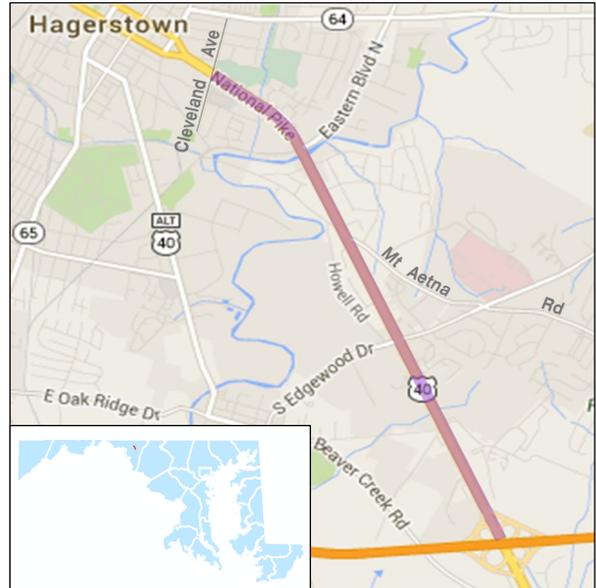
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 40

Limits:	I-70 to Cleveland Ave	
Corridor Length:	3.4 miles	
Speed Limit:	35 - 45 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	1	
Major Cross Streets:	I-70, Edgewood Dr, Mt. Aetna Rd, Eastern Blvd, Cleveland Ave	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2018 AADT	Trucks	Peak Hour Traffic
26,000 - 39,000 vpd	3%	8% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	No Data	No Data
LOS E	No Data	No Data
LOS F	No Data	No Data

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	3.4 / 2.3	3.4 / 3.1
LOS E	0.0 / 1.1	0.0 / 0.0
LOS F	0.0 / 0.0	0.0 / 0.3

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

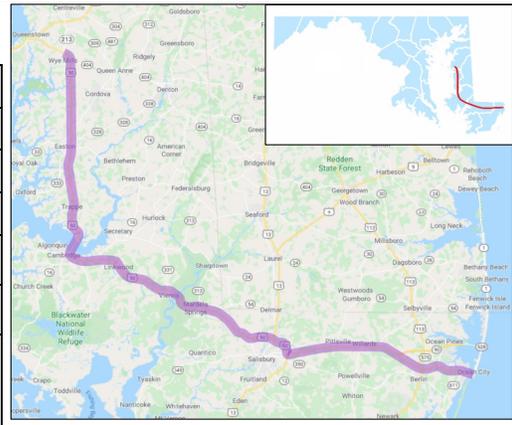
Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			EB	WB	EB	WB	EB	WB	EB	WB	
Urban Other Principal Arterial	Cannon Ave (MD 64) - Cleveland Ave.	0.3									
	Cleveland Ave. - Eastern Blvd.	0.6									
	Eastern Blvd. - Mt. Aetna Rd./ Birch Knoll Rd.	0.5									
	Mt. Aetna Rd./ Birch Knoll Rd - Edgewood Dr.	0.7									
	Edgewood Dr. - I-70	1.3									

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 50



Limits:	MD 213 to MD 528	
Corridor Length:	93 miles	
Speed Limit:	35 - 55 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	36	
Grade Separated Interchanges:	7	
Major Cross Streets:	MD 213, MD 404, MD 309 MD 322, MD 328, Mt. Holly Rd, MD 331, MD 313, Naylor Mill Rd, Northwood Dr, US 13, US 50 BUS, MD 90, US 113, MD 589, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A

2018 AADT	Trucks	Peak Hour Traffic
22,500 - 45,000 vpd	3% - 12%	10.5% - 11.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Eastbound (Miles of Roadway)	Westbound (Miles of Roadway)
LOS D or Better	88.0	90.3
LOS E	3.2	2.7
LOS F	1.8	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

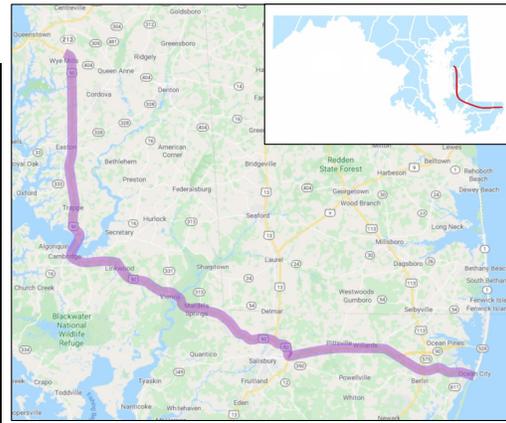
Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Friday (6PM-8PM)		Friday (6PM-8PM)	
			EB	WB	EB	WB
Other Principal Arterial	Del Rhodes Ave - MD 213	3.7				
	MD 213 - MD 404(Queen Ann Hwy)	1.5			W	
	MD 404(Queen Ann Hwy) -Black Dog Alley/Airport Rd	8.7				
	Black Dog Alley/Airport Rd - Easton Pkwy	0.9				
	Easton Pkwy - Chapel Rd	0.4	I		I	W
	Chapel Rd - MD 328 (Goldsborough St/Matthewstown Rd)	1.1				
	MD 328 - MD 331 (Dover Rd)	0.3				W
	MD 331 (Dover Rd)- Dutchmans Ln	0.9				
	Dutchmans Ln - Easton Pkwy	1.7			I	I
	Easton Pkwy - Old Trappe Rd/Landing Neck Rd	0.7				
	Old Trappe Rd/Landing Neck Rd - Barber Rd	5.2				
	Barber Rd - Maryland Ave	6.4				
	Maryland Ave - E Cedar St/Meteor Ave	0.3				
	E Cedar St/Meteor Ave - Crusader Rd	0.2	I	W	I	W
	Crusader Rd - Woods Rd	0.3				
	Woods Rd- MD 16/Gypsy Hill Rd/Church Creek Rd	0.5				
MD 16/Gypsy Hill Rd/Church Creek Rd - Old Rt 50/Bucktown Rd	0.4				W	
Old Rt 50/Bucktown Rd - MD 313/MD 54 (Delmar Rd)/Main St	19					
Other Freeways and Expressways	MD 313/MD 54 (Delmar Rd)/Main St - US 13/Salisbury Bypass/Ocean Hwy	12.6				
	US 13/Salisbury Bypass/Ocean Hwy - Hobbs Rd	3				
	Hobbs Rd - Walston Switch Rd	1.5				
Other Principal Arterial	Walston Switch Rd - MD 452/Friendship Rd/Seahawk Rd	17.8				
	MD 452/Friendship Rd/Seahawk Rd - MD 589/Racetrack Rd	1.3				
	MD 589/Racetrack Rd - Samuel Bowen Blvd/Riddle Ln/Holly Grove Rd	0.8				
	Samuel Bowen Blvd/Riddle Ln - Jerry Mack Rd/Man O War Ln	1.2				
	Jerry Mack Rd/Man O War Ln - Old Ocean City Rd/MD 707/Old Bridge Rd	0.4				
	Old Ocean City Rd/MD 707/Old Bridge Rd - Keyser Point Rd	0.5				
	Keyser Point Rd - MD 611/Stephen Decatur Hwy	0.3				
	MD 611/Stephen Decatur Hwy - Golf Course Rd	0.4				
	Golf Course Rd - Inlet Isle Ln	0.2			W	W
Inlet Isle Ln - MD 528/Philadelphia Ave	0.8					

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

US 50



Limits:	MD 213 to MD 528	
Corridor Length:	93 miles	
Speed Limit:	35 - 55 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	36	
Grade Separated Interchanges:	7	
Major Cross Streets:	MD 213, MD 404, MD 309 MD 322, MD 328, Mt. Holly Rd, MD 331, MD 313, Naylor Mill Rd, Northwood Dr, US 13, US 50 BUS, MD 90, US 113, MD 589, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A

2018 AADT	Trucks	Peak Hour Traffic
25,000 - 43,500 vpd	3% - 12%	10.5% - 12%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	1
LOS E	N/A	0
LOS F	N/A	0

Segment Operations

Level of Service	Eastbound (Miles of Roadway)	Westbound (Miles of Roadway)
LOS D or Better	81.5	71.6
LOS E	6.1	18.2
LOS F	5.4	3.2

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

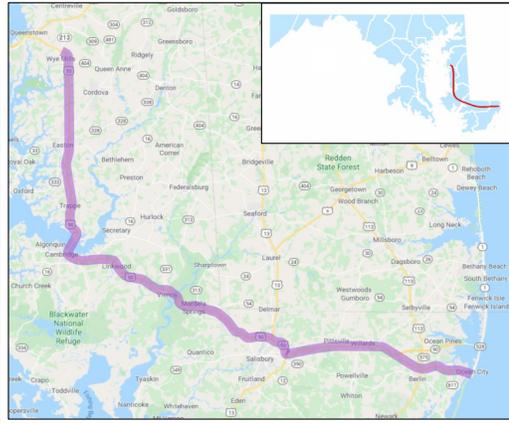
Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Saturday (12PM-2PM)		Saturday (12PM-2PM)	
			EB	WB	EB	WB
Other Principal Arterial	Del Rhodes Ave - MD 213	3.7				
	MD 213 - MD 404(Queen Ann Hwy)	1.5		W		W
	MD 404(Queen Ann Hwy) -Black Dog Alley/Airport Rd	8.7				W
	Black Dog Alley/Airport Rd - Easton Pkwy	0.9				
	Easton Pkwy - Chapel Rd	0.4			I	
	Chapel Rd - MD 328 (Goldsborough St/Matthewstown Rd)	1.1			W	
	MD 328 - MD 331 (Dover Rd)	0.3		W		W
	MD 331 (Dover Rd) - Dutchmans Ln	0.9				
	Dutchmans Ln - Easton Pkwy	1.7				
	Easton Pkwy - Old Trappe Rd/Landing Neck Rd	0.7				
	Old Trappe Rd/Landing Neck Rd - Barber Rd	5.2				
	Barber Rd - Maryland Ave	6.4				
	Maryland Ave - E Cedar St/Meteor Ave	0.3				
	E Cedar St/Meteor Ave - Crusader Rd	0.2		W	W	W
	Crusader Rd - Woods Rd	0.3				
	Woods Rd- MD 16/Gypsy Hill Rd/Church Creek Rd	0.5				
MD 16/Gypsy Hill Rd/Church Creek Rd - Old Rt 50/Bucktown Rd	0.4		W	W	W	
Old Rt 50/Bucktown Rd - MD 313/MD 54 (Delmar Rd)/Main St	19					
Other Freeways and Expressways	MD 313/MD 54 (Delmar Rd)/Main St - US 13/Salisbury Bypass/Ocean Hwy	12.6				
	US 13/Salisbury Bypass/Ocean Hwy - Hobbs Rd	3				I
	Hobbs Rd - Walston Switch Rd	1.5				
Other Principal Arterial	Walston Switch Rd - MD 452/Friendship Rd/Seahawk Rd	17.8				
	MD 452/Friendship Rd/Seahawk Rd - MD 589/Racetrack Rd	1.3				W
	MD 589/Racetrack Rd - Samuel Bowen Blvd/Riddle Ln/Holly Grove Rd	0.8				
	Samuel Bowen Blvd/Riddle Ln - Jerry Mack Rd/Man O War Ln	1.2				
	Jerry Mack Rd/Man O War Ln - Old Ocean City Rd/MD 707/Old Bridge Rd	0.4			I	
	Old Ocean City Rd/MD 707/Old Bridge Rd - Keyser Point Rd	0.5				
	Keyser Point Rd - MD 611/Stephen Decatur Hwy	0.3				
	MD 611/Stephen Decatur Hwy - Golf Course Rd	0.4				
	Golf Course Rd - Inlet Isle Ln	0.2	W		W	W
Inlet Isle Ln - MD 528/Philadelphia Ave	0.8					

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

US 50



Limits:	MD 213 to MD 528	
Corridor Length:	93 miles	
Speed Limit:	35 - 55 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	36	
Grade Separated Interchanges:	7	
Major Cross Streets:	MD 213, MD 404, MD 309 MD 322, MD 328, Mt. Holly Rd, MD 331, MD 313, Naylor Mill Rd, Northwood Dr, US 13, US 50 BUS, MD 90, US 113, MD 589, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A

2018 AADT	Trucks	Peak Hour Traffic
22,500 - 40,500 vpd	3% - 12%	10.5% - 12%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	9
LOS E	N/A	2
LOS F	N/A	0

Segment Operations

Level of Service	Eastbound (Miles of Roadway)	Westbound (Miles of Roadway)
LOS D or Better	87.6	74.0
LOS E	4.0	15.8
LOS F	1.4	3.2

LOS 'E' Intersections

- US 50 at MD 213 (PM)
- US 50 at MD 404 (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Sunday (2PM-4PM)		Sunday (2PM-4PM)	
			EB	WB	EB	WB
Other Principal Arterial	Del Rhodes Ave - MD 213	3.7				
	MD 213 - MD 404(Queen Ann Hwy)	1.5		W		W
	MD 404(Queen Ann Hwy) - Black Dog Alley/Airport Rd	8.7				
	Black Dog Alley/Airport Rd - Easton Pkwy	0.9				
	Easton Pkwy - Chapel Rd	0.4			W	
	Chapel Rd - MD 328 (Goldsborough St/Matthewstown Rd)	1.1			W	I
	MD 328 - MD 331 (Dover Rd)	0.3			W	
	MD 331 (Dover Rd) - Dutchmans Ln	0.9				I
	Dutchmans Ln - Easton Pkwy	1.7				
	Easton Pkwy - Old Trappe Rd/Landing Neck Rd	0.7				
	Old Trappe Rd/Landing Neck Rd - Barber Rd	5.2				
	Barber Rd - Maryland Ave	6.4				
	Maryland Ave - E Cedar St/Meteor Ave	0.3		W		
	E Cedar St/Meteor Ave - Crusader Rd	0.2			I	
	Crusader Rd - Woods Rd	0.3				
Woods Rd - MD 16/Gypsy Hill Rd/Church Creek Rd	0.5					
MD 16/Gypsy Hill Rd/Church Creek Rd - Old Rt 50/Bucktown Rd	0.4			W	W	
Old Rt 50/Bucktown Rd - MD 313/MD 54 (Delmar Rd)/Main St	19				W	
Other Freeways and Expressways	MD 313/MD 54 (Delmar Rd)/Main St - US 13/Salisbury Bypass/Ocean Hwy	12.6				
	US 13/Salisbury Bypass/Ocean Hwy - Hobbs Rd	3				I
	Hobbs Rd - Walston Switch Rd	1.5				
Other Principal Arterial	Walston Switch Rd - MD 452/Friendship Rd/Seahawk Rd	17.8				
	MD 452/Friendship Rd/Seahawk Rd - MD 589/Racetrack Rd	1.3				W
	MD 589/Racetrack Rd - Samuel Bowen Blvd/Riddle Ln/Holly Grove Rd	0.8				
	Samuel Bowen Blvd/Riddle Ln - Jerry Mack Rd/Man O War Ln	1.2				
	Jerry Mack Rd/Man O War Ln - Old Ocean City Rd/MD 707/Old Bridge Rd	0.4			W	
	Old Ocean City Rd/MD 707/Old Bridge Rd - Keyser Point Rd	0.5				
	Keyser Point Rd - MD 611/Stephen Decatur Hwy	0.3				
	MD 611/Stephen Decatur Hwy - Golf Course Rd	0.4				
	Golf Course Rd - Inlet Isle Ln	0.2			W	W
Inlet Isle Ln - MD 528/Philadelphia Ave	0.8					

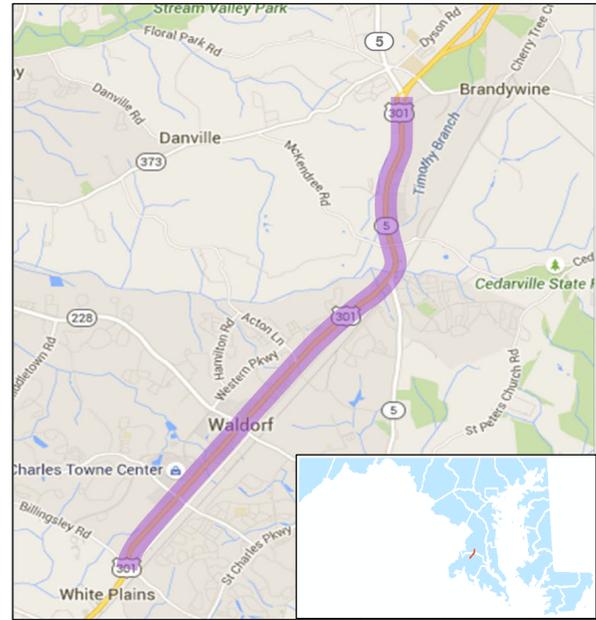
I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 301

Limits:	Billingsley Rd to MD 5	
Corridor Length:	7.8 miles	
Speed Limit:	45 - 55 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	16	
Grade Separated Interchanges:	0	
Major Cross Streets:	Billingsley Rd, Smallwood Dr, MD 228, Acton Ln, MD 5, Cedarville Rd/McKendree Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 705	969
	MTA Commuter Bus 715	687
	MTA Commuter Bus 725	274
	MTA Commuter Bus 735	459
	Ride On Route 36	260



2018 AADT	Trucks	Peak Hour Traffic
38,000 - 103,000 vpd	4% - 5%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	1	1
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.9 / 6.1	6.5 / 5.9
LOS E	1.9 / 0.4	1.3 / 0.0
LOS F	0.0 / 1.3	0.0 / 1.9

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Rural Other Principal Arterial	Branch Ave. (MD 5) - Timothy Branch/Chadds Ford Dr.	1.1	Yellow	Green	Green	Red	Yellow	Green	Green	Yellow
	Timothy Branch/Chadds Ford Dr-Cedarville Rd/McKendree Rd	0.8	Green	Green	Green	Green	Green	Green	Green	Green
	Cedarville Rd./McKendree Rd.-Mattawmn BeantownRd (MD 5)	0.5	Green	Green	Green	Green	Green	Green	Green	Green
Urban Other Principal Arterial	Mattawoman Beantown Rd. (MD 5) - Sub-Station Rd.	0.4	Green	Green	Yellow	Green	Green	Green	Green	Green
	Sub-Station Rd. - Acton Ln.	1.3	Green	Green	Green	Green	Green	Green	Green	Green
	Acton Ln. - Berry Rd. (MD 228)/Leonardtown Rd. (Bus MD 5)	1.2	Green	Green	Green	Green	Green	Green	Green	Green
	Berry Rd. (MD 228)/Leonardtown Rd. (Bus MD 5) - St Patricks Dr.	0.7	Green	Yellow	Red	Green	Green	Green	Green	Green
	St Patricks Dr. - Smallwood Dr.	0.6	Green	Green	Green	Green	Green	Green	Green	Green
	Smallwood Dr. - Billingsley Rd.	1.2	Green	Green	Green	Green	Green	Green	Green	Green

I = Improvement from 2017 W = Worsened from 2017 (blank) = No significant change from 2017

PTI: planning time index (95th percentile travel time / freeflow travel time)

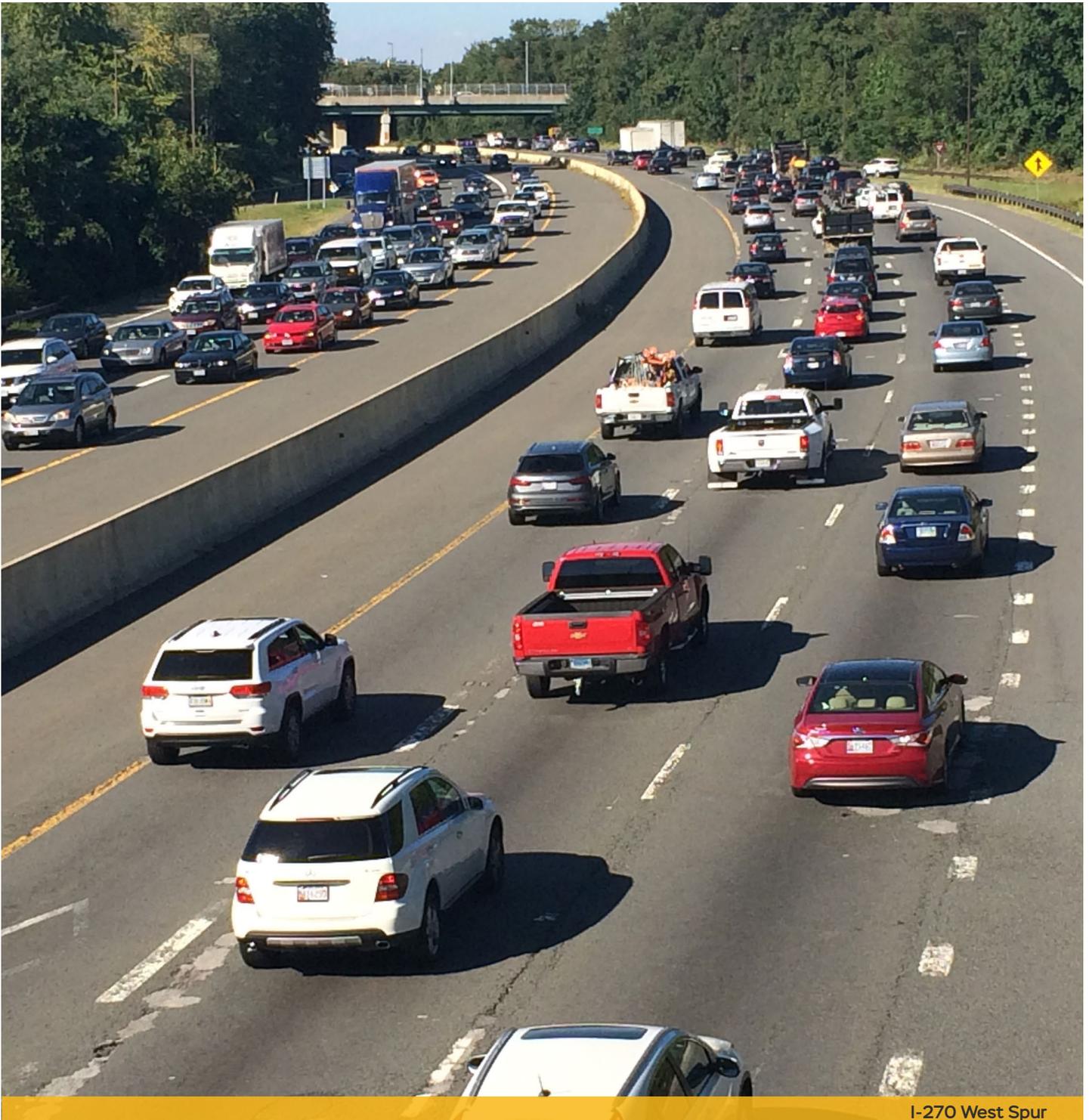
TTI: travel time index (50th percentile travel time / freeflow travel time)

D. Most Congested Locations by County

The Travel Time Index (TTI) was computed for freeways/expressways and other roadways in each county. The TTI for each individual segment was combined to develop sections in the following manner.

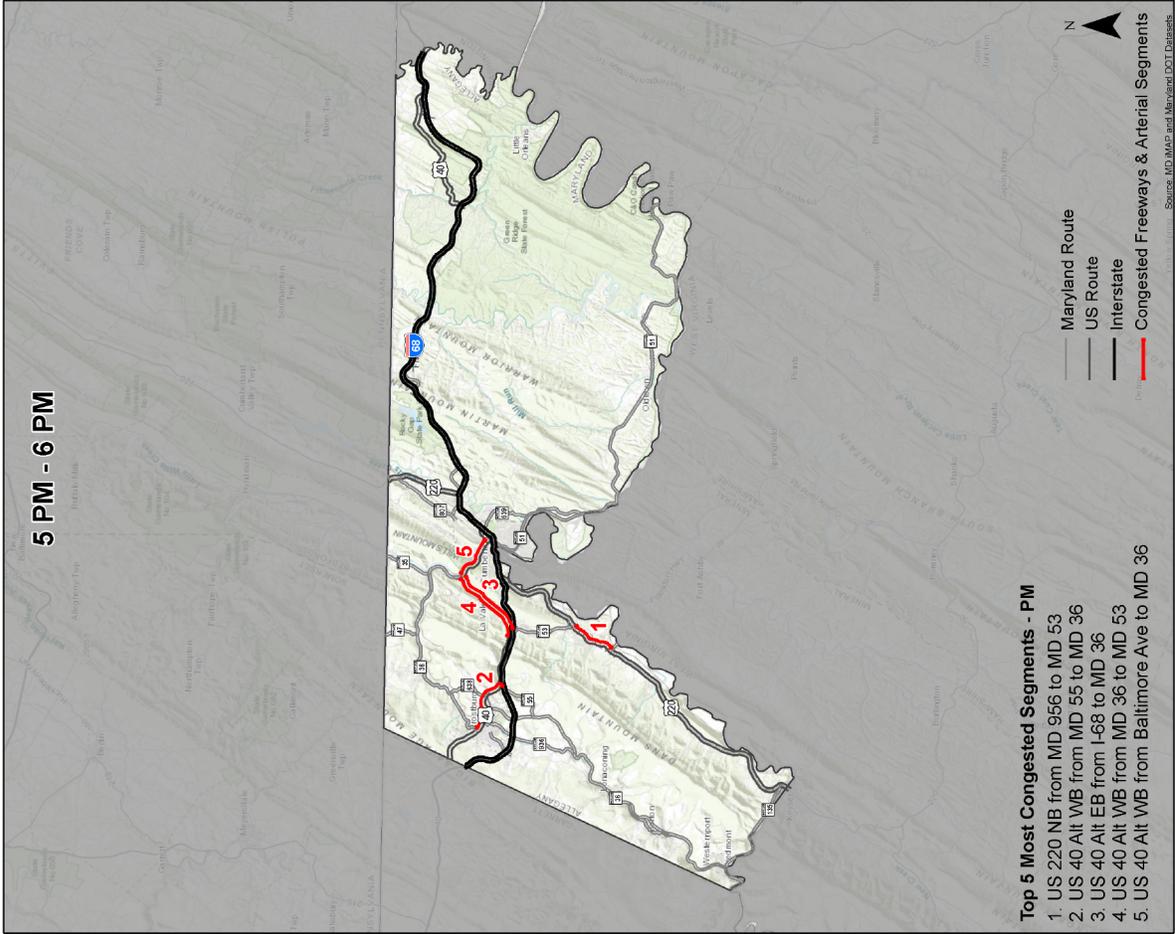
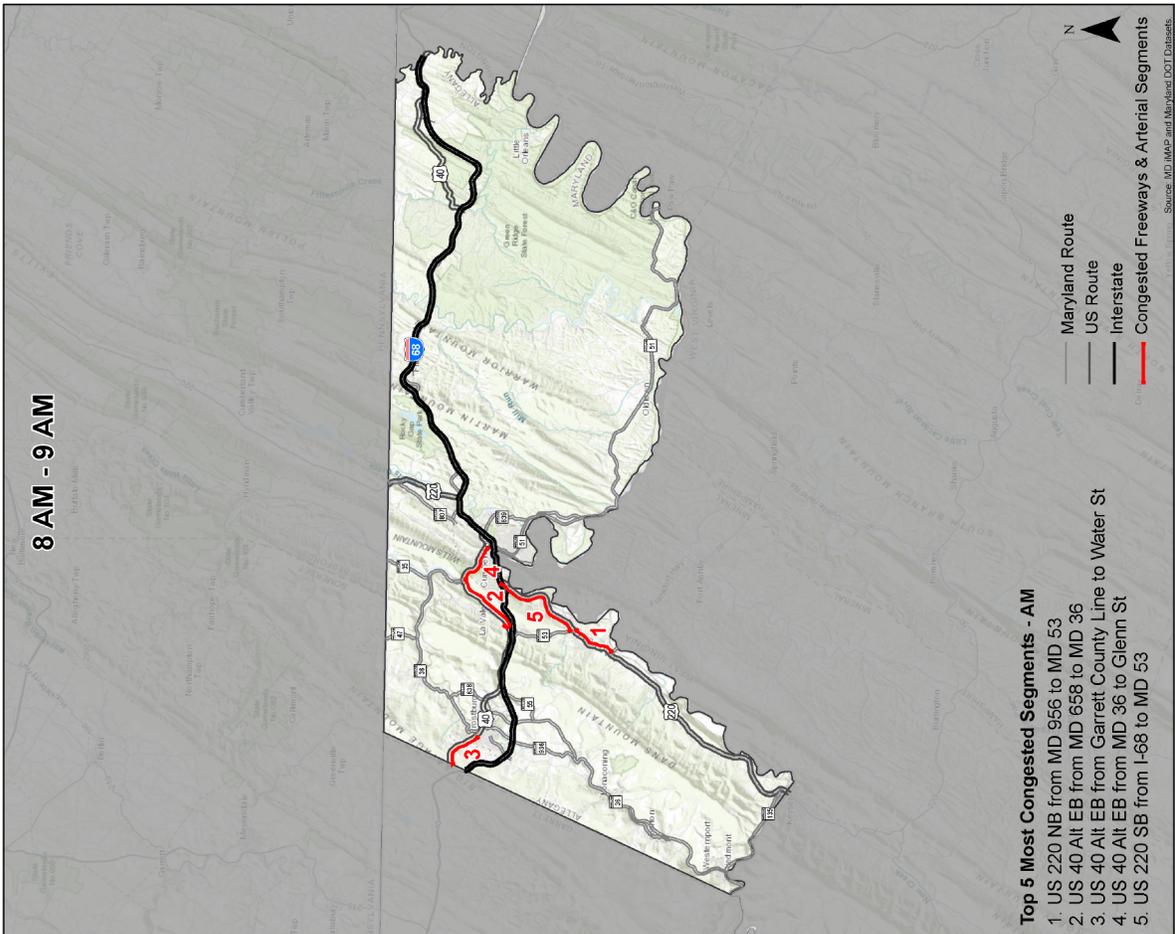
Most Congested Weighted Average = (Individual Segment TTI x Section Length)/Total Section Length

Freeway/expressway segments were combined into three to eight mile sections. The remaining roadway were evaluated for two to five mile sections. The top 5 locations for each county are shown in mapping on the following pages.

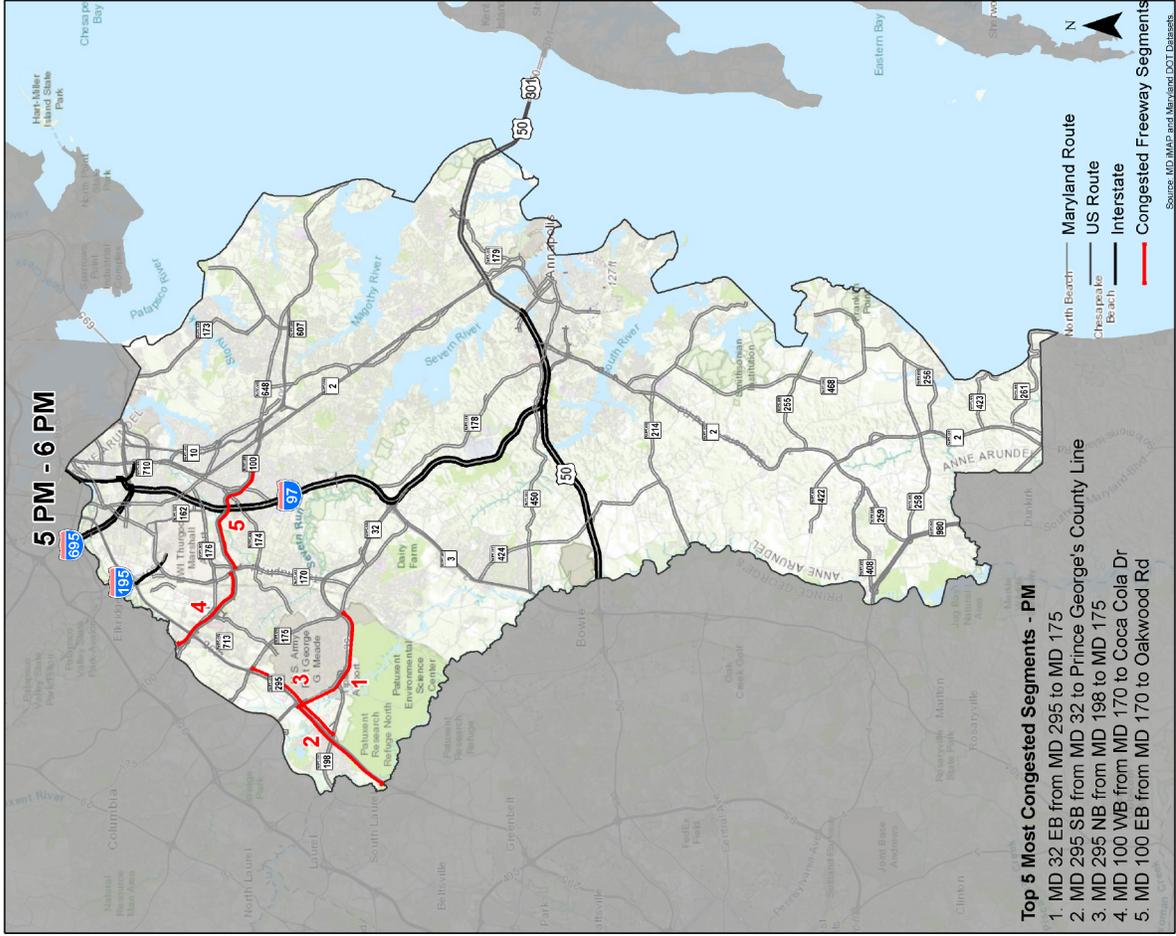
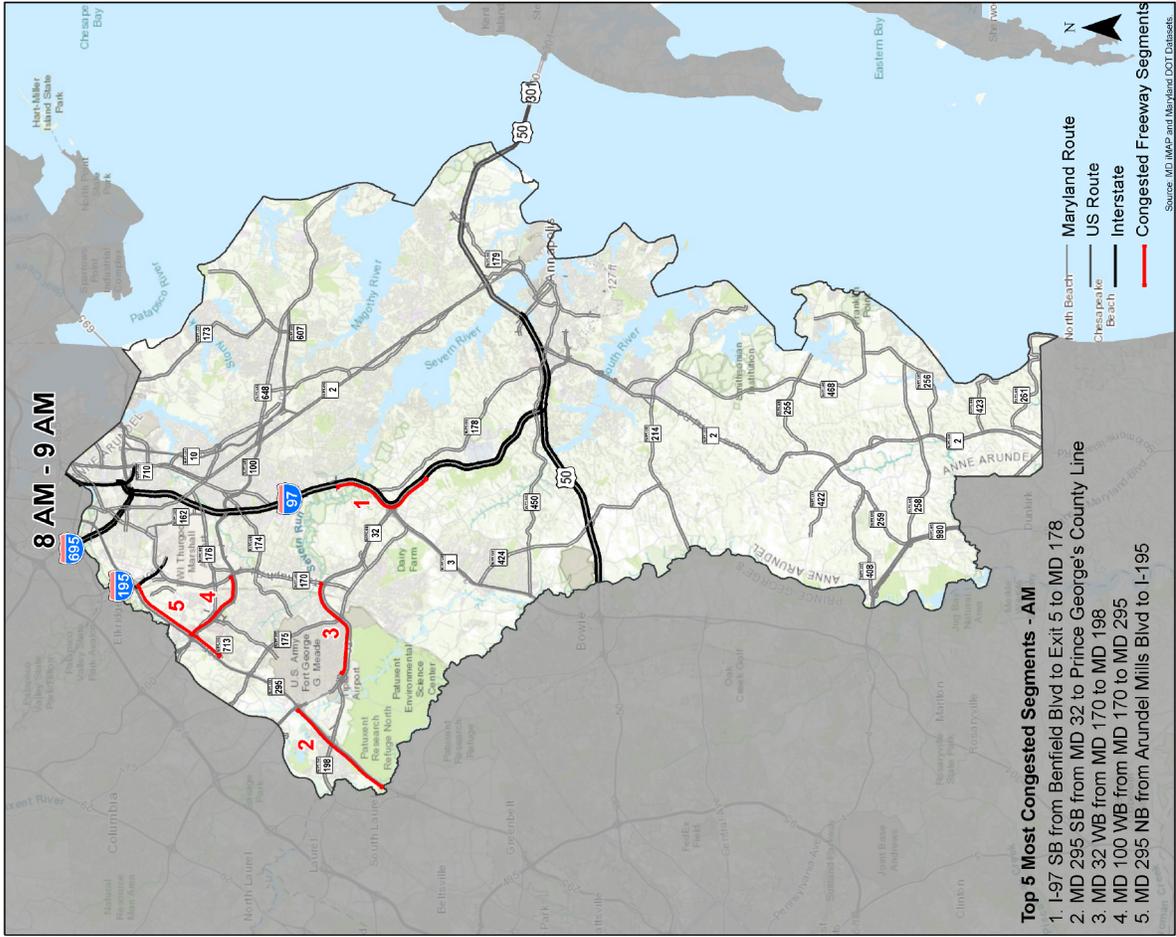


I-270 West Spur

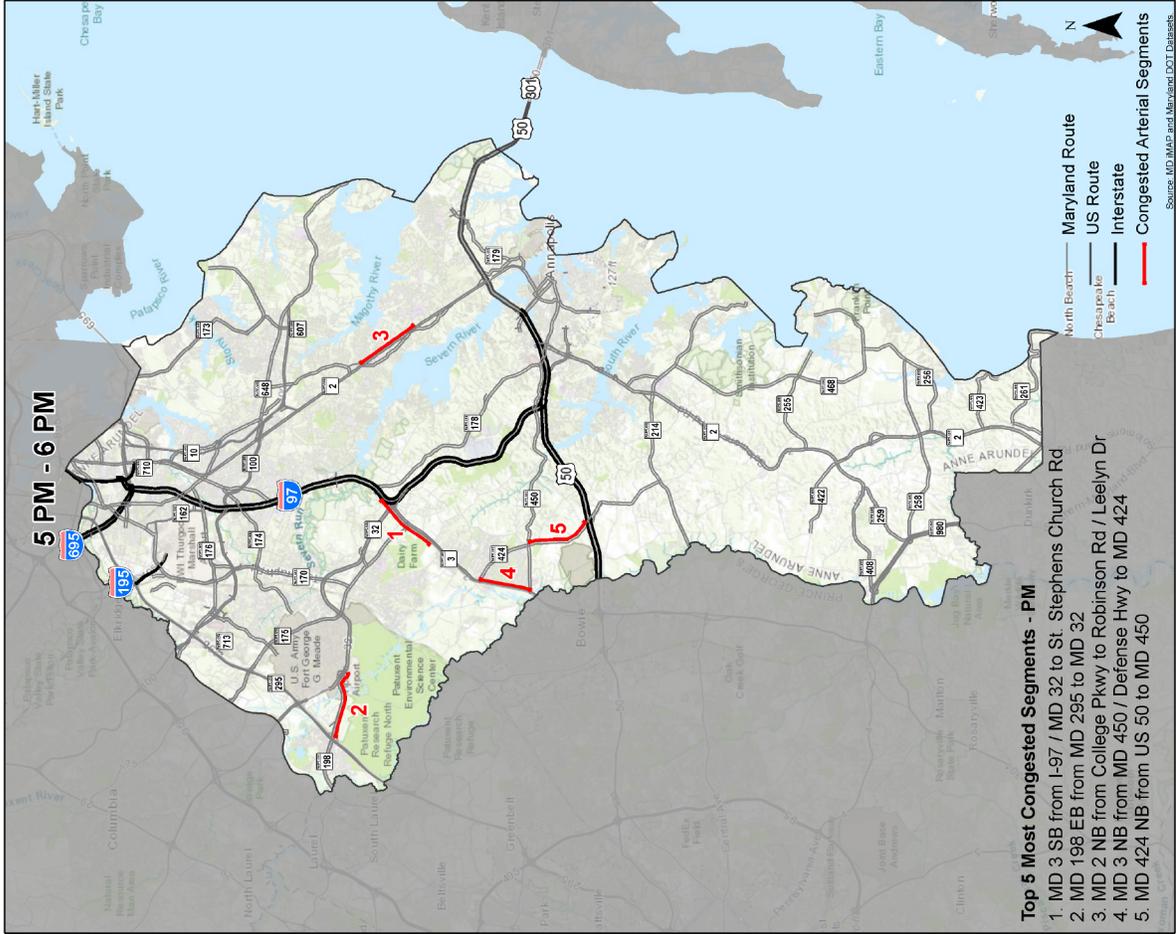
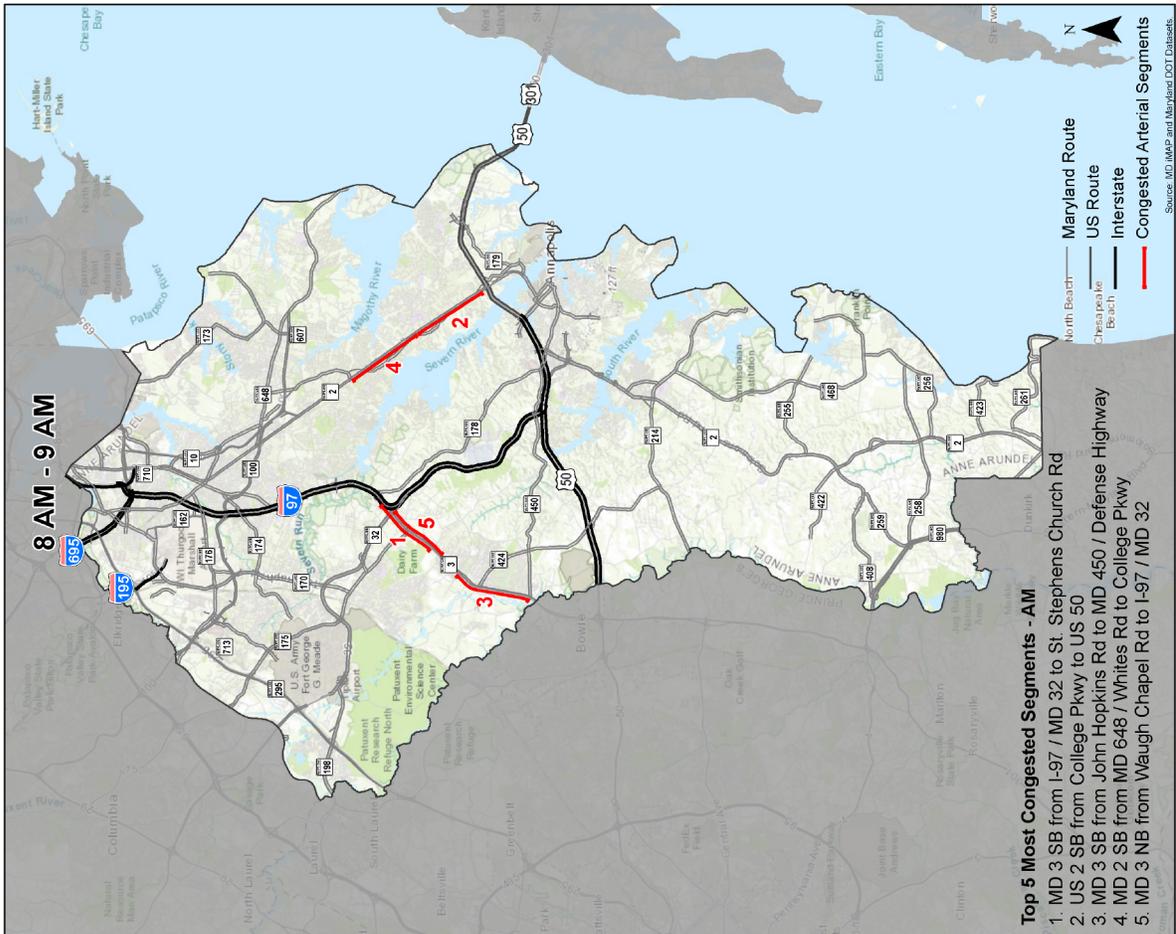
Most Congested Freeway & Arterial Segments - Allegany County



