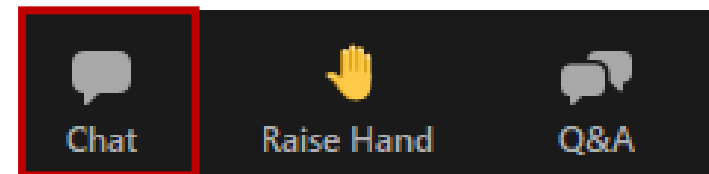
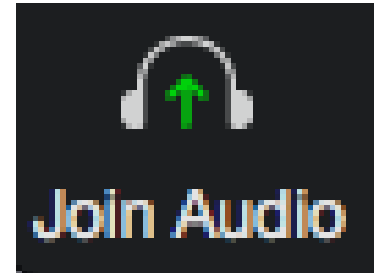


# RITIS User Group

Web Meeting | July 28, 2022

# Welcome!

- We are using Zoom **Webinar**
- **AUDIO (Computer):** Use your computer speakers and microphone by clicking the “Join Audio” button at the bottom left of the screen. You will be muted.
- **Alternate Audio (Phone):** Call into the meeting by dialing the phone number based on your location (provided in the confirmation email) and enter the Meeting ID at the prompt. You will be muted.
- **This web meeting is being recorded.**
- **Questions** with the audio or web? Please contact Esther directly via email ([ekleit@kmjinc.com](mailto:ekleit@kmjinc.com))
- The **Chatbox** is not available to participants. Please use the **Q&A box** for questions to the presenters



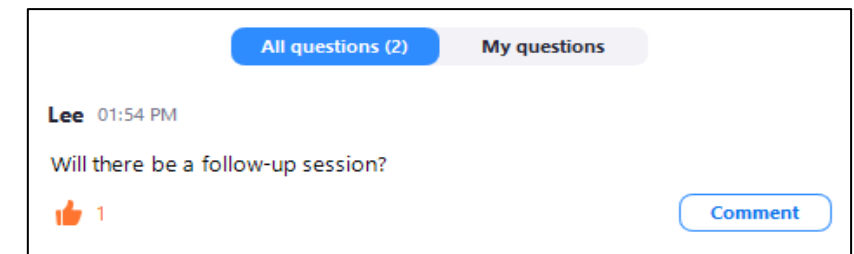
# Asking Questions in the Q&A Box



- Click on the Q&A icon at the bottom of your screen



- The questