

# CONGESTION REPORT

## 4<sup>th</sup> Quarter 2018

A quarterly update of the National Capital Region's traffic congestion, travel time reliability, top-10 bottlenecks and featured spotlight

January 21, 2019



National Capital Region  
**Transportation Planning Board**



## **ABOUT TPB**

Transportation planning at the regional level is coordinated in the Washington area by the National Capital Region Transportation Planning Board (TPB). Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia, and the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning of the Metropolitan Washington Council of Governments.

## **CREDITS**

Author: Jan-Mou Li

Project Management: Andrew J. Meese

Oversight: Kanti Srikanth

Data/Tools: I-95 Corridor Coalition Vehicle Probe Project; INRIX, Inc.; CATT Lab of University of Maryland

## **ACCOMMODATIONS**

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4<sup>th</sup> Quarter 2018

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# CONGESTION – TRAVEL TIME INDEX (TTI)

## Interstate System

TTI 4<sup>th</sup> Quarter 2018: **1.41** ↑1.5% or 0.02<sup>1</sup>

TTI Trailing 4 Quarters: **1.37** ↑0.8% or 0.01<sup>2</sup>

## Non-Interstate NHS<sup>3</sup>

TTI 4<sup>th</sup> Quarter 2018: **1.20** ↓0.5% or -0.01

TTI Trailing 4 Quarters: **1.18** ↓1.1% or -0.01

## Transit-Significant<sup>4</sup>

TTI 4<sup>th</sup> Quarter 2018: **1.20** ↓1.2% or -0.01

TTI Trailing 4 Quarters: **1.19** ↓1.4% or -0.02

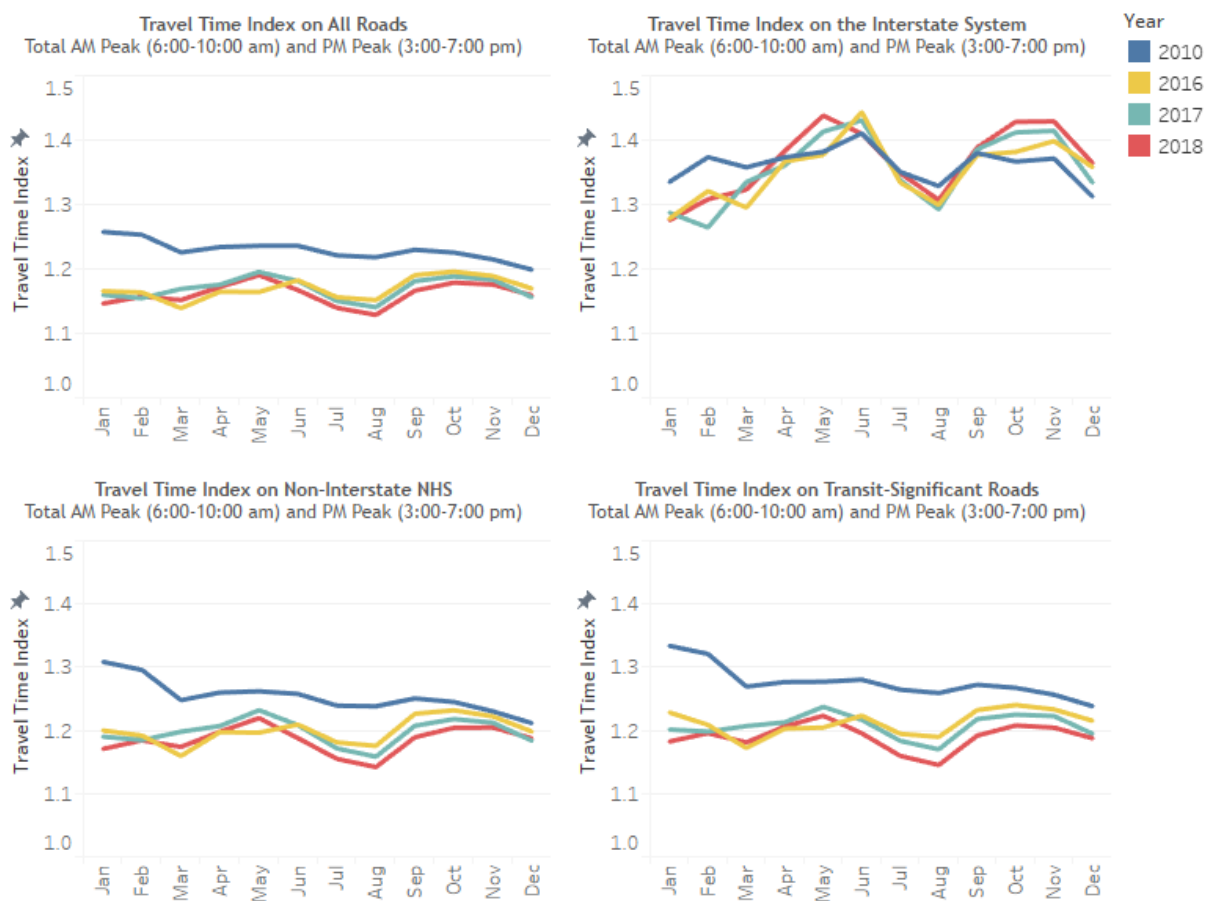
## All Roads

TTI 4<sup>th</sup> Quarter 2018: **1.17** ↓0.4% or -0.01

TTI Trailing 4 Quarters: **1.16** ↓0.7% or -0.01

<sup>1</sup> Compared to 4<sup>th</sup> Quarter 2017; <sup>2</sup> Compared to one year earlier; <sup>3</sup> NHS: National Highway System; <sup>4</sup> See “Background” section.