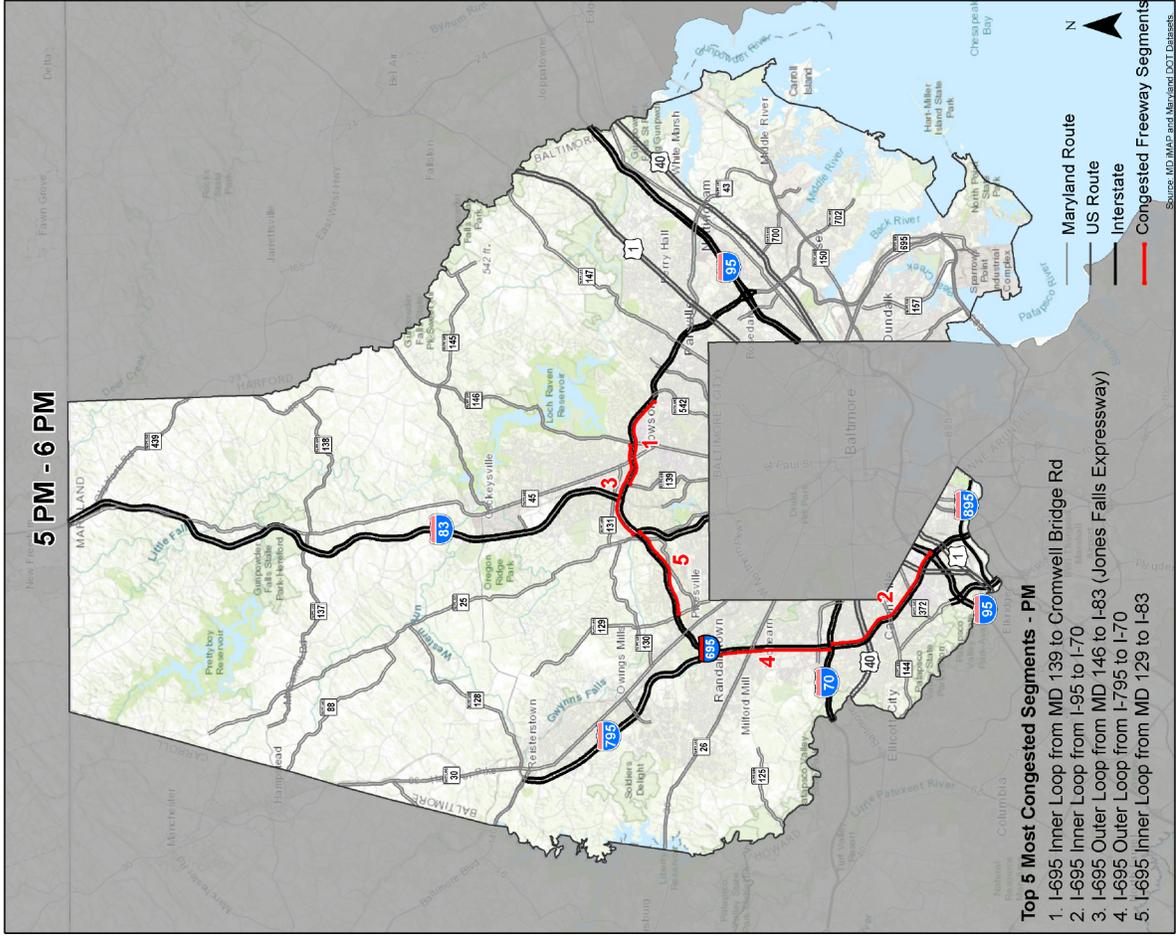
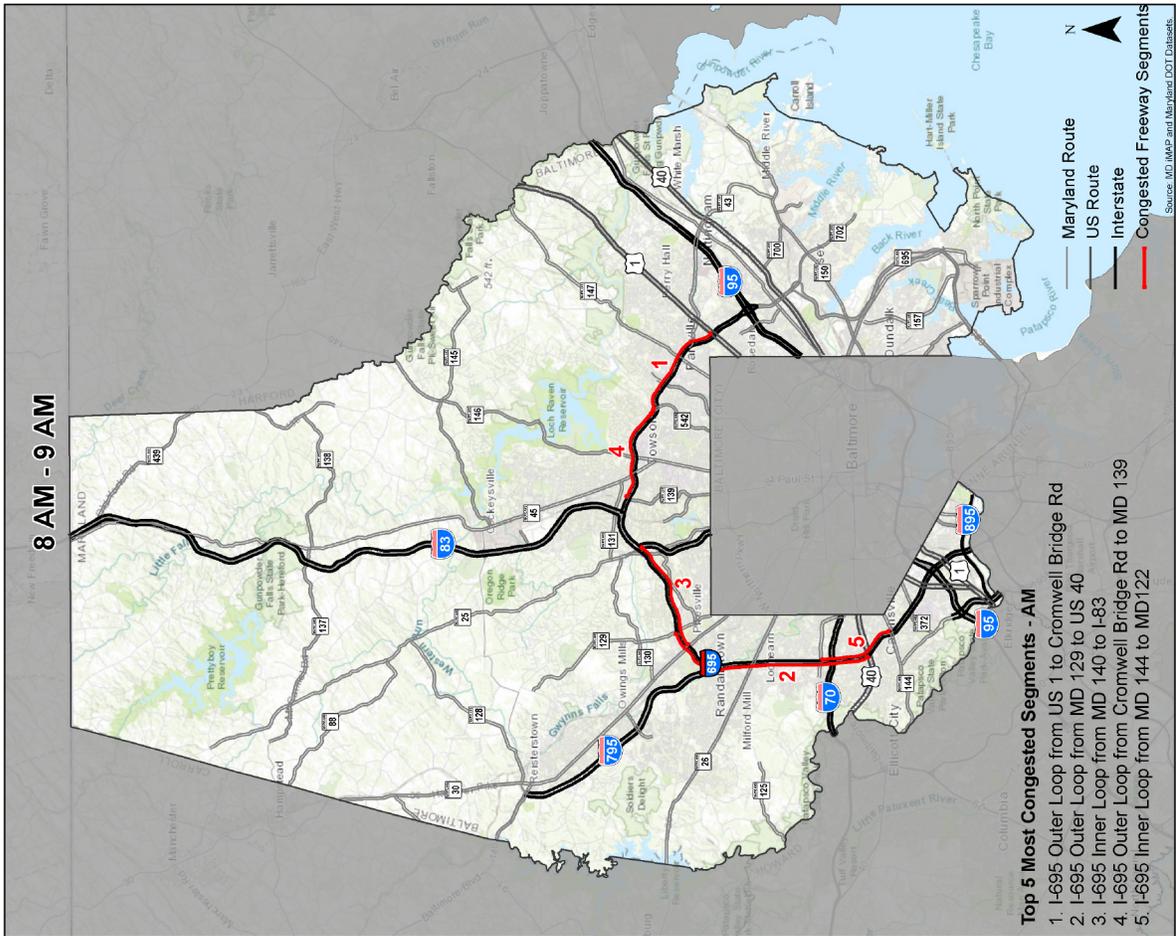
Most Congested Freeway Segments - Anne Arundel County



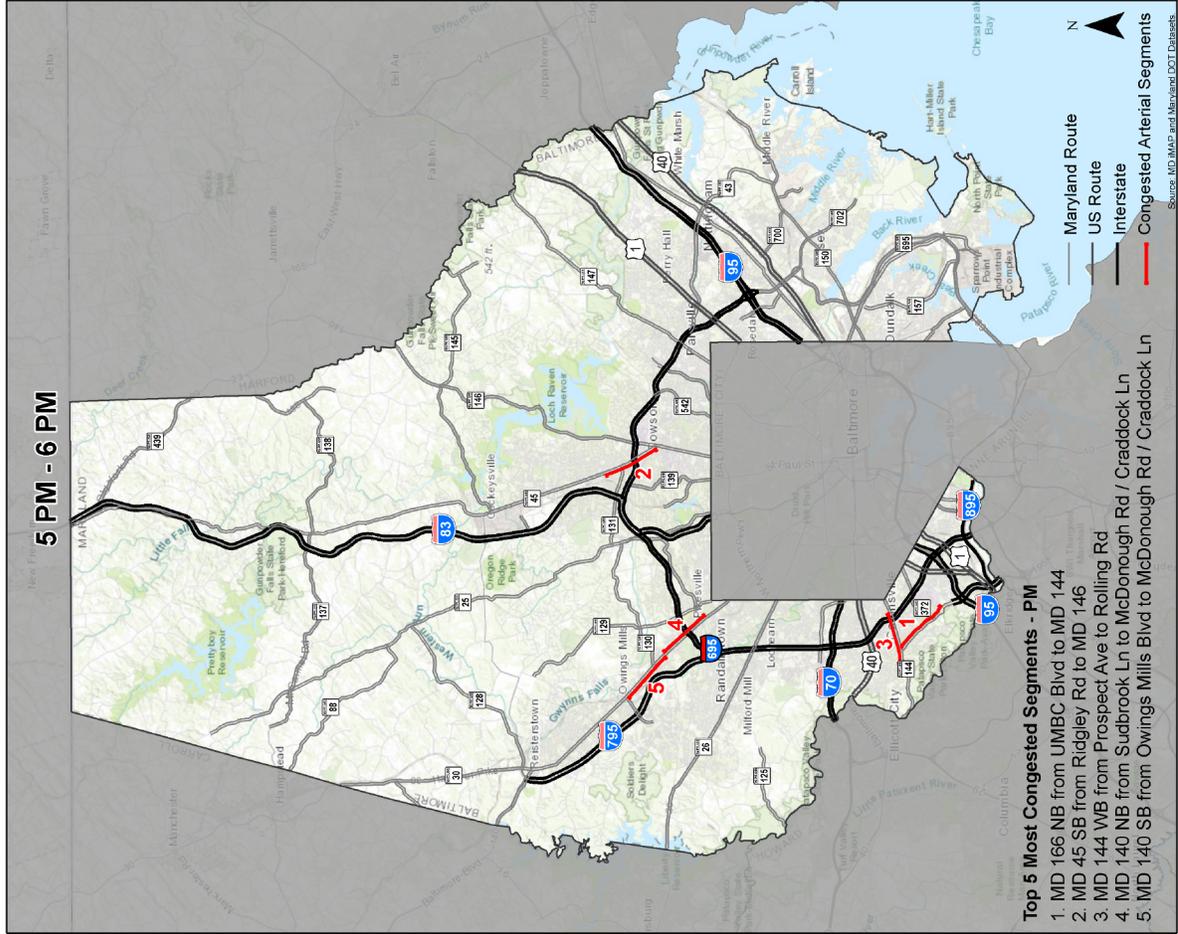
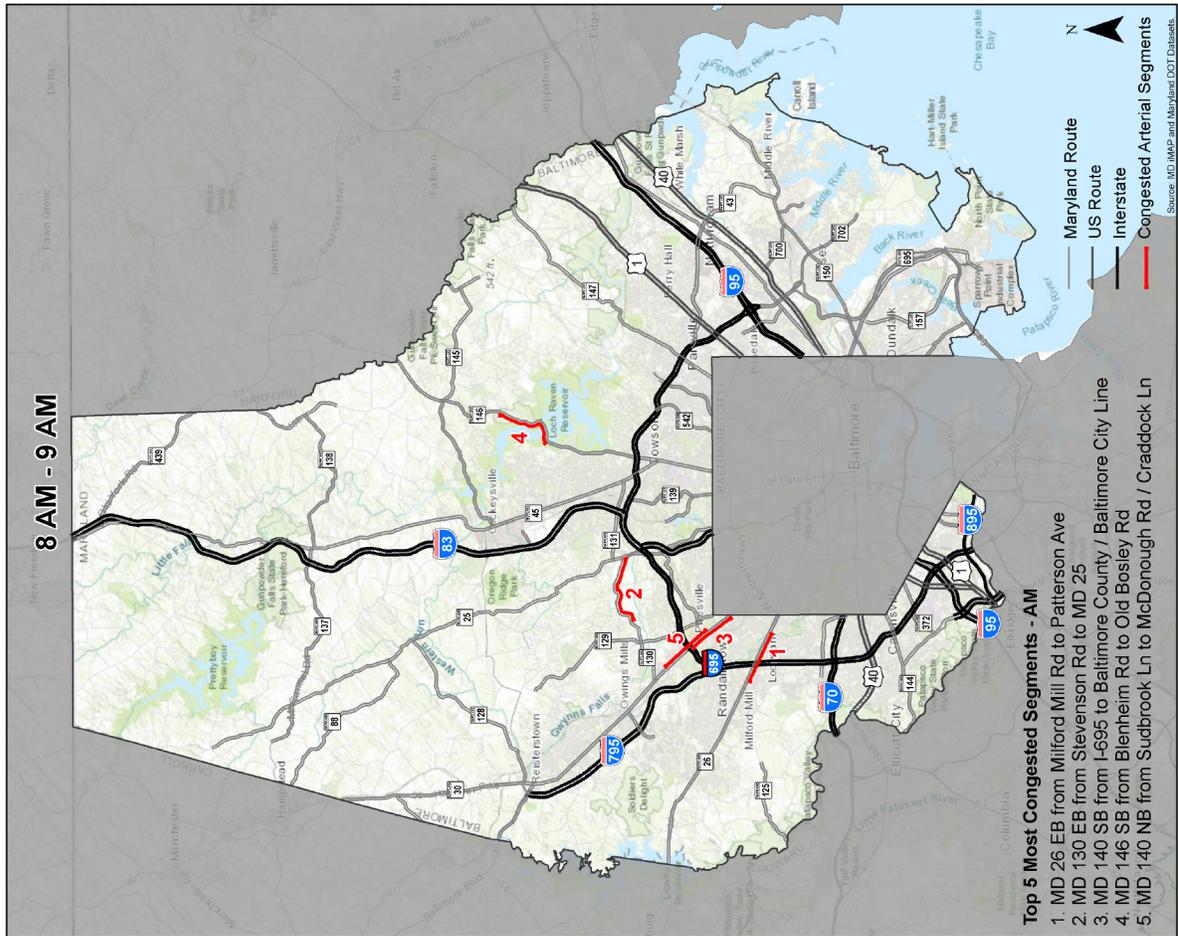
Most Congested Arterial Segments - Anne Arundel County



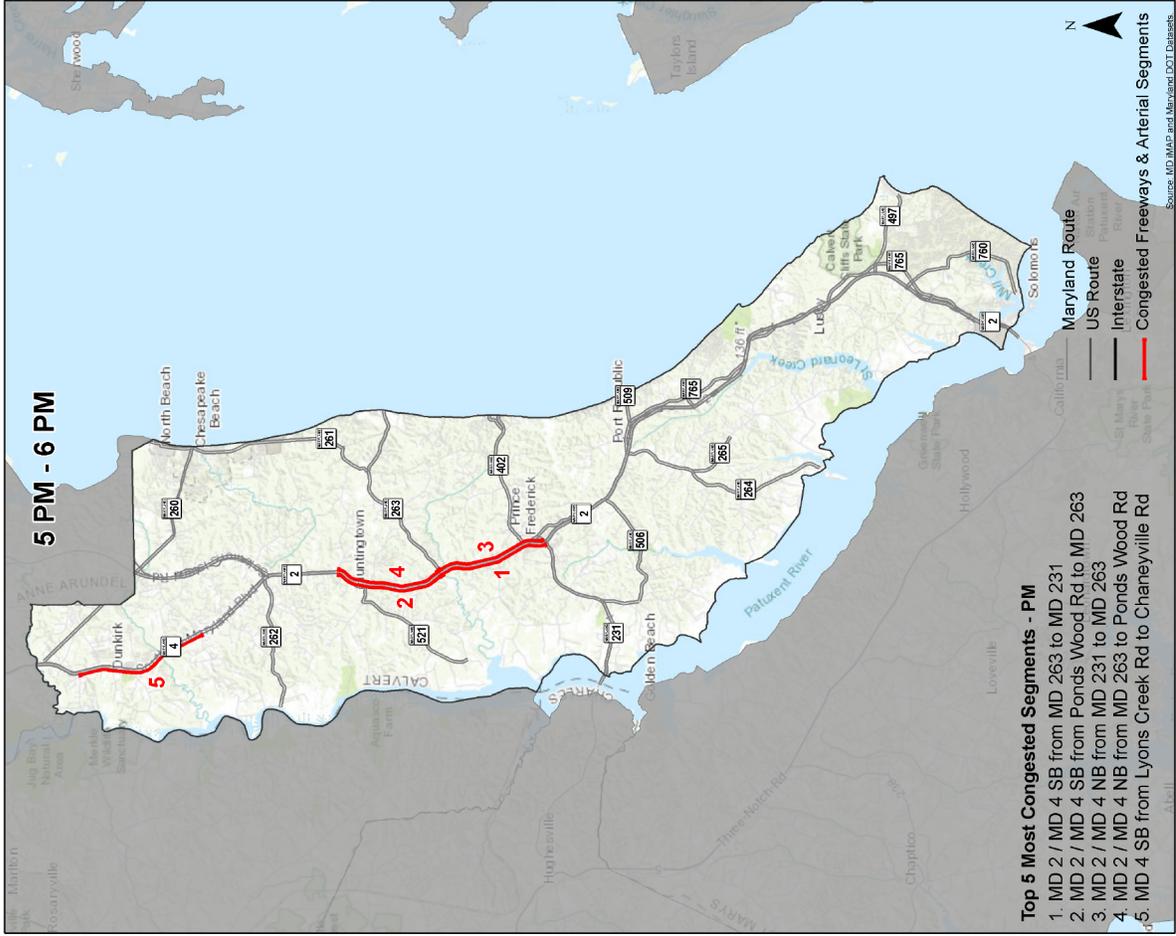
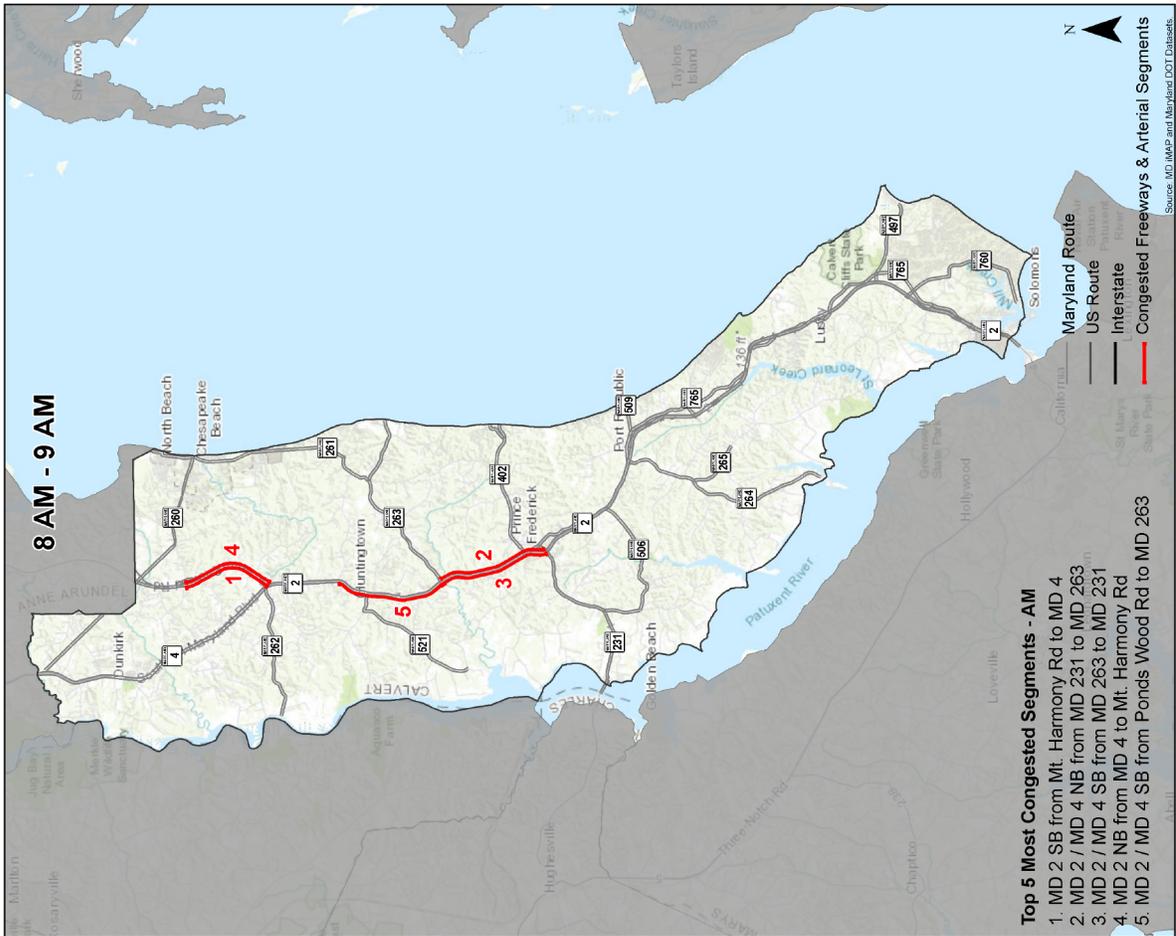
Most Congested Freeway Segments - Baltimore County



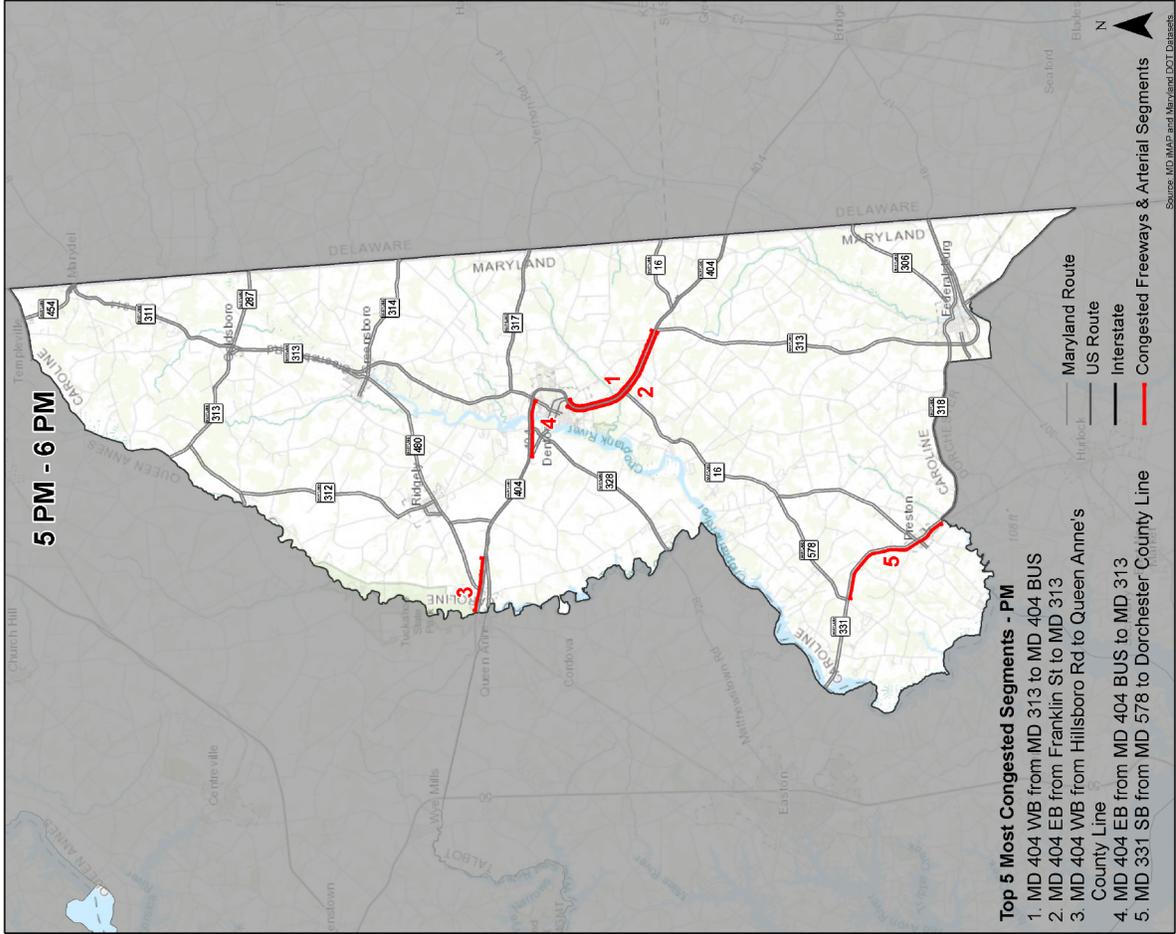
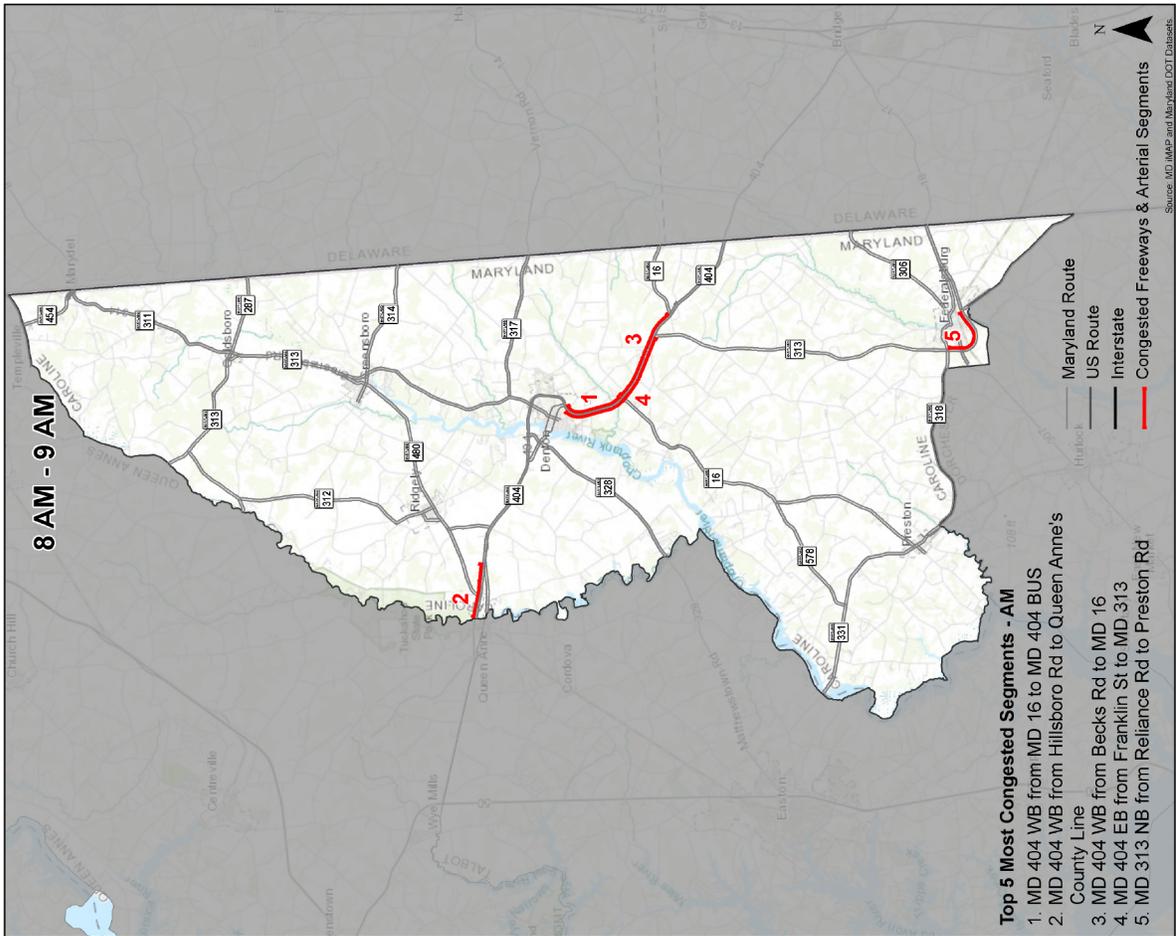
Most Congested Arterial Segments - Baltimore County



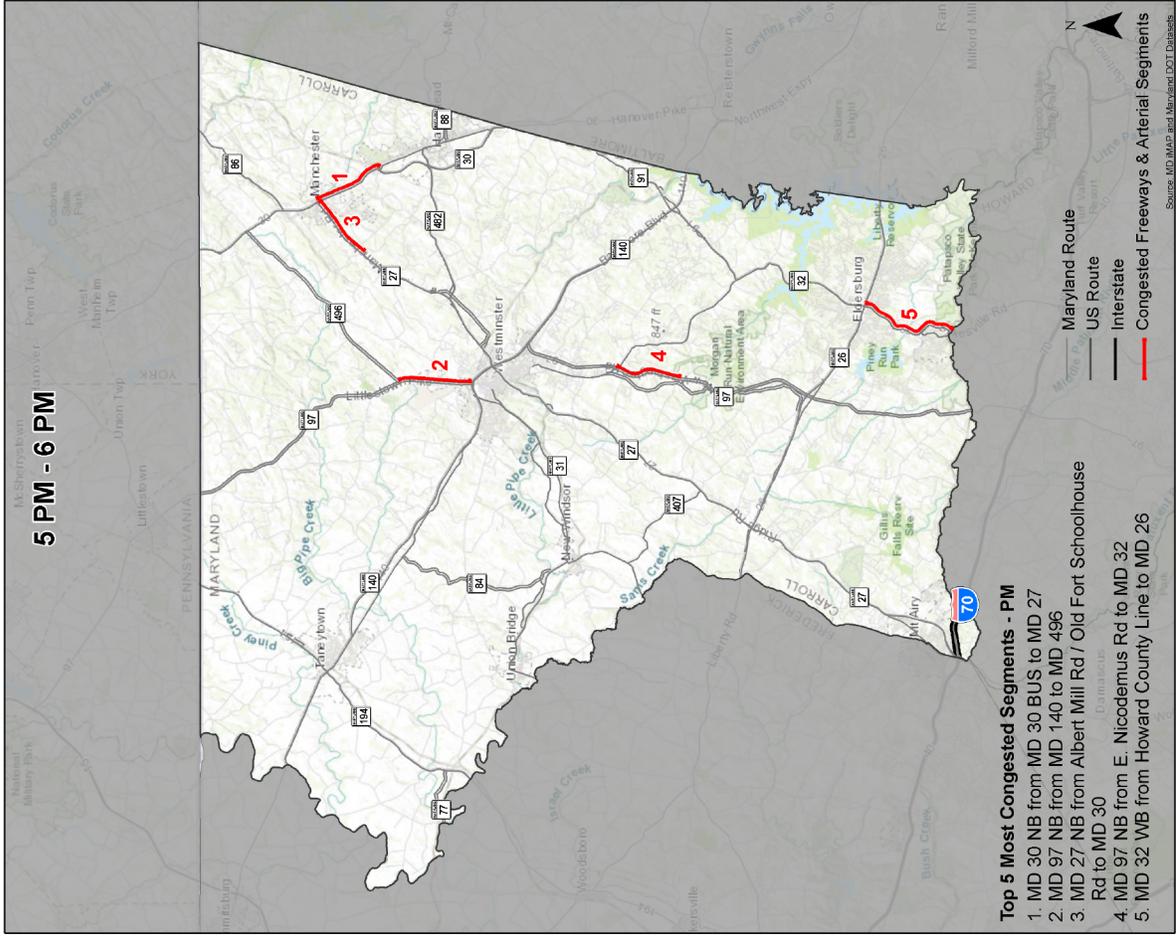
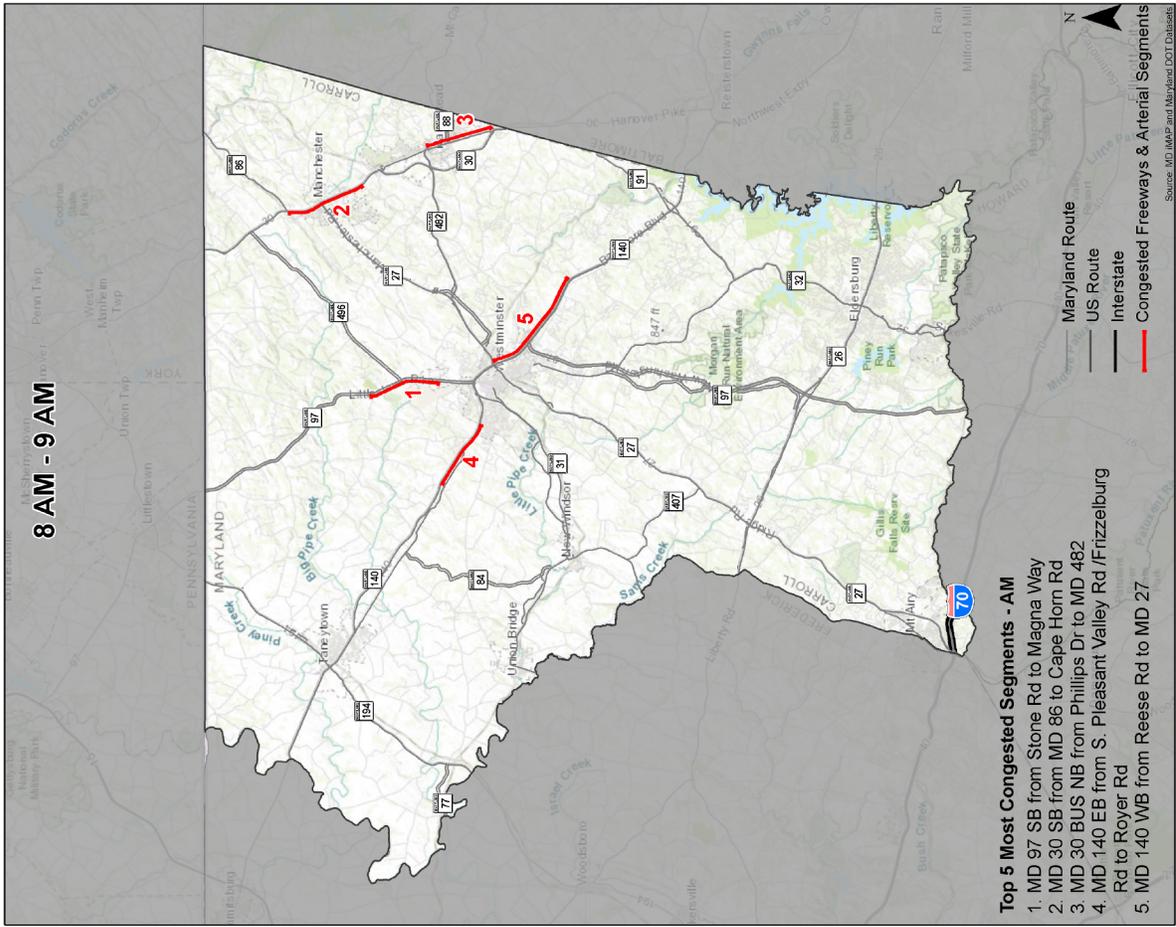
Most Congested Freeway & Arterial Segments - Calvert County



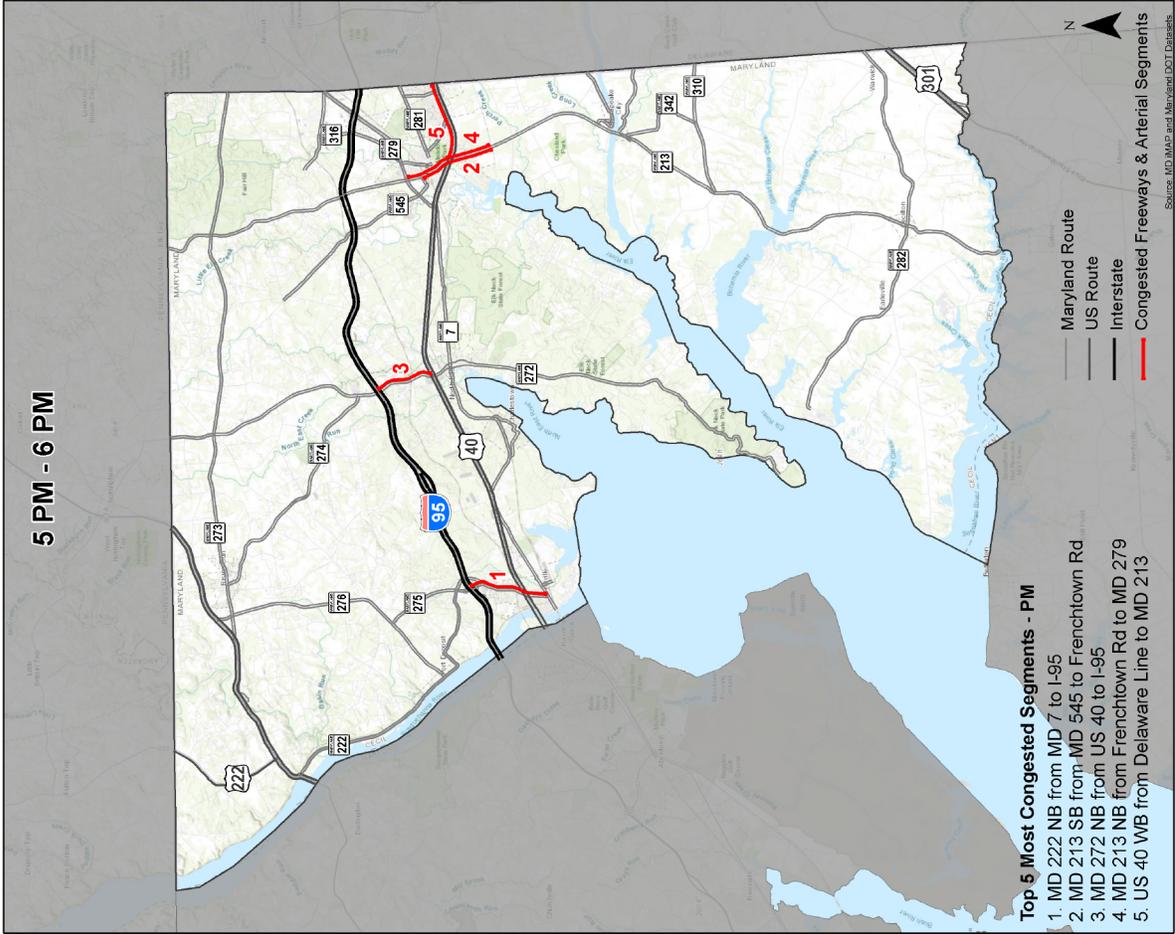
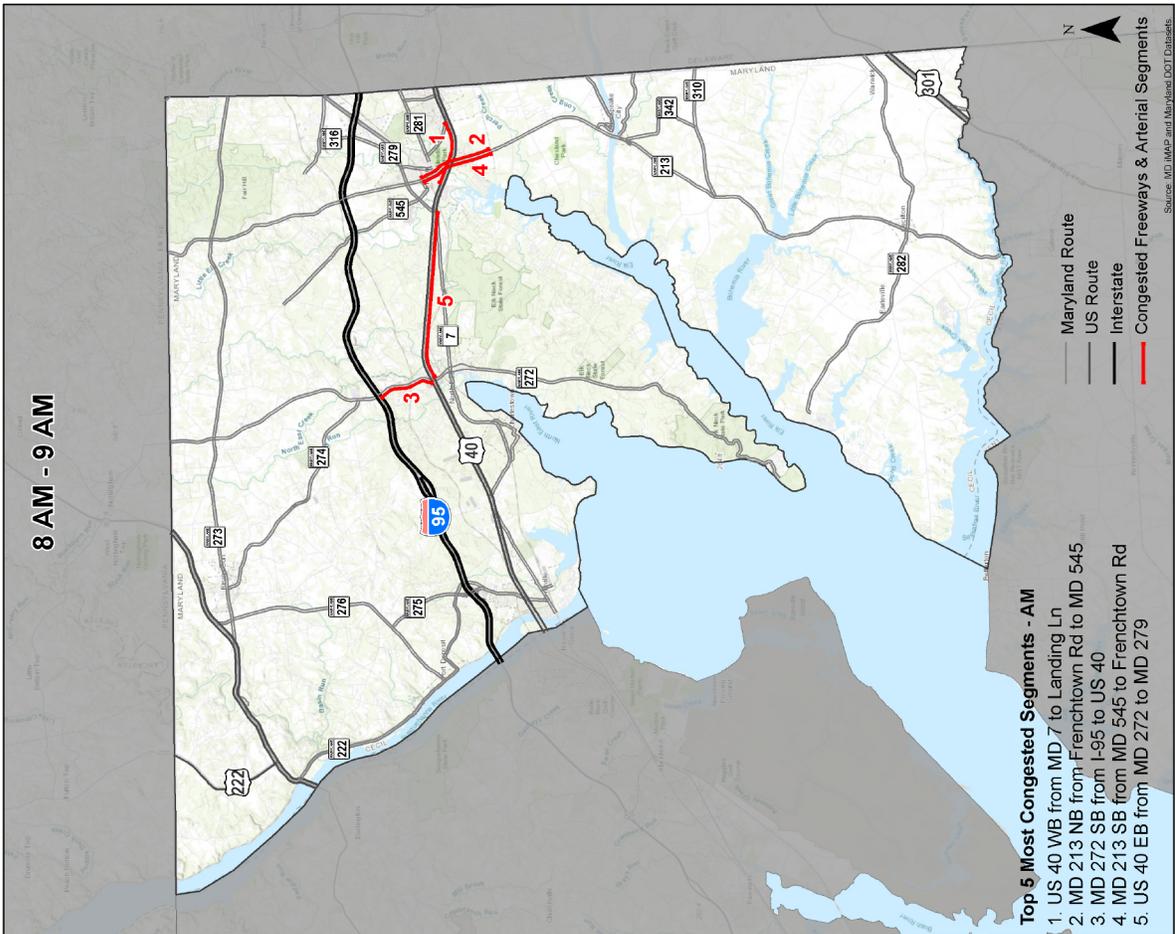
Most Congested Freeway & Arterial Segments - Caroline County



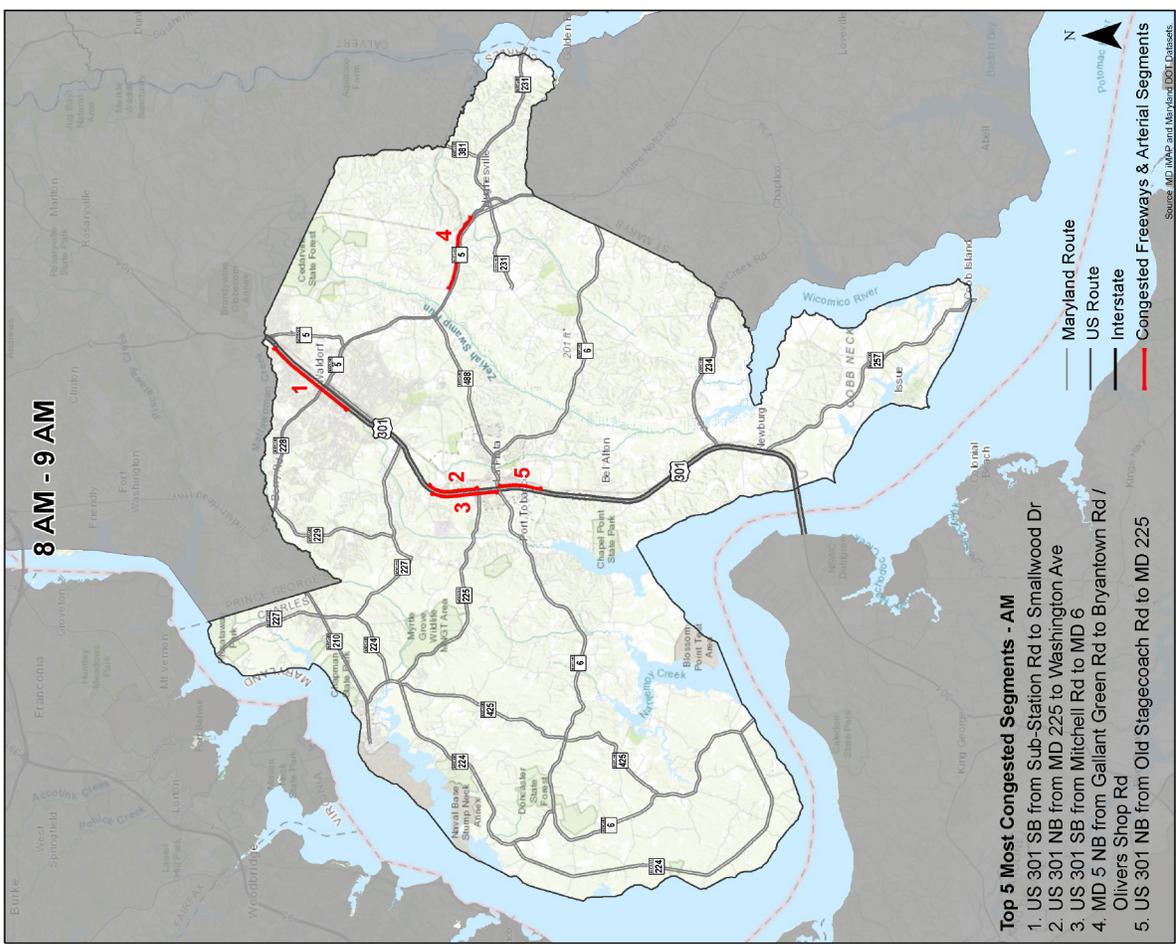
Most Congested Freeway & Arterial Segments - Carroll County



Most Congested Freeway & Arterial Segments - Cecil County



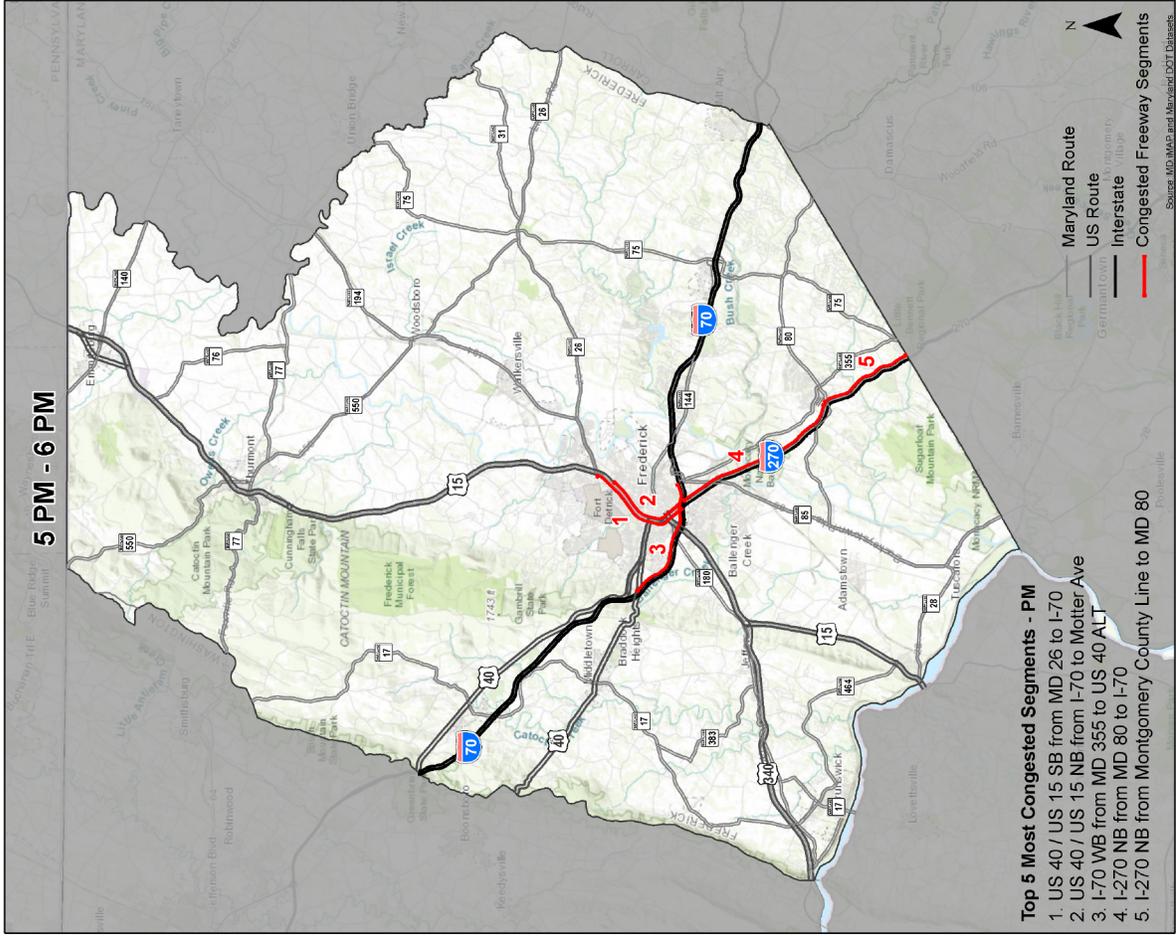
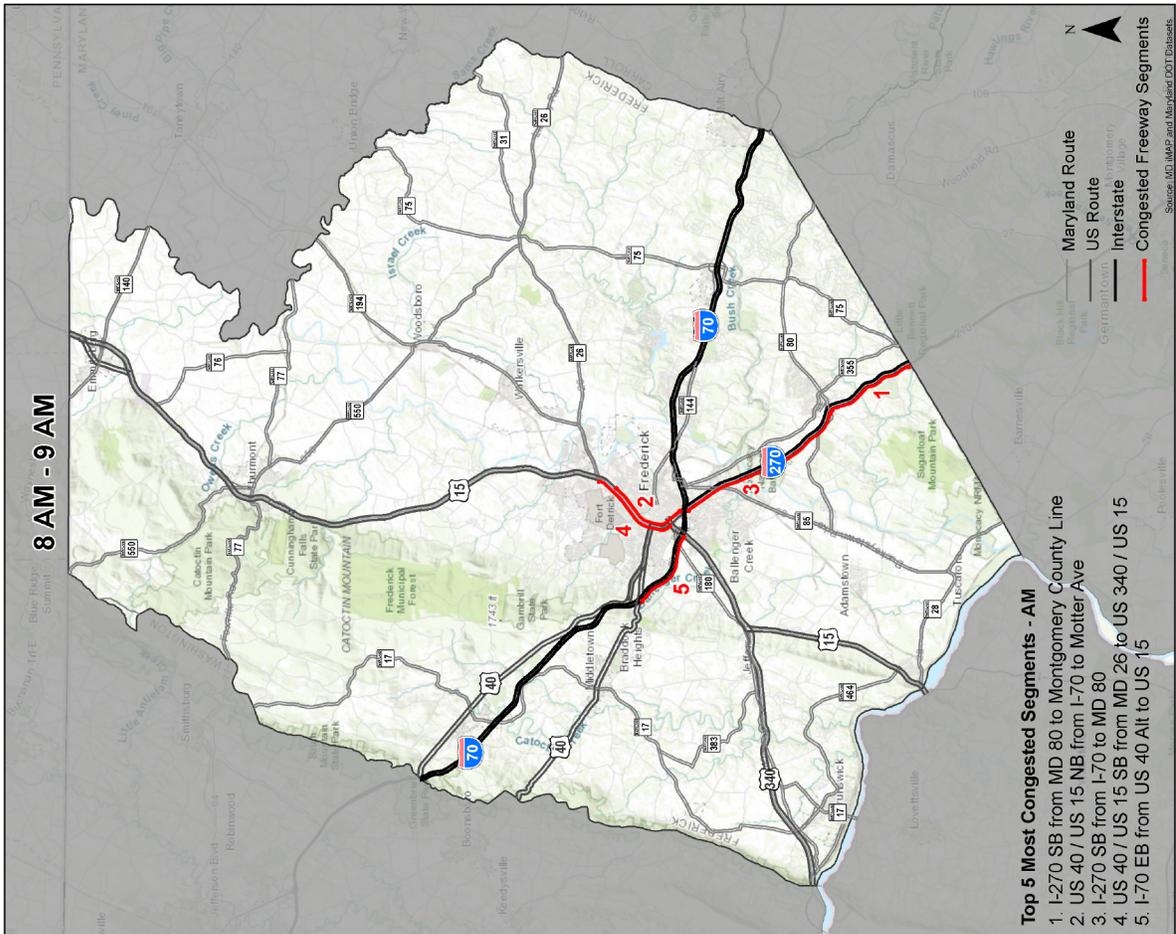
Most Congested Freeway & Arterial Segments - Charles County



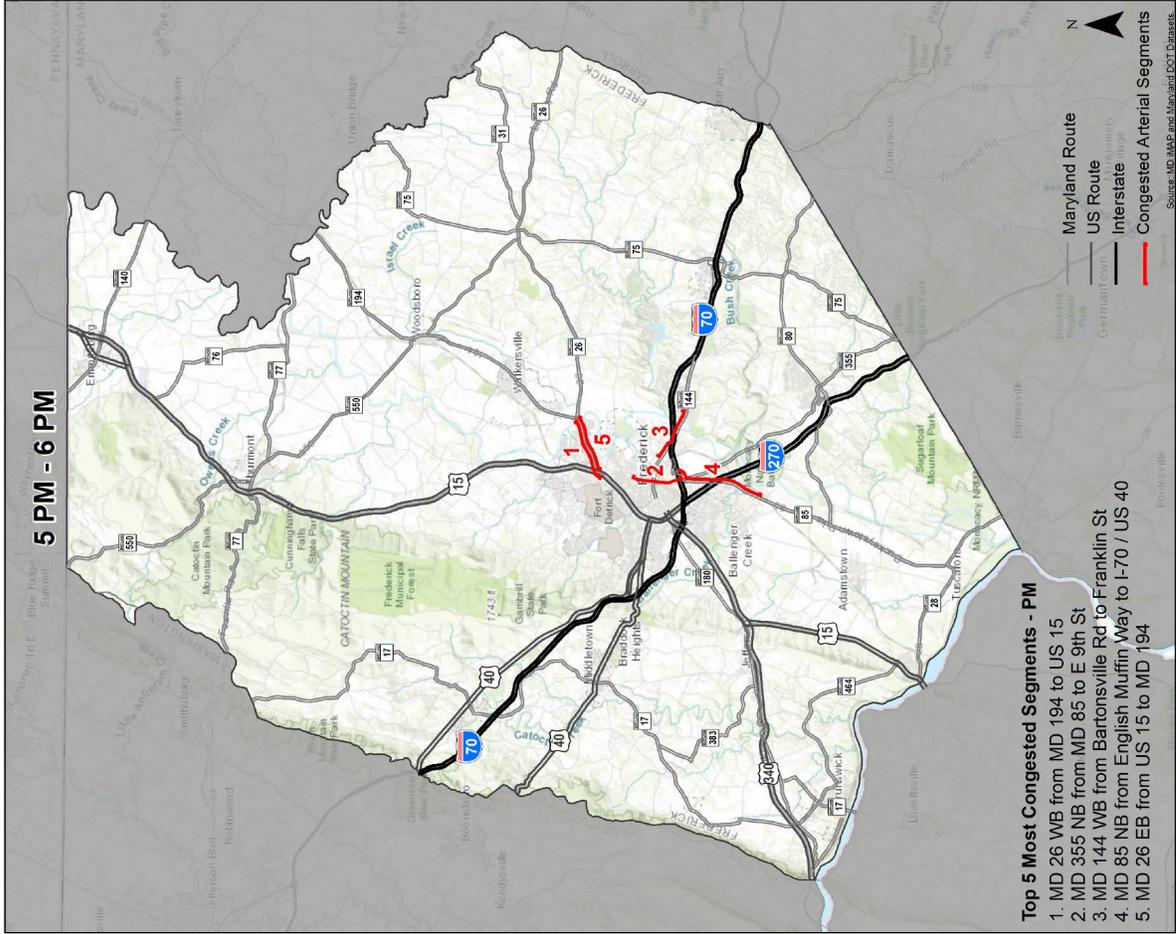
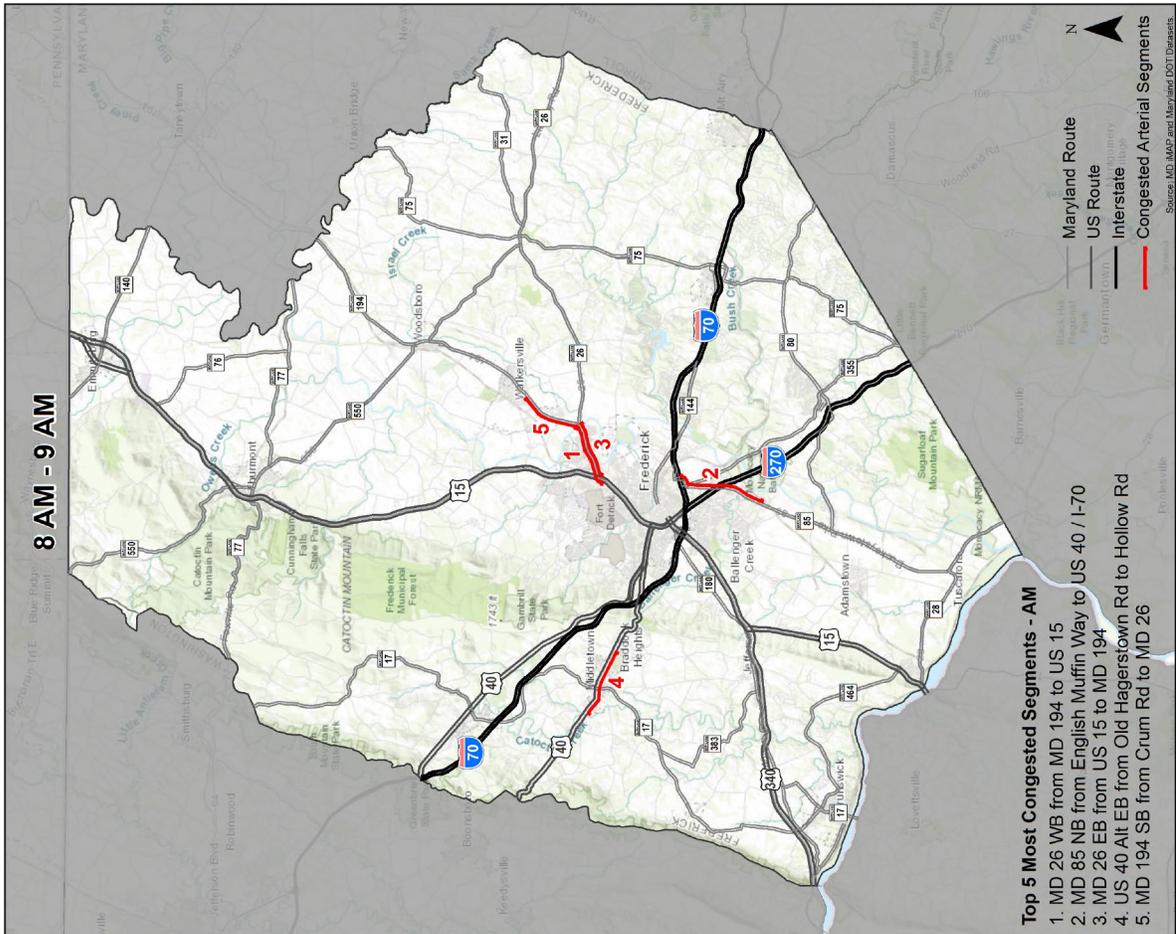
Most Congested Freeway & Arterial Segments - Dorchester County



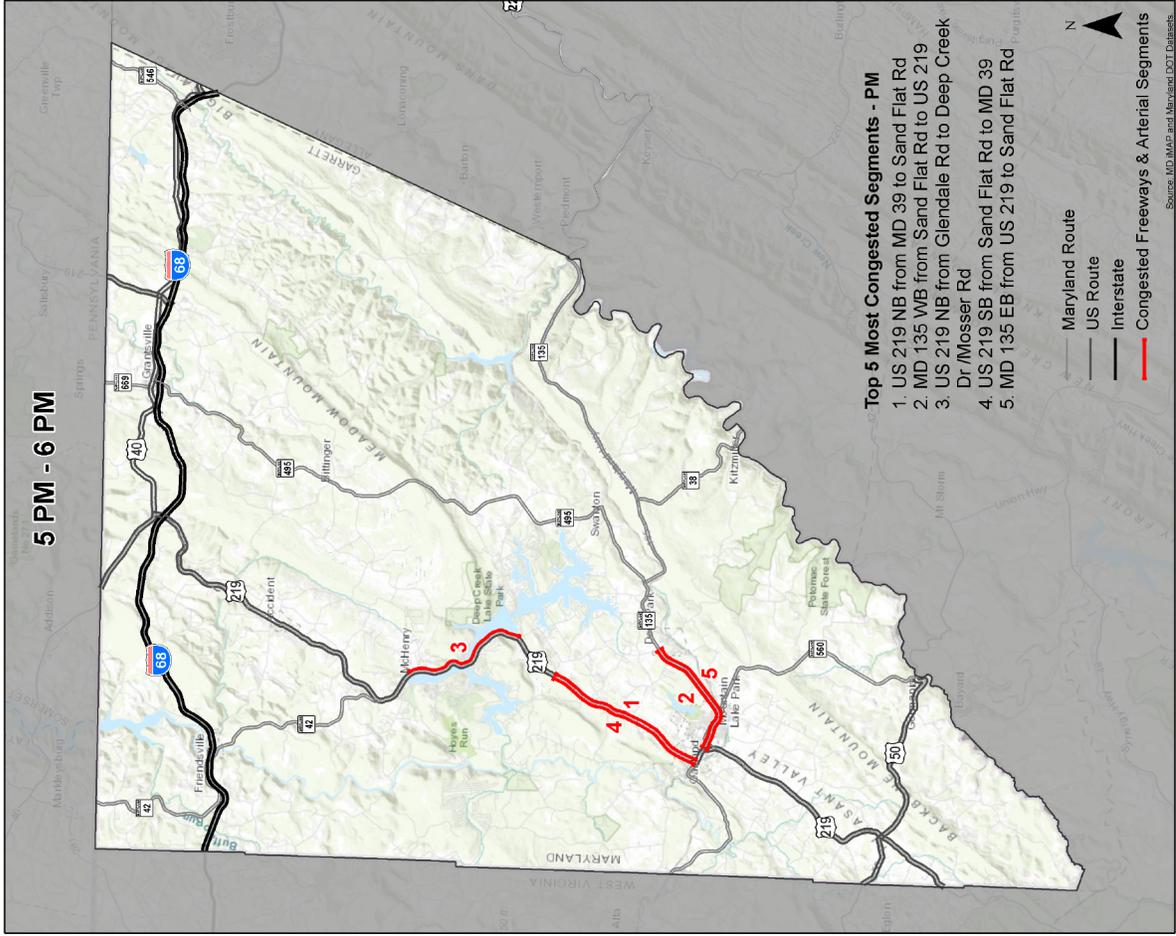
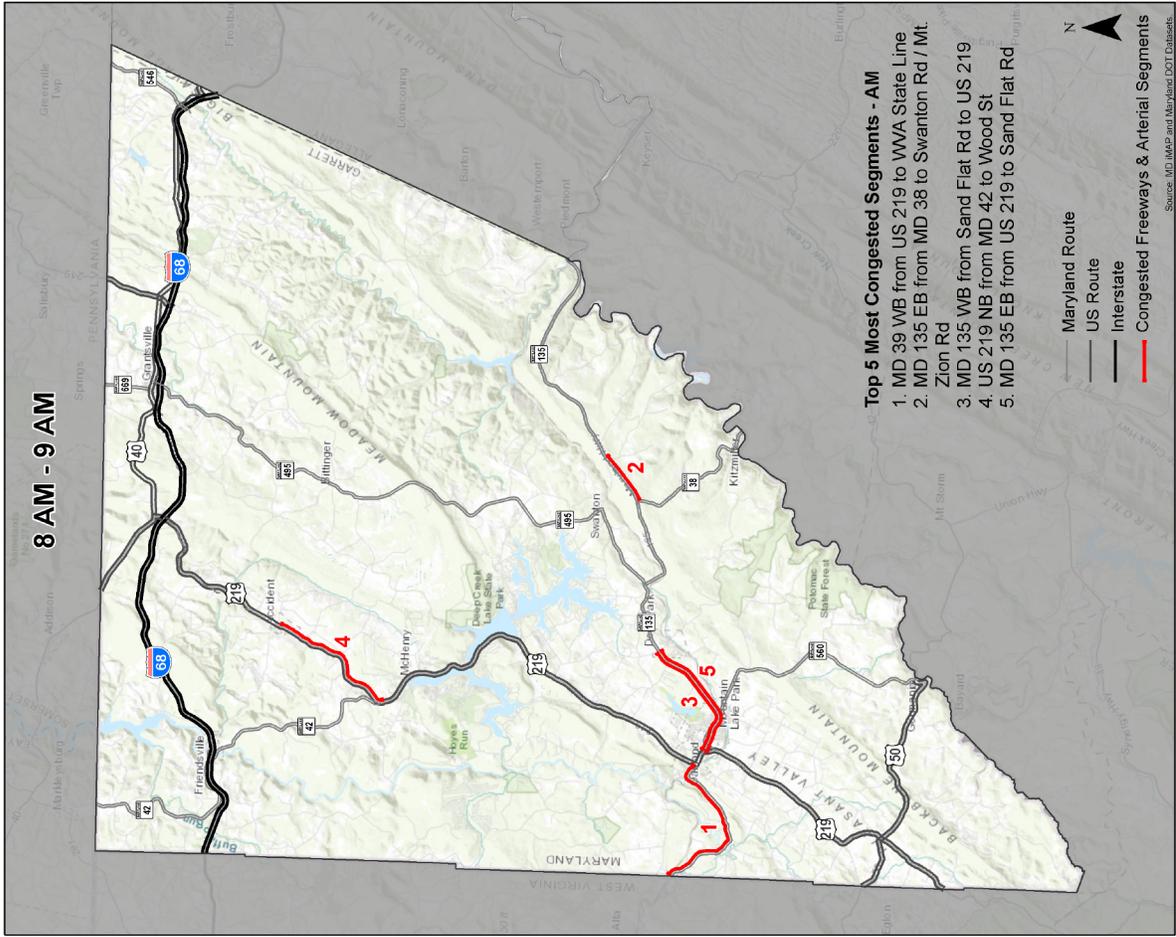
Most Congested Freeway Segments - Frederick County



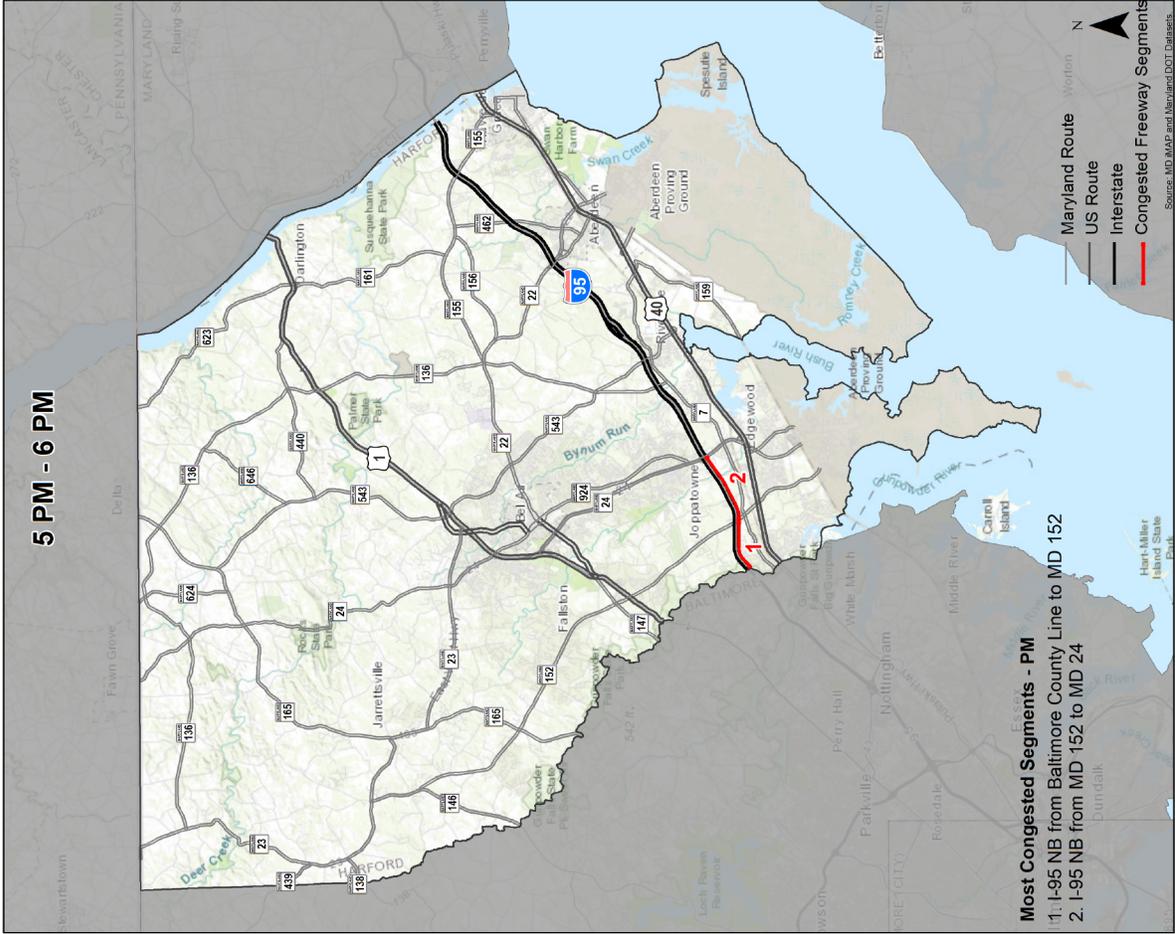
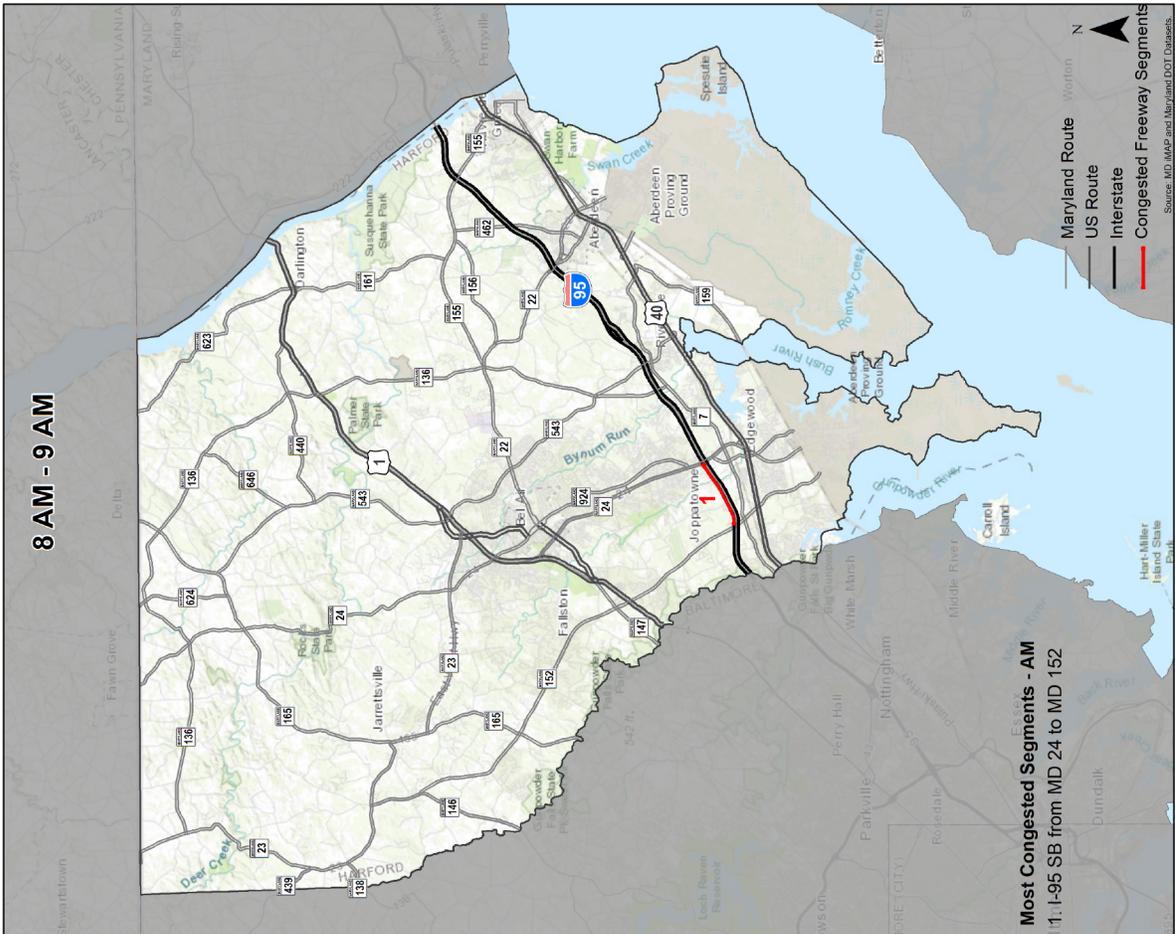
Most Congested Arterial Segments - Frederick County



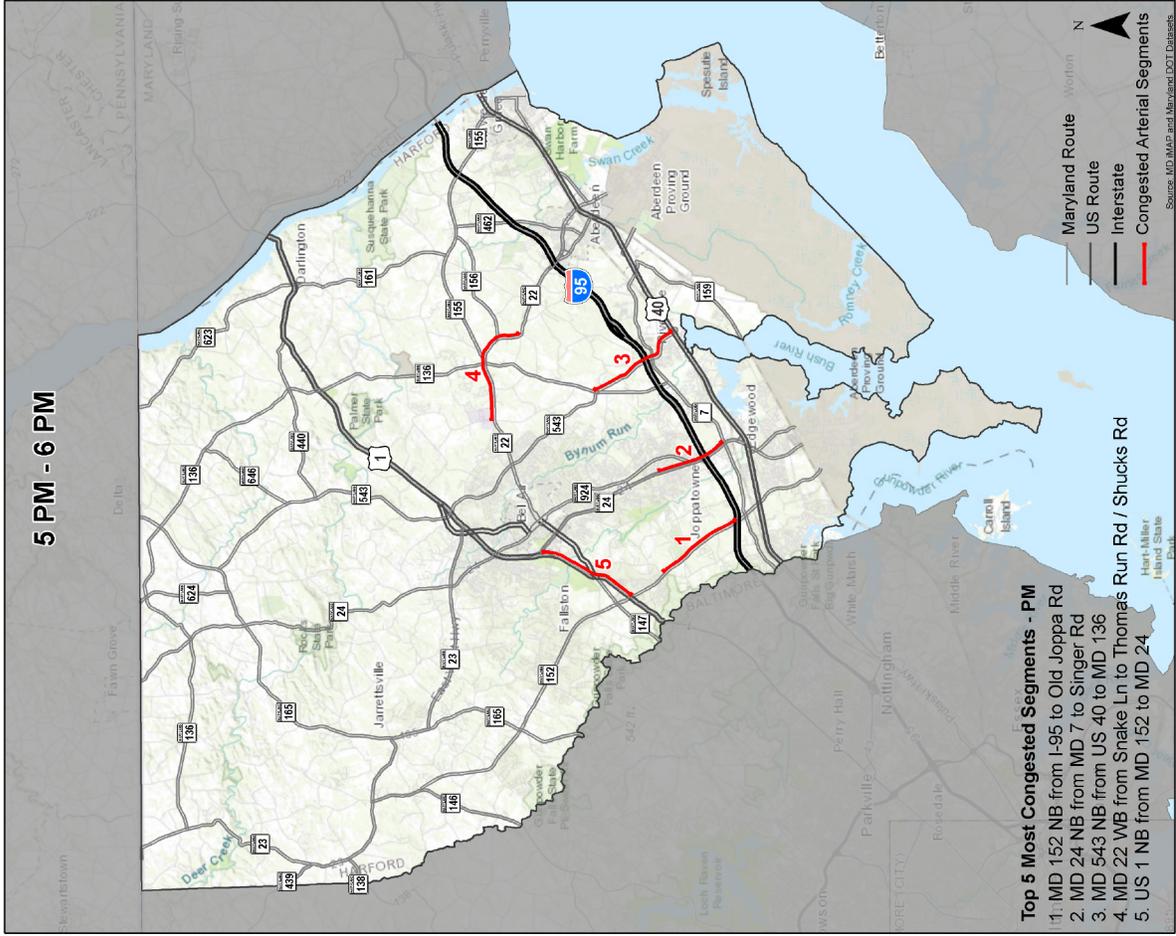
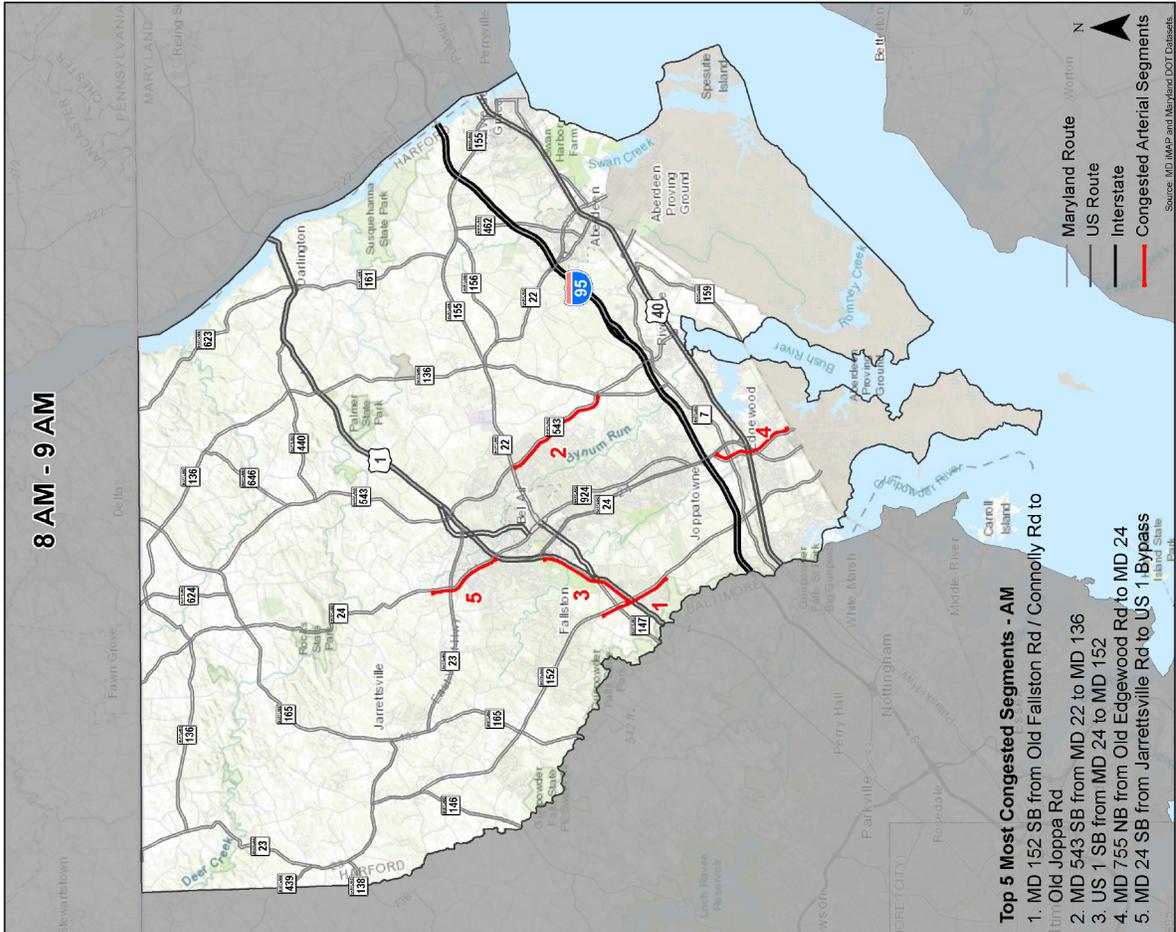
Most Congested Freeway & Arterial Segments - Garrett County



