

# APPENDIX 1: DATA SOURCES FOR PERFORMANCE MEASURES

**Objective:**  
Reduce injuries and fatalities and injuries for all modes.

Performance Measure	Data Notes
Number of vehicle occupant fatalities annually	<b>Baseline Year: 2017</b>  This data is published annually on a county-by-county basis by the Maryland Highway Safety Office, part of the MDOT Motor Vehicle Administration.
Number of bicycle fatalities annually	
Number of pedestrian fatalities annually	
Number of vehicle occupant serious injuries annually	
Number of bicycle user serious injuries annually	
Number of pedestrian serious injuries annually	

**Objective:** Improve transportation system reliability

Performance Measure	Data Notes
Travel time reliability on major roadway corridors	<b>Baseline Year: 2016</b>  This data is published annually for select corridors (and segments thereof) as part of MDOT SHA's Maryland Mobility Report.
Travel time reliability on secondary roadway corridors	"Reliability" refers to the Planning Time Index which is defined as a ratio of the 95th percent peak period travel time to the free flow travel time. A value of 2.50 means that for a 30-minute trip in light traffic, 75 minutes should be planned.
On-time performance of locally-operated transit services	<b>Baseline Year: 2016</b>  As reported in the Central Maryland Transit Development Plan, 2018. Calculated using weekday on-time performance for 200-series routes only.

**Objective:**  
 Reduce injuries and fatalities and injuries for all modes.

Performance Measure	Data Notes
Directional miles of striped on-street bicycle lanes	<b>Baseline Year: 2019</b>
Directional miles of protected on-street bicycle lanes	Data analyzed from Maryland iMap, Maryland's Open Data Portal
Miles of shared-use path	Data analyzed from Maryland iMap, Maryland's Open Data Portal
Number of daily round trip MARC Trains to Washington DC daily -- Penn Line	29
Number of daily trips between Baltimore and Washington DC on the MARC Camden Line	10
Number of daily commuter bus trips from Anne Arundel County to Washington, DC (1)	Data is from MDOT MTA published schedules.
Number of daily commuter bus trips from Anne Arundel County suburban DC employment centers (2)	Data is from MDOT MTA published schedules.
Percentage of State-owned roadway directional miles within urban areas that have sidewalks compliant with the Americans with Disabilities Act	Summary statewide data can be found in the MDOT Excellerator; county level data provided by MDOT SHA Data Services Division
Percentage of County-owned roadway directional miles within urban areas that have sidewalks that are compliant with the Americans with Disabilities Act	Data Not Currently Available. It is recommended that the County update its GIS database to capture this information.
% of seniors and persons with mobility challenges within one-mile of a bus route.	<p><b>Baseline Year: 2017</b></p> <p>Data calculated using the percentage of elderly and disabled persons in each transportation analysis zone (TAZ) adjacent to a bus route divided by the total number of elderly and disabled persons in the county.</p> <p>TAZ's are provided by the Baltimore Metropolitan Council as part of the travel demand forecasting process. The number of elderly and disabled persons is calculated using the American Community Survey 1-year population estimates by Census Block Group.</p>
Countywide non-single occupant vehicle mode share for commute trips	<p><b>Baseline Year 2017</b></p> <p>US Census Bureau, American Fact Finder Means of Transportation to Work, 2013-2017 American Community Survey 5-Year Estimates.</p> <p>Same source for town centers using Census Designated Place for Odenton, Glen Burnie and Parole.</p>

## Objective: Improve water quality

Performance Measure	Data Notes
% of unmanaged impervious acres within County Jurisdictional Municipal Separate Storm Sewer System (MS4) area.	<p><b>Baseline Year: 2017</b></p> <p>This data is reported in the NPDES FY 2017 Annual Report for Anne Arundel County, Table 17. Cumulative Managed Impervious Acreage Anticipated by End of Permit Term</p>