Figure 1 Monthly Travel Time Index for Total AM peak (6:00-10:00 am) and PM peak (3:00-7:00 pm)



*Travel Time Index (TTI)*, defined as the ratio of actual travel time to free-flow travel time, measures the intensity of congestion. The higher the index, the more congested traffic conditions it represents, e.g., TTI = 1.00 means free flow conditions, while TTI = 1.30 indicates the actual travel time is 30% longer than the free-flow travel time.

# RELIABILITY – PLANNING TIME INDEX (PTI)

## Interstate System

PTI 4<sup>th</sup> Quarter 2018: **1.98** ↑1.7% or 0.03<sup>1</sup>  
 PTI Trailing 4 Quarters: **1.90** ↑1.6% or 0.03<sup>2</sup>

## Non-Interstate NHS<sup>3</sup>

PTI 4<sup>th</sup> Quarter 2018: **1.46** ↓0.6% or -0.009  
 PTI Trailing 4 Quarters: **1.43** ↓1.5% or -0.022

## Transit-Significant<sup>4</sup>

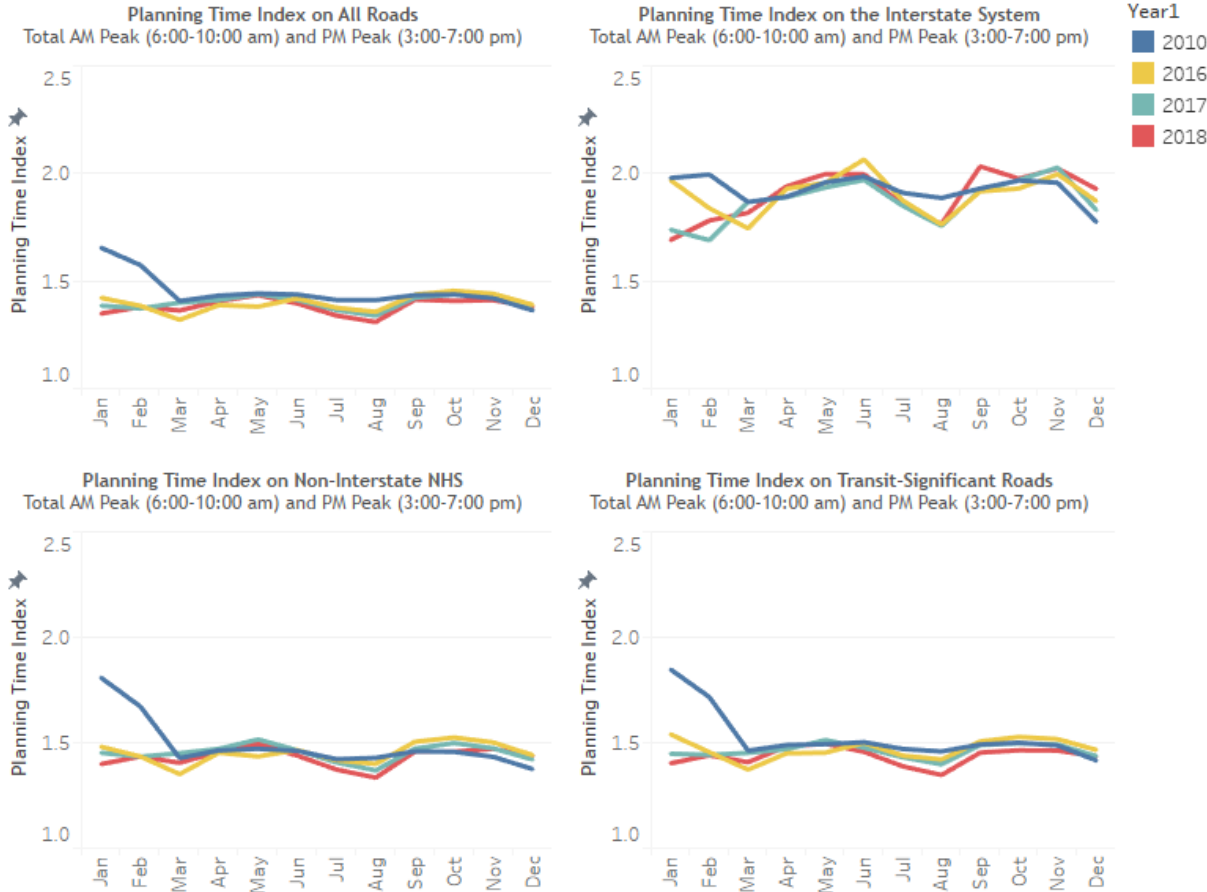
PTI 4<sup>th</sup> Quarter 2018: **1.45** ↓1.4% or -0.02  
 PTI Trailing 4 Quarters: **1.44** ↓1.8% or -0.03

## All Roads

PTI 4<sup>th</sup> Quarter 2018: **1.40** ↓0.7% or -0.01  
 PTI Trailing 4 Quarters: **1.38** ↓1.1% or -0.02

<sup>1</sup> Compared to 4<sup>th</sup> Quarter 2017; <sup>2</sup> Compared to one year earlier; <sup>3</sup> NHS: National Highway System; <sup>4</sup> See “Background” section.

Figure 2 Monthly Planning Time Index for Total AM peak (6:00-10:00 am) and PM peak (3:00-7:00 pm)



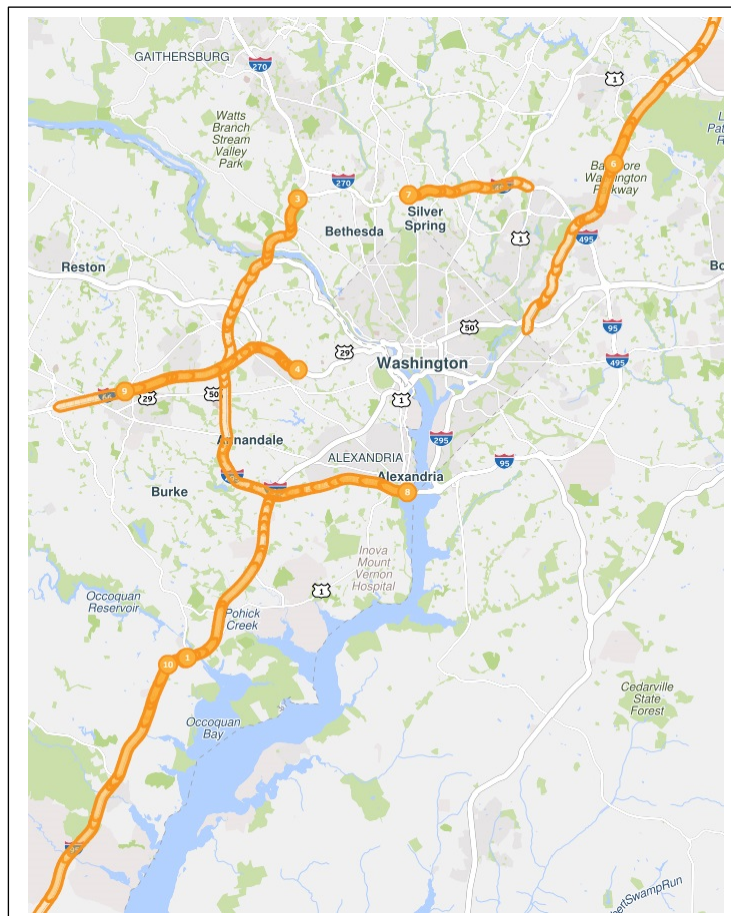
**Planning Time Index (PTI)**, defined as the ratio of 95<sup>th</sup> percentile travel time to free flow travel time, measures travel time reliability. The higher the index, the less reliable traffic conditions it represents, e.g., PTI = 1.30 means a traveler must budget 30% longer than the uncongested travel time to arrive on time 95% of the instances (i.e., 19 out of 20 trips).

# TOP 10 BOTTLENECKS

Rank (Last Quarter Rank)	Location	Average duration	Average max length (miles)	Total duration	Impact factor
1 (1) *	I-95 S @ VA-123/EXIT 160	7 h 31 m	4.76	28 d 20 h 16 m	157,400.00
2 (3)	I-95 N @ VA-123/EXIT 160	4 h 37 m	3.49	17 d 17 h 30 m	90,895.00
3 (**)	I-495 CW @ I-270 SPUR	2 h 53 m	3.39	11 d 01 h 34 m	76,052.00
4 (8)	I-66 E @ SYCAMORE ST/EXIT 69	6 h 25 m	2	24 d 15 h 43 m	70,594.00
5 (5)	MD-295 N @ POWDER MILL RD	5 h 40 m	2.54	21 d 17 h 56 m	70,310.00
6 (**)	MD-295 S @ POWDER MILL RD	3 h 09 m	3.67	12 d 02 h 41 m	63,566.00
7 (10)	I-495 CCW @ MD-97/GEORGIA AVE/EXIT 31	2 h 52 m	2.98	11 d 01 h 04 m	61,792.00
8 (7)	I-495 CCW @ WOODROW WILSON MEMORIAL BRIDGE	2 h 26 m	3.74	9 d 09 h 11 m	60,674.00
9 (11)	I-66 W @ VA-123/EXIT 60	3 h 03 m	3.41	11 d 16 h 58 m	57,727.00
10 (6)	I-95 N @ VA-294/PRINCE WILLIAM PKWY/EXIT 158	3 h 12 m	2.84	12 d 06 h 44 m	54,297.00

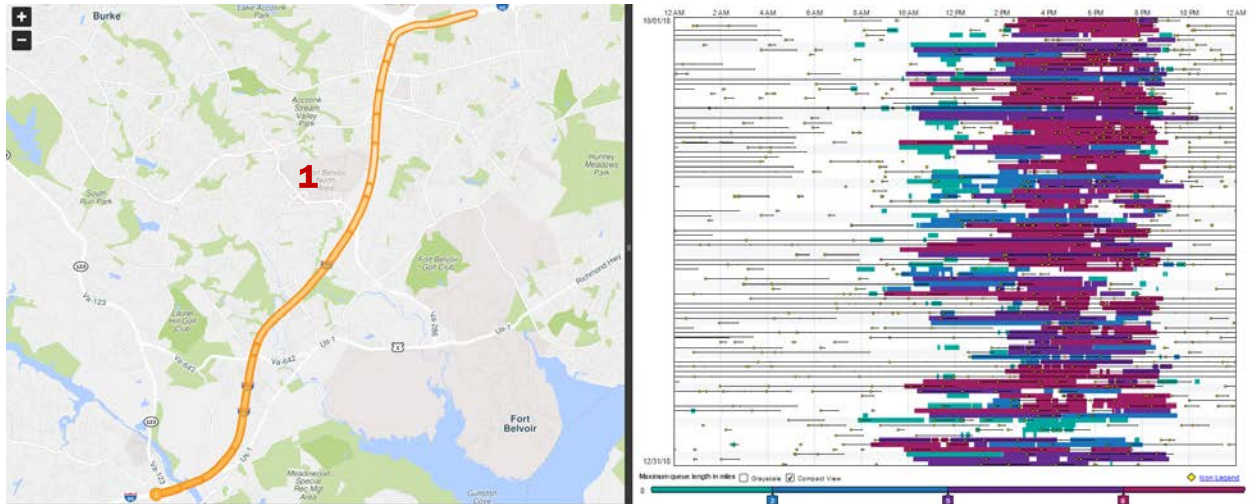
\* See "Bottlenecks" section in the "Background" chapter for ranking variability from quarter to quarter.