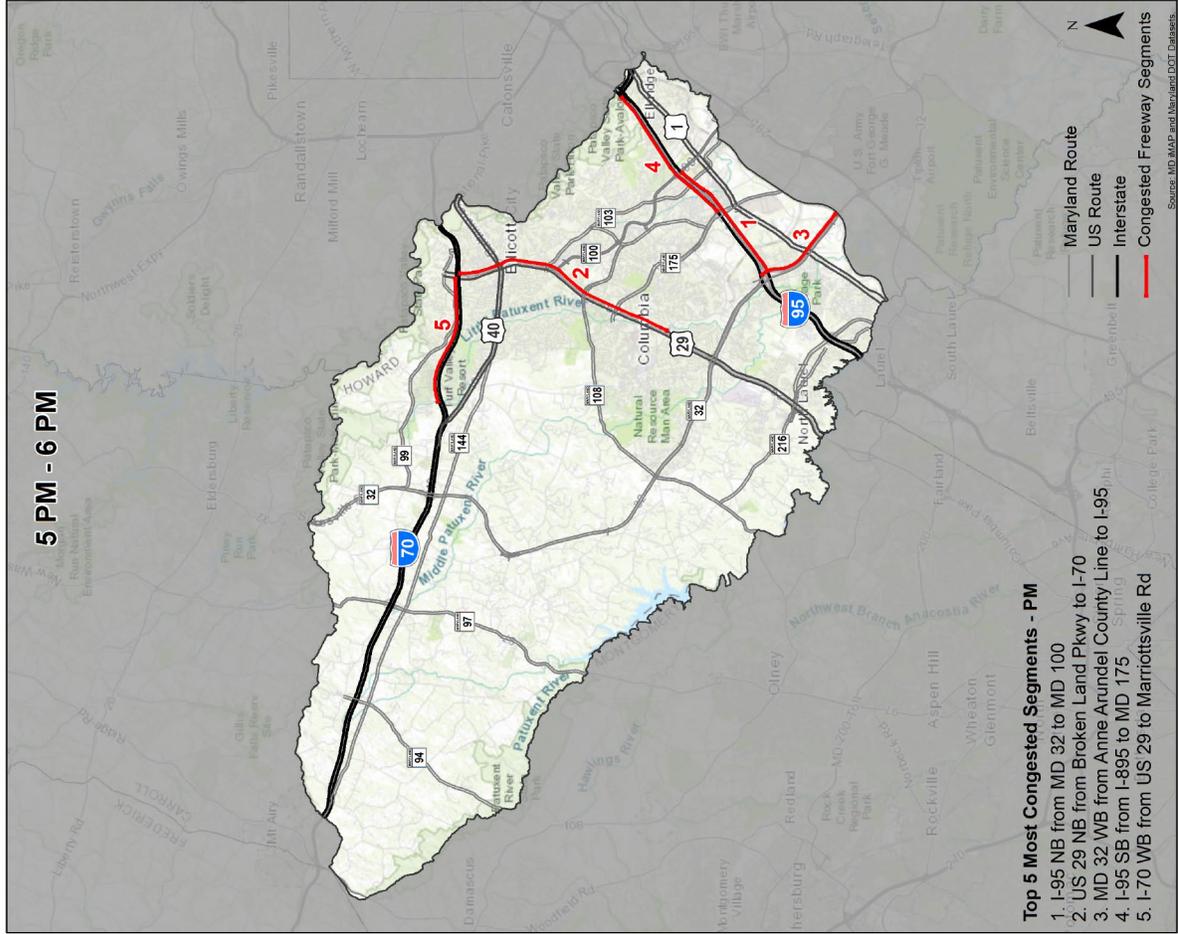
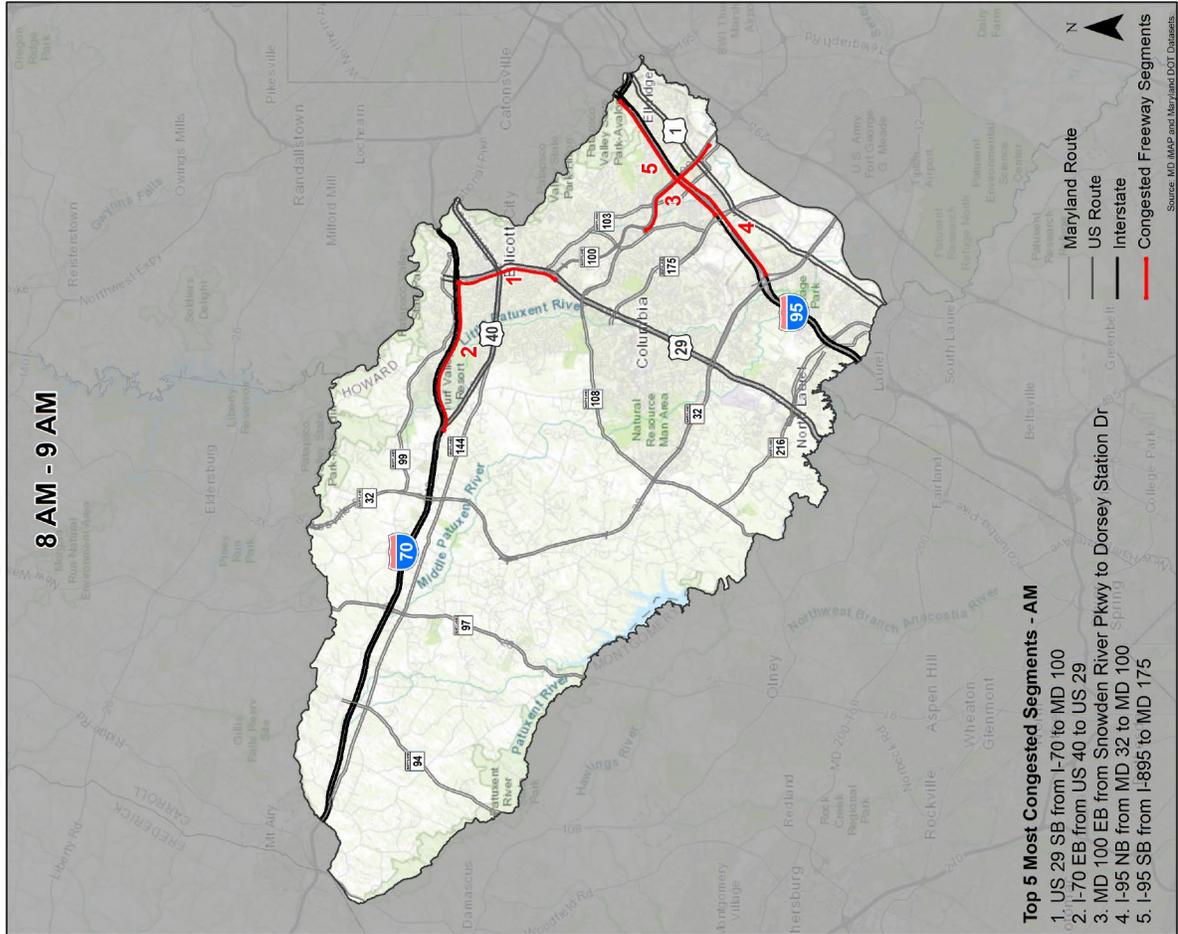
Most Congested Freeway Segments - Harford County



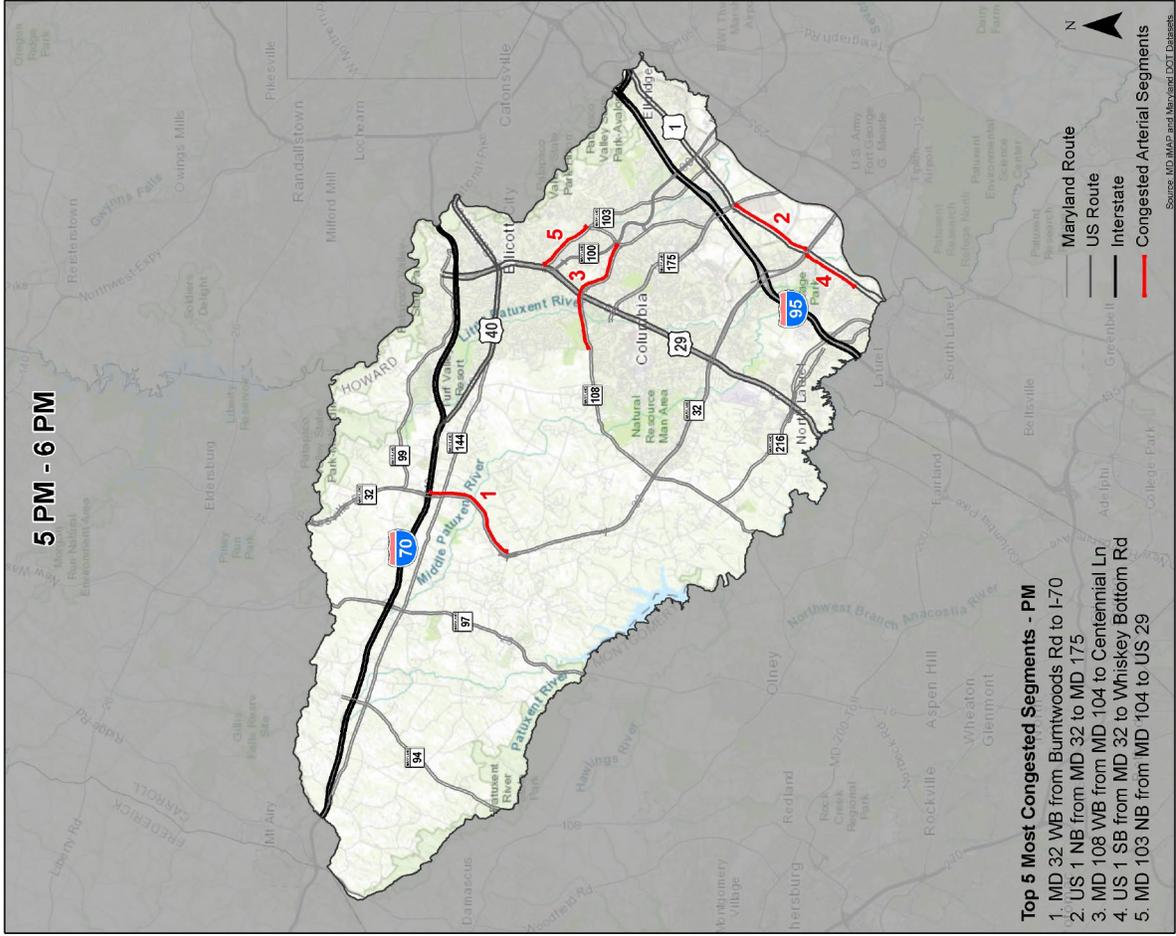
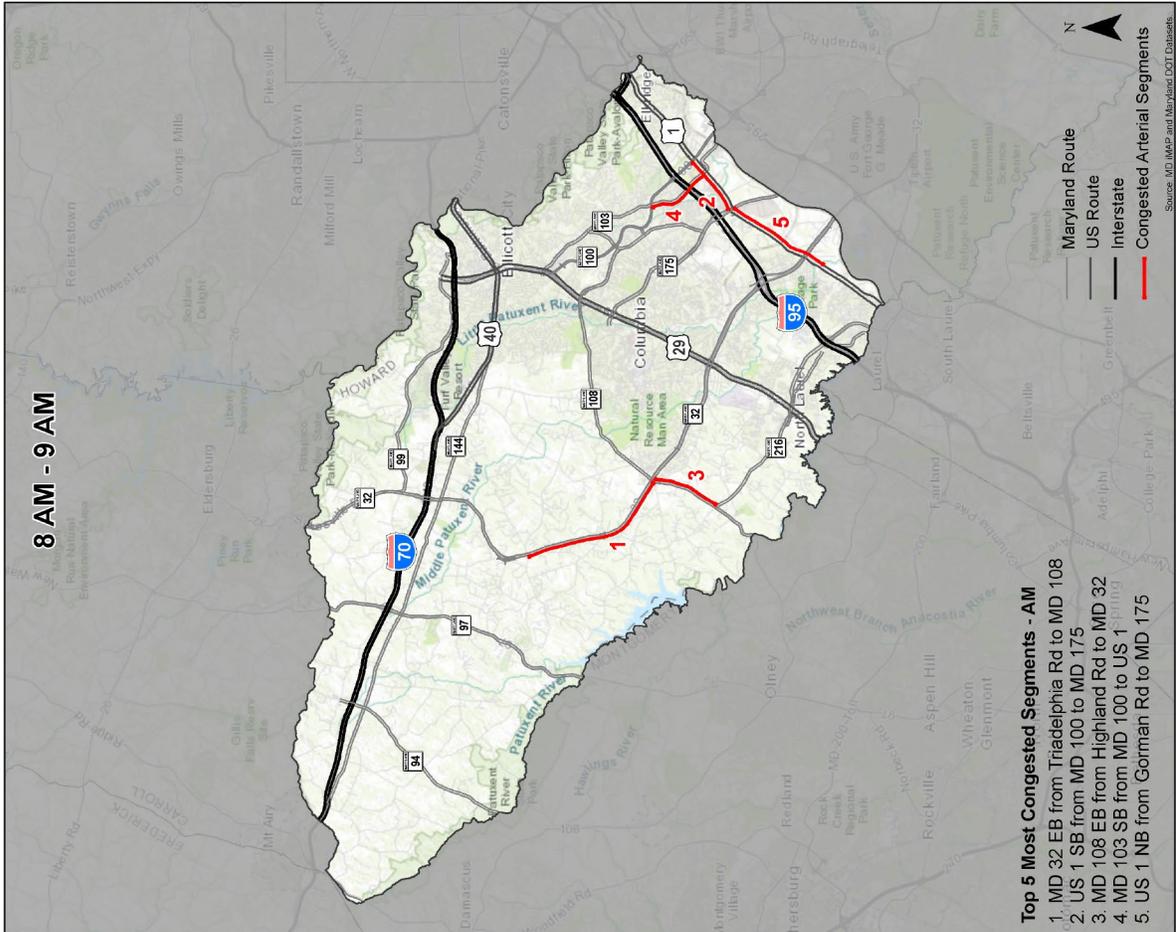
Most Congested Arterial Segments - Harford County



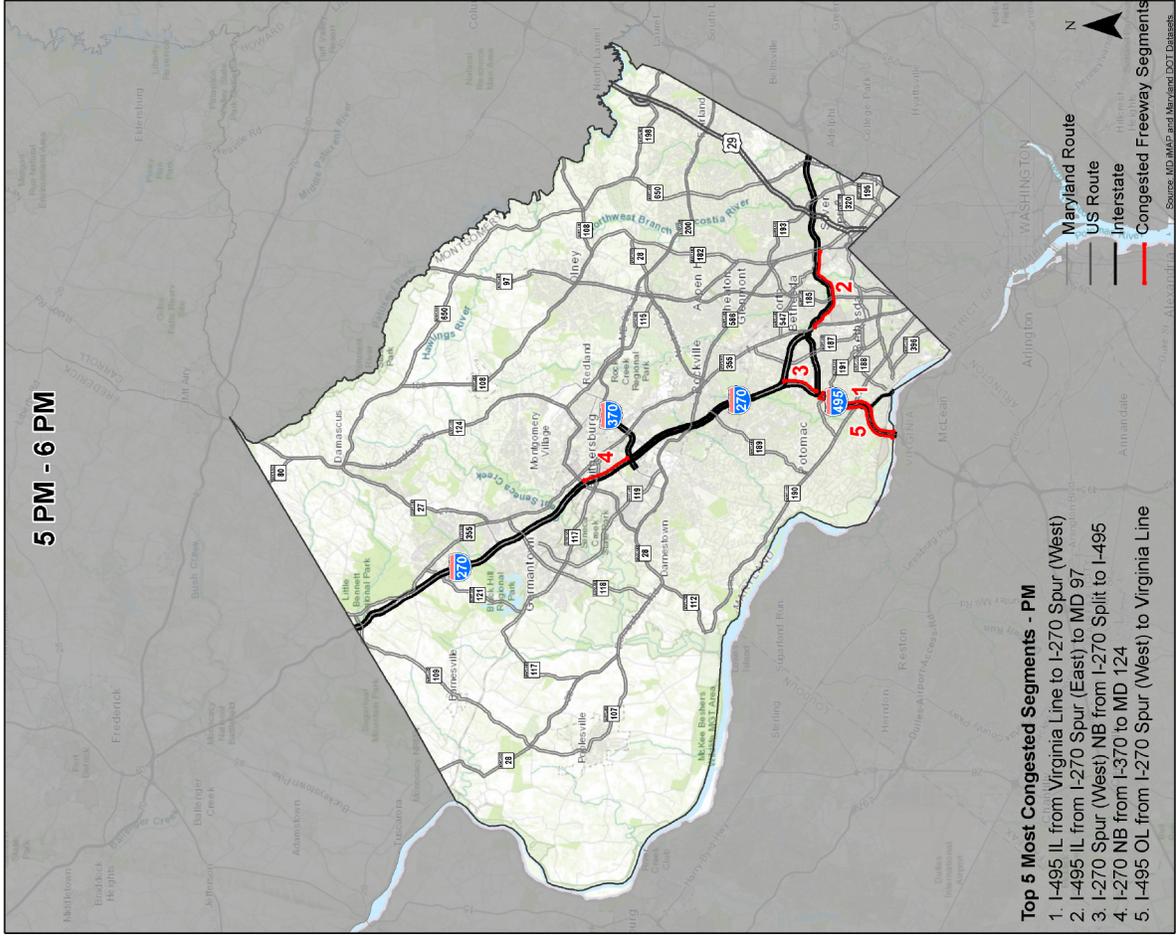
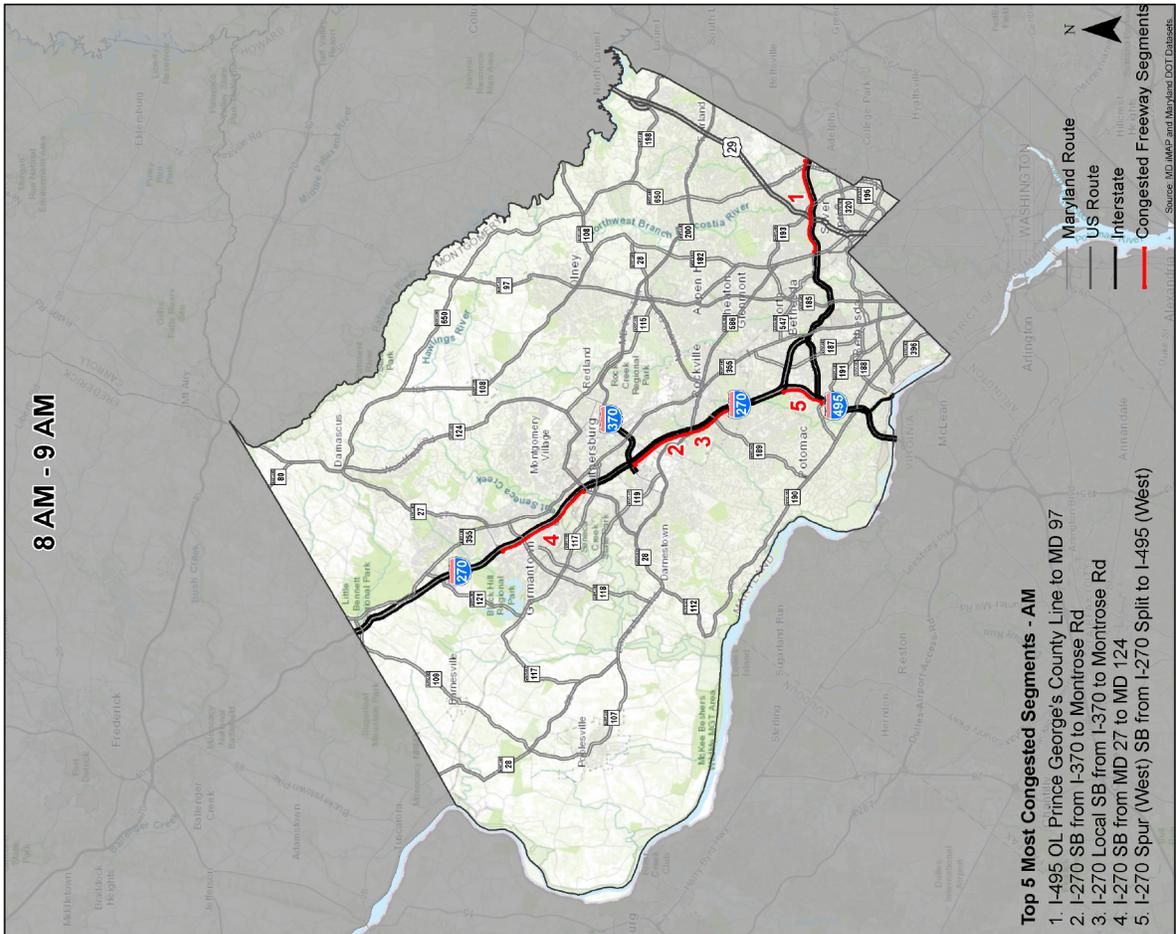
Most Congested Freeway Segments - Howard County



Most Congested Arterial Segments - Howard County

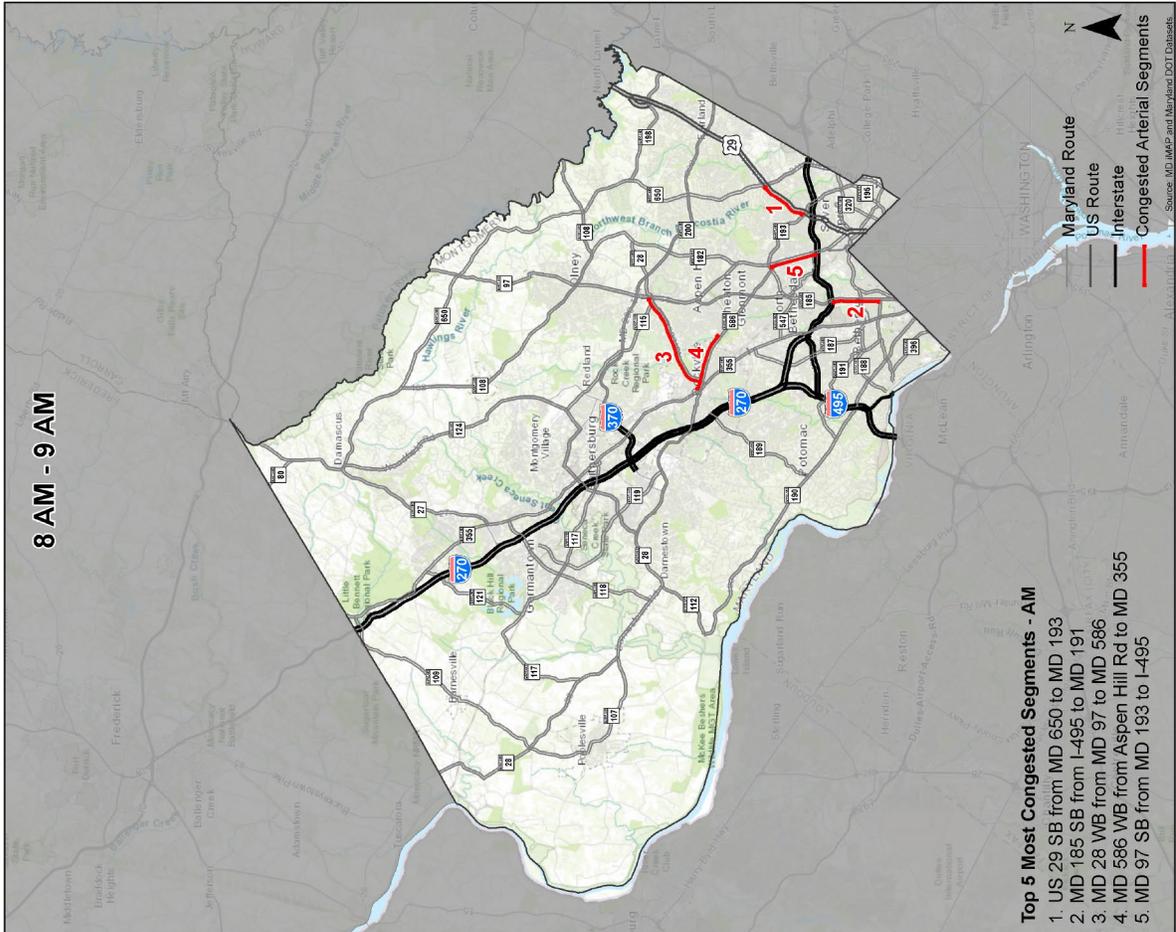


Most Congested Freeway Segments - Montgomery County

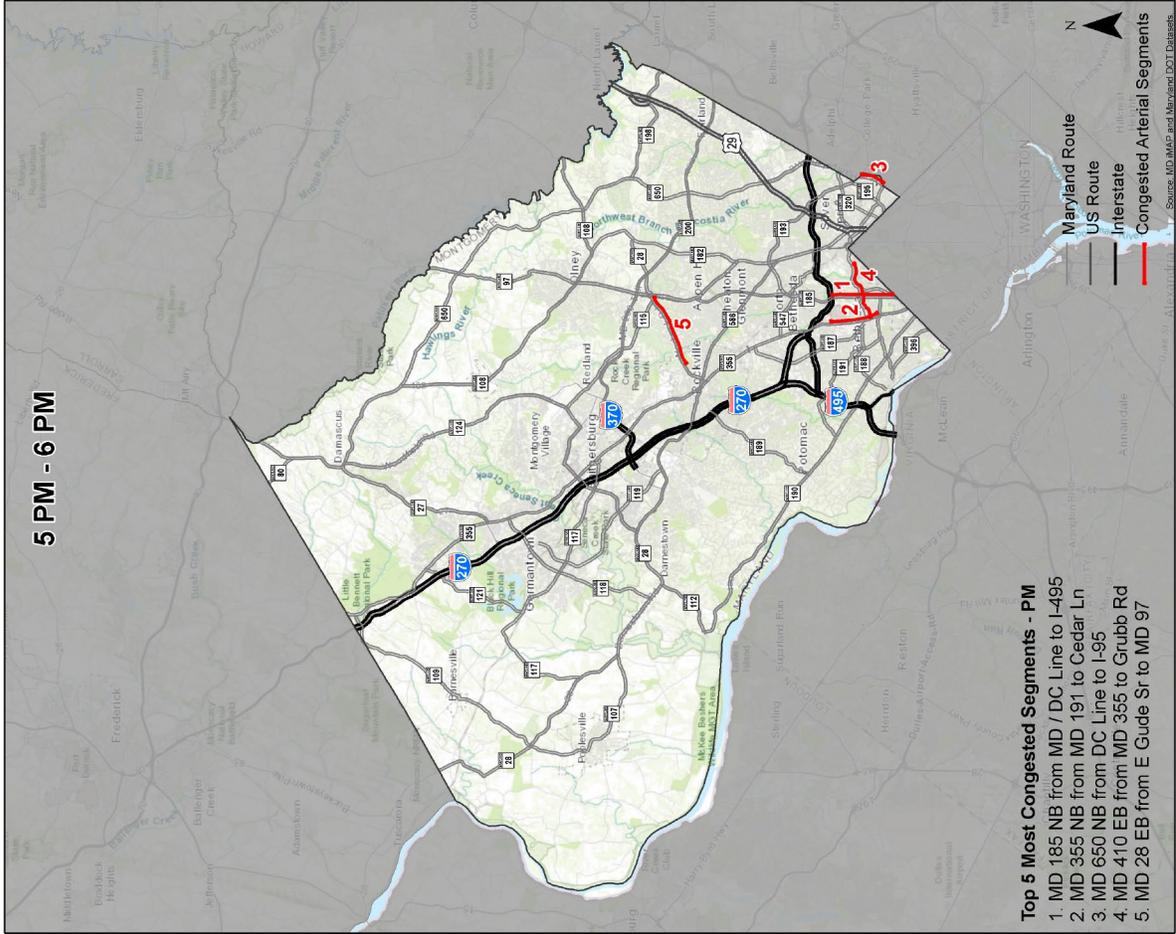


Most Congested Arterial Segments - Montgomery County

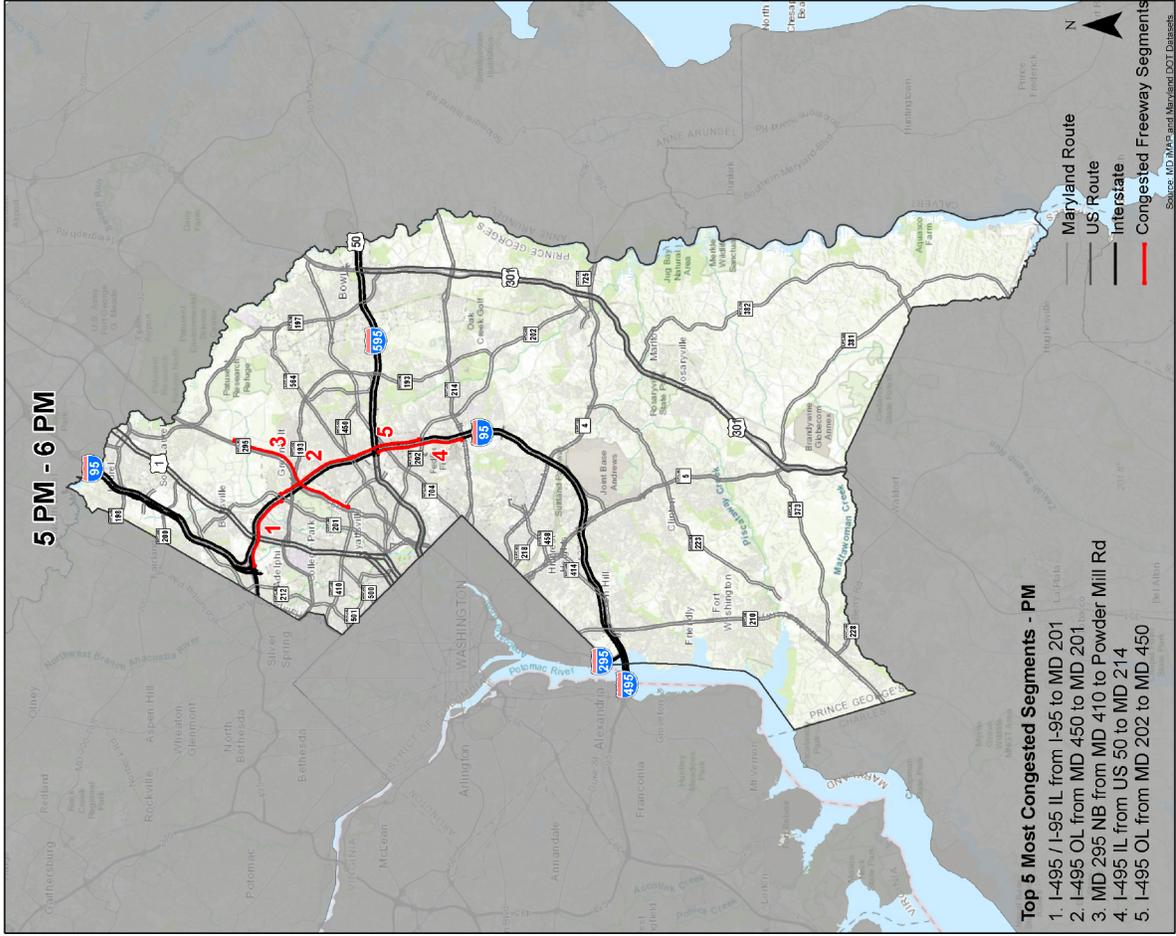
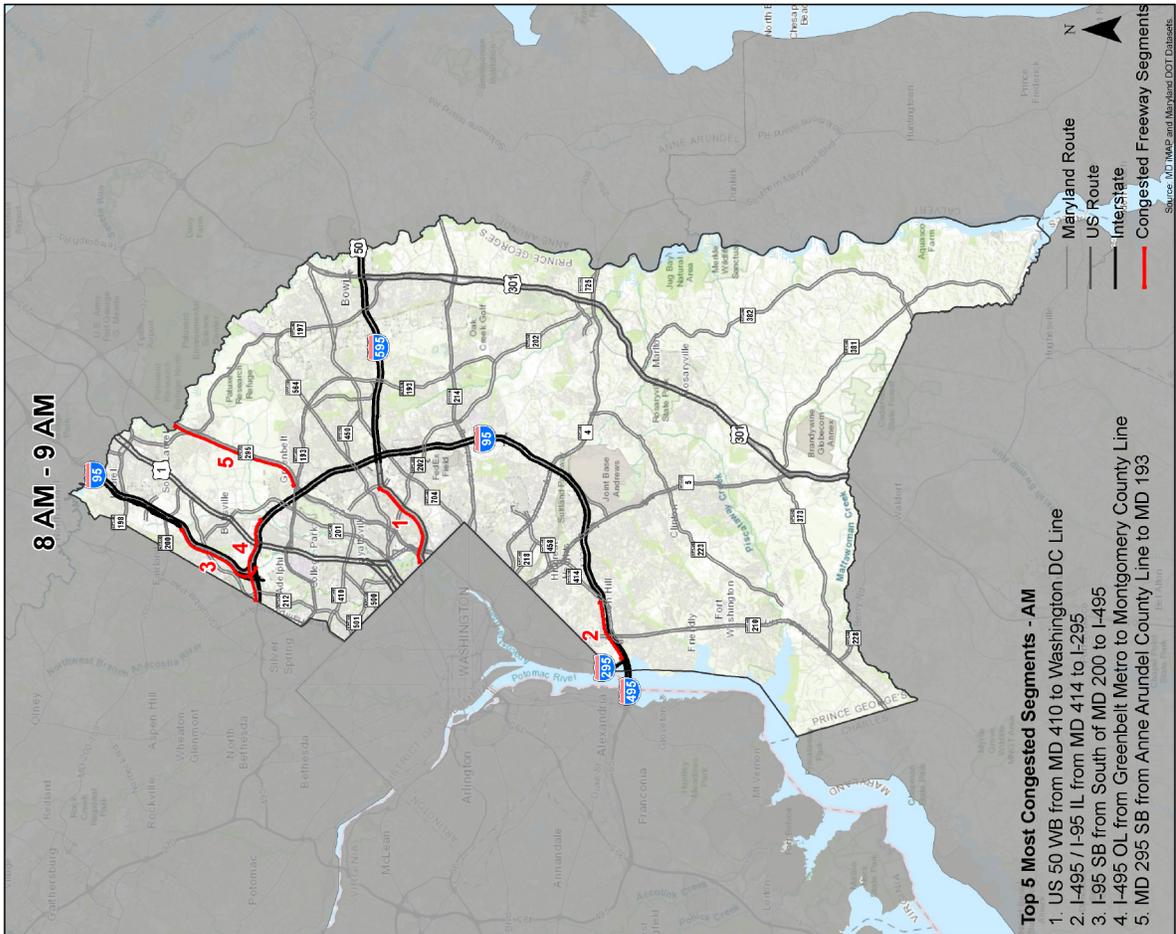
8 AM - 9 AM



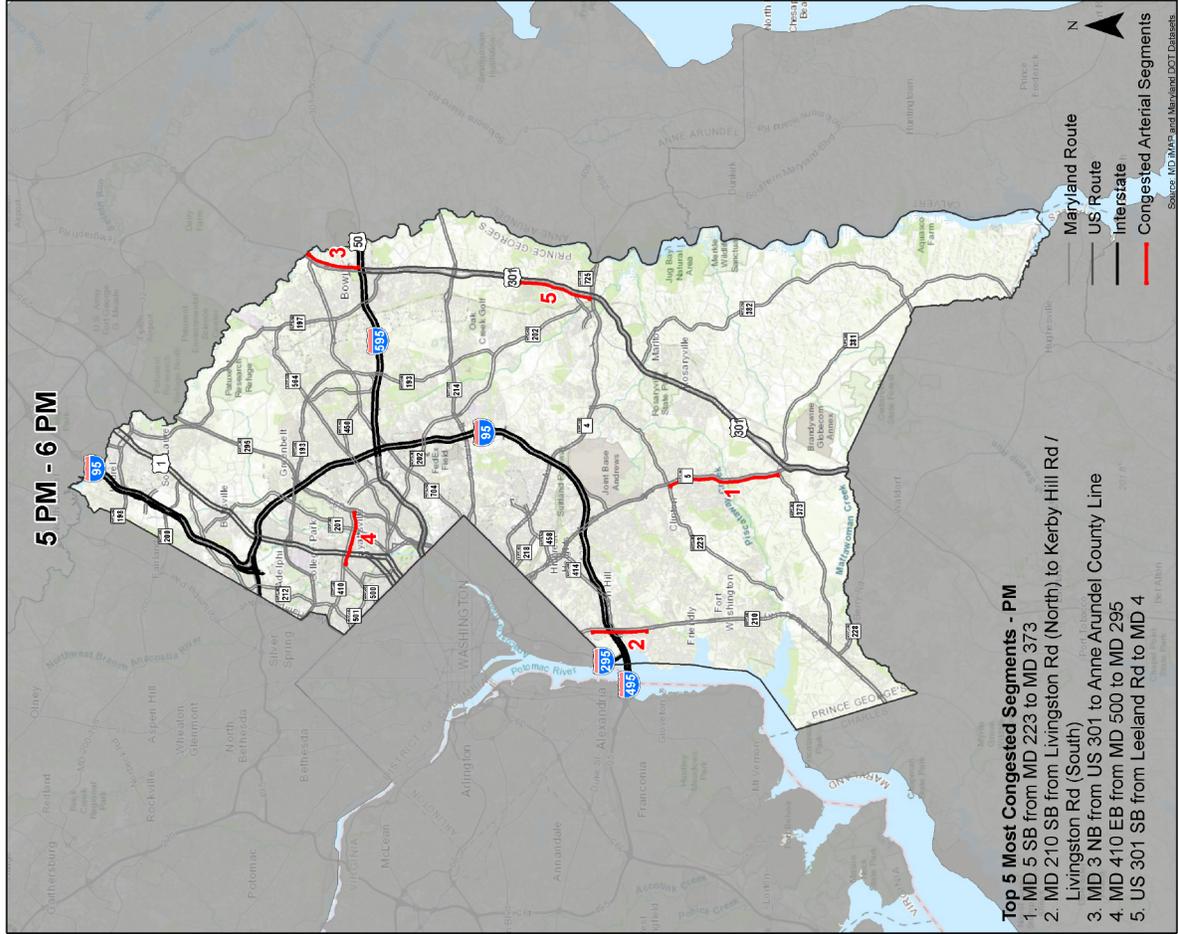
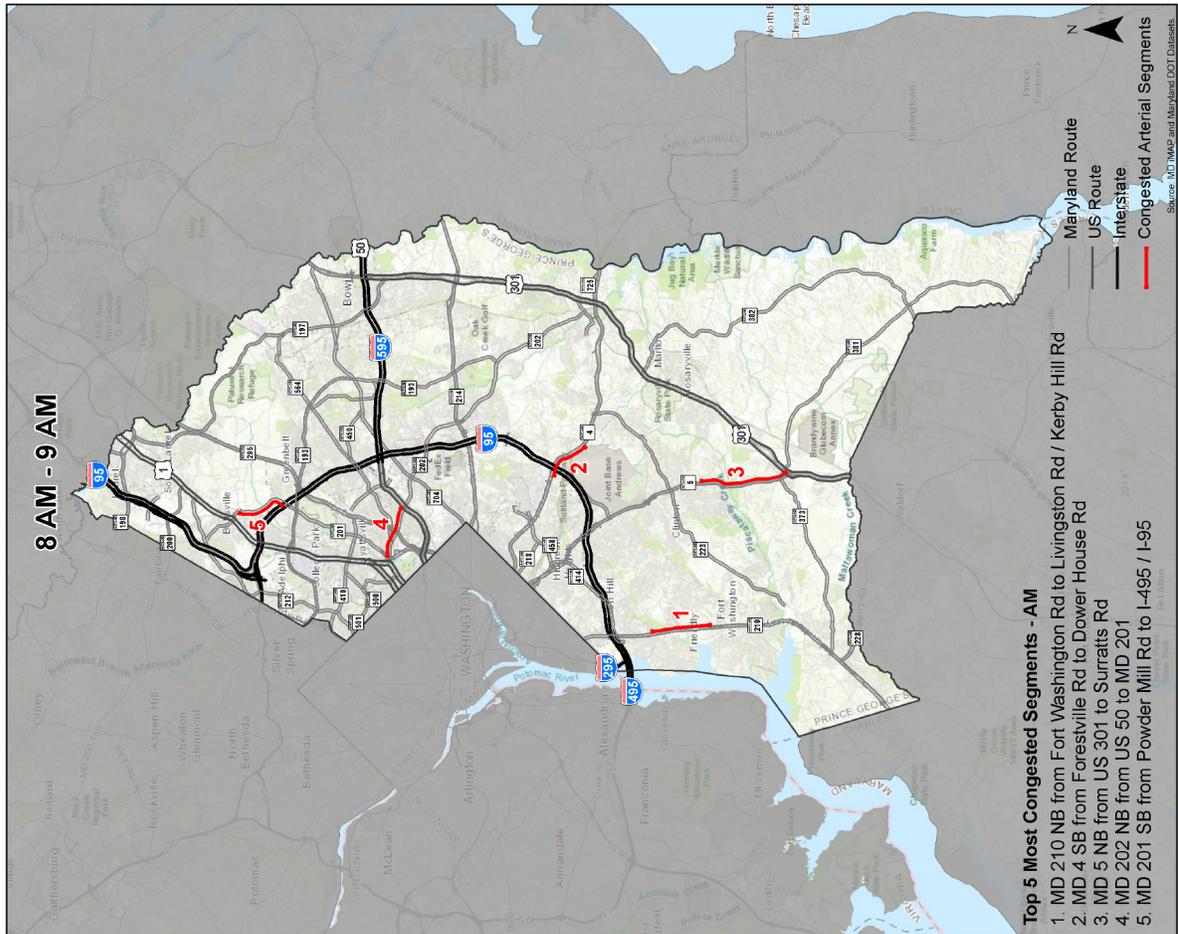
5 PM - 6 PM