## Objective: Improve air quality

Performance Measure	Data Notes
Electrical charging stations installed	<p><b>Baseline Year: 2018</b></p> <p>Data provided by Maryland Electric Vehicle Infrastructure Council</p>
Vehicle miles traveled per capita	<p><b>Baseline Year: 2016</b></p> <p>This data is published annually by county as part of MDOT SHA's Maryland Mobility Report. VMT then divided by # of county residents for same calendar year.</p>
% of County-owned transit fleet that is low or no emission	<p><b>Baseline: 2019</b></p> <p>Data provided by Anne Arundel County Office of Transportation</p>

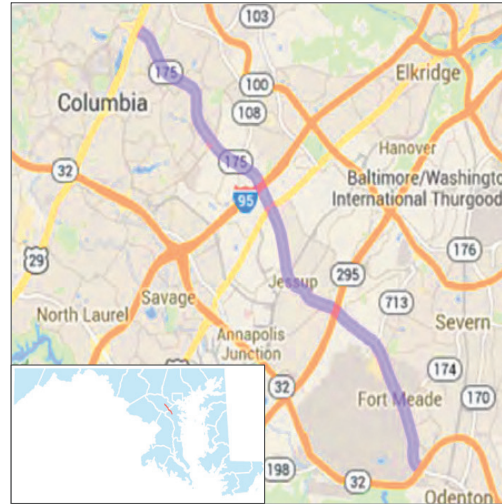
## Objective: A transportation system that is in good condition

Performance Measure	Data Notes
% of roadway lane miles in good condition	<p><b>Baseline Year: 2018</b></p> <p>Data provided by Anne Arundel County Department of Public Works, Infrastructure Management Division</p>
% of bridges in good or fair condition (4)	<p><b>Baseline Year: 2016</b></p> <p>National Bridge Inventory Database. <a href="http://www.nationalbridges.com">www.nationalbridges.com</a>. Filter for Anne Arundel County, select "structurally deficient," then screen-out any bridges on state roadways</p>
% of miles of sidewalks and shared use paths in good condition	<p>Data collection is underway by the Department of Public Works</p>
Average age of County-owned transit fleet	<p>National Transit Database, 2016 Agency Profile. Anne Arundel County NTD# is 30129. <a href="http://www.ntd.gov">www.ntd.gov</a>. FTA defines useful life benchmark for transit buses at 14 years; ULB for demand response vehicles varies by vehicle class size.</p>
Average age of County-owned paratransit fleet	<p>National Transit Database, 2016 Agency Profile. Anne Arundel County NTD# is 30129. <a href="http://www.ntd.gov">www.ntd.gov</a>. FTA defines useful life benchmark for transit buses at 14 years; ULB for demand response vehicles varies by vehicle class size.</p>

# APPENDIX 2: Corridor Profiles

## MD 175

<b>Limits:</b>	MD 32 (Patuxent Freeway) to US 29 (Columbia Pike)	
<b>Corridor Length:</b>	12.2 miles	
<b>Speed Limit:</b>	35 - 50 MPH	
<b>Travel Lanes:</b>	(1 - 3) Northbound (1 - 4) Southbound	
<b>Signal Controlled Intersections:</b>	19	
<b>Grade Separated Interchanges:</b>	5	
<b>Major Cross Streets:</b>	MD 32, MD 174, MD 713, MD 295, US 1, I-95, Snowden River Pkwy, US 29	
<b>Routes and Ridership</b>	Routes	Avg. Daily Ridership
	MTA 310	279
	MTA 320	188



<b>2016 AADT</b>	<b>Trucks</b>	<b>Peak Hour Traffic</b>
19,000 - 76,000 vpd	2% - 13%	7.5% - 9.5%

### Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	11	7
LOS E	1	4
LOS F	0	1

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	11.5 / 4.1	12.2 / 6.2
LOS E	0.7 / 3.7	0.0 / 6.0
LOS F	0.0 / 4.4	0.0 / 0.0

- LOS 'E' Intersections**
- MD 175 at Ramps 3&4 to & from MD 32 EB (AM,PM)
  - MD 175 at Mapes Rd/Charter Oaks Blvd (PM)
  - MD 175 at MD 108 (PM)
  - MD 175 at Thunder Hill Rd (PM)

- LOS 'F' Intersections**
- MD 175 at Tamar Dr (PM)