\*\*Not in the top 50 bottlenecks of the previous report.

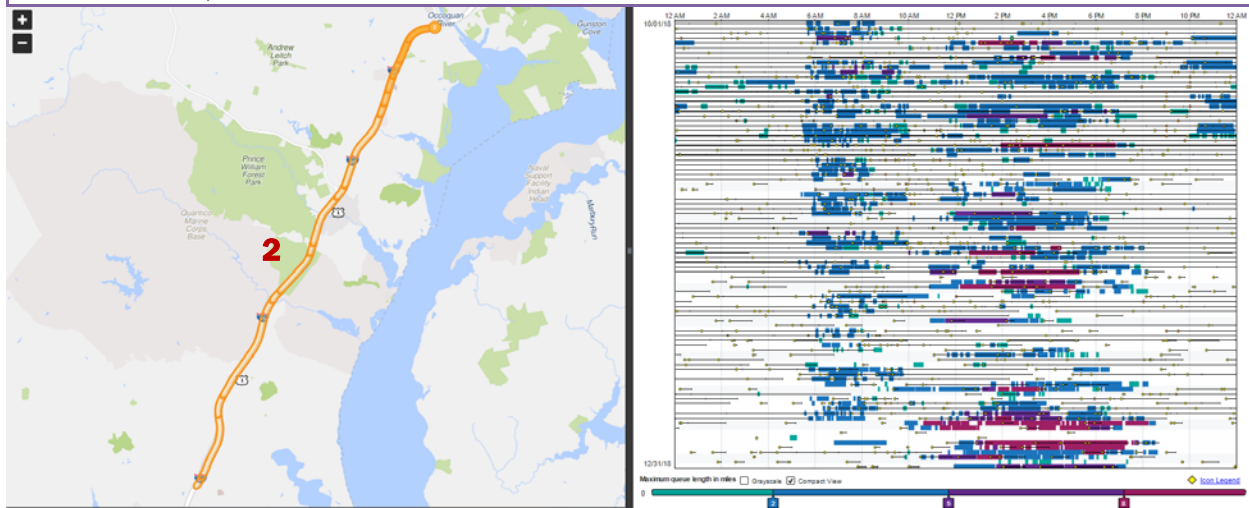


Rank	Location	Average duration	Average max length (miles)	Total duration	Impact factor*
1	I-95 S @ VA-123/EXIT 160	7 h 31 m	4.76	28 d 20 h 16 m	157,400.00

\* The Impact Factor of a bottleneck is simply the product of the Average Duration (minutes), Average Max Length (miles) and the number of occurrences.

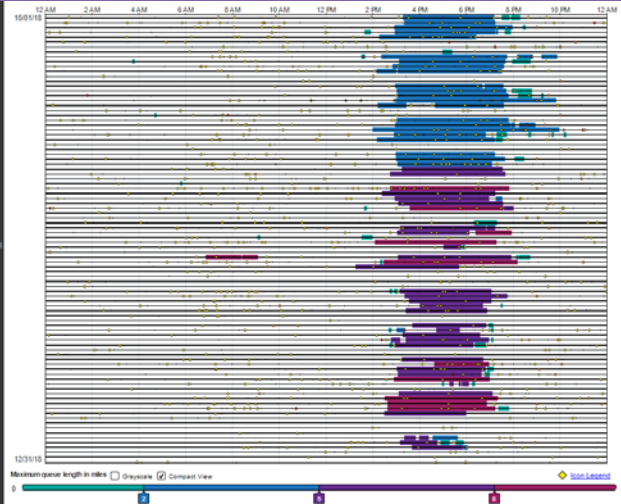
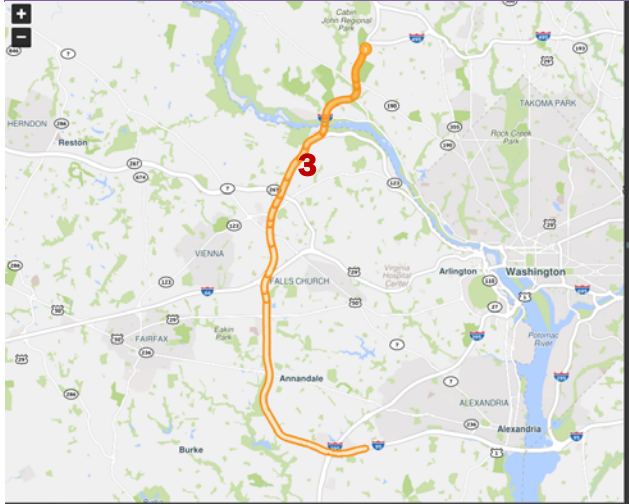