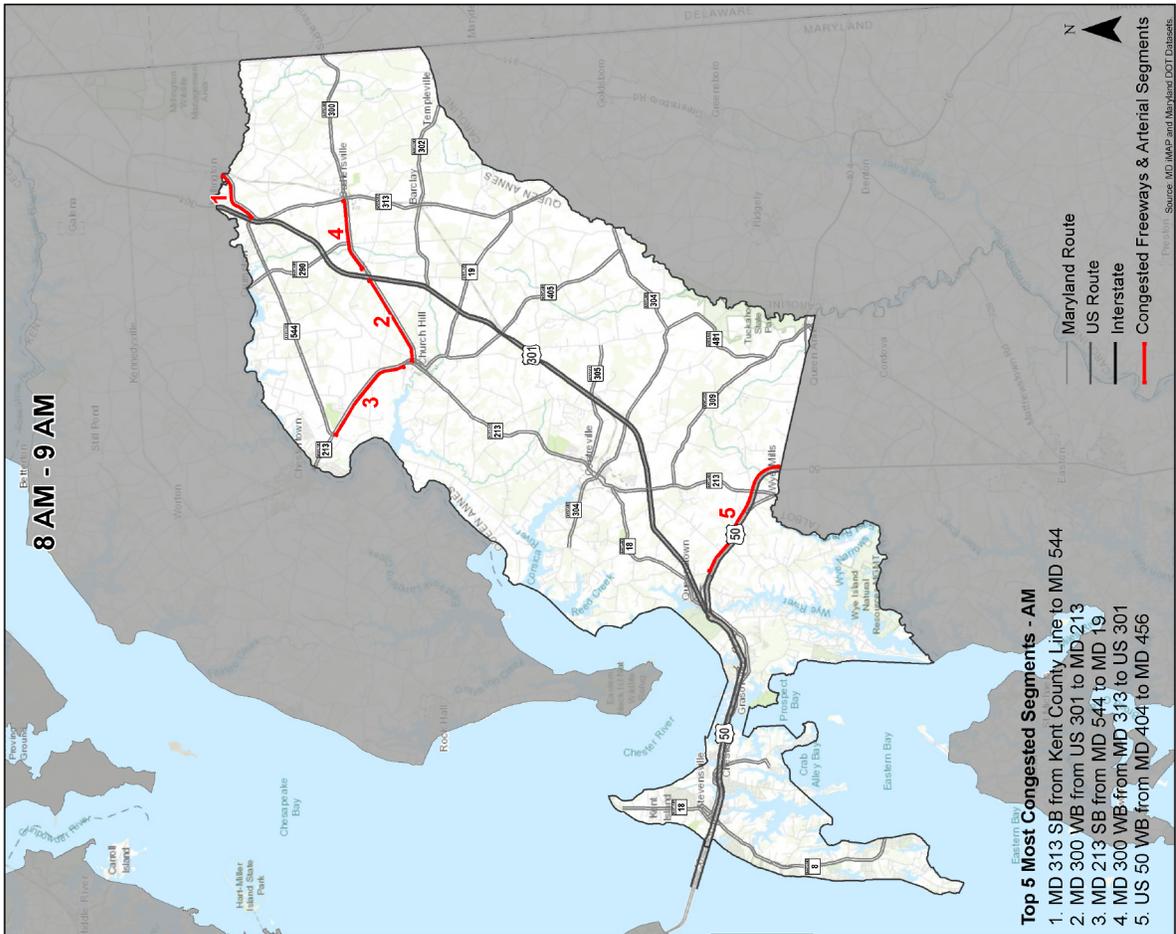
Most Congested Freeway Segments - Prince George's County



Most Congested Arterial Segments - Prince George's County

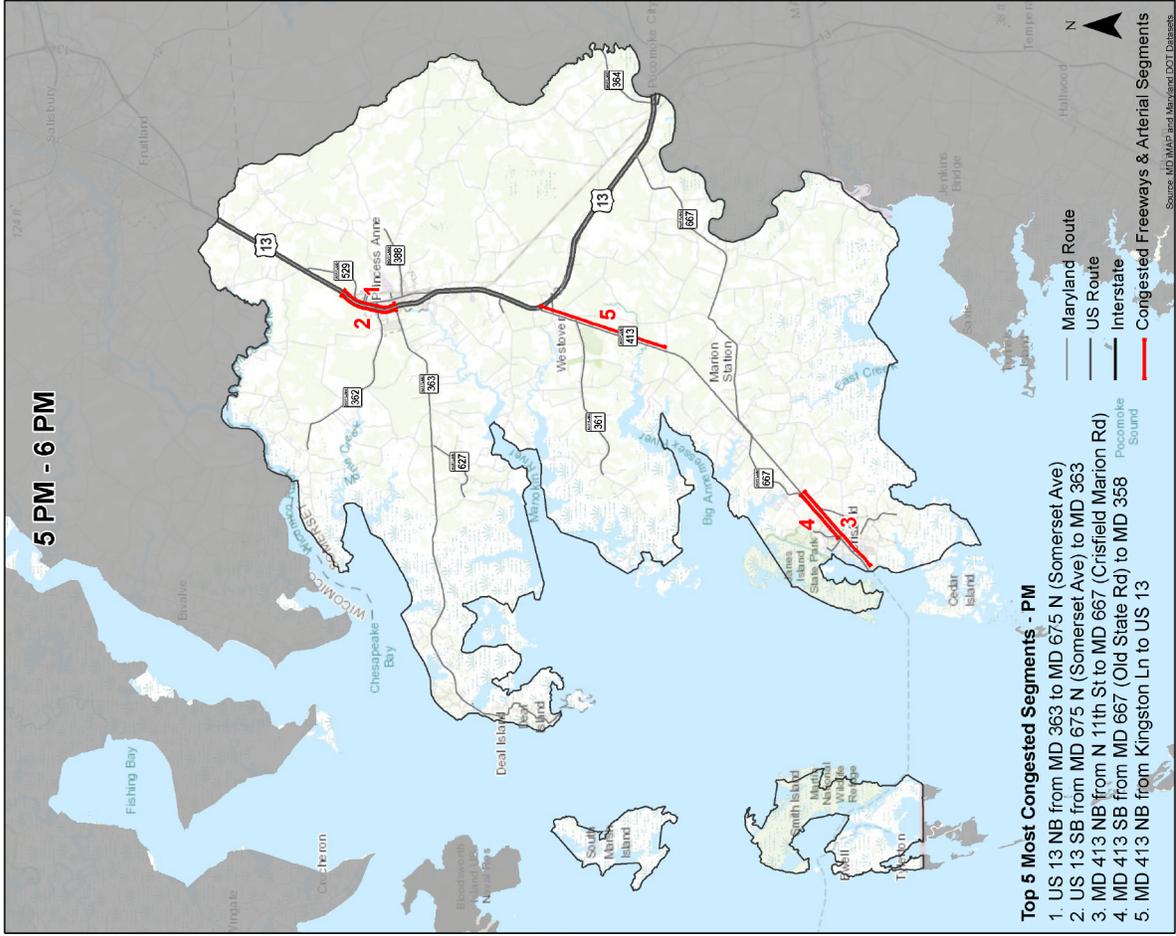
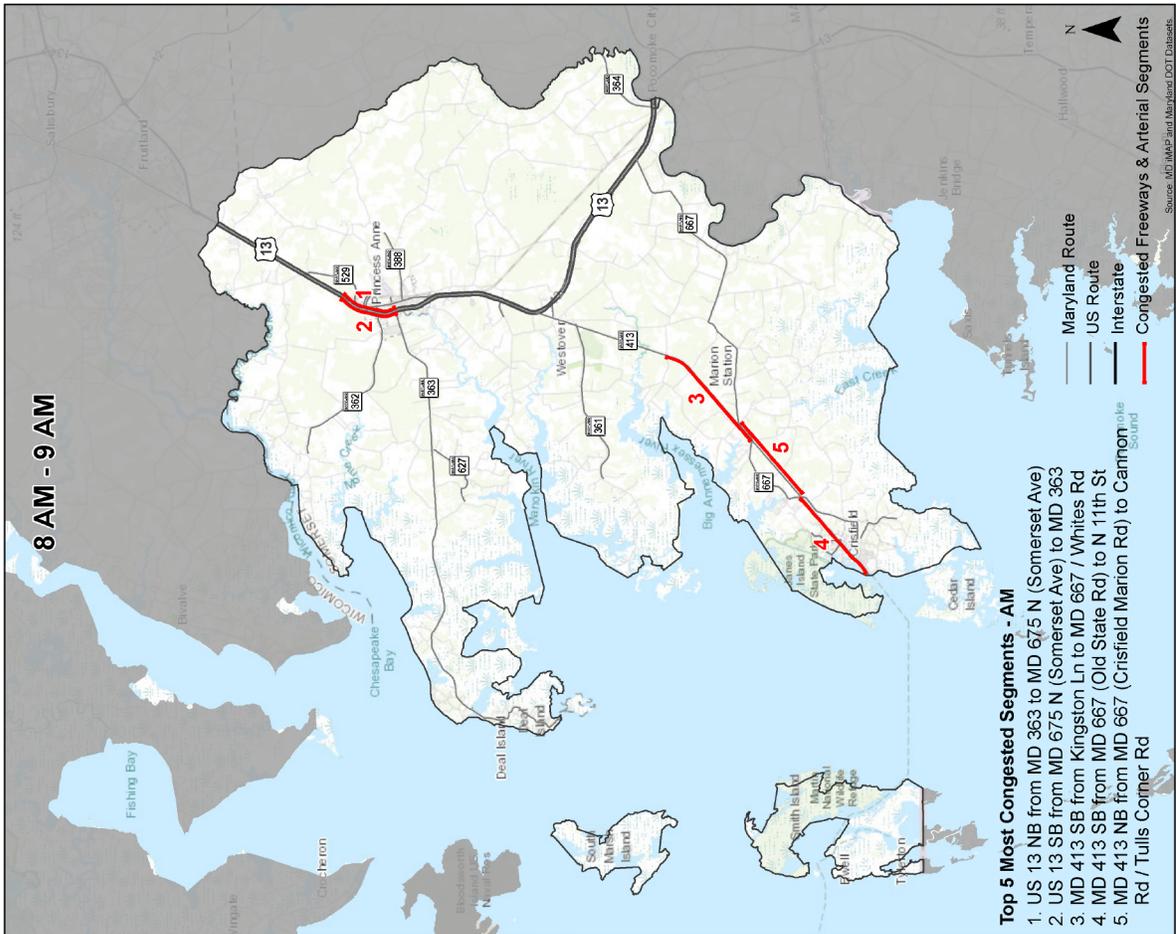


Most Congested Freeway & Arterial Segments - Queen Anne's County

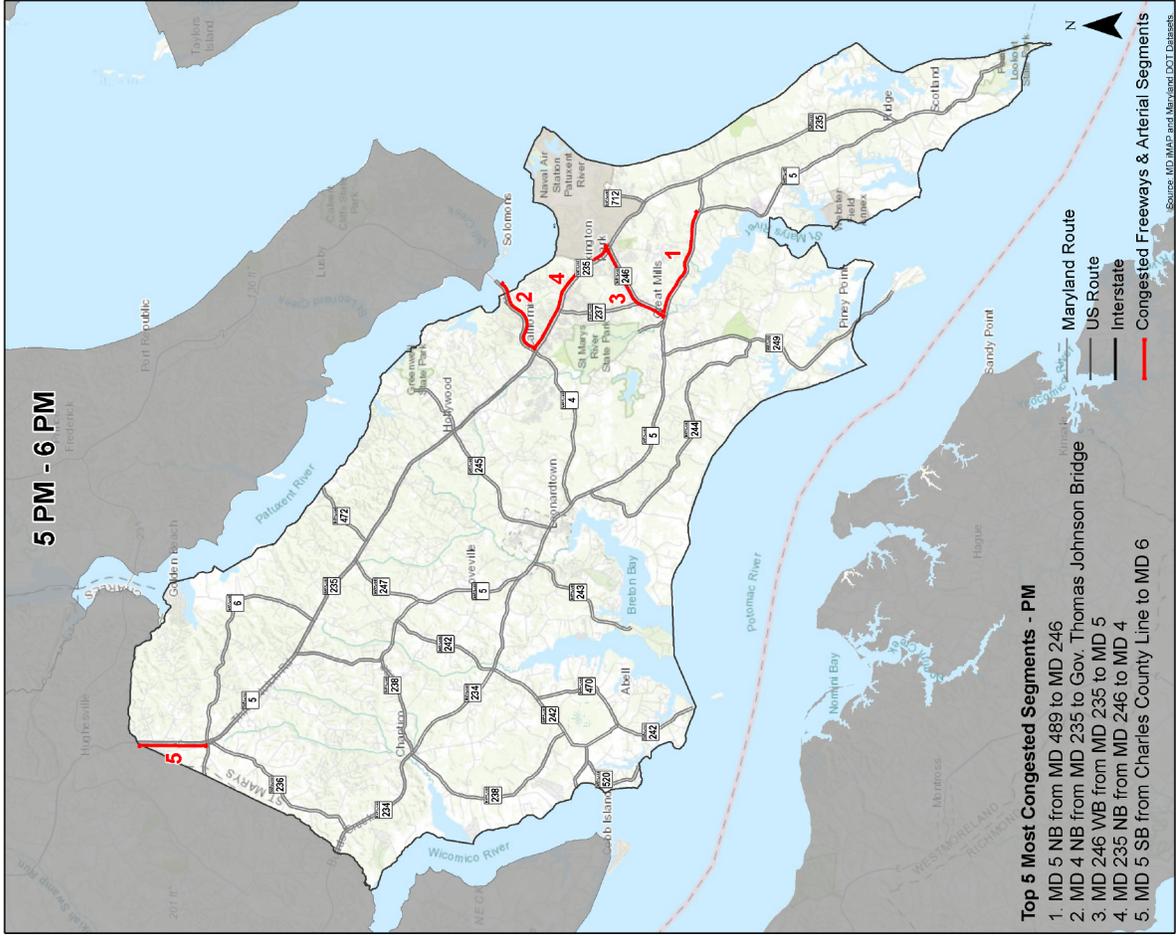
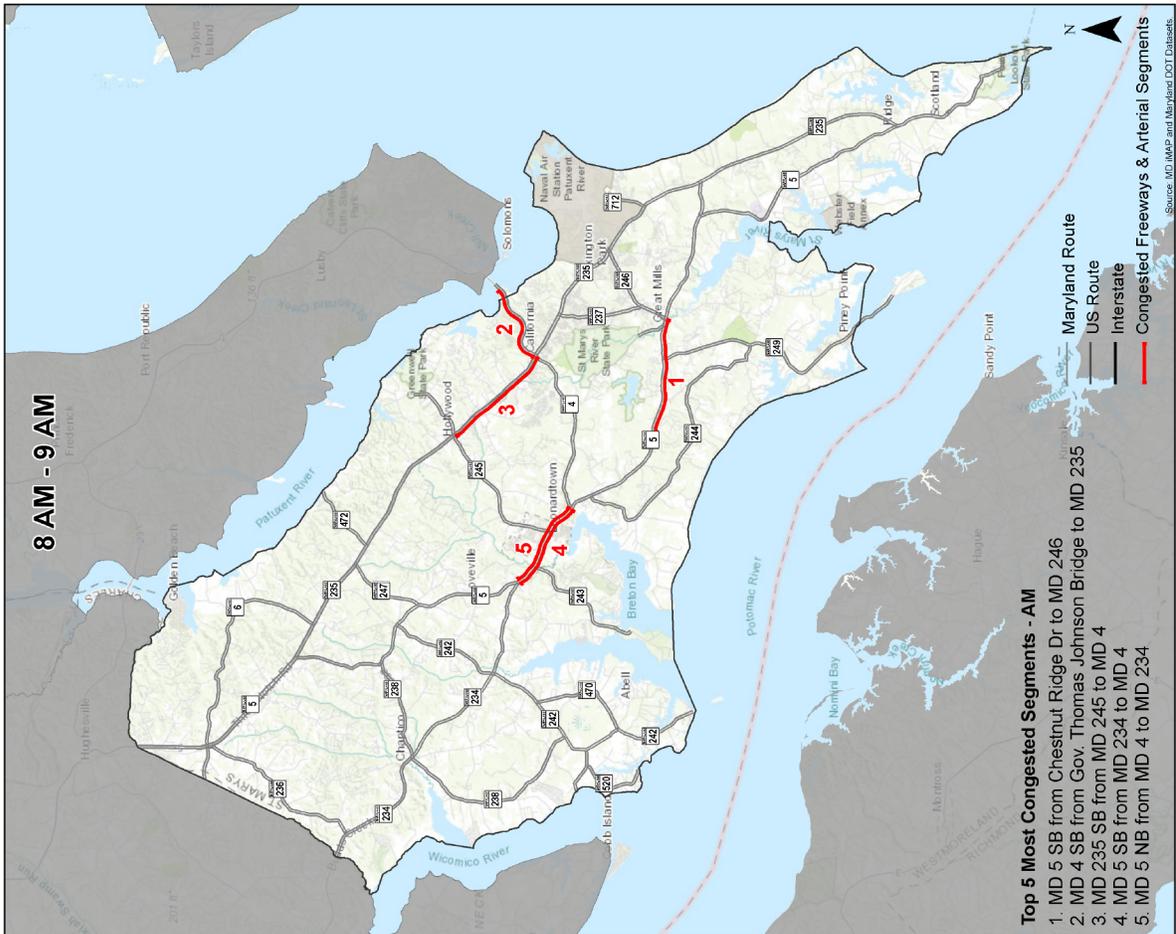


Source: MD MAP and Maryland DOT Datasets.

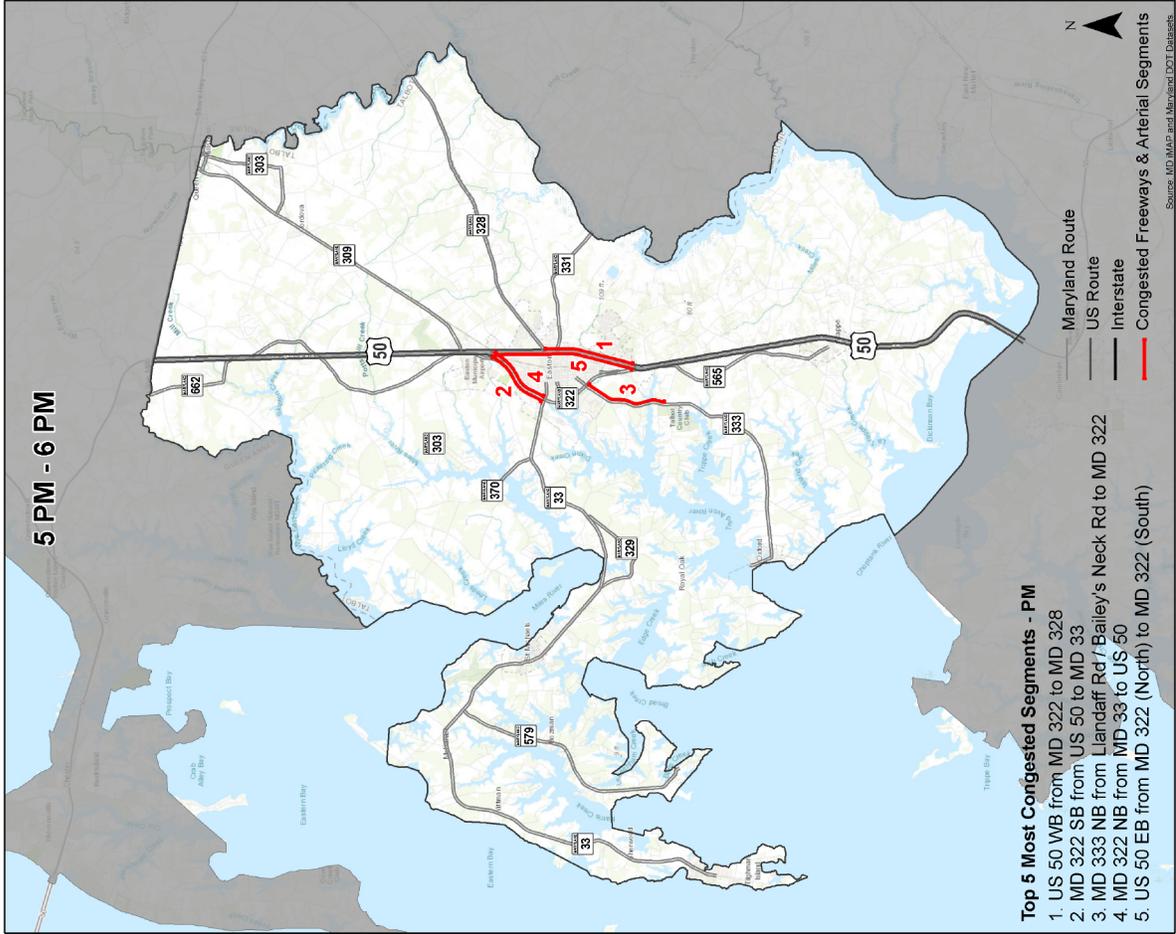
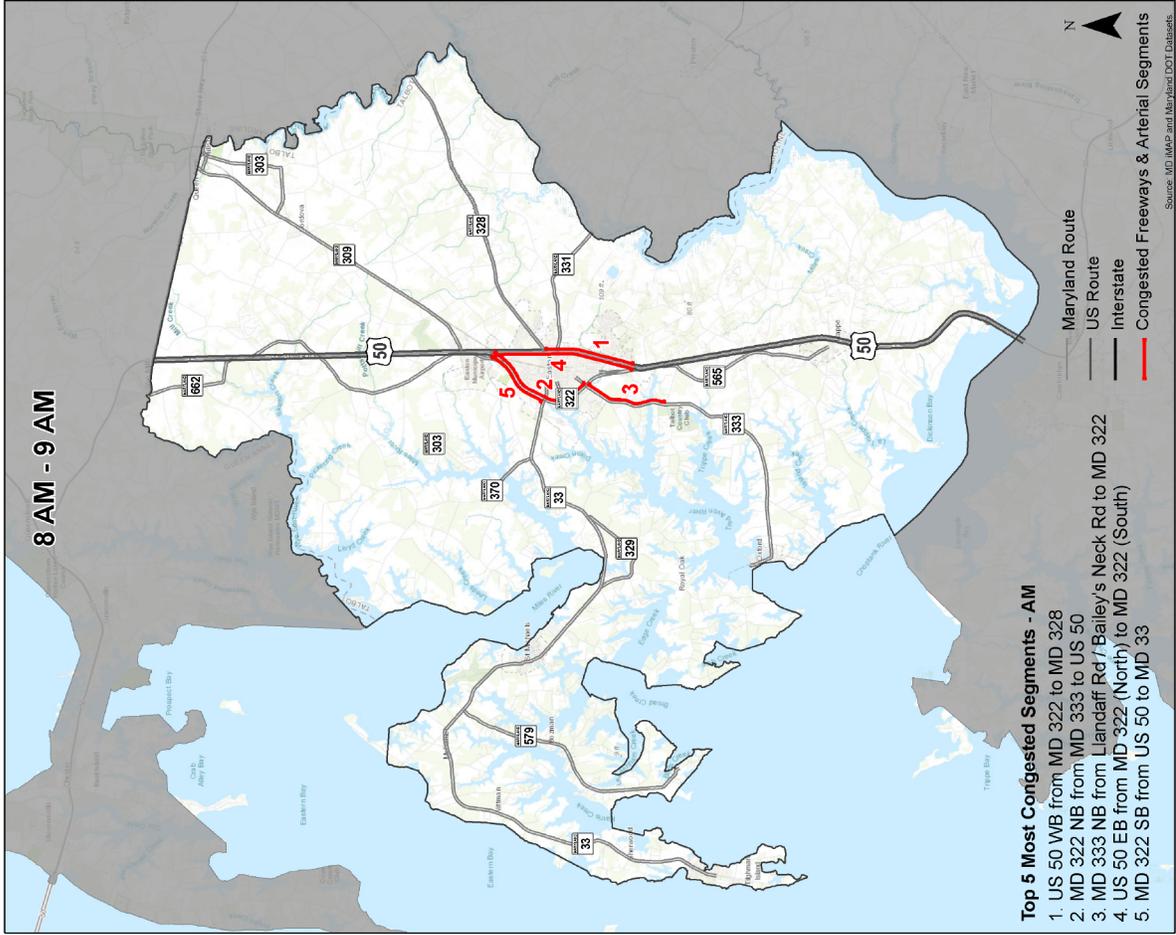
Most Congested Freeway & Arterial Segments - Somerset County



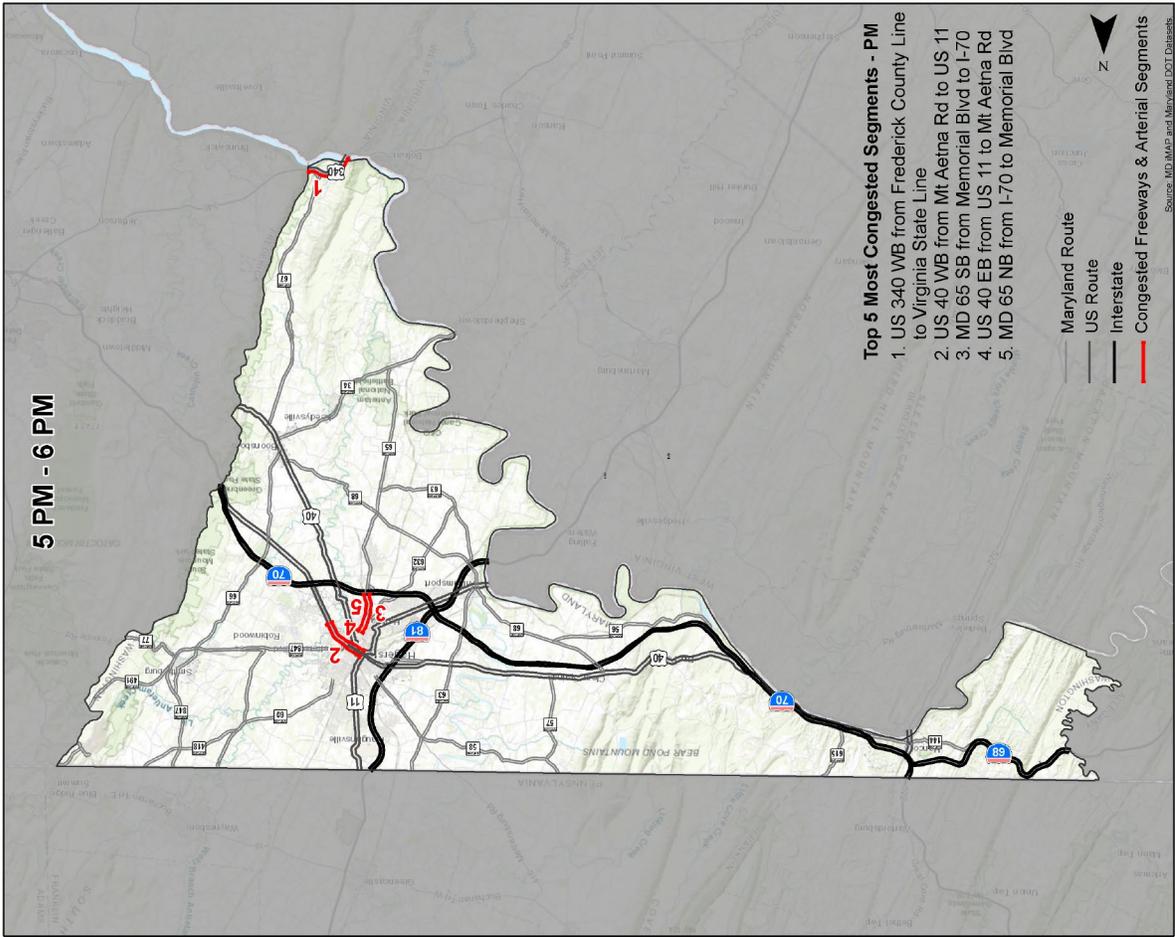
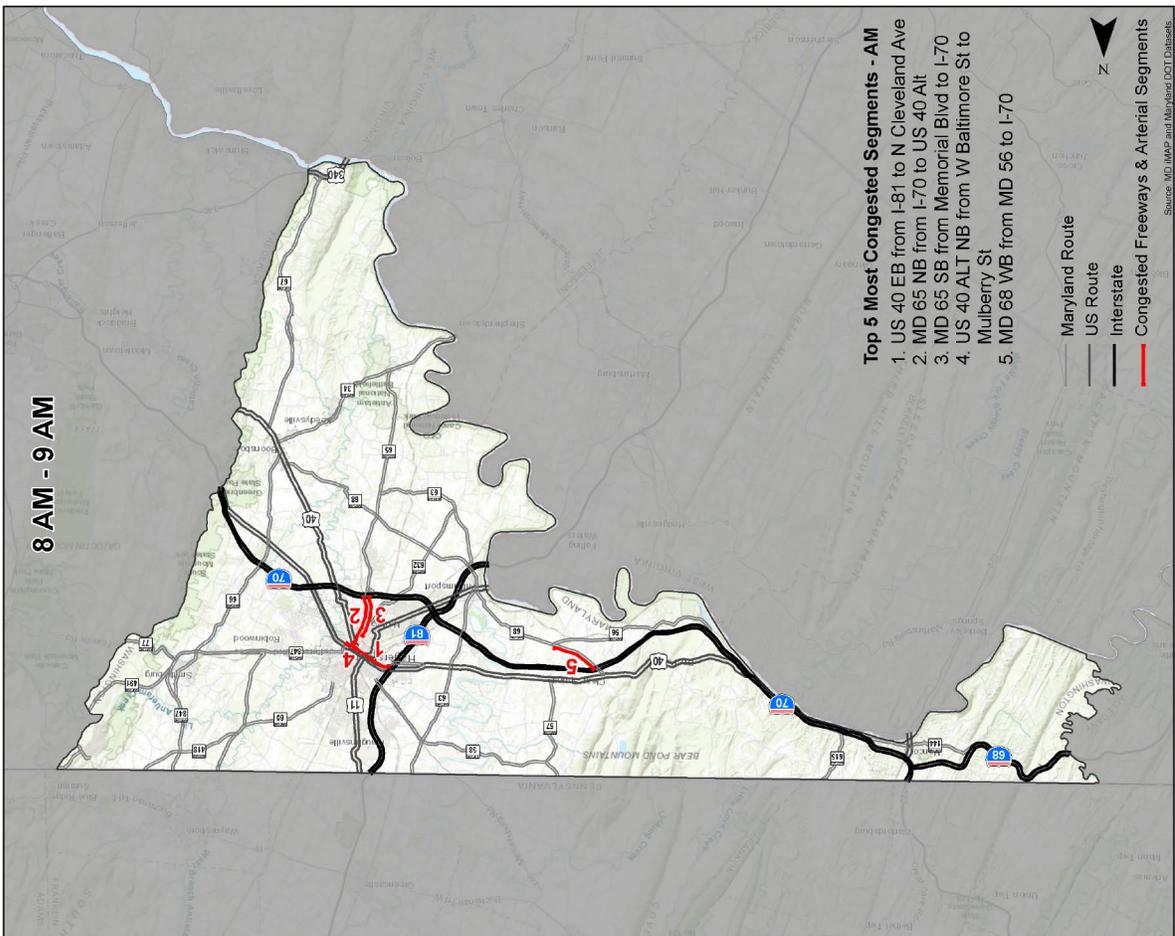
Most Congested Freeway & Arterial Segments - St. Mary's County



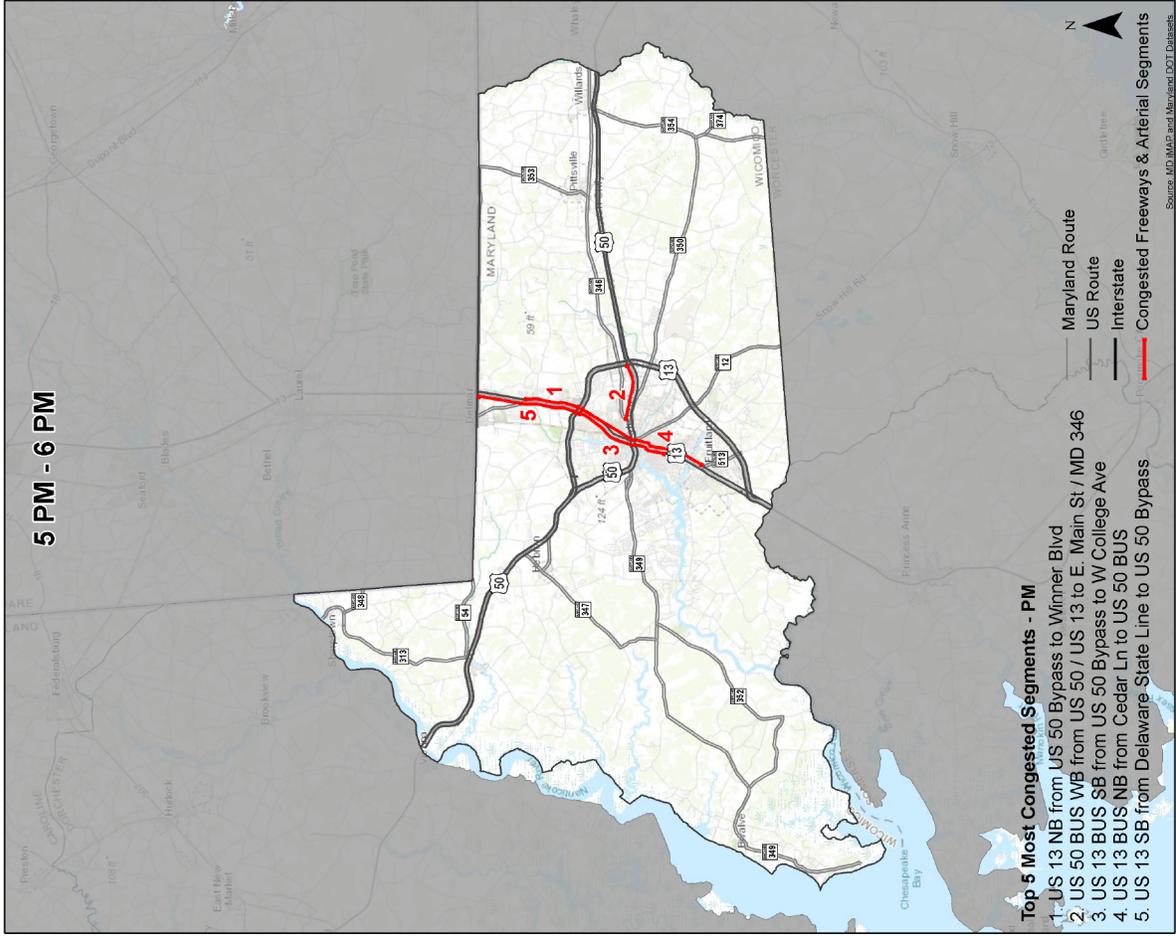
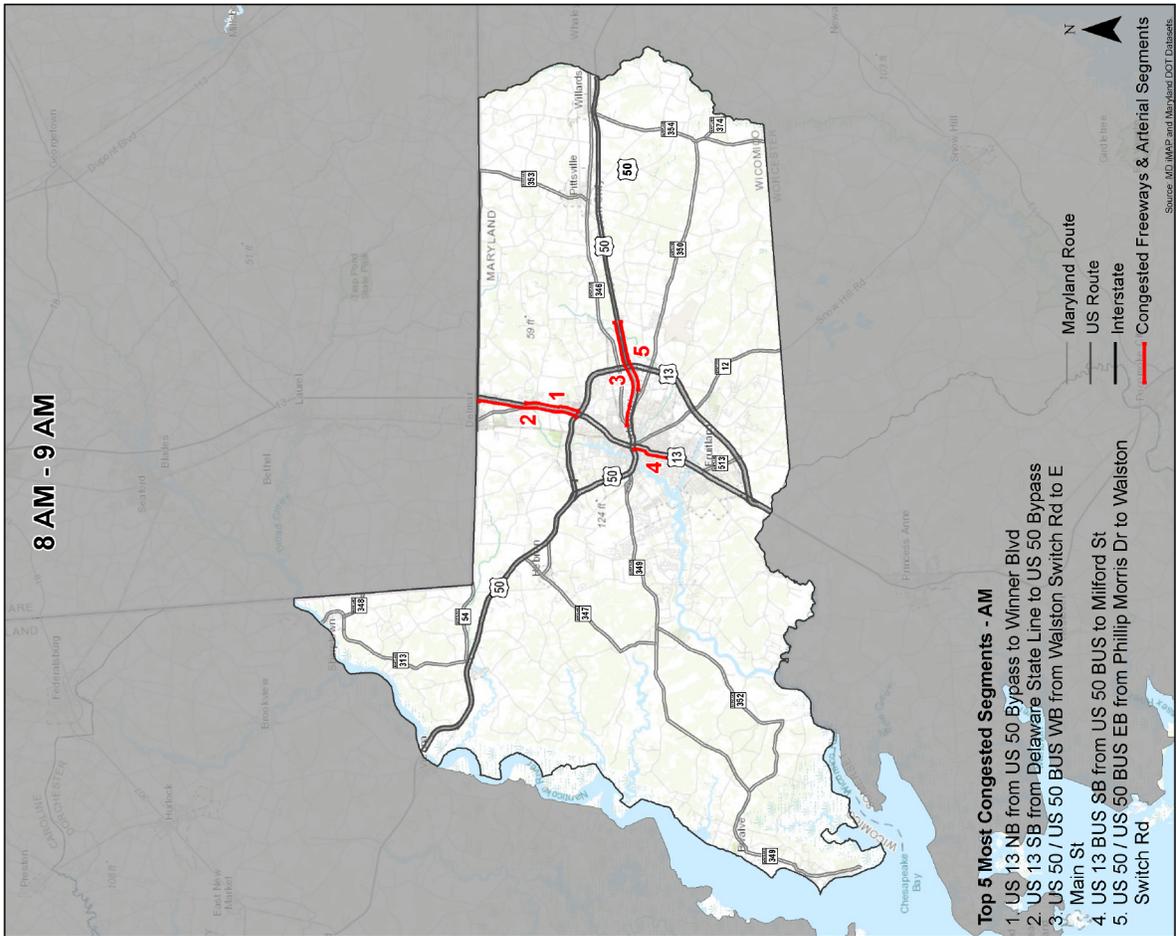
Most Congested Freeway & Arterial Segments - Talbot County