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								I
	Snowden River Pkwy - Waterloo Rd (MD-108)	0.8								I
	Waterloo Rd (MD-108)- I-95	0.7								I
Urban Minor Arterial	I-95 - Washington Blvd (US-1)	0.5								I
	Washington Blvd (US-1) - Dorsey Run Rd.	1.3								I
	Dorsey Run Rd. - MD-295	1.6								I
	MD-295 - Ridge Rd/Rockenbach Rd (MD-713)	1.1								I
	Ridge Rd/Rockenbach Rd. (MD-713) - Reece Rd	1.3								I
	Reece Rd - Charter Oaks Blvd.	0.6								I
Charter Oaks Blvd.- MD-32	1.1								I	

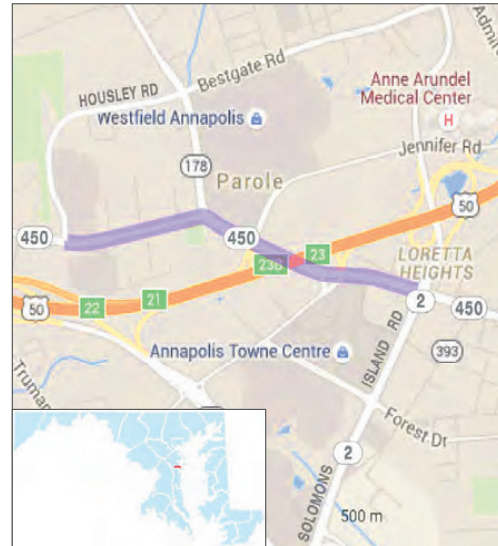
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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
	N/A	N/A



2016 AADT	Trucks	Peak Hour Traffic
33,000 - 48,000 vpd	2% - 5%	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	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	0.6 / 0.4	0.7 / 0.7
LOS E	0.6 / 0.3	0.5 / 0.0
LOS F	0.0 / 0.5	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	> 2.5
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									
	MD 178 - Jennifer Rd.	0.2			I						I
Urban Other Principal Arterial	Jennifer Rd. - Riva Rd.	0.3									
	Riva Rd. - MD 2	0.3									I

I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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

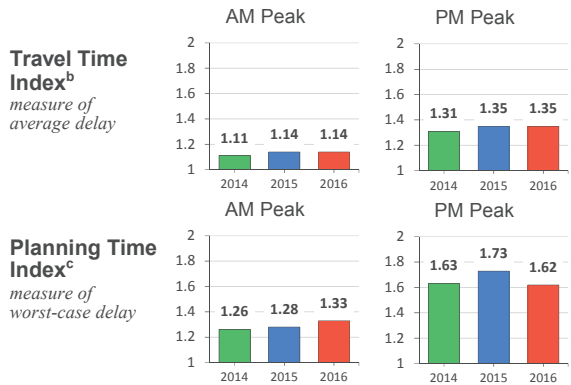
TTI: travel time index (50th percentile travel time / freeflow travel time)