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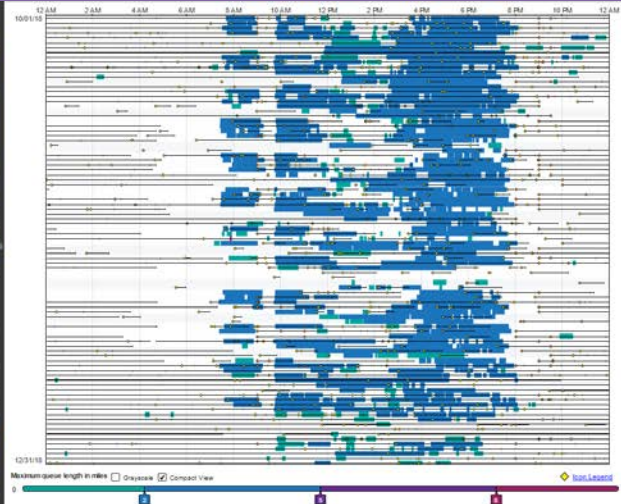
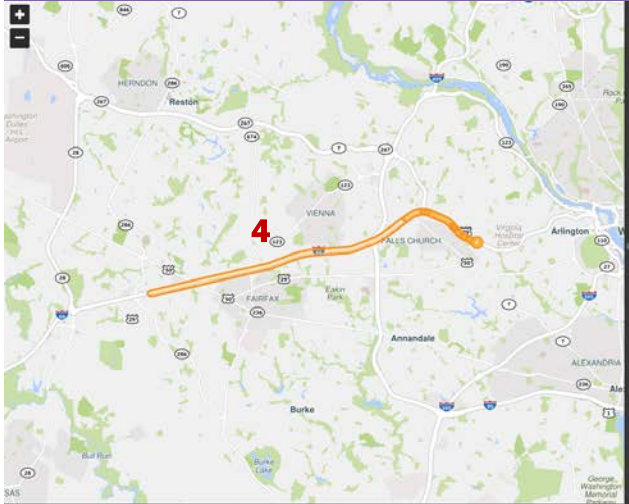