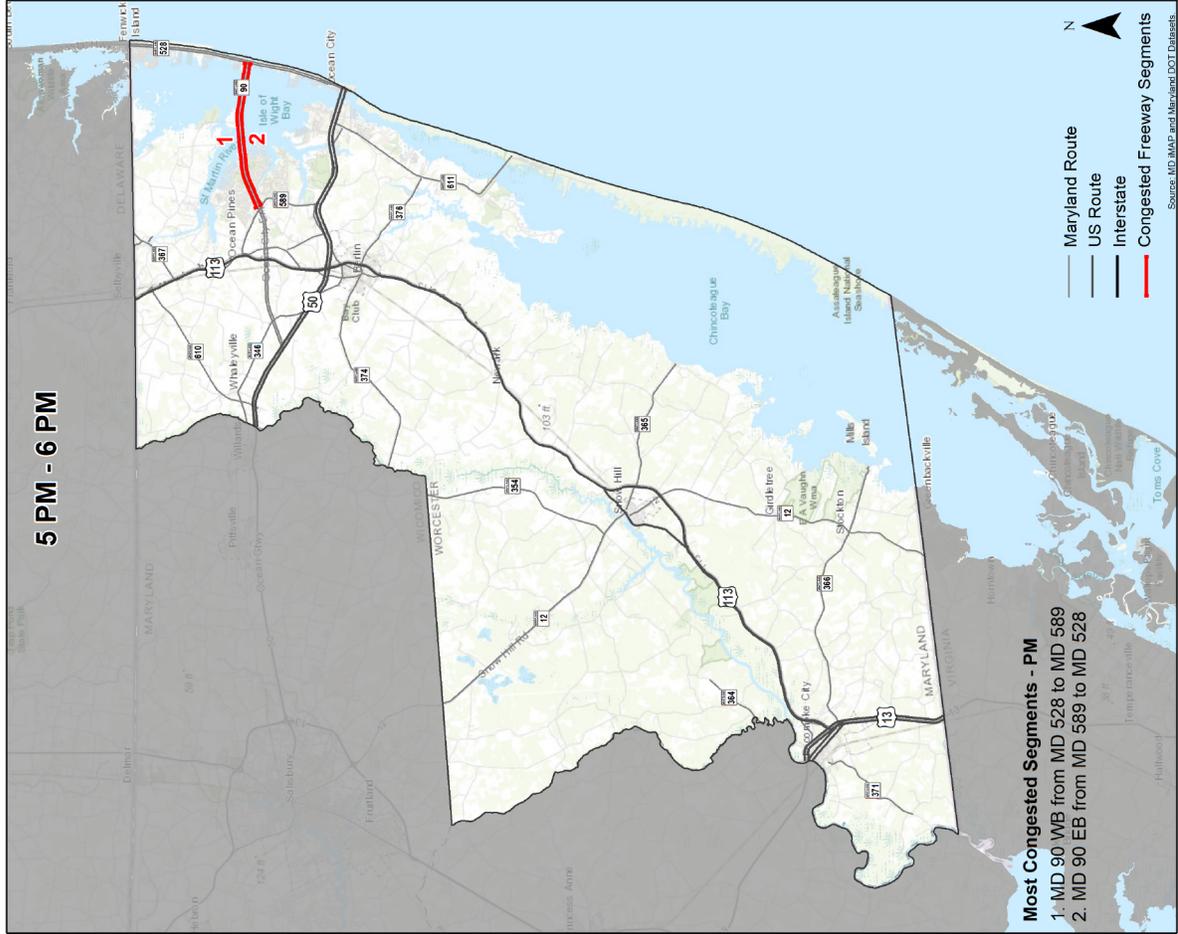
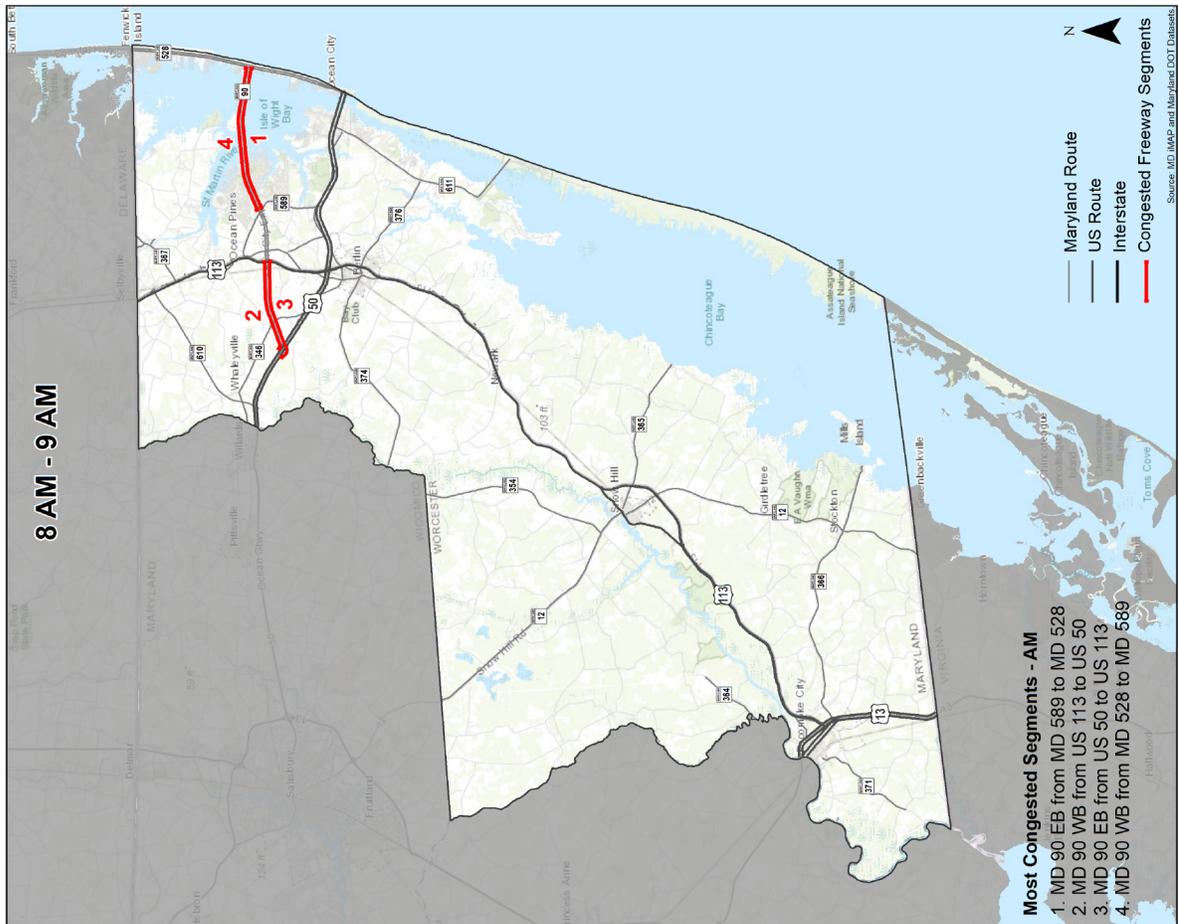
Most Congested Freeway & Arterial Segments - Washington County



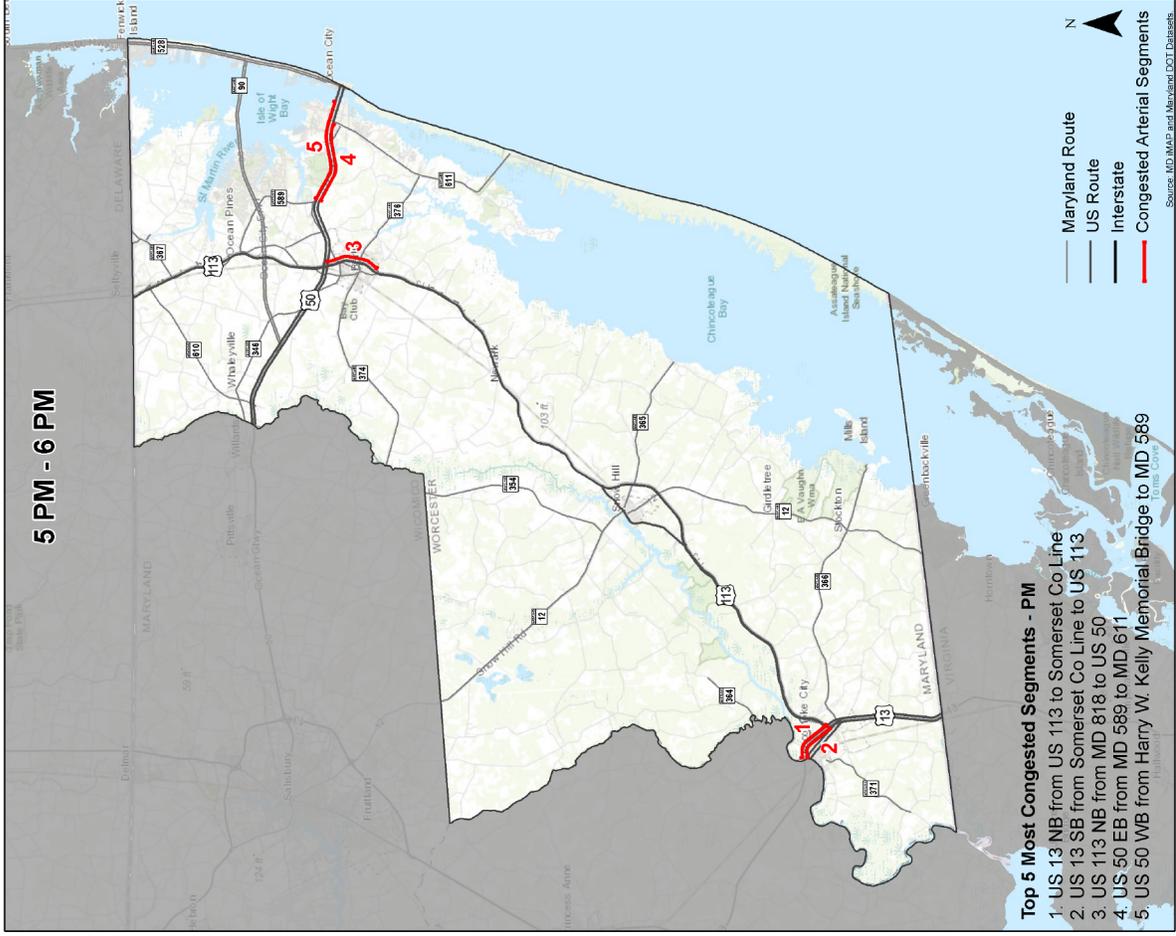
Most Congested Freeway & Arterial Segments - Wicomico County



Most Congested Freeway Segments - Worcester County



Most Congested Arterial Segments - Worcester County



E. Congestion Costs

The cost of congestion includes the auto delay costs, the truck delay costs, wasted fuel cost and cost associated with additional emissions. This cost was broken down by region for the freeways/expressways. The Washington region accounts for 60% of the overall statewide congestion costs. This area was responsible for most of the decrease in congestion cost between 2017 and 2018. The Baltimore region accounts for 39% of the congestion costs. This was a \$7 million dollar decrease over 2017. The congestion cost combined for the Eastern Shore, Southern and Western regions were \$27 million or about a \$4 million increase in 2018 (Table 2).

Table 2

TOTAL FREEWAY/EXPRESSWAY COST OF CONGESTION BY REGION				
REGION	2016	2017	2018	CHANGE 2017 TO 2018
Statewide	2,111	2,874	2,727	-147
Baltimore Region	827	1,079	1,072	-7
Washington Region	1,265	1,772	1,628	-144
Eastern Shore Region	14	17	20	+3
Southern Region	2	2	2	0
Western Region	3	4	5	+1

The cost of congestion on the arterial network increased by approximately \$62 million over 2017. By region, the major increase was in both the Baltimore and Washington region where congestion costs increased in both locations by just over \$30 million (Table 3).

Table 3

TOTAL ARTERIAL COST OF CONGESTION BY REGION				
REGION	2016	2017	2018	CHANGE 2017 TO 2018
Statewide	1,230	1,179	1,241	+62
Baltimore Region	279	263	296	+33
Washington Region	823	794	828	+34
Eastern Shore Region	N/A	N/A	N/A	N/A
Southern Region	119	114	108	-6
Western Region	8	8	9	+1

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←----- Capital Projects ----->

BEFORE/AFTER FACT SHEETS





-----> Capital Projects Before & After Studies <-----

Twelve (12) mobility projects were completed that involved adding capacity to the existing roadway network (Table 3 and Figure 3). These projects provide for congestion relief, improve safety and enhance traffic operations. All projects are reviewed from a practical design standpoint to ensure the proposed project is addressing just the defined purpose and need. The benefits were analyzed to determine the annual user benefits to the traveling public. The benefits are related to the reduction in delay incurred by motorists and commercial vehicles, fuel savings, the safety benefit resulting from the improvements and the benefit provided by the increased reliability of the system. A detailed analysis describing the improvement, construction cost and the benefits that the mobility project provided as part of the benefit cost analysis are detailed in the following pages.

Table 3

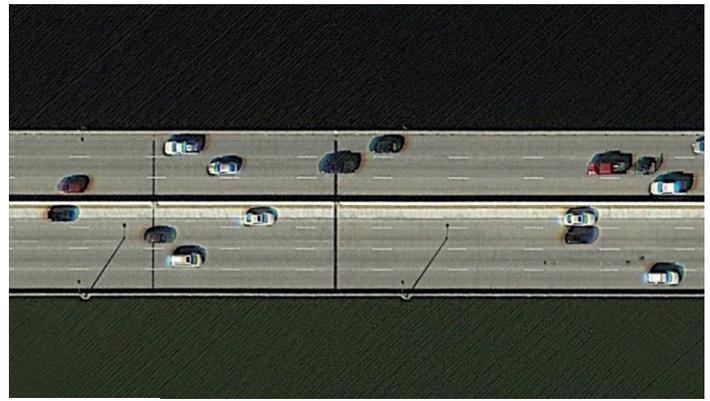
MOBILITY PROJECTS OPENING YEAR BENEFITS				
MOBILITY PROJECT LOCATIONS	COUNTY	CONGESTION & FUEL SAVINGS	SAFETY SAVINGS	ANNUAL COST SAVINGS
\$ (Thousands)				
a. US 50/301 at Severn River Bridge EB	Anne Arundel	19,200	398	19,598
b. I-95 from O'Donnell Street to Ft McHenry Tunnel SB	Balt. City	3,619	645	4,264
c. MD 147 at Glen Arm Road/Mt. Vista Road	Baltimore	4,159	171	4,330
d. MD 482 from Gorsuch Road to Cape Horn Road	Carroll	25	337	362
e. MD 213 at Frenchtown Road	Cecil	5	55	60
f. MD 281 at Muddy Lane	Cecil	11	461	472
g. US 15 at Monocacy Blvd	Frederick	75,567	714	76,281
h. MD 22 from MD 132 to MD 462	Harford	3,443	330	3,773
i. MD 97 at Burntwoods Road	Howard	14	91	105
j. MD 234 at MD 242	St. Mary's	297	82	379
k. MD 413 at Tulls Corner Road	Somerset	4	17	21
l. US 113 from North of Massey Branch to Five Mile Branch Road	Worcester	95	186	281
Total		106,439	3,487	109,926



2018 Mobility Projects provide \$110 million in annual user cost savings in the opening year or approximately \$9 million per project on average.



BEFORE



AFTER

US 50/301 Eastbound ← at Severn River Bridge

LOCATION: ANNAPOLIS, ANNE ARUNDEL COUNTY

A lane has been added to US 50 eastbound over the Severn River Bridge in Anne Arundel County. The additional lane was constructed maximizing the width of the bridge by narrowing lanes, shifting the existing median barrier, strengthening the concrete deck, connecting the two structures, and enhancing the bridge supports.

Project Background

- Approximately 145,000 motorists use this study section of US 50 each day.
- Over the three-year study period there was one (1) fatal crash, seventy-one (71) injury crashes and one hundred fifty (150) property damage crashes. The probable cause for most of the crashes were either due to “Fail to give full attention” and “Too fast for conditions”.
- The existing Level of Service (LOS) eastbound in the AM peak hour was ‘B’ with 19.5 pc/mi/ln density.
- During the PM peak hour, the existing LOS was ‘F’ with 65.3 pc/mi/ln density in the eastbound direction.

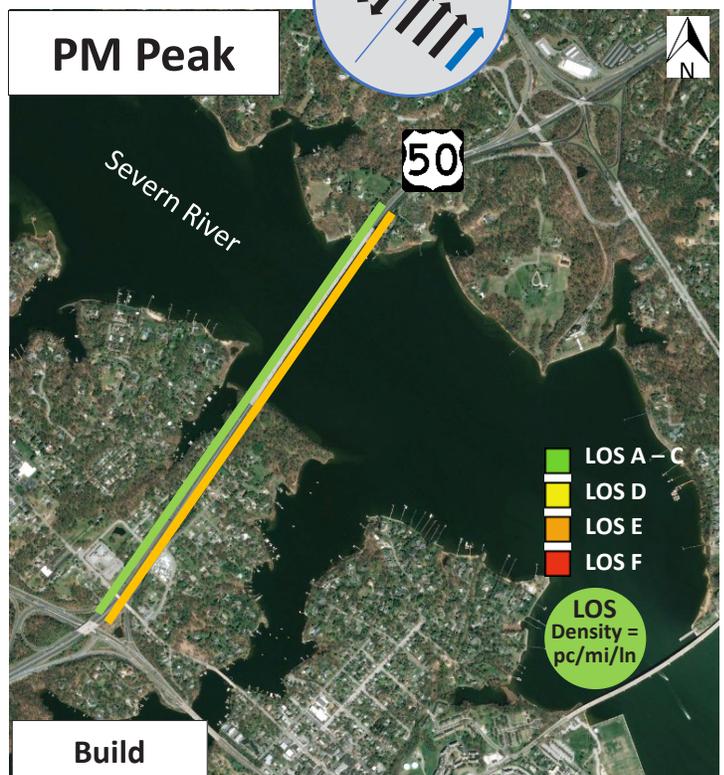
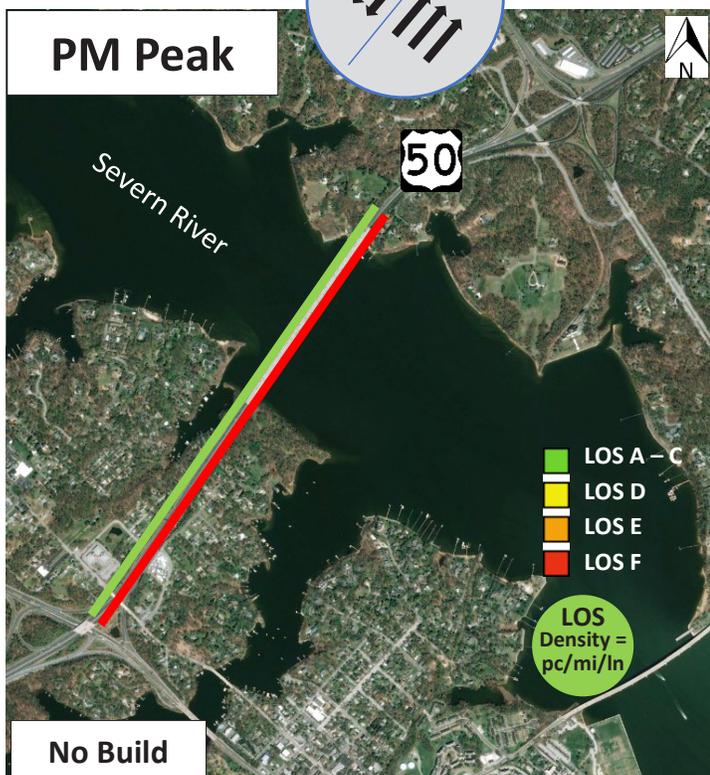
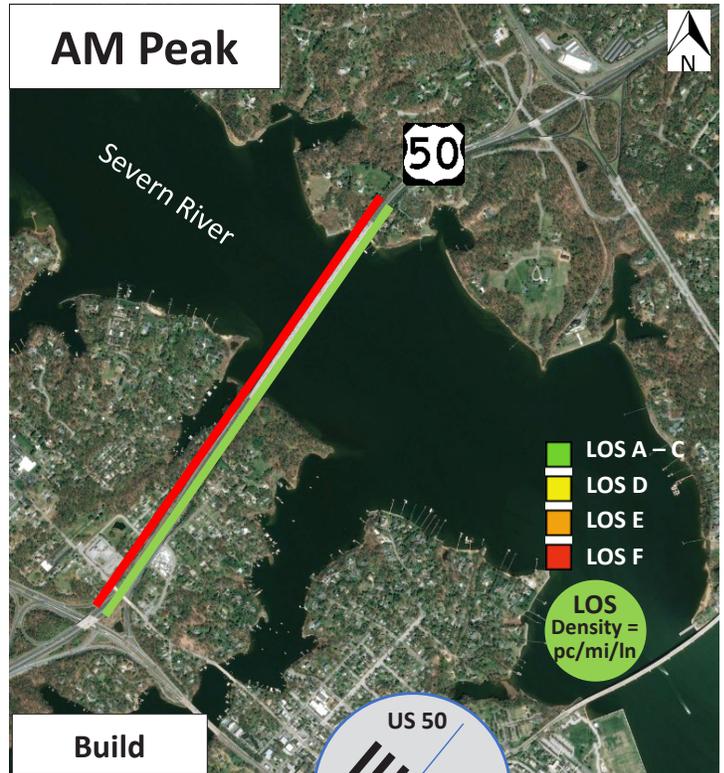
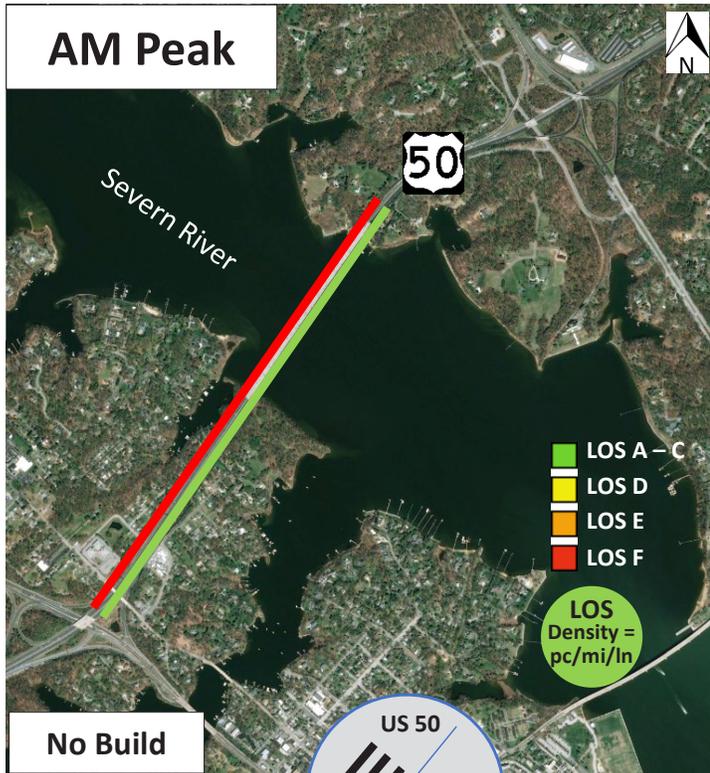
Project Scope

- Added a lane in the US 50 eastbound direction.
- Narrowed the lane width from 12 to 11 feet in both eastbound and westbound direction.
- Reduced the median width from 3 feet to 2 feet and reduced the outside shoulders from 3 feet to 1 foot.

Benefits

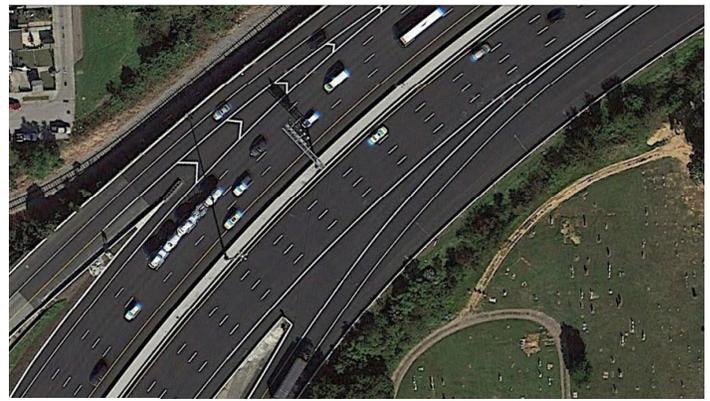
- An additional lane helps alleviating heavy congestion in the eastbound direction during the PM peak hour.
- Reduced the number of stopped motorists due to congestion and therefore reduced the number of rear end crashes.
- After the construction, during the AM Peak hour, the LOS in the eastbound direction is ‘B’ with 19.5 pc/mi/ln density.
- The PM Peak hour was projected to operate at LOS ‘E’ with 35.6 pc/mi/ln density in the eastbound direction after construction.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$18,902.4	\$298.8	\$397.7	\$17.1	24.0





BEFORE



AFTER

I-95 (Ft. McHenry Tunnel ← to I-95 Express Toll Lanes)

LOCATION: BALTIMORE, BALTIMORE CITY

This project reconfigured I-95 to provide four continuous mainline lanes in each direction between the Fort McHenry Tunnel and the I-95 Express Toll Lanes (ETLs).

Project Background

- Approximately 123,000 motorists per day.
- Lack of lane continuity on I-95 southbound with lane drop at O'Donnell Street.
- Three lanes operated over capacity, causing substantial delays and increased travel times.
- During the AM peak hour, the existing LOS was 'F' with 68.3 pc/mi/ln density in southbound direction and the LOS was 'C' with 19.8 pc/mi/ln density in northbound direction.
- During the PM peak hour, the southbound direction LOS was 'C' with a density of 20.2 pc/mi/ln and northbound LOS was 'D' with a 34.3 pc/mi/ln density.

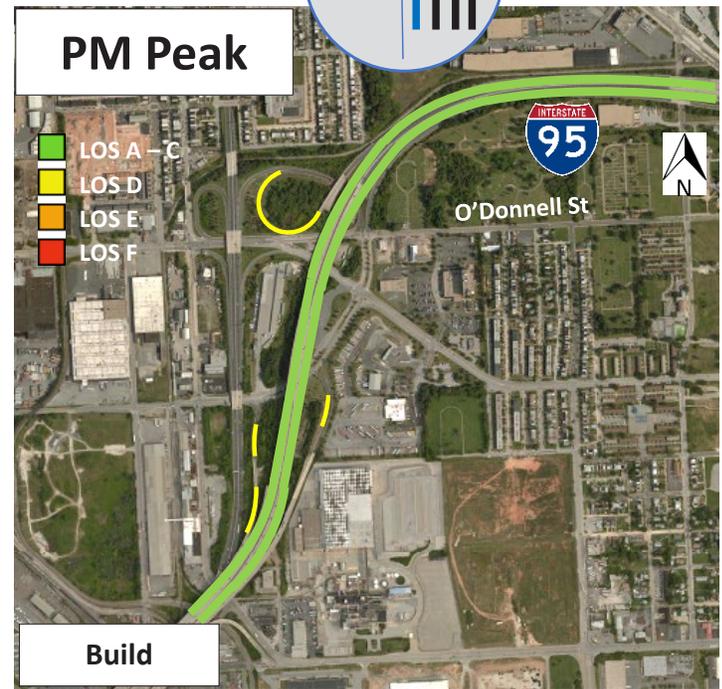
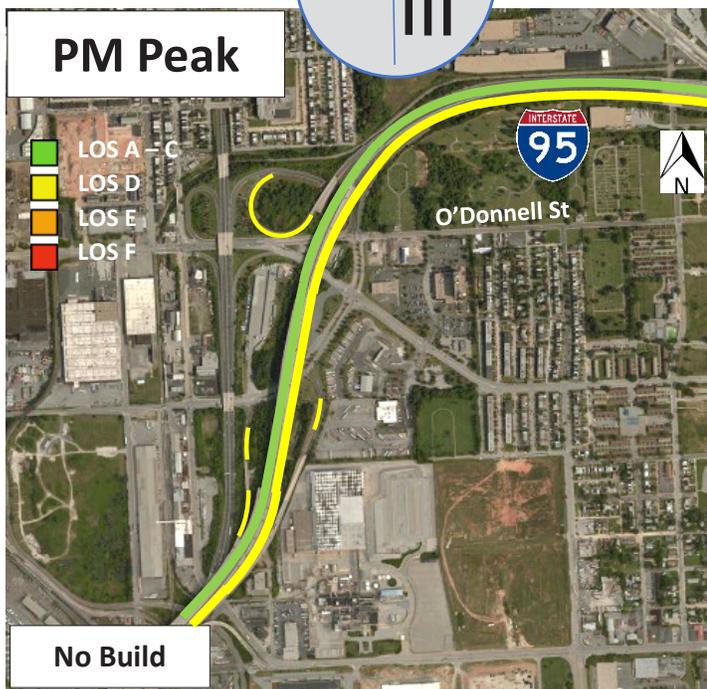
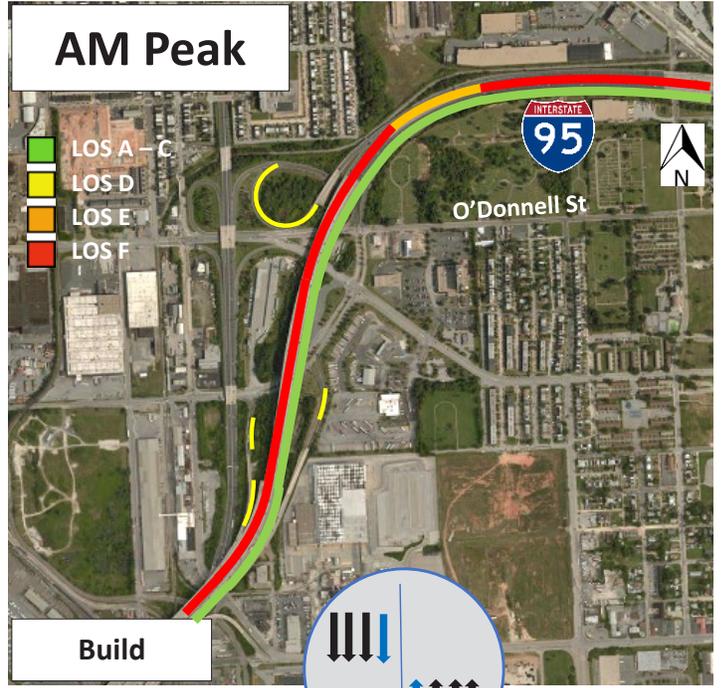
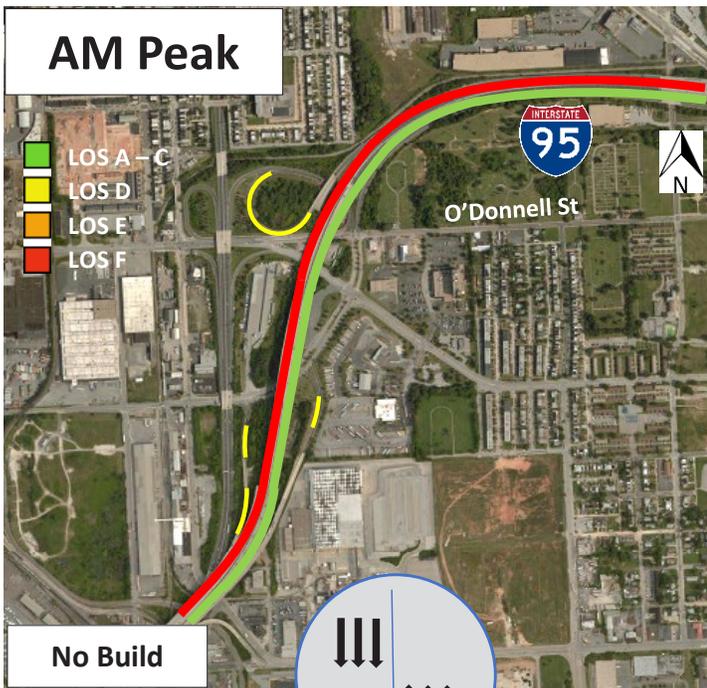
Project Scope

- Restripe and reconfigure I-95 to provide one additional lane of traffic including reconstruction of shoulders, replacement of median concrete traffic barriers, and reconstruction of portions of existing bridge decks and all concrete bridge parapets. The I-95 northbound widening was from Ft. McHenry Tunnel to the I-95 ETLs and I-95 southbound from O'Donnell St. to the Fort McHenry Tunnel.
- Shift will remove left shoulder and decrease right shoulder width.

Benefits

- This project provided lane continuity and additional capacity along I-95 between the Fort McHenry Tunnel and the I-95 ETLs.
- The project will also improve safety by providing higher roadside concrete traffic barrier and bridge parapets and reduce the number of congestion related crashes.
- During the morning peak hour, the roadway LOS improved from 'C' to 'B' in northbound and remained unchanged in the southbound direction due to the tolls. For the PM peak hour, the LOS improved from 'D' to 'C' northbound.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$3,561.0	\$58.0	\$645.0	\$49.4	1.7





BEFORE



AFTER

MD 147 at Mount Vista Road and Glen Arm Road ←-----

LOCATION: FORK, BALTIMORE COUNTY

A single lane roundabout was constructed at the intersection to replace the two-way stop sign controlled intersection. Previously, Glen Arm Road and Mt Vista Road were controlled by stop signs.

Intersection Background

- MD 147 has an average daily traffic (ADT) of approximately 6,000 vehicles per day.
- Left turning motorists from Glen Arm Road onto northbound MD 147 experienced extensive queues.
- The lowest LOS in the AM peak hour was 'F' along Mt. Vista Road.
- During the PM peak hour, the worst LOS was 'F' along Glen Arm Road.
- Over the three-year study period, there was a total of 20 crashes, of which none involved fatalities.

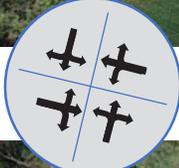
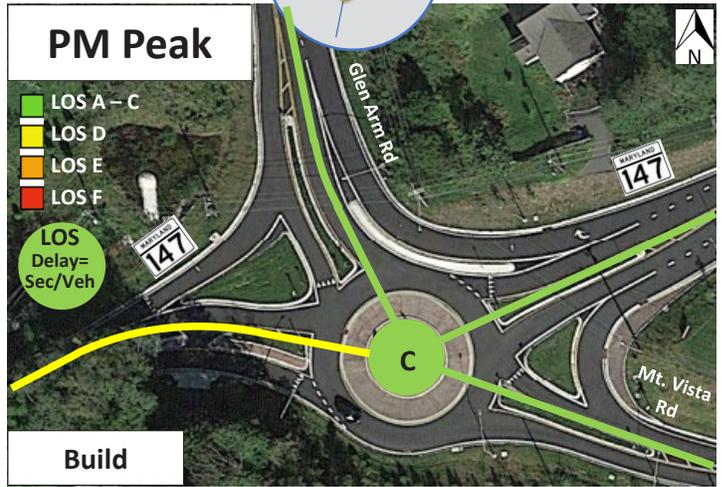
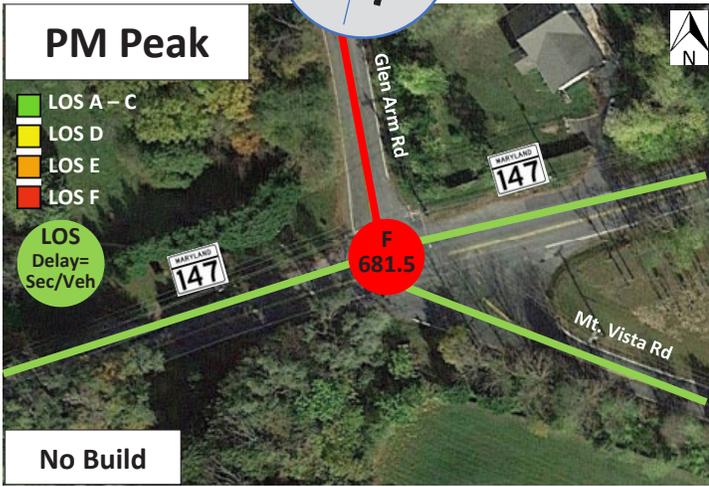
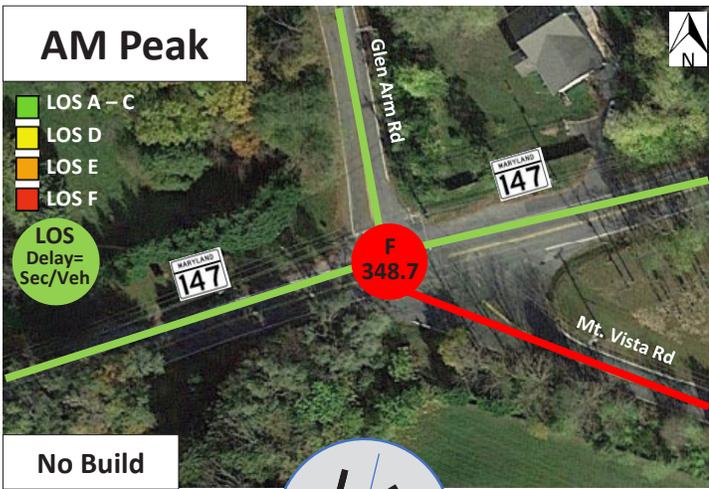
Project Scope

- Replace two-way stop sign controlled intersection with a roundabout at MD 147 at Mt. Vista Road and Glen Arm Road intersection.

Benefits

- Improves safety by slowing travel speeds and reducing potential for left turn crashes.
- The roundabout operates at LOS 'A' during the AM peak hour and 'C' during the PM peak hour.
- There was a 97% reduction in delay during the AM peak hour and a 96% reduction in the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$4,094.0	\$65.0	\$170.9	\$3.2	27.7





BEFORE



AFTER

MD 482 from Gorsuch Road ←----- to Cape Horn Road

LOCATION: HAMPSTEAD, CARROLL COUNTY

This project improved the sight distance along MD 482 between Gorsuch Road and Cape Horn Road in Hampstead, Carroll County by realigning Gorsuch Road with Cape Horn Road and making it a four legged intersection. Turn lanes were constructed on MD 482 and Cape Horn Road. Gorsuch Road was realigned with Cape Horn Road at MD 482, abandoning part of Gorsuch Road.

Intersection Background

- Approximately 8,600 vehicles per day travel along MD 482.
- Two skewed T-intersections with stop controlled on minor streets with limited sight distance for Gorsuch Road.
- Over the three-year study period there were seven (7) injury crashes and seven (7) property damage crashes.

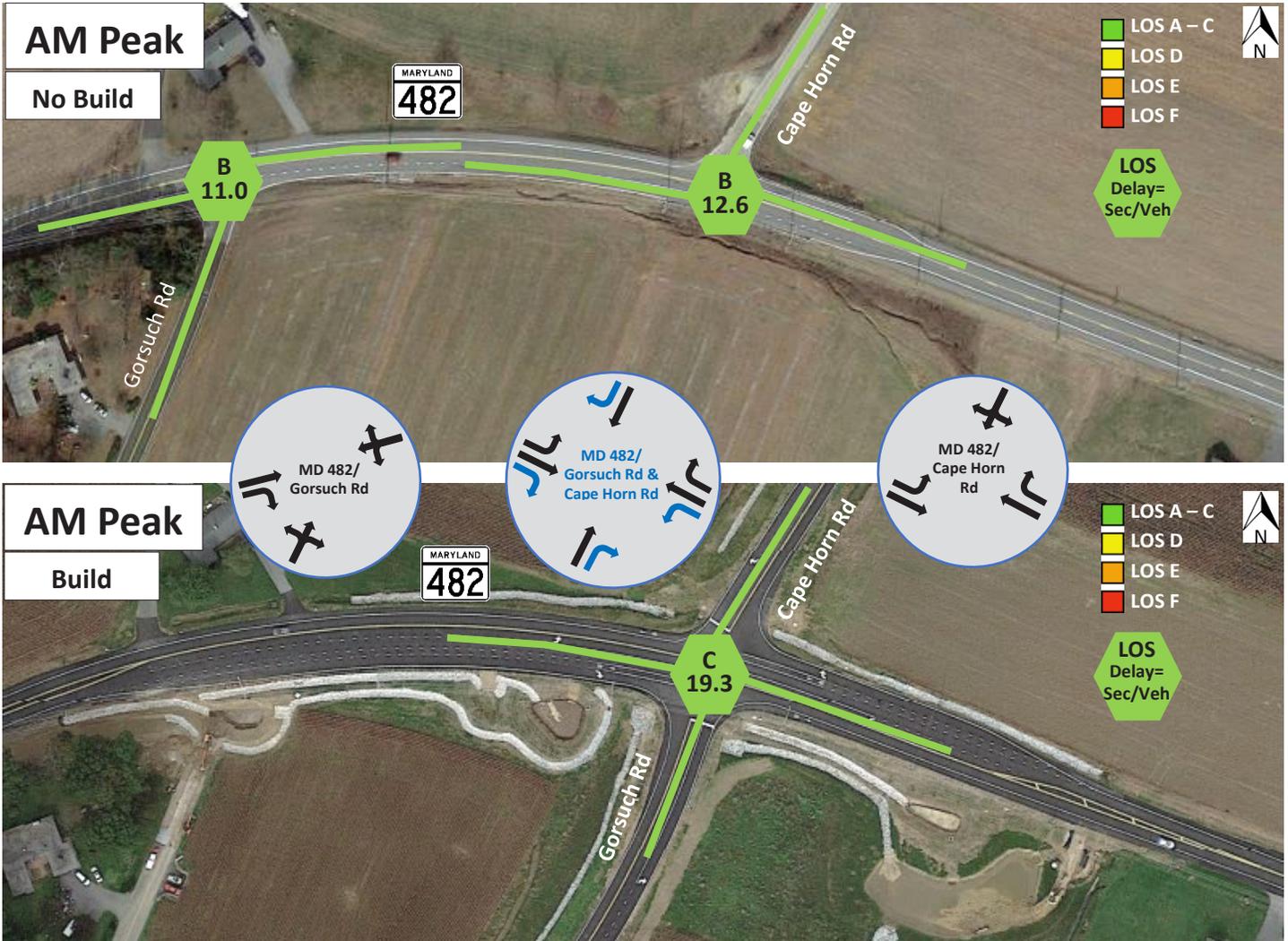
Project Scope

- Widened MD 482 to provide left and right turn lanes at Gorsuch Road/Cape Horn Road.
- Realigned Gorsuch Road with the existing T-Intersection of MD 482 and Cape Horn Road.
- Provided for two lanes on the Gorsuch Road and Cape Horn Road approaches.