**MARYLAND**  
**295**

# 2017 Maryland State Highway Mobility Report

## MD 295

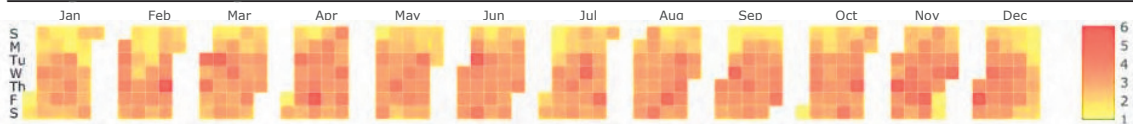
**Trends<sup>a</sup>**



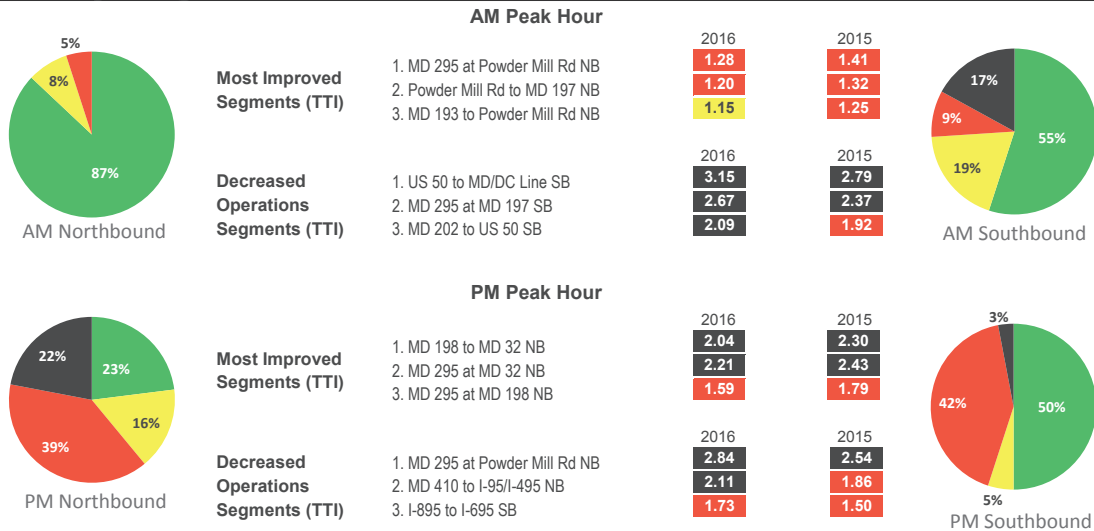
29 center miles carrying 108,000 vehicles every day



**Daily Variability<sup>d</sup>**



**Weekday Congestion**

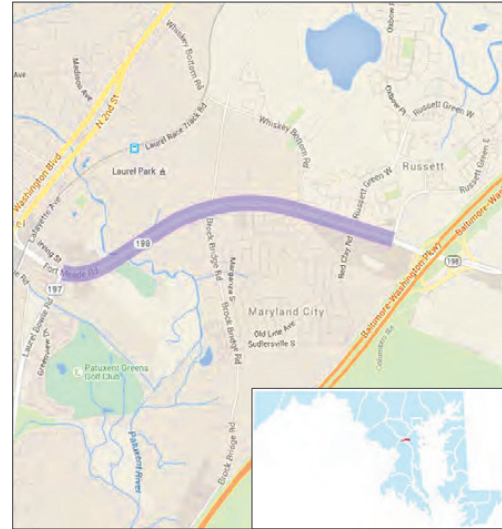


**Notes**

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.

# MD 198

<b>Limits:</b>	MD 197 to Russett Green	
<b>Corridor Length:</b>	2.2 miles	
<b>Speed Limit:</b>	40 MPH	
<b>Travel Lanes:</b>	3 Eastbound 3 Westbound	
<b>Signal Controlled Intersections:</b>	7	
<b>Grade Separated Interchanges:</b>	0	
<b>Major Cross Streets:</b>	MD 197, Brock Bridge Rd, Laurel Race Track Rd, Whiskey Bottom Rd / Old Annapolis Rd, Russett Green / Red Clay Rd	
<b>Routes and Ridership</b>	Routes	Avg. Daily Ridership
	N/A	N/A



<b>2016 AADT</b>	<b>Trucks</b>	<b>Peak Hour Traffic</b>
39,000 vpd	3%	8.5%

### Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	2
LOS E	0	2
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	2.2 / 2.2	2.2 / 0.0
LOS E	0.0 / 0.0	0.0 / 2.2
LOS F	0.0 / 0.0	0.0 / 0.0

### LOS 'E' Intersections

- MD 198 at Brock Bridge Rd (PM)
- MD 197 at MD 198/Irving St (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	MD197 - Brock Bridge Rd.	1.0									
	Brock Bridge Rd. - Old Line Ave.	0.3									
	Brock Bridge Rd. - Old Annapolis Rd.	0.3									I
	Old Annapolis Rd. - Russett Green W.	0.3								I	
	Russett Green W. - Russett Green E.	0.3									