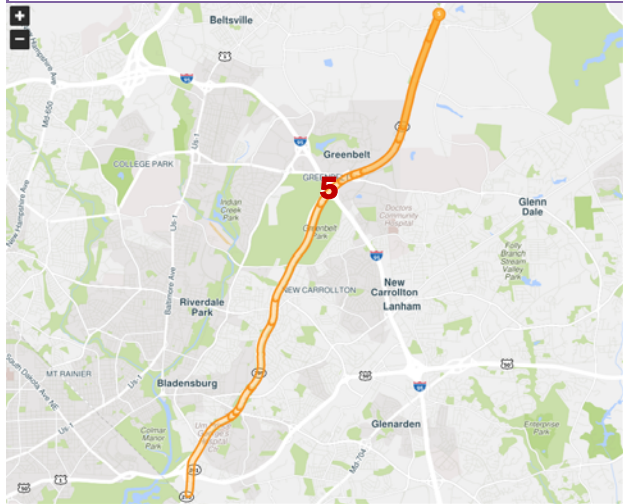
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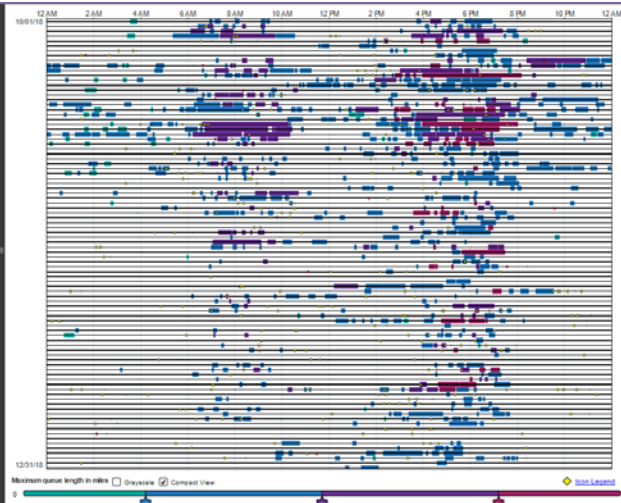
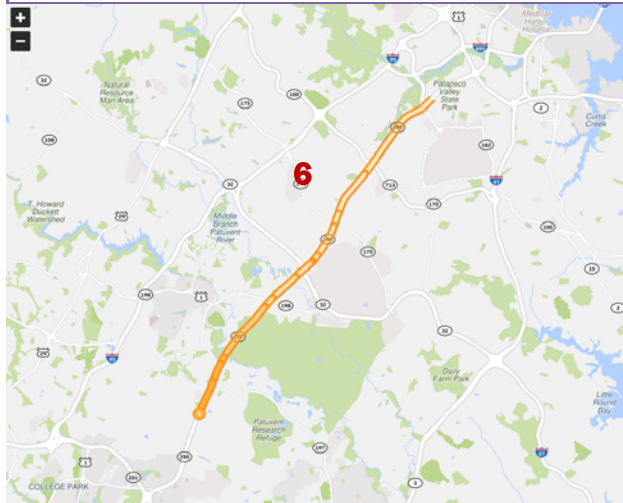
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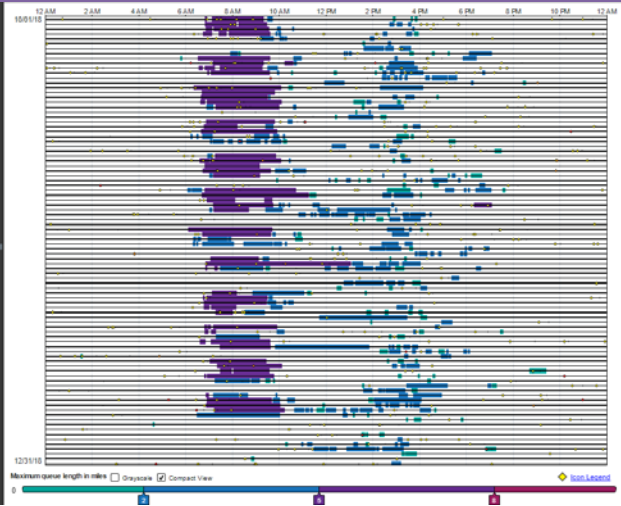
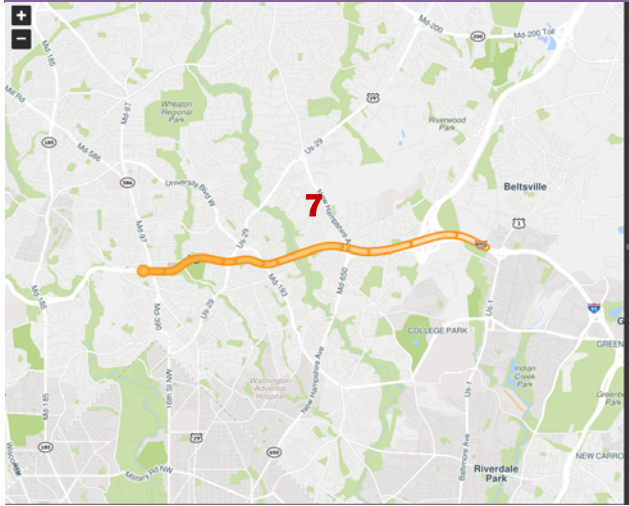
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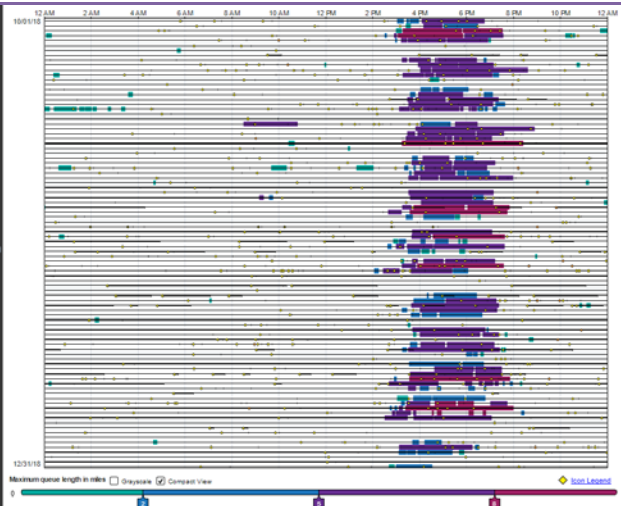
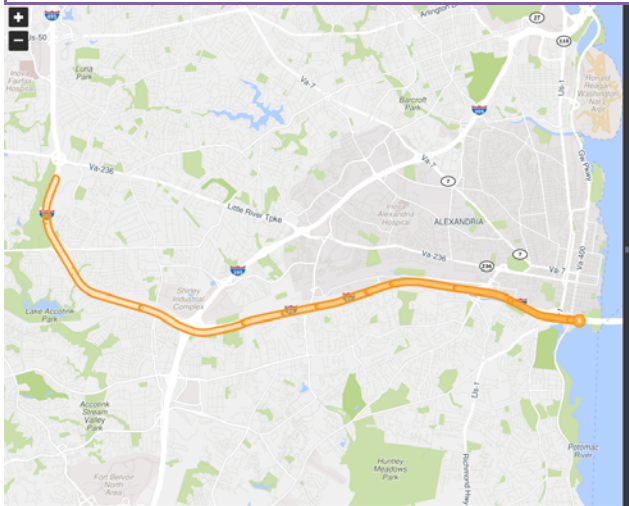