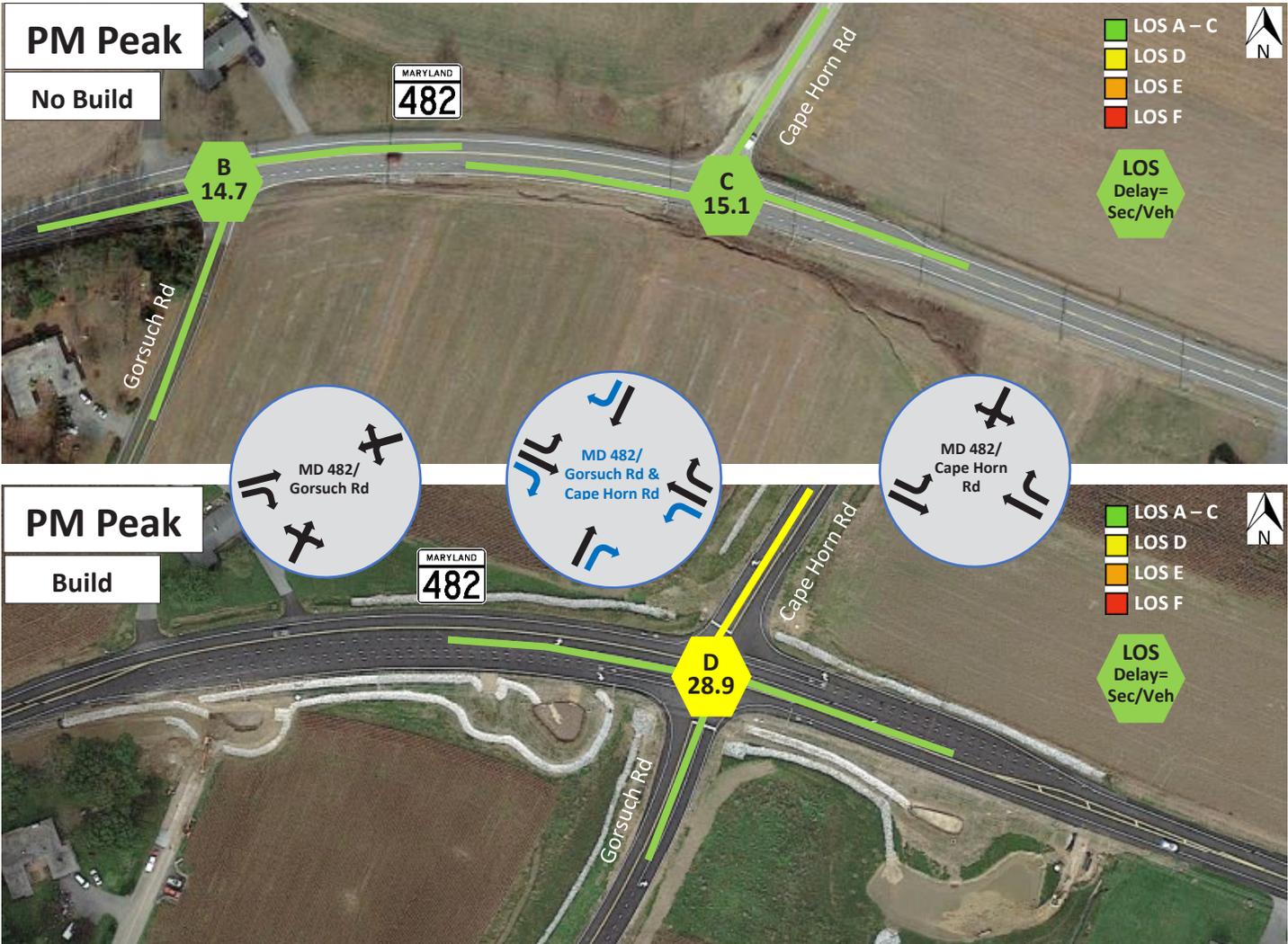
Benefits

- Improves safety and sight distance for vehicles accessing MD 482.
- The addition of turn lanes reduced the network delay by 40% in the AM peak hour and 29% in the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$24.5	\$0.4	\$336.8	\$2.8	1.6



* The LOS reported for each intersection is the worst approach LOS and Delay.



* The LOS reported for each intersection is the worst approach LOS and Delay.



BEFORE



AFTER

MD 213 at Frenchtown Road ←

LOCATION: WHITE HALL, CECIL COUNTY

MD 213 was widened to provide separate through, left and right turn lanes on both MD 213 approaches. The existing two-way stop sign controlled intersection had only bypass lanes along MD 213. The added right turn lane will allow right turning motorists along MD 213 to decelerate without slowing through motorists continuing through the intersection.

Project Background

- The intersection has stop signs along the eastbound and the westbound approaches. The LOS for the eastbound approach (Frenchtown Road) was 'E' and 'F' during the AM and the PM peak hours. The LOS for the westbound approach (Frenchtown Road) was 'C' and 'E' during the AM and the PM peak hours.
- There were 17 crashes reported during the three-year study period, of which none involved fatalities.
- MD 213 has an ADT of approximately 14,000 vehicles per day.

Project Scope

- Widened MD 213
 - Added dedicated northbound and southbound right turn lanes onto Frenchtown Road.
 - Added bicycle lanes along both sides of MD 213.
- Relocated Park-N-Ride lot to the north of Frenchtown Road.
- Constructed new drainage and lighting facilities.

Benefits

- During the AM and the PM peak hours, delay is reduced by 4% and 2% respectively.
- Keeps traffic moving efficiently, saving time and fuel consumption.
- Safety should improve by reducing the speed differential between right turning vehicles and through vehicles.
- A signed and marked bicycle lane should improve awareness of bicyclists and improve safety



BEFORE



AFTER

MD 281 at Muddy Lane <-----

LOCATION: ELKTON, CECIL COUNTY

The two-way stop sign controlled intersection was converted to a single lane roundabout. Previously, Muddy Lane and Kemp Lane were controlled by stop signs.

Intersection Background

- MD 281 has an ADT of approximately 6,600 vehicles per day.
- Muddy Lane operated at LOS 'C' in the AM peak hour.
- During the PM peak hour, the lowest LOS was 'E' along Muddy Lane.
- Over the three-year study period, there was a total of 28 crashes, of which none involved fatalities.

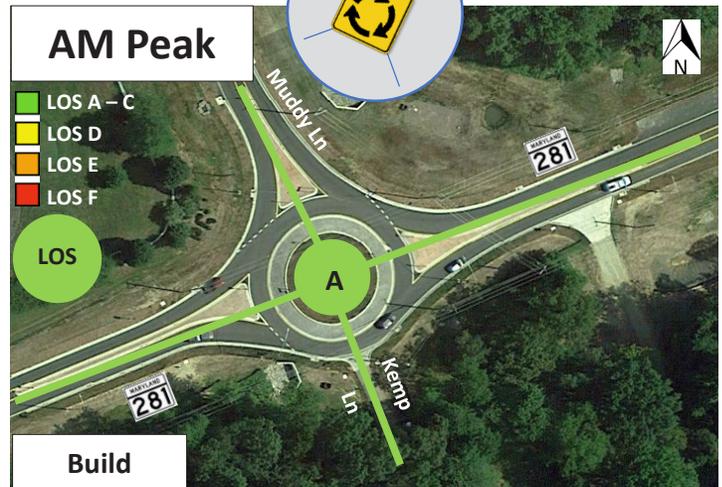
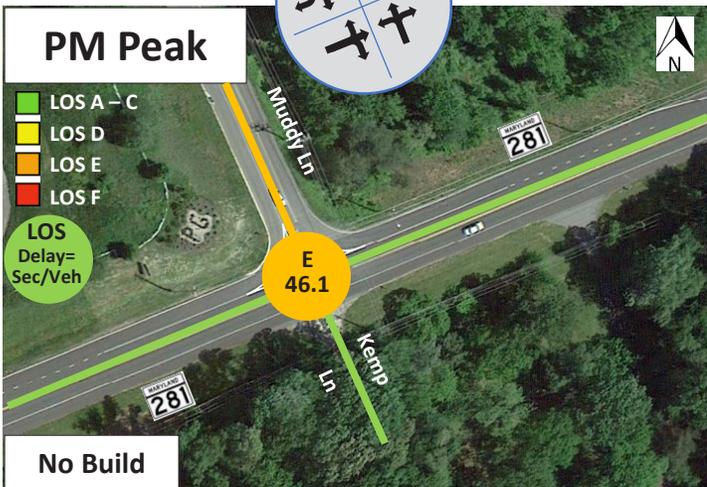
Project Scope

- Replace two-way stop sign controlled intersection with a roundabout.

Benefits

- Roundabouts improve traffic efficiency and dramatically reduce the incidence of severe crashes and fatalities due to lower travel speeds.
- The roundabout operates at LOS 'A' during the AM and the PM peak hours.
- There was a 7% reduction in delay during the AM peak hour and a 17% reduction during the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$11.1	\$0.3	\$460.6	\$3.1	1.8





BEFORE



AFTER

US 15 at Monocacy Boulevard ←

LOCATION: FREDERICK, FREDERICK COUNTY

A new interchange was constructed to replace the existing intersection on US 15 (Catoctin Mountain Highway) at Monocacy Boulevard. These improvements will allow Monocacy Boulevard traffic to cross over US 15, creating an east-west connection from Monocacy Boulevard to Christopher's Crossing.

Project Background

- Approximately 49,000 vehicles per day travel along US 15 through this section. There are few connections over US 15, making it difficult to travel between the east and west sides of the road.

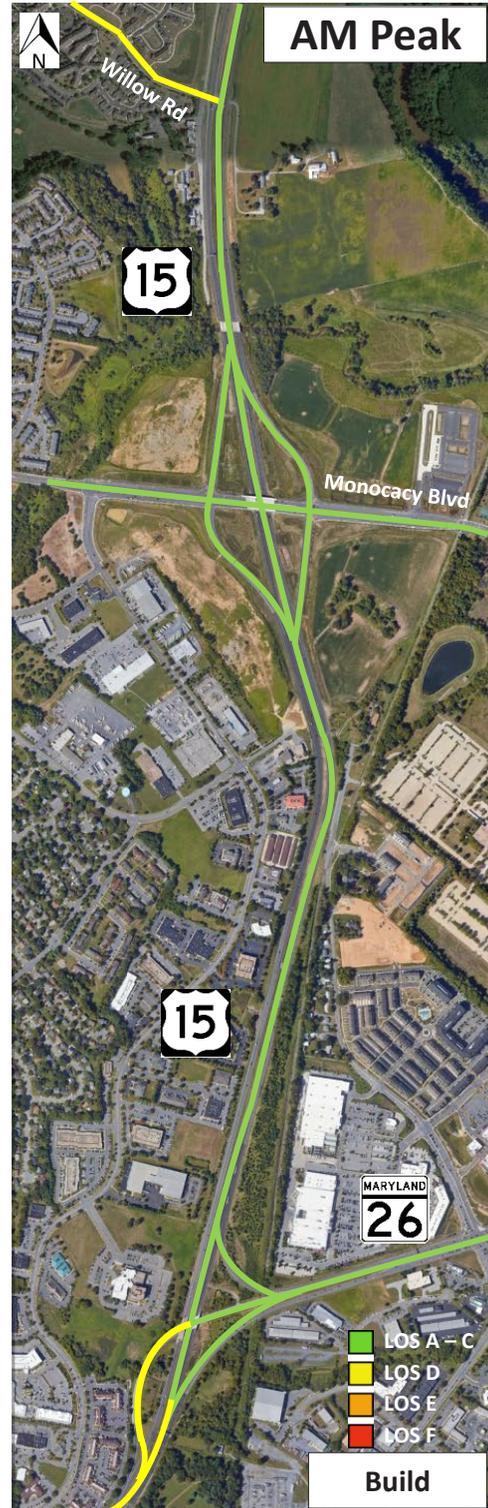
Project Scope

- Construct a new interchange to replace existing at grade intersection at US 15 and Monocacy Boulevard.
- Improved pedestrian connectivity with a shared hiker/biker path along Monocacy Boulevard. Provide for a 400-space park and ride lot in northeast quadrant of interchange.

Benefits

- New interchange ramps will provide a direct connection for those traveling at the US 15 interchange from Christopher's Crossing and Monocacy Boulevard.
- Reduced access points along US 15 and subsequently improved safety.
- New interchange supports economic development and enhances safety in a growing area of Frederick County.
- Decreased the travel time for motorists who use Monocacy Boulevard interchange by 44% and 50%, in the AM and PM peak hours respectively.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$74,413.0	\$1,154.0	\$714.1	\$31.6	50.9







BEFORE



AFTER

MD 22 from MD 132 to MD 462 ←

LOCATION: ABERDEEN, HARFORD COUNTY

Improvements were constructed along MD 22 to facilitate traffic to Aberdeen Proving Grounds as part of Base Realignment and Closure Act (BRAC). Traffic flow improvements include constructing through and turn lanes of the intersections of Beards Hill Road, Middleton Road, and MD 462. Enhanced safety improvements will include building a raised median on Beards Hill Road to better manage access. Other improvements included installing a bicycle lane and sidewalks along MD 22.

Project Background

- MD 22 has an ADT of approximately 26,000 vehicles per day.
- Over the three-year study period, there was a total of 52 crashes, of which none involved fatalities.
- There were twenty-two injury crashes and twenty-eight property damage crashes at these three intersections.
- MD 22 and Beards Hill Road operated at LOS 'D' during the AM and PM peak hours.
- The LOS at MD 22/Middleton Road was 'B' and 'C' during the AM and PM peak hours, respectively.
- At MD 22 and MD 462 the LOS was 'C' during both the AM and PM peak hours.

Project Scope

- Construct an additional through lane along each direction of MD 22.
- Widen to provide an additional left turn lane along westbound MD 22 at Beards Hill Road, southbound Beards Hill Road, and southbound MD 462.
- Provide for a separate through and right turn lanes along both directions of MD 462.
- Widen northbound Beards Hill Road for a separate through and left turn lane.
- Build raised median on Beards Hill Road for access management.

Benefits

- During the AM and PM peak hours, delays have been reduced by 39% and 55%, respectively.
- Improves LOS from 'D' to 'C' at MD 22/Beards Hill Road intersection.
- Bicycle lane and sidewalk improvements should improve safety.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$3,389.7	\$53.3	\$330.9	\$9,500.0	8.1







BEFORE



AFTER

MD 97 at Burntwoods Road ←

LOCATION: GLENWOOD, HOWARD COUNTY

This project improved mobility and safety at the intersection of MD 97 at Burntwoods Road, by adding exclusive turn lanes, and by installing new traffic beacons.

Project Background

- The ADT for MD 97 through this section is approximately 11,000 vehicles per day.
- The intersection is controlled by stop sign for Burntwoods Road and an intersection control beacon which flashes yellow for MD 97 and red for Burntwoods Road.
- Over the three-year study period there were five (5) injury crashes and nine (9) property damage crashes.

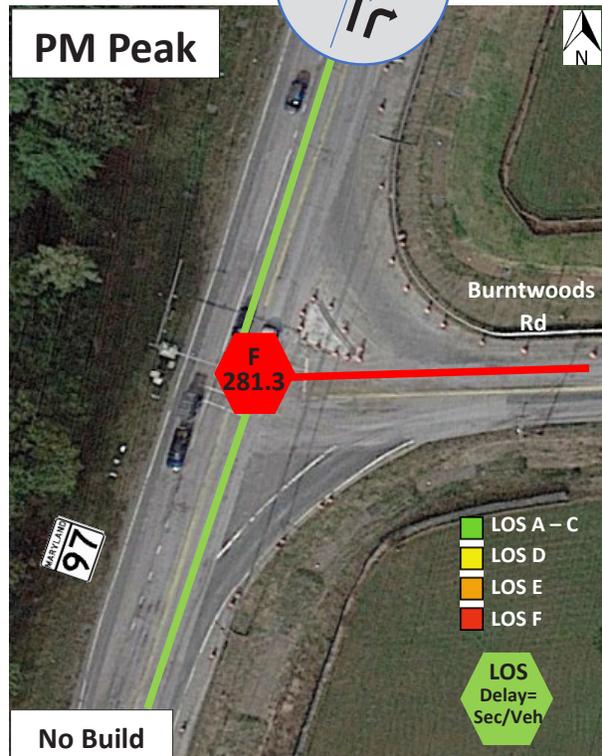
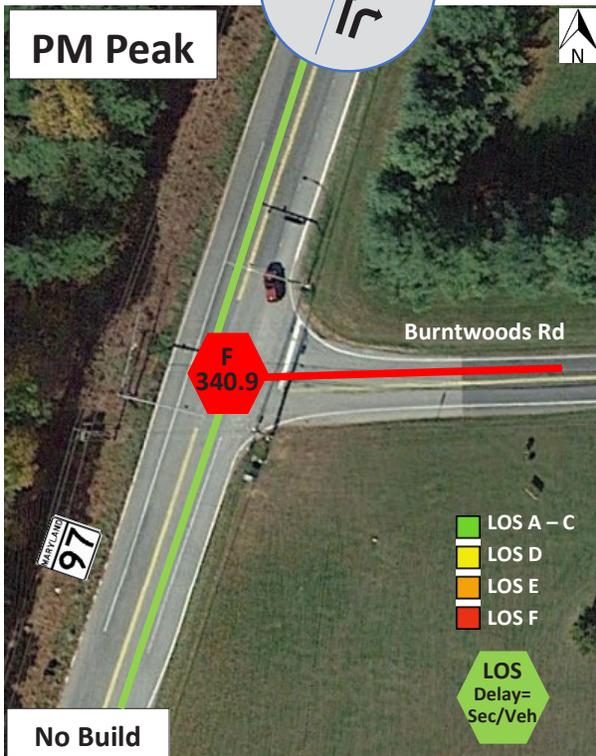
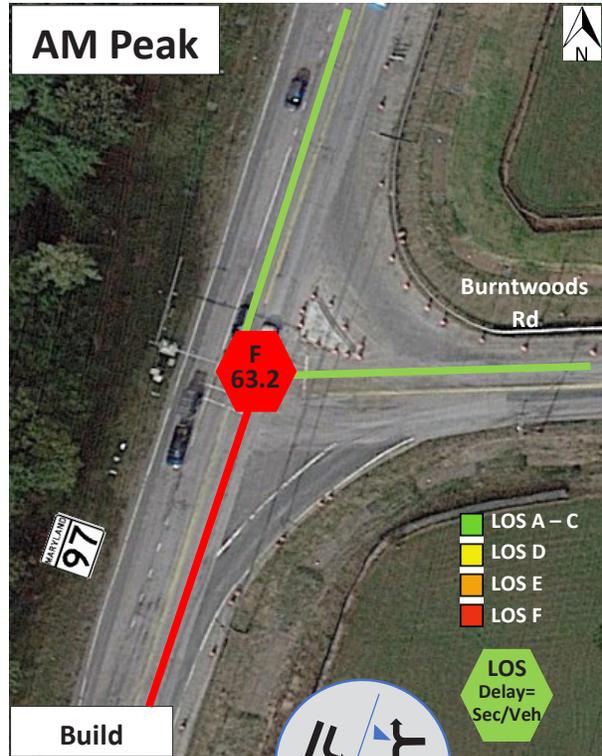
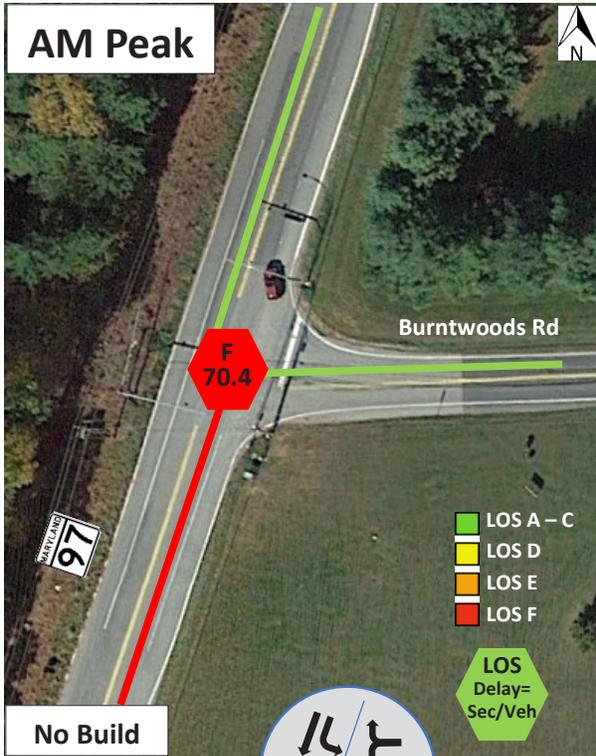
Project Scope

- Lengthened acceleration lane for motorists turning right onto MD 97 from Burntwoods Road.
- Replaced bypass lane on MD 97 southbound with left turn lane.
- Widened and lengthened the right turn lane on MD 97.
- Widened Burntwoods Road for a left and right turn lane and channelized right turn movement.
- Installation of a bike lane on MD 97.

Benefits

- Improved traffic flow and safety.
- The addition of turn lanes reduces the network delay along MD 97 by 7% in the AM peak hour and 1% in the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$14.2	\$0.2	\$91.3	\$3.6	0.4



* The LOS reported for each intersection is the worst approach LOS and Delay.



BEFORE

AFTER

MD 234 at MD 242 ←

LOCATION: CLEMENTS, ST. MARY'S COUNTY

The project involved the construction of a roundabout at the intersection of MD 234 (Budds Creek Road) at MD 242 (Colton Point Road) in Clements, St. Mary's County. The improvements included a single lane roundabout, splitter islands, new signage, lighting, pavement markings, and drainage improvements.

Project Background

- Approximately 13,000 vehicles per day travel through the intersection.
- During the AM peak hour, the existing LOS was 'C' with 17 seconds of delay.
- The intersection operated at LOS 'F' with 64 seconds of delay in the PM peak hour.
- Over the three-year study period there were four injury and four property damage crash reported.

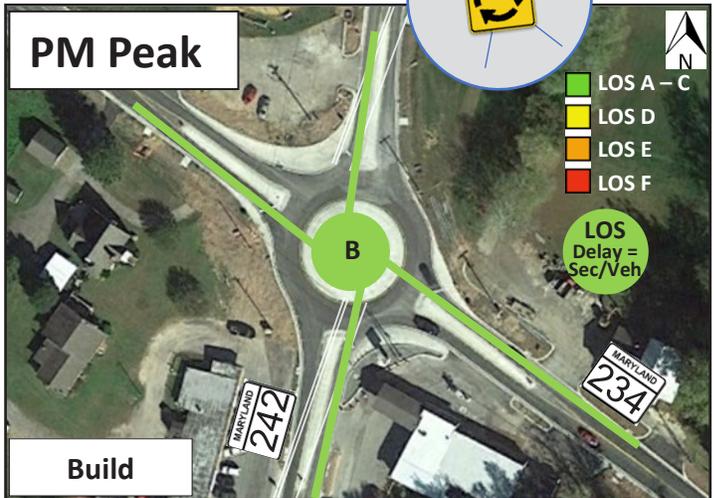
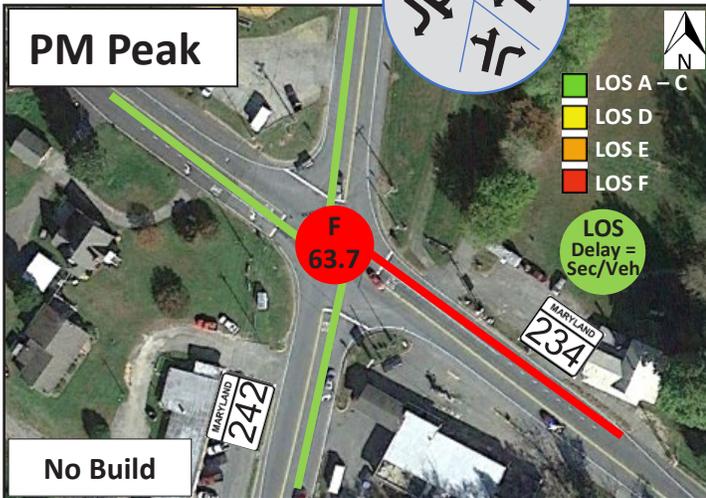
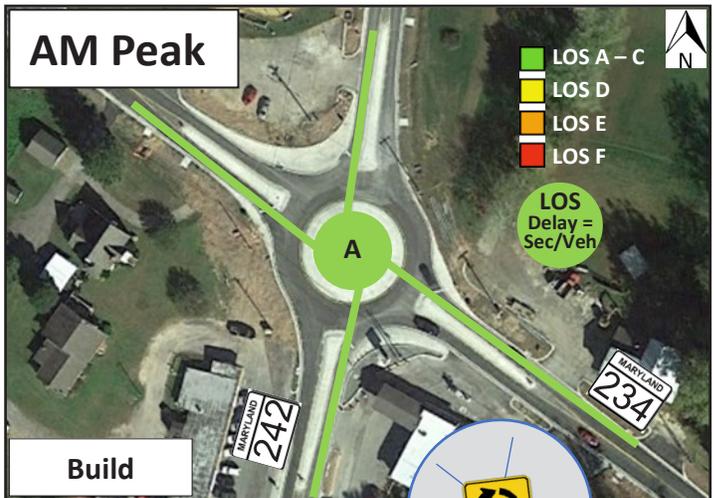
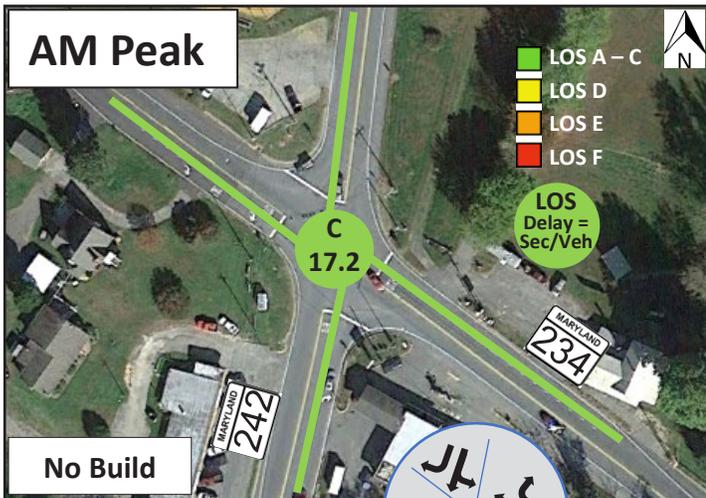
Project Scope

- Replace a four-way stop controlled intersection with a single-lane roundabout.
- Constructed splitter islands and truck aprons and provided drainage improvements.

Benefits

- The roundabout provides a more efficient intersection that accommodates passenger vehicles, large commercial trucks, and farm equipment safely through intersection.
- The roundabout operates at LOS 'A' in the AM peak hour and LOS 'B' in the PM peak hour.
- Roundabout design decreases crashes and network delay by 50% in the AM peak hour and 70% in the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$292.0	\$4.6	\$81.6	\$3.5	2.3





BEFORE



AFTER

MD 413 at Tulls Corner Road ←

LOCATION: MARION STATION, SOMERSET COUNTY

This project converted the shared through-right turn lane along northbound MD 413 to a through lane and a right turn lane at the intersection of Tulls Corner Road/Charles Cannon Road. The existing two-way stop sign controlled intersection had only left turn lanes along MD 413. The added right turn lane will allow right turning motorists along northbound MD 413 to reduce their speed without hindering vehicles continuing through the intersection.

Project Background

- The intersection has stop signs along the eastbound and the westbound approaches. The LOS for the eastbound approach (Charles Cannon Road) was 'B' during the AM and the PM peak hours. The LOS for the westbound approach (Tulls Corner Road) was 'C' during the AM and the PM peak hours.
- There were four crashes reported during the three-year study period, of which none involved fatalities.
- MD 413 has an ADT of approximately 5,200 vehicles per day.

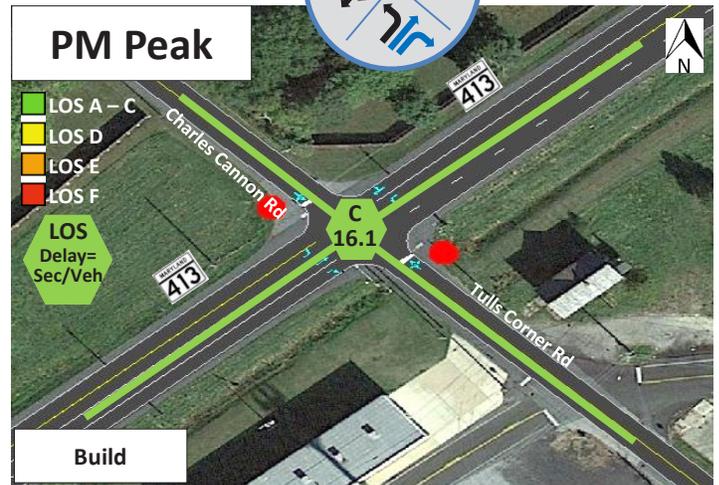
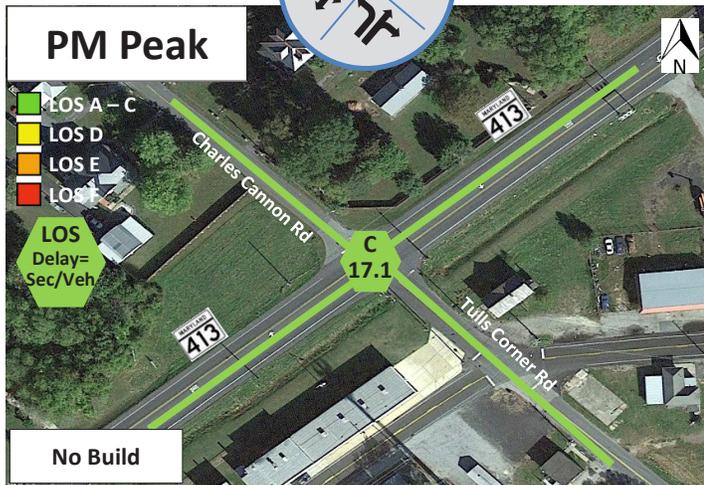
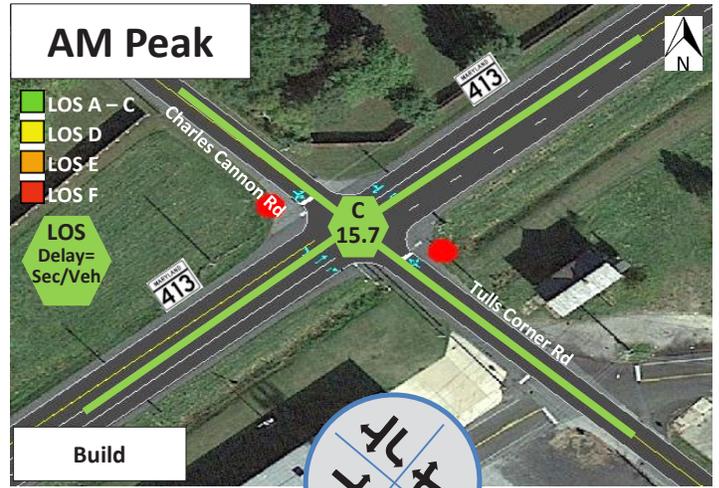
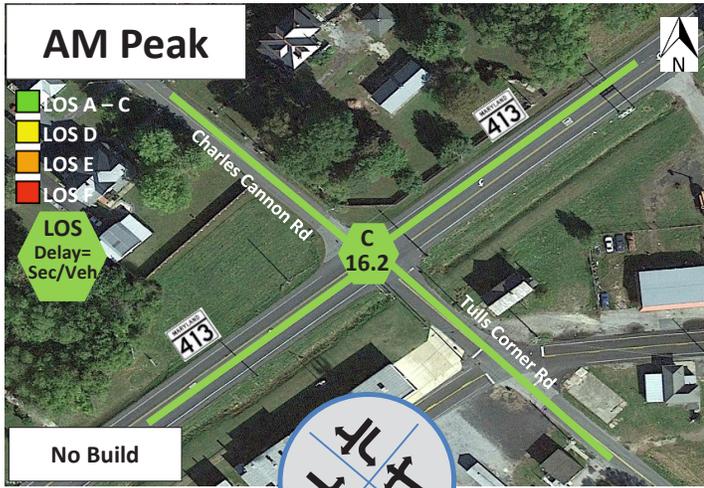
Project Scope

- Widened northbound MD 413 to provide for:
 - Dedicated right turn onto Tulls Corner Road.
 - Acceleration lane from Tulls Corner Road to MD 413.
- Relocated utility poles, new signage and pavement markings.
- Addition of bicycle lanes.

Benefits

- During the AM and the PM peak hours, delay is reduced by 8%.
- Safety should improve by reducing the speed differential between right turning vehicles and through vehicles.
- A signed and marked bicycle lane should improve awareness of bicyclists and improve safety.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$3.6	\$0.1	\$17.5	\$3.5	0.1





BEFORE



AFTER

US 113 from Massey Branch ← to Five Mile Branch Road

LOCATION: NEWARK, WORCESTER COUNTY

The project consists of the construction of two additional lanes along the existing US 113 alignment to create a dual divided highway. The project also includes new service roads to maintain access to residential and commercial properties. Roadway improvements include new pavement construction and pavement rehabilitation of existing roadways and shoulders, signing, lighting and pavement markings.

Project Background

- This phase is part of a larger multi-phase project that will widen US 113 to a four-lane divided highway from Market St. in Snow Hill to Hayes Landing Rd. in Berlin.
- US 113 has an ADT of approximately 12,000 vehicles per day.
- There were 38 crashes over three years.

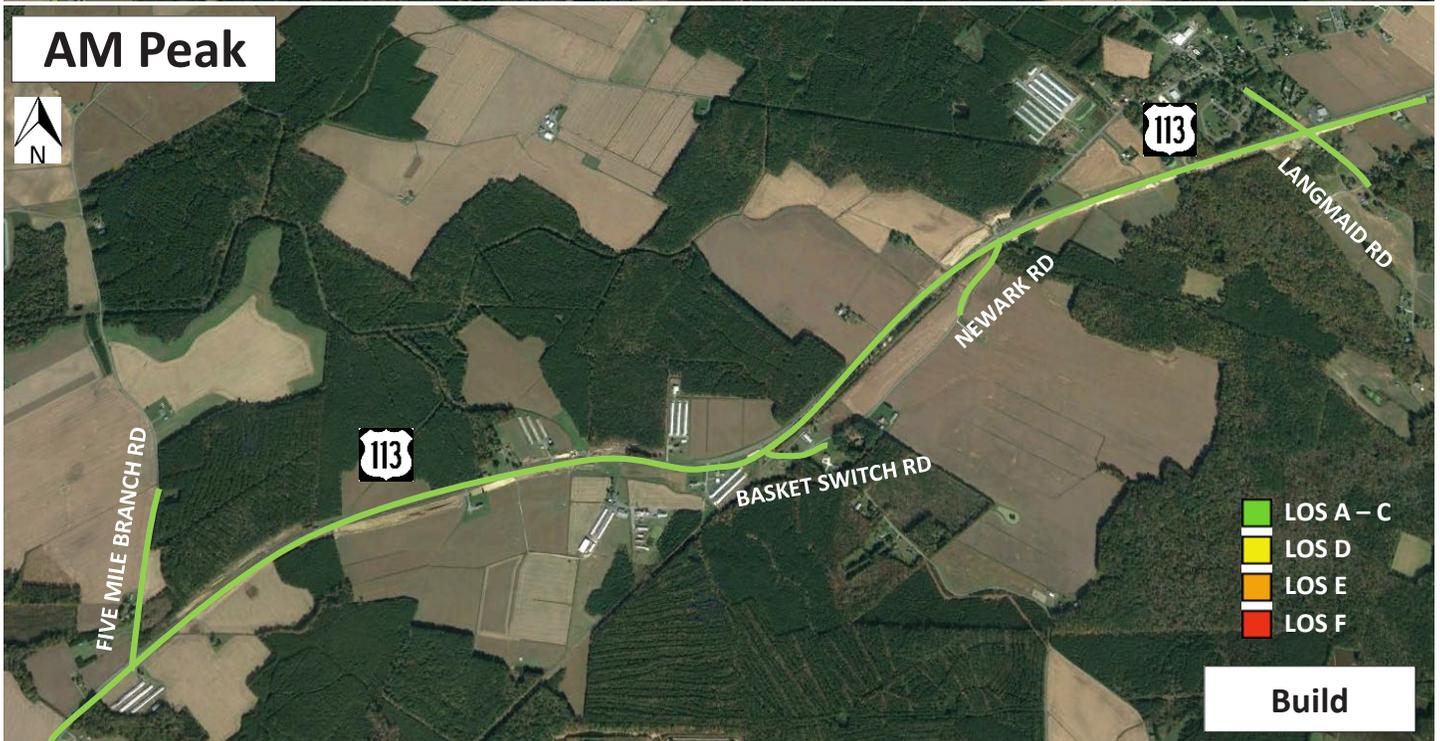
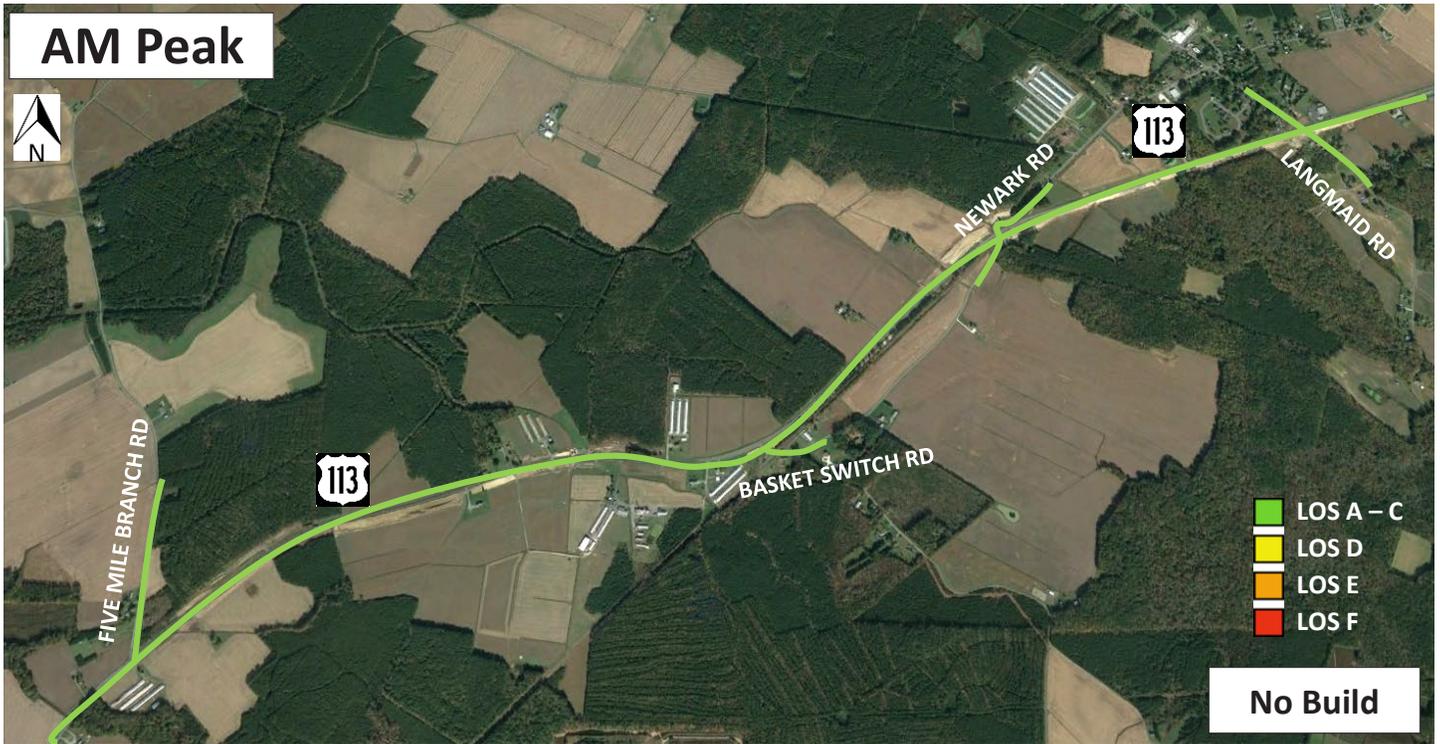
Project Scope

- Widen existing US 113 to a 4-lane divided highway from Massey Branch to Five Mile Branch Rd.
- Bicycle and pedestrian accommodations will be included where appropriate.

Benefits

- Wider roadway will improve safety and operations and reduce traffic congestion caused by seasonal peaks.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$93.7	\$1.4	\$186.4	\$62.7	0.10







→ **Location Mapping** ←

The following pages provide mapping to identify where areas throughout the State that programs, policies and projects have been implemented. The mapping also identifies the location of the poorest operating intersections.

A. New Sidewalks

New sidewalks have been provided throughout Maryland as part of Complete Streets projects or an individual project basis. Some of the programs include the New Sidewalk Construction for Pedestrian Access, Safe Routes to School, Transportation Alternatives, Urban Reconstruction and Recreational Trails program. These programs provide for new sidewalks, the reconstruction of existing sidewalks, constructing curb ramps and upgrading locations to Americans with Disabilities (ADA) standards. New sidewalks were constructed throughout the state (Figures 4-7).

B. Park and Ride Lots

Motorists use park and ride lots to combine trips with another person or to utilize transit to reach their destination. This reduces the number of single occupant trips on the roadway network. There are 106 park and ride lots administered by MDOT SHA and MDTA that cover 20 Counties throughout the State (Figure 8).

C. Reversible, HOV, Express Toll Lanes and Managed Facilities

Various strategies are developed by the MDOT SHA and MDTA to maximize the use of the existing pavement while providing a higher level of performance. This includes reversible lanes which are utilized where traffic volumes are very high in one direction and much lower in the other direction. This allows for one or more lanes to change direction during the peak flow of the roadway. HOV lanes in Maryland are along US 50 and I-270. In order for persons to drive in these lanes a minimum of two occupants must be in the vehicle or it be a transit vehicle or motorcycle. The HOV lanes provide a travel time advantage versus other lanes on those facilities. Express toll lanes are operational along I-95 north of Baltimore. Motorists have the option of paying a toll to drive at free flow conditions or utilize the adjacent free lanes. Finally, MD 200 is an all electronic toll collection facility where motorists toll is based on the time of day (Figure 9).

D. CHART's Traffic Operations Centers

A major component of CHART's efforts to provide incident management is through monitoring traffic at its operations centers. The MDOT SHA Statewide Operations Center is located in Hanover, with three supporting regional Operations Centers (Figure 10).

E. Signal Systems Upgrades

Signal systems are reviewed continually by MDOT SHA to improve traffic progression along a roadway. In 2018, eighteen systems we upgraded (Figure 11).

F. Failing Intersections

Along arterial roadways, the key locations where congestion occurs is at the intersections. The worse performing intersections based on traffic counts performed in the last three years are mainly concentrated in Montgomery and Prince George's Counties (Figure 12 and 13).