I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

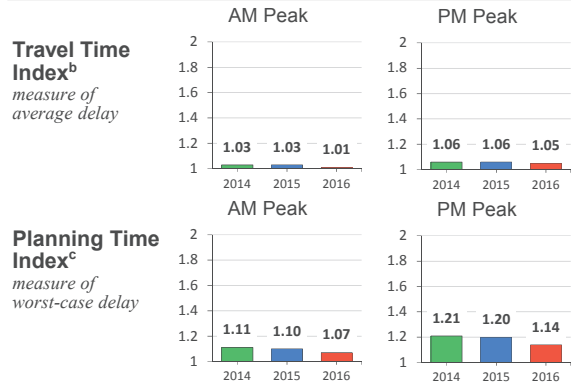
PTI: planning time index (95th percentile travel time / freeflow travel time)

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

# 2017 Maryland State Highway Mobility Report

## US 50

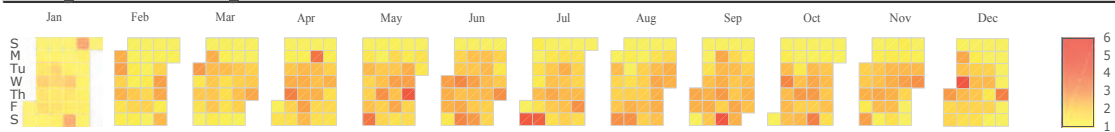
### Trends<sup>a</sup>



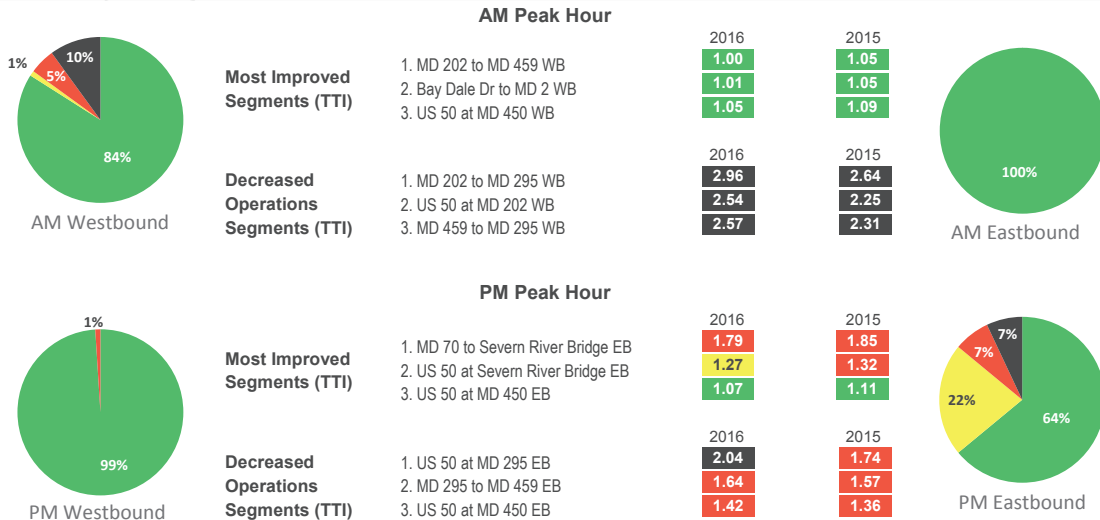
33 center miles carrying 103,000 vehicles every day



### Daily Variability<sup>d</sup>



### 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.



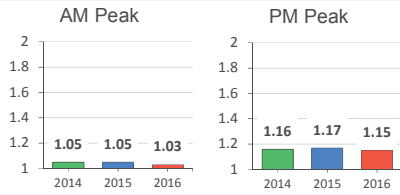


# 2017 Maryland State Highway Mobility Report

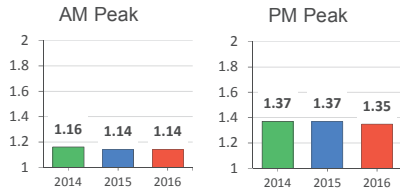
## MD 100

### Trends<sup>a</sup>

**Travel Time Index<sup>b</sup>**  
measure of average delay



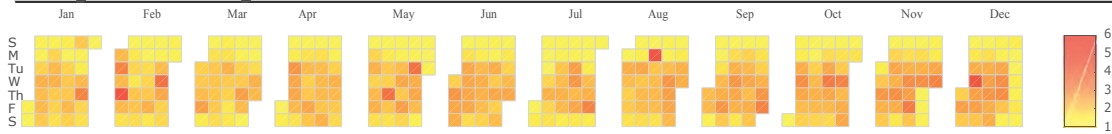
**Planning Time Index<sup>c</sup>**  
measure of worst-case delay