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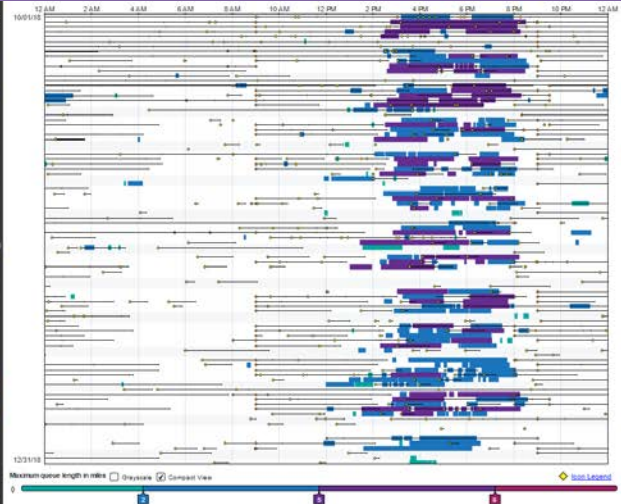
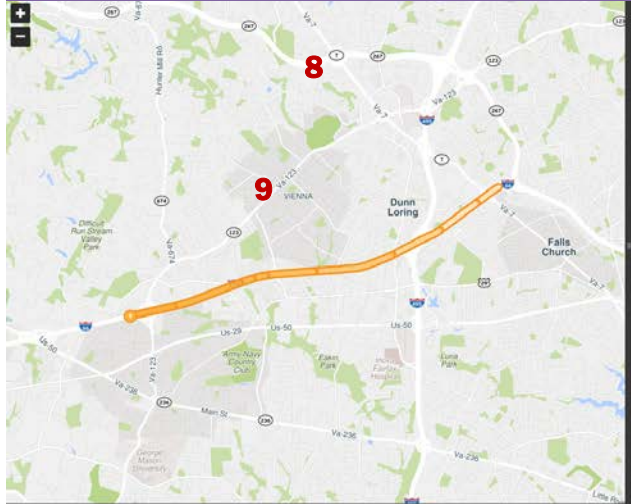
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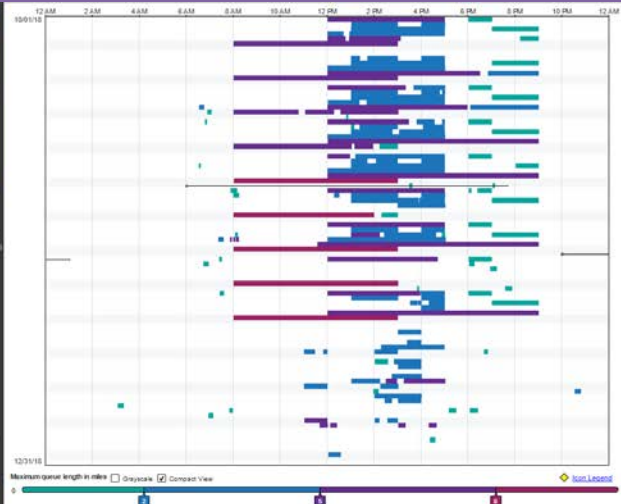
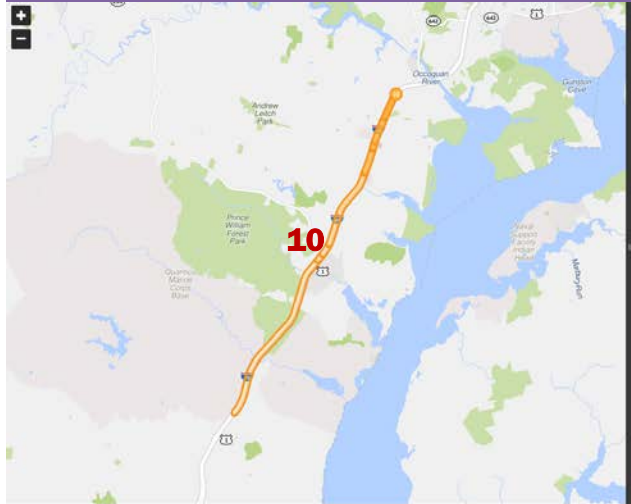
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10	I-95 N @ VA-294/PRINCE WILLIAM PKWY/EXIT 158	3 h 12 m	2.84	12 d 06 h 44 m	54,297.00