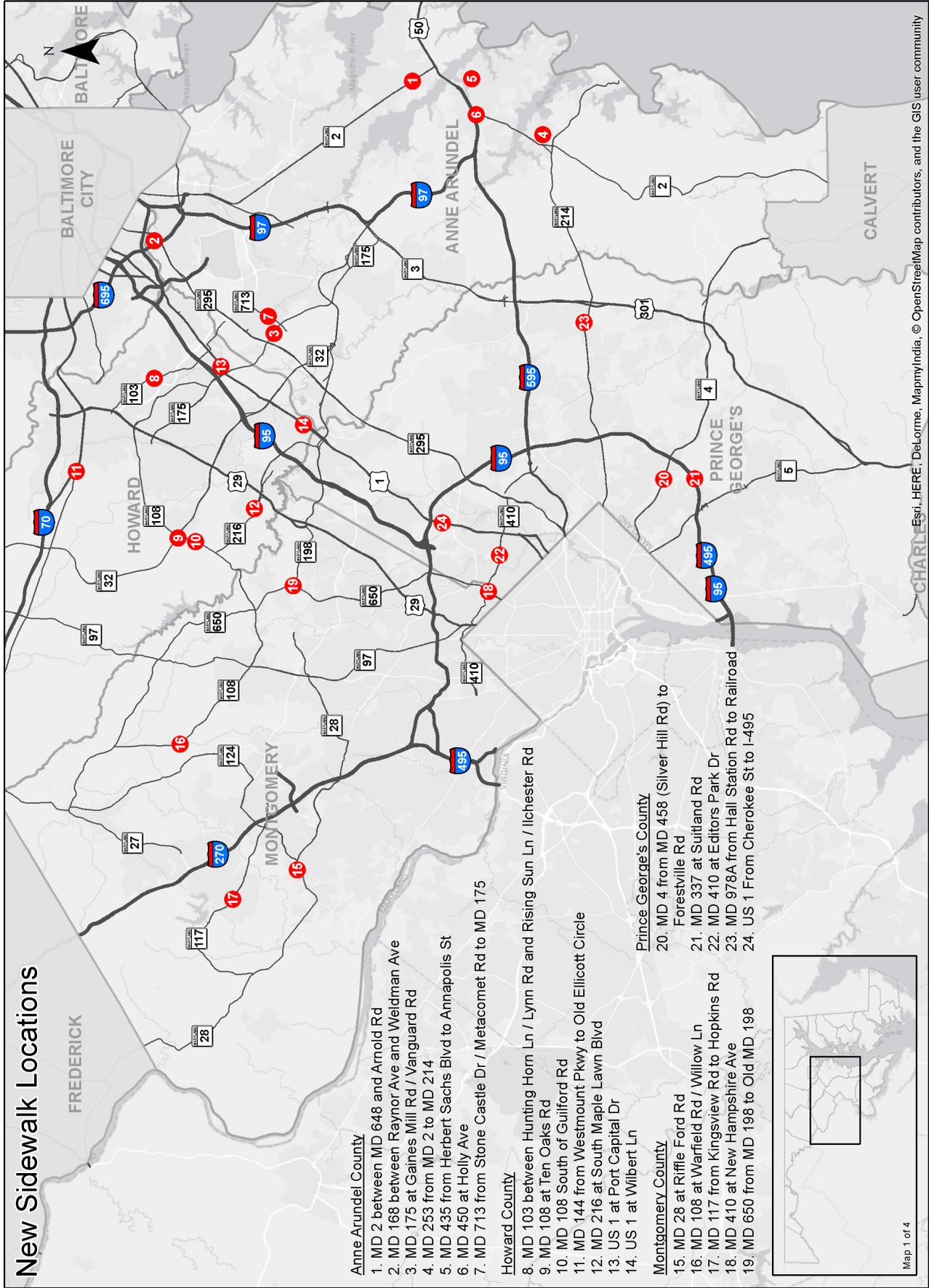
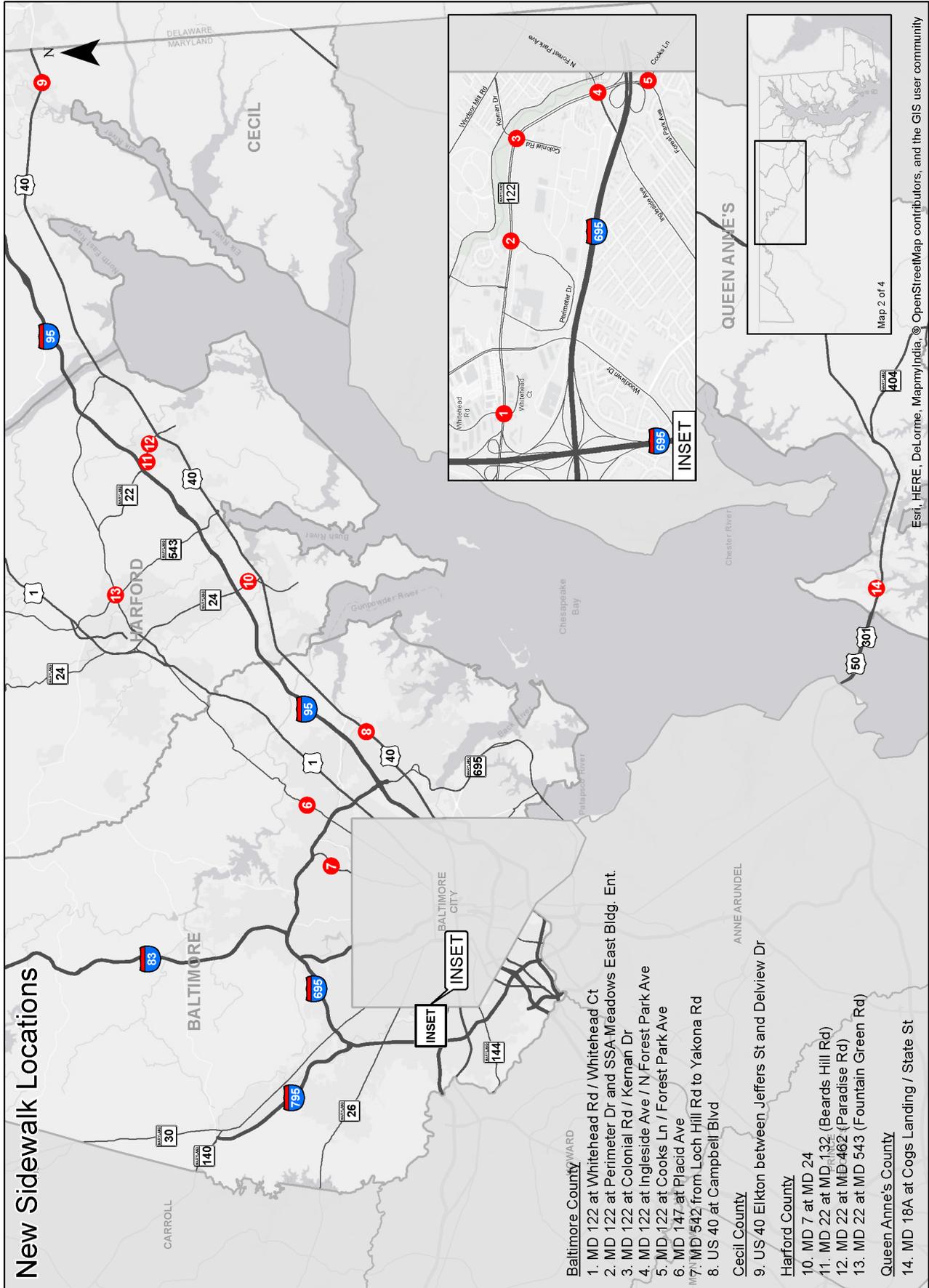


Figure 5



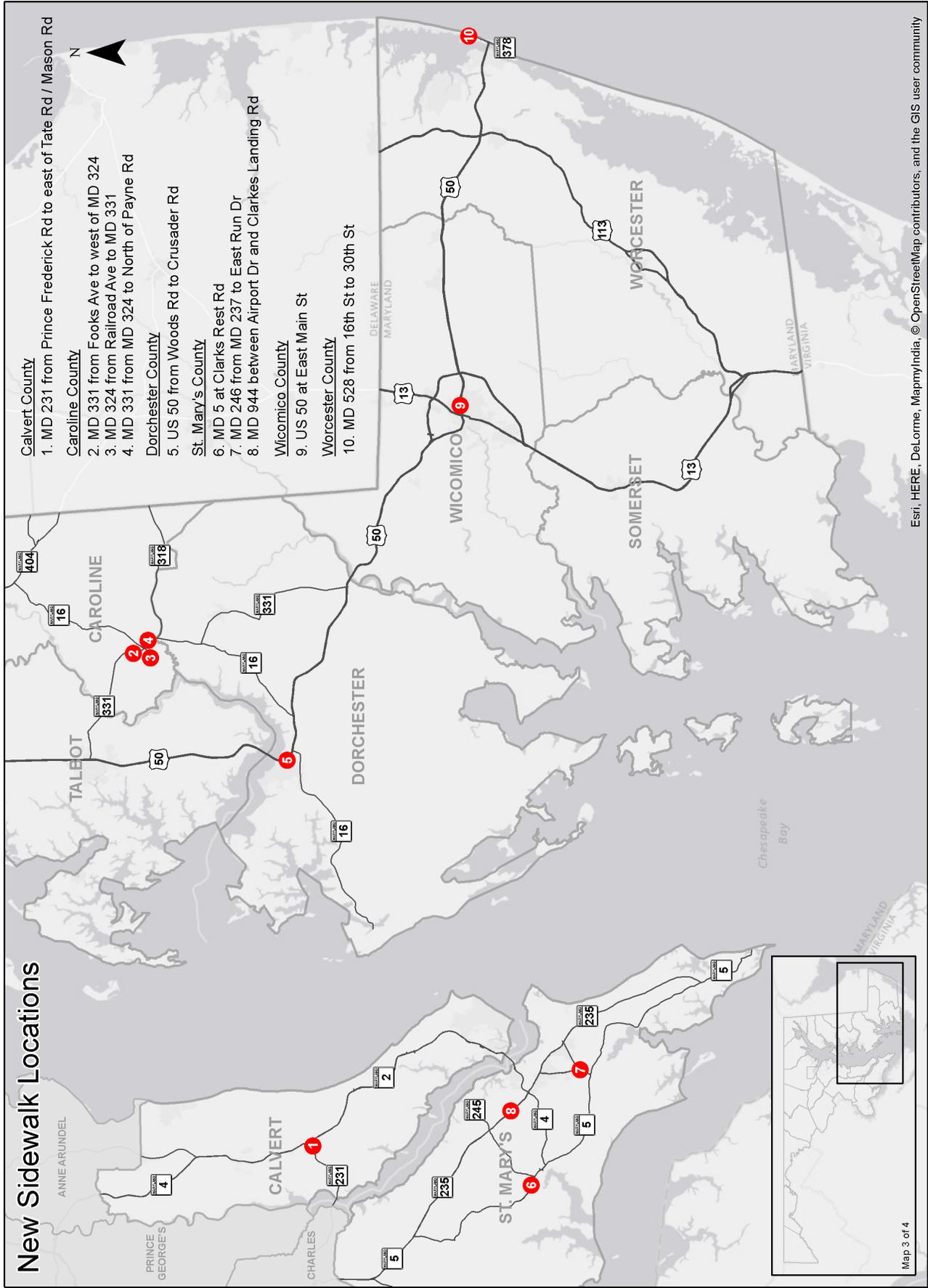


Figure 7

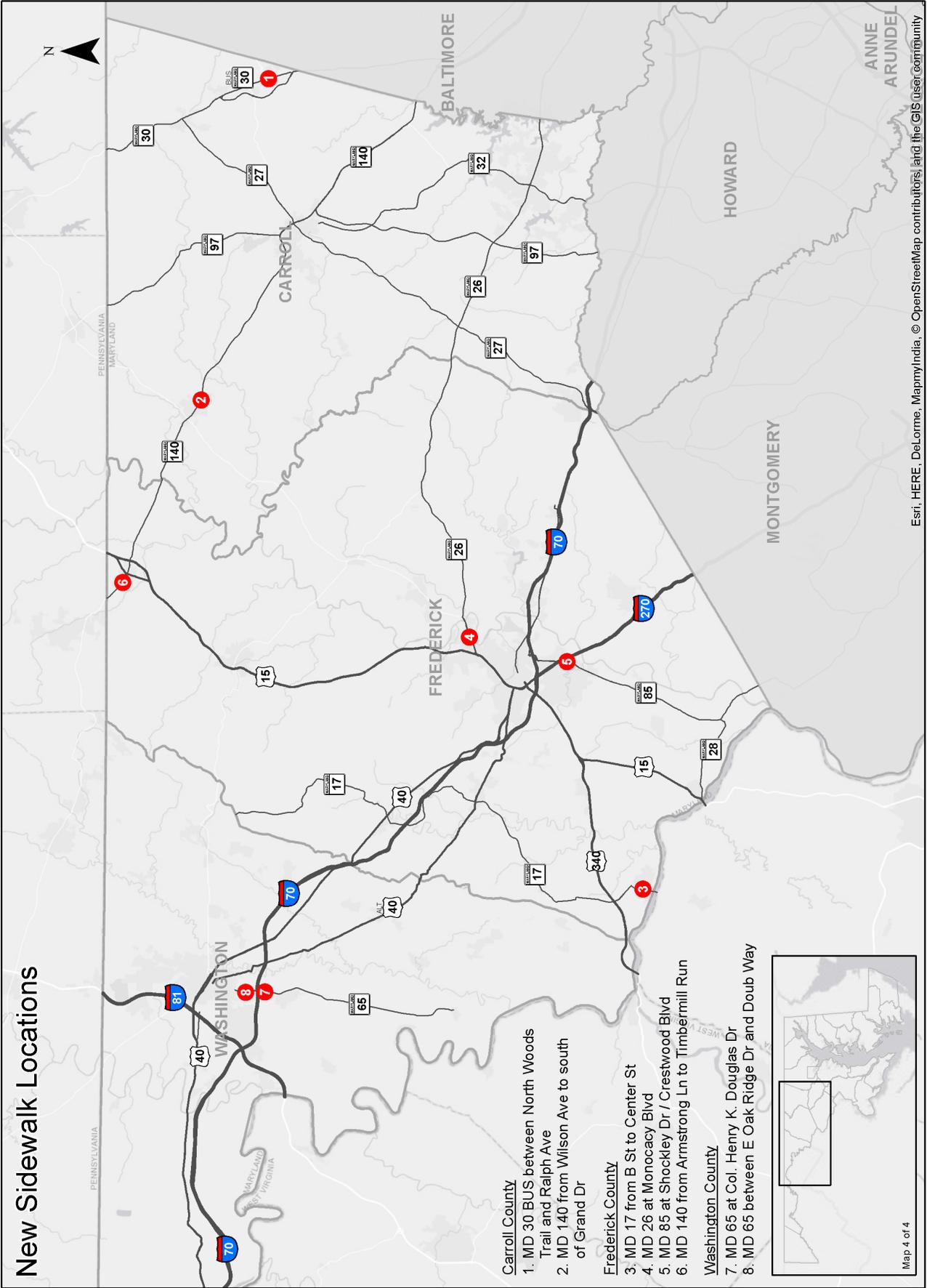


Figure 8

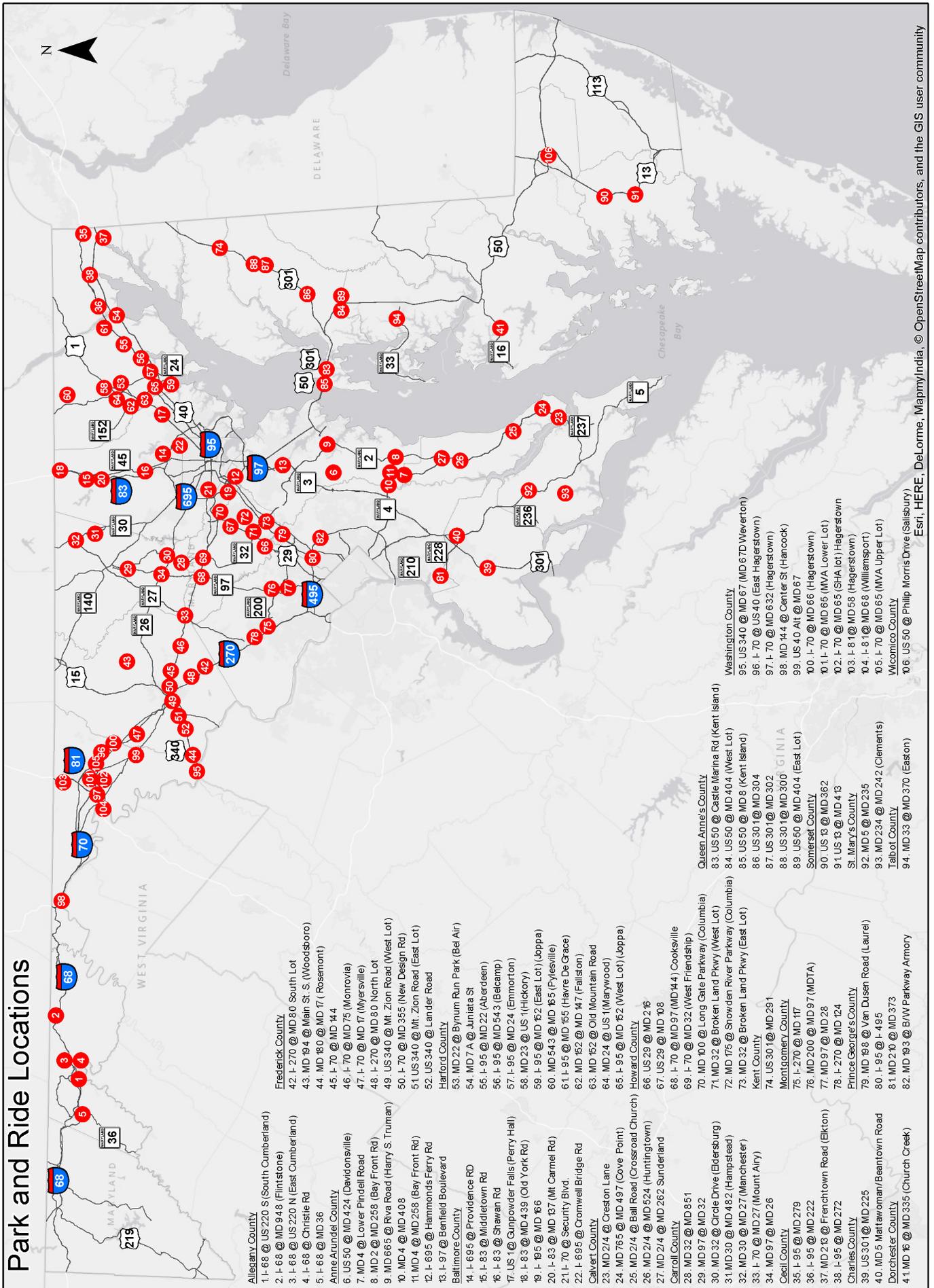
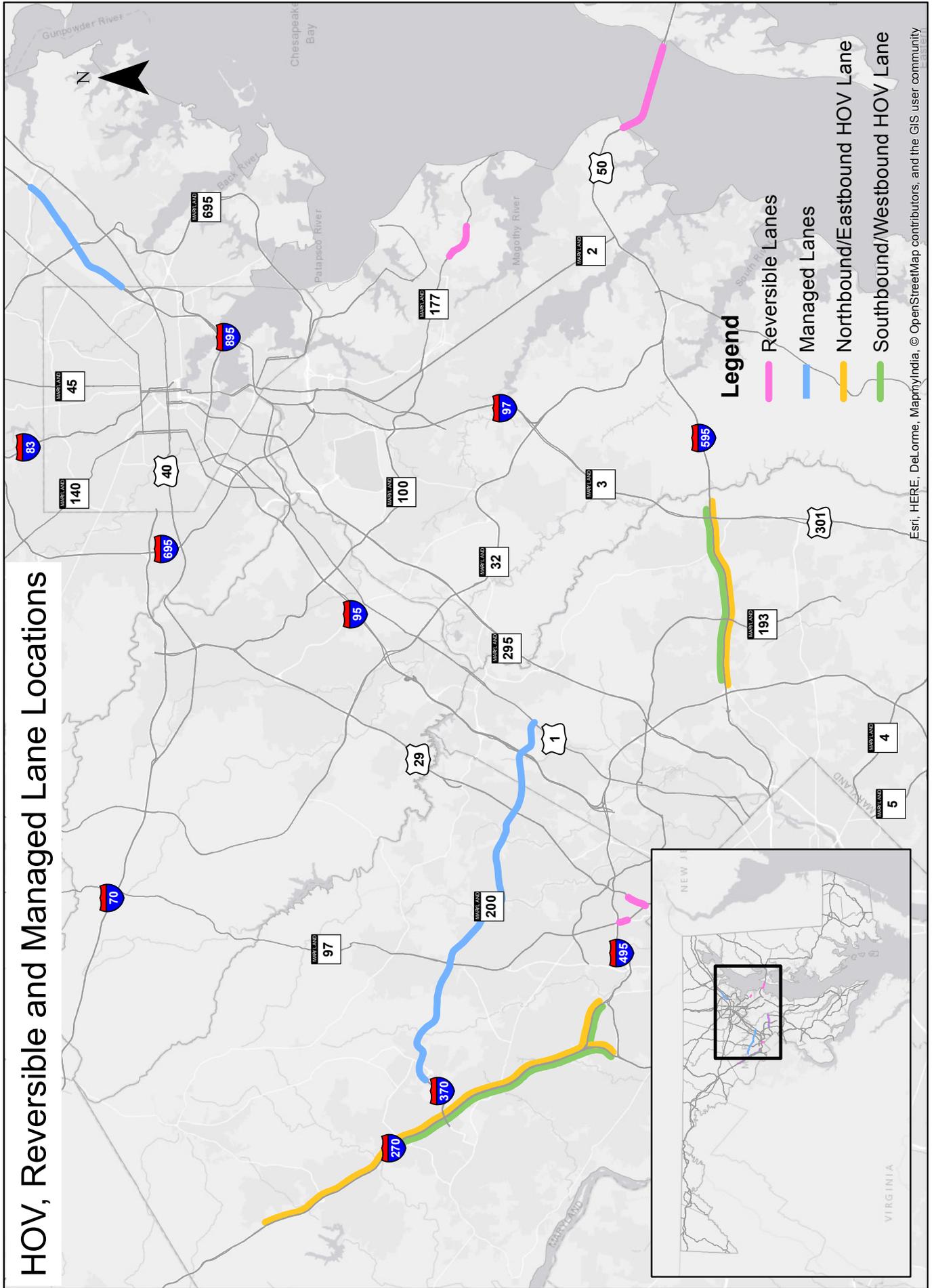
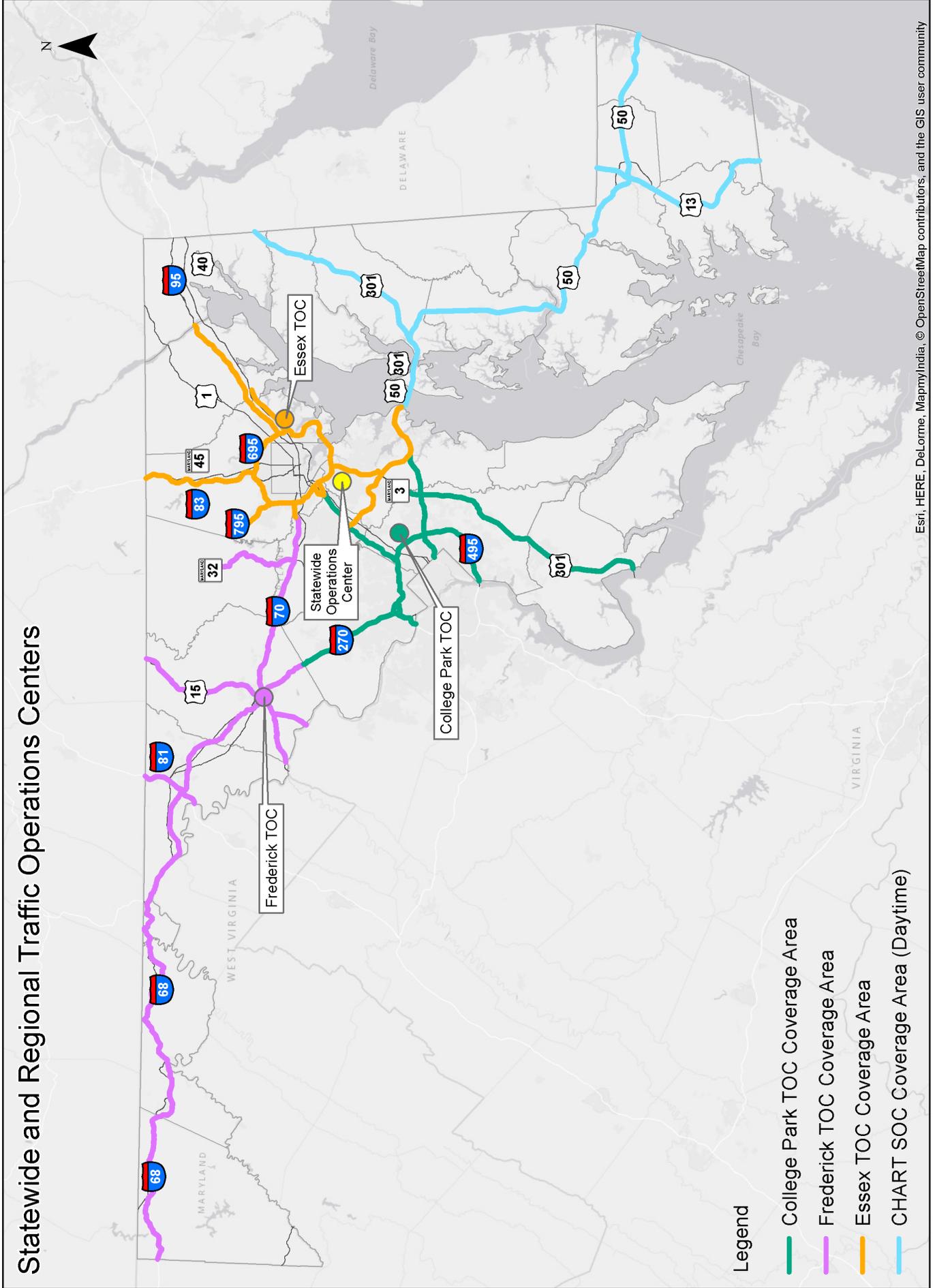


Figure 9

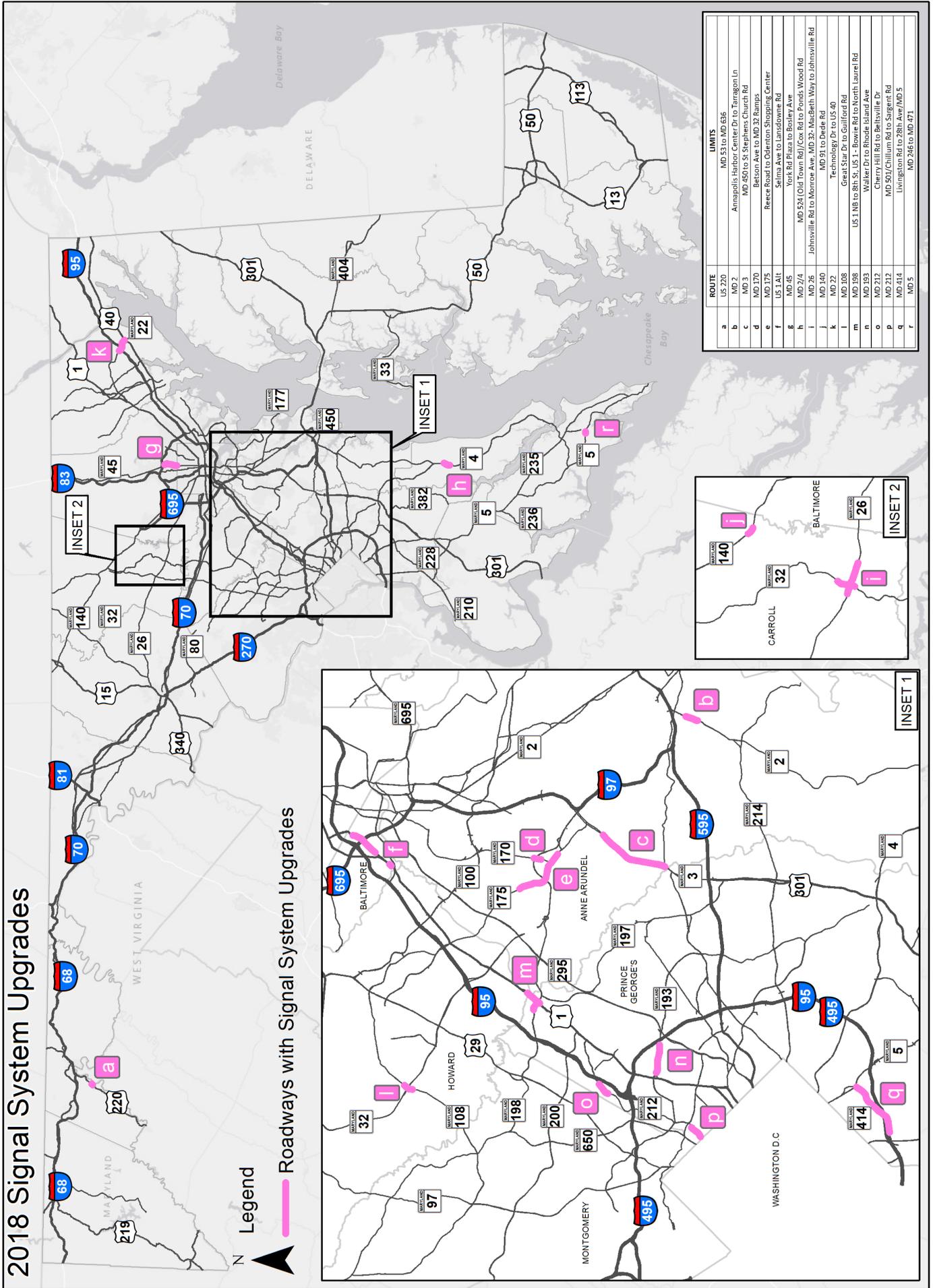


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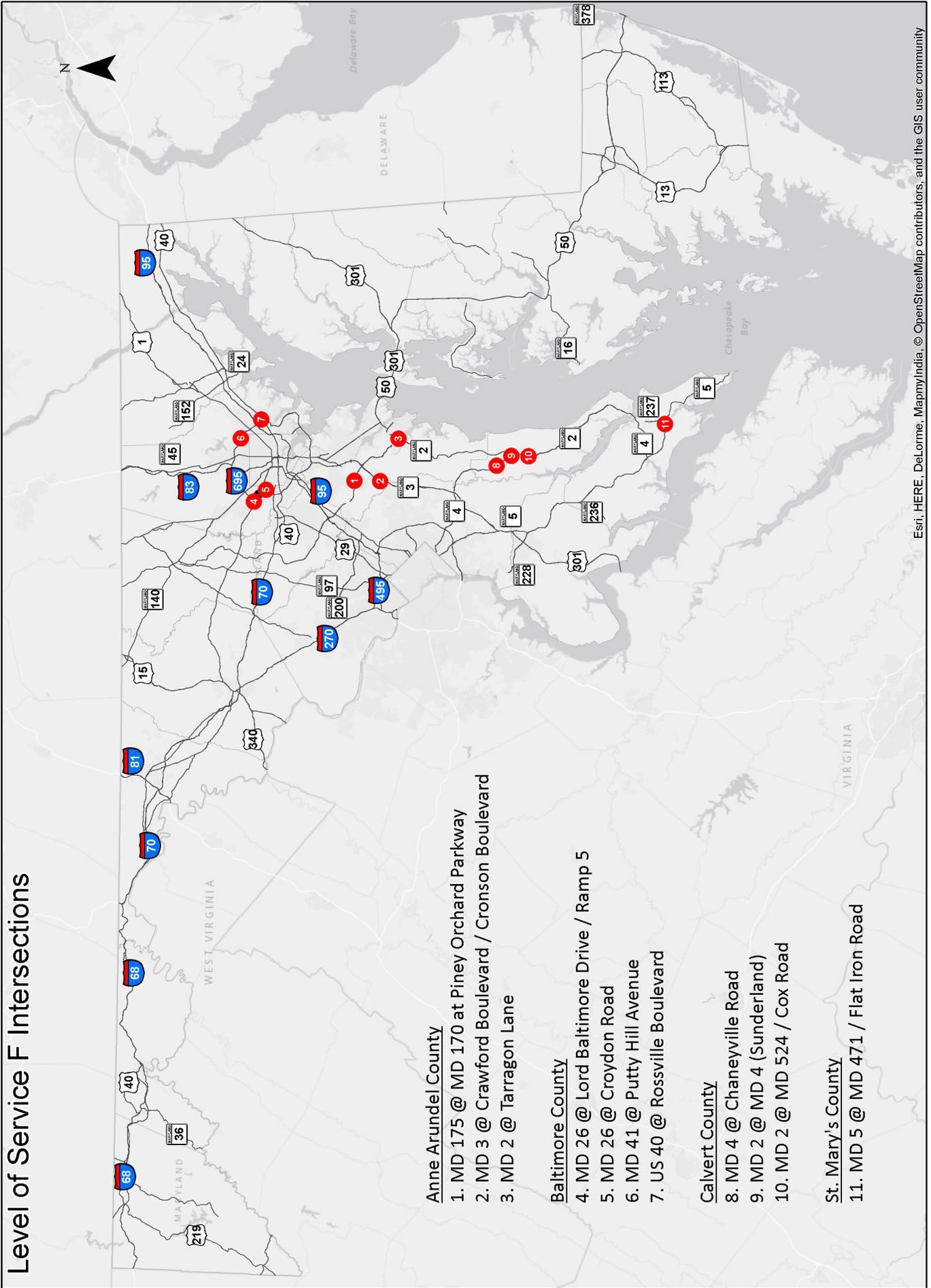


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Figure 11



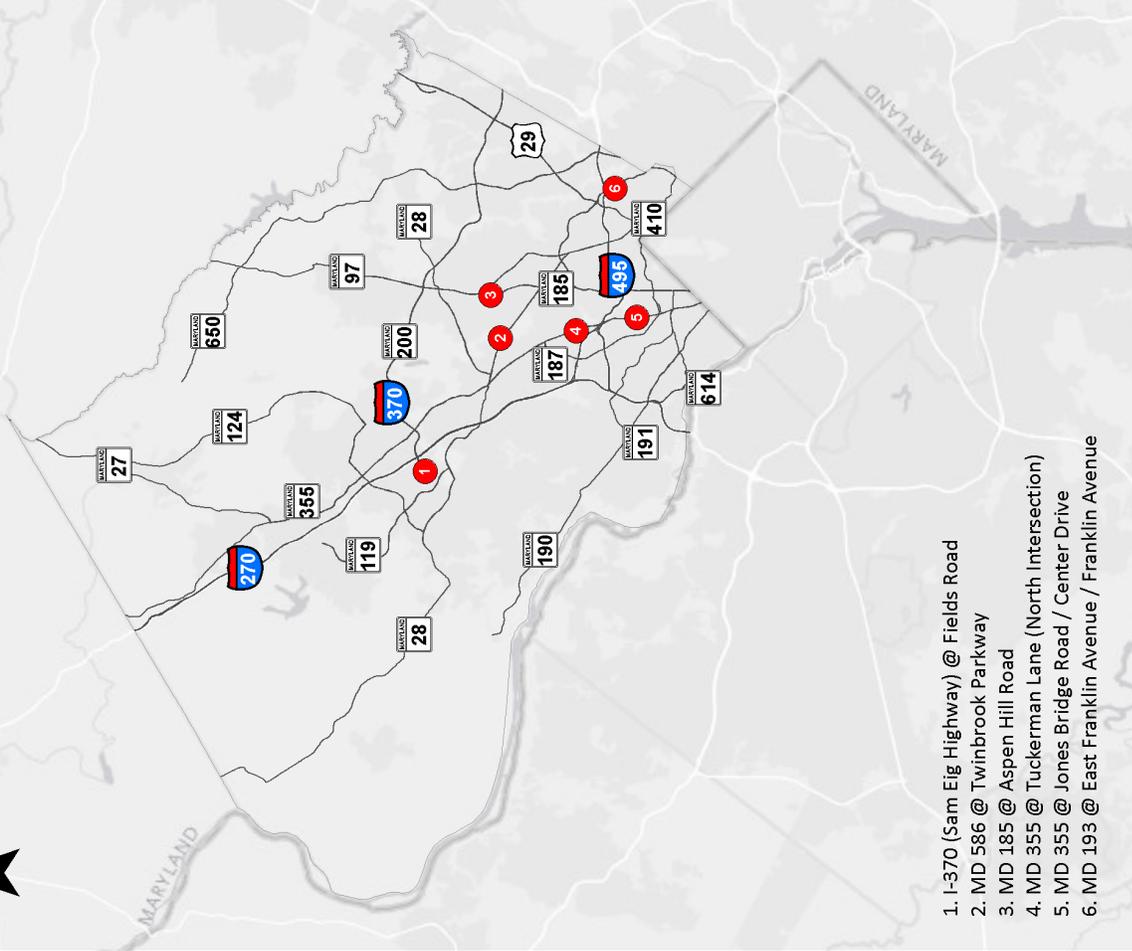
Level of Service F Intersections



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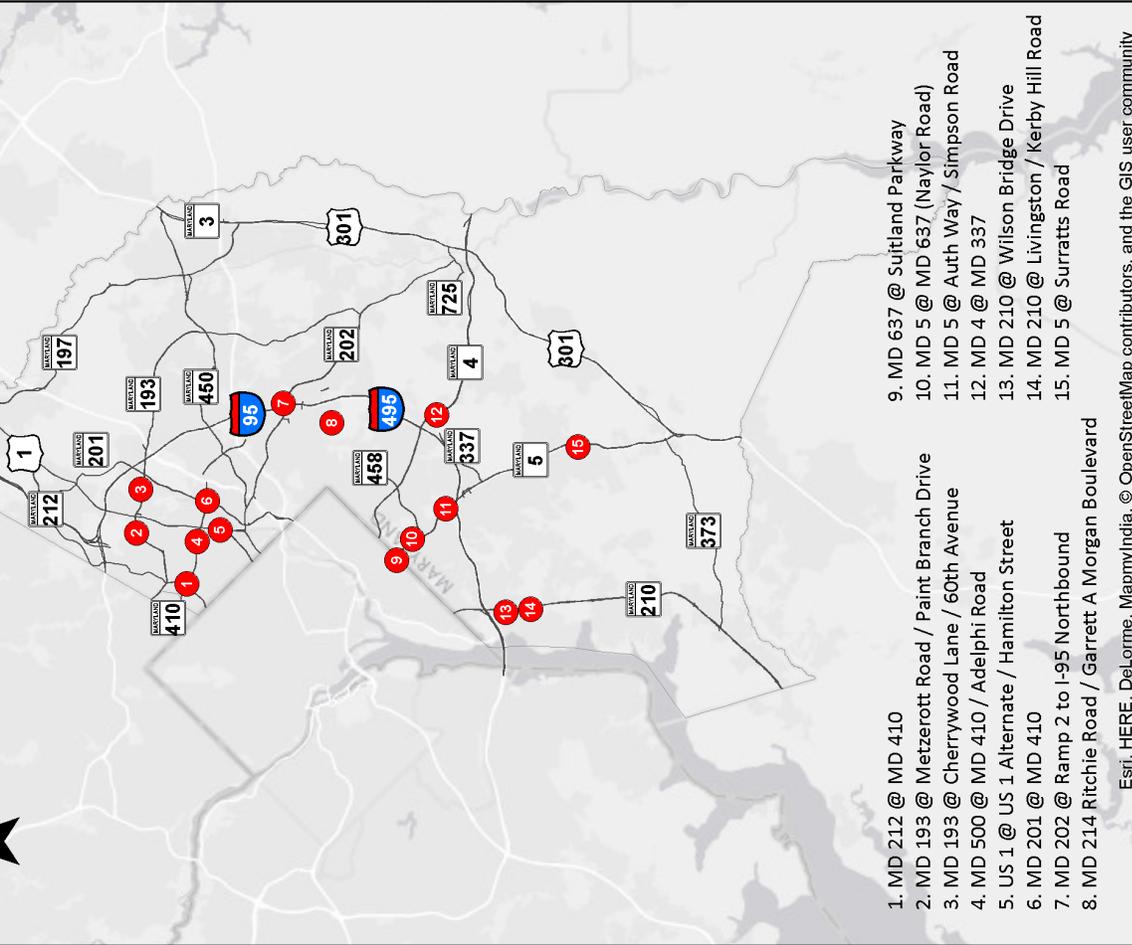
Figure 13

Level of Service F Intersections Montgomery County



1. I-370 (Sam Eij Highway) @ Fields Road
2. MD 586 @ Twinbrook Parkway
3. MD 185 @ Aspen Hill Road
4. MD 355 @ Tuckerman Lane (North Intersection)
5. MD 355 @ Jones Bridge Road / Center Drive
6. MD 193 @ East Franklin Avenue / Franklin Avenue

Level of Service F Intersections Prince George's County



1. MD 212 @ MD 410
2. MD 193 @ Metzert Road / Paint Branch Drive
3. MD 193 @ Cherrywood Lane / 60th Avenue
4. MD 500 @ MD 410 / Adelphi Road
5. US 1 @ US 1 Alternate / Hamilton Street
6. MD 201 @ MD 410
7. MD 202 @ Ramp 2 to I-95 Northbound
8. MD 214 Ritchie Road / Garrett A Morgan Boulevard
9. MD 637 @ Suitland Parkway
10. MD 5 @ MD 637 (Naylor Road)
11. MD 5 @ Auth Way / Simpson Road
12. MD 4 @ MD 337
13. MD 210 @ Wilson Bridge Drive
14. MD 210 @ Livingston / Kerby Hill Road
15. MD 5 @ Surratts Road

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ADMINISTRATION**

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