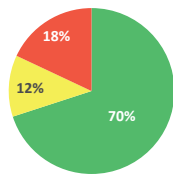
22 center miles carrying 75,000 vehicles every day



### Daily Variability<sup>d</sup>



### Weekday Congestion



AM Westbound

**Most Improved Segments (TTI)**

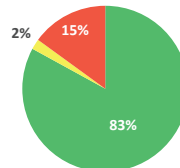
1. MD 100 at MD 2 WB
2. MD 100 at US 1 EB
3. I-97 to MD 170 WB

Year	1	2	3
2016	1.07	1.44	1.28
2015	1.14	1.50	1.34

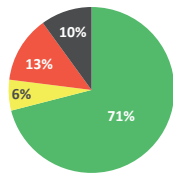
**Decreased Operations Segments (TTI)**

1. MD 103 to I-95 EB
2. Snowden River Pkwy to MD 103 EB
3. MD 100 at MD 713 WB

Year	1	2	3
2016	1.60	1.09	1.43
2015	1.55	1.08	1.43



AM Eastbound



PM Westbound

**Most Improved Segments (TTI)**

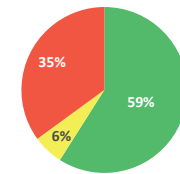
1. MD 100 at MD 713 WB
2. MD 713 to MD 295 WB
3. MD 170 to MD 713 WB

Year	1	2	3
2016	1.33	2.05	1.00
2015	1.68	2.36	1.07

**Decreased Operations Segments (TTI)**

1. MD 100 at Coca Cola Dr WB
2. MD 295 to MD 713 EB
3. MD 100 at MD 295 EB

Year	1	2	3
2016	2.97	1.93	1.86
2015	2.66	1.75	1.70



PM Eastbound

### Notes

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

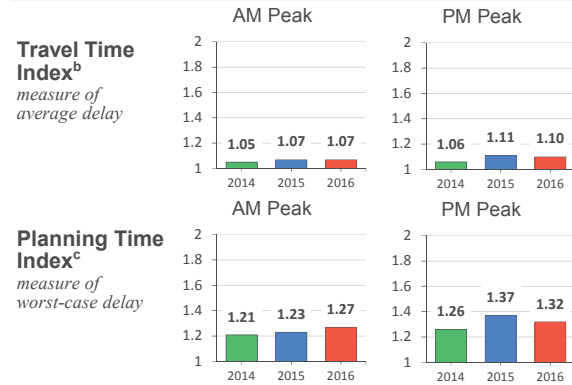
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c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

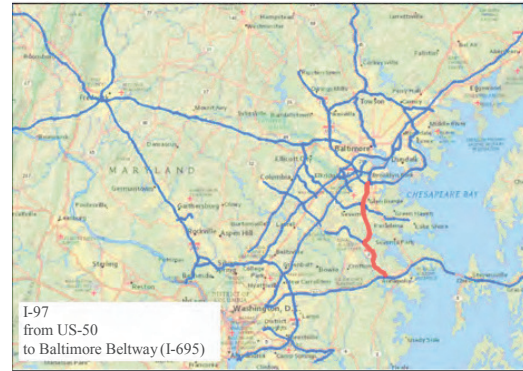
d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