# CONGESTION MAPS

Figure 3. Travel Time Index during weekday 8: 00-9:00 A.M. in 4<sup>th</sup> Quarter of 2018

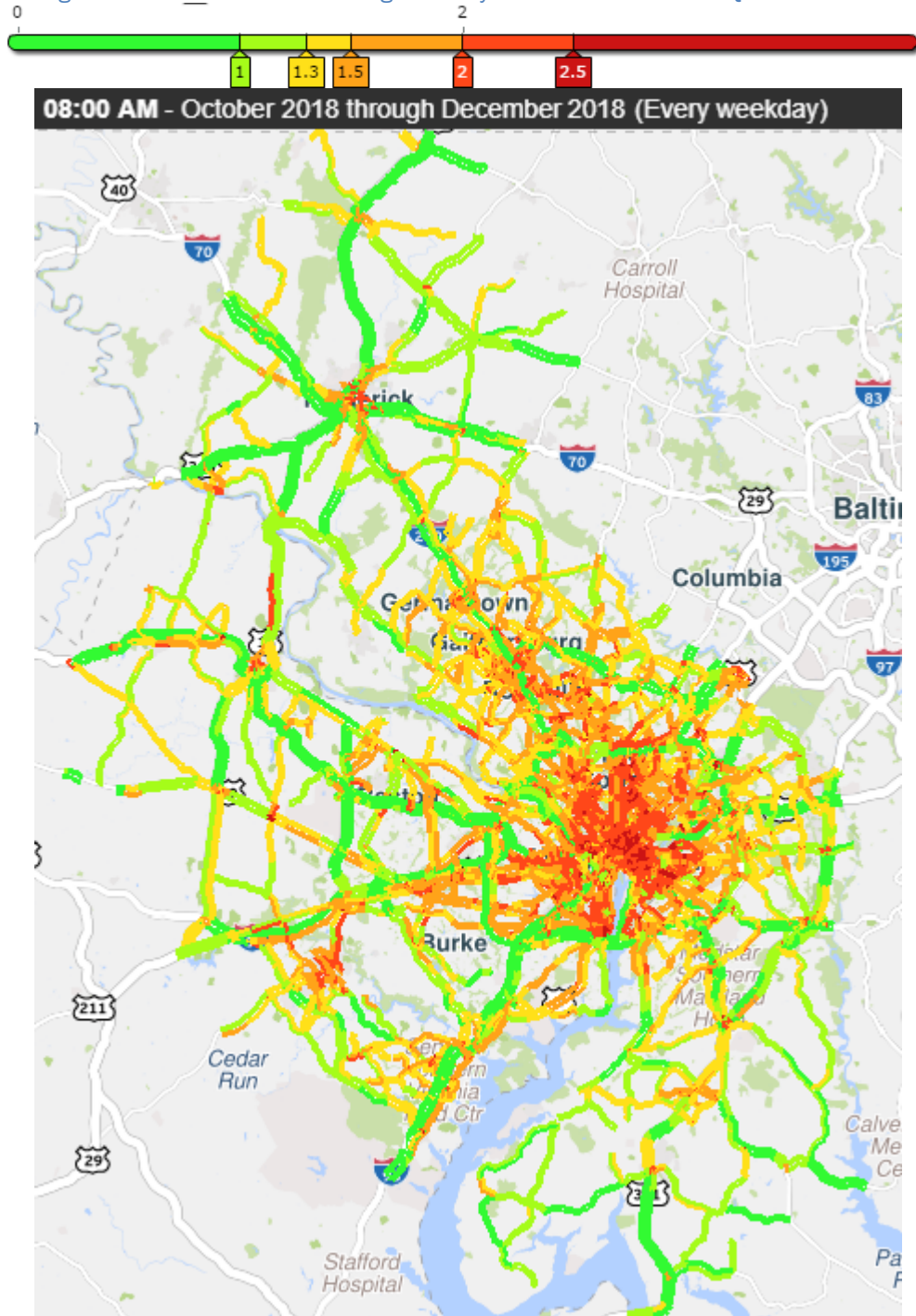
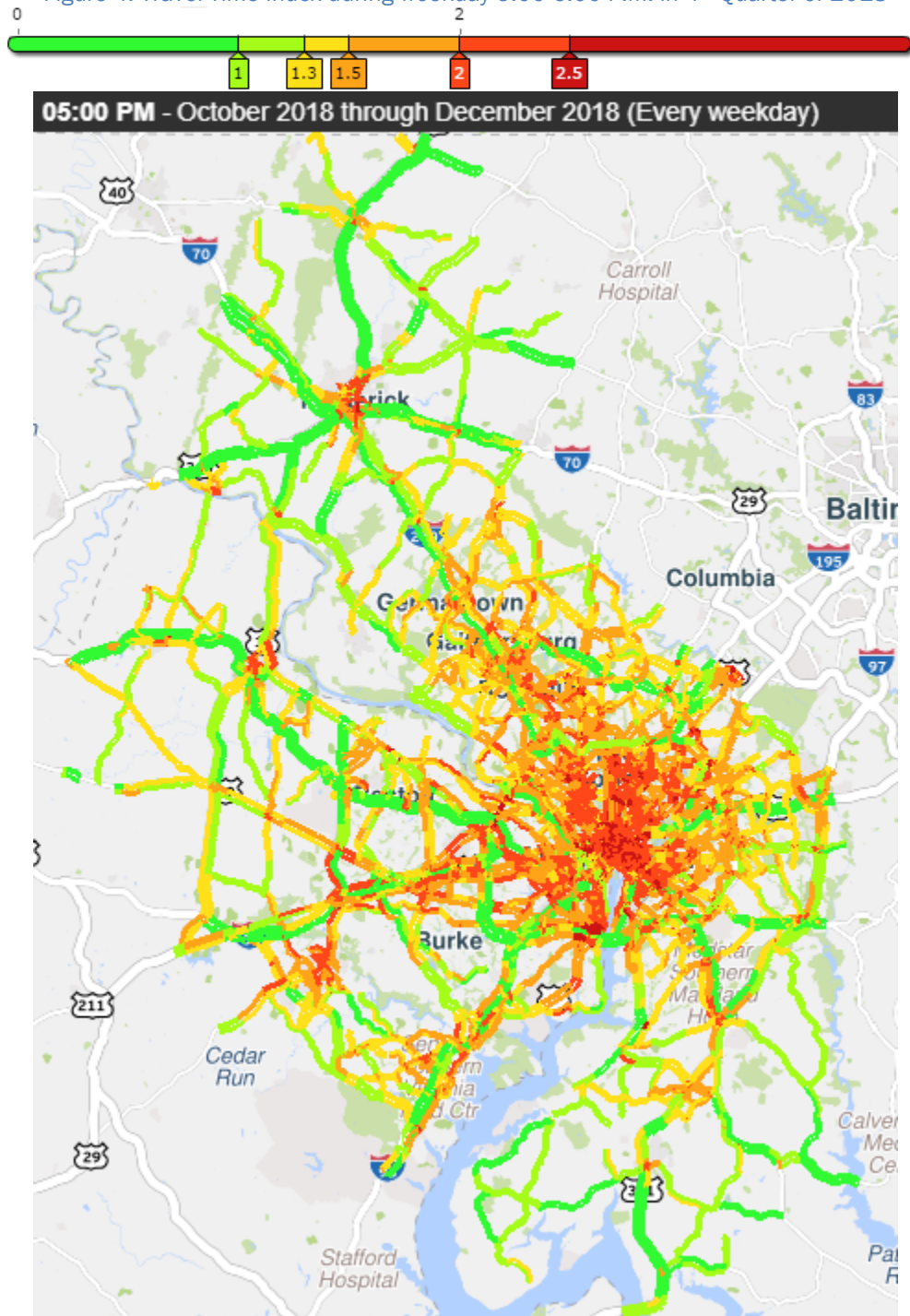


Figure 4. Travel Time Index during weekday 5:00-6:00 P.M. in 4<sup>th</sup> Quarter of 2018



## **2018Q4 SPOTLIGHT**

The SPOTLIGHT section of the Regional Congestion Report is on hiatus for the 4<sup>th</sup> quarter of 2018.



National Capital Region  
**Transportation Planning Board**

777 North Capitol Street NE, Suite 300  
Washington, DC 20002

[www.mwcog.org](http://www.mwcog.org)