**2017 Maryland State Highway Mobility Report**  
**I-97**

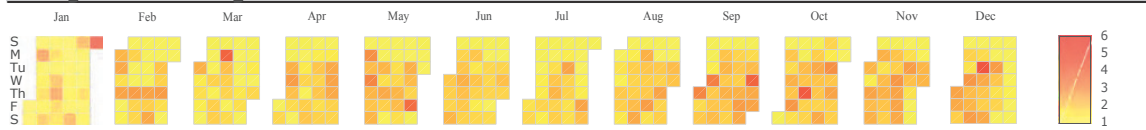
**Trends<sup>a</sup>**



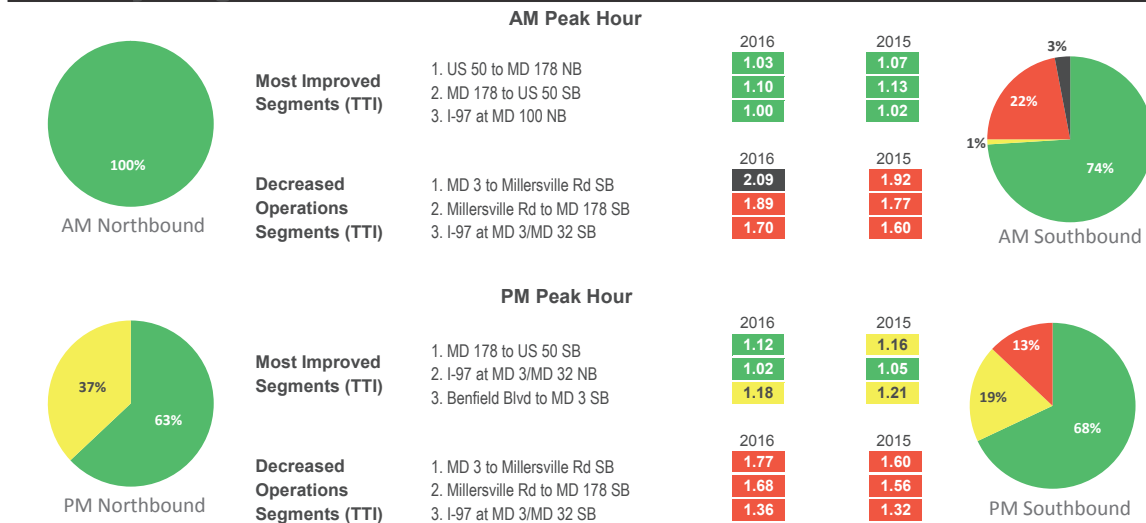
17 center miles carrying 118,000 vehicles every day



**Daily Variability<sup>d</sup>**



**Weekday Congestion**



**Notes**

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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.

# APPENDIX 3: Plans and Studies Consulted in Preparing Move Anne Arundel!

## Primary Resource Material

[Anne Arundel County General Development Plan, 2010](#)

[Anne Arundel County Complete Streets Policy, 2014](#)

[Central Maryland Transit Development Plan, 2017](#)

[Corridor Growth Management Plan, 2012](#)

[Major Intersections and Important Facilities Study, 2016](#)

[Pedestrian Bicycle Master Plan, 2003](#)

[Pedestrian Bicycle Master Plan Update, 2013](#)

## Additional Resource Material

[Anne Arundel County Project Planning Studies](#)

[Anne Arundel County Capital Budget and Capital Improvement Program, 2013 - 2019](#)

[Annual Transportation Priority Letters to MDOT, 2007 - 2019](#)

[Baltimore Regional Long Range Transportation Plan – Maximize 2045](#)

[Baltimore Regional Short-Term Transportation Improvement Plan](#)

[BWI Thurgood Marshall Airport Master Plan\\*](#)

[City of Annapolis Comprehensive Plan](#)

[City of Annapolis Transit Development Plan](#)

[Fort George G. Meade Strategic Action Plan: 2012 – 2017\\*](#)

[MARC Growth and Investment Plan: Update 2013 – 2050\\*](#)

[Maryland Transportation Authority Project Planning Studies, Various Dates](#)

[MDOT SHA Highway Needs Inventory](#)

[MDOT SHA Project Planning Studies, Various Dates](#)

[MDOT Strategic Goods Movement Plan, 2017](#)

[Metropolitan Washington Council of Governors Constrained Long-Range Transportation Plan](#)

\* document not available online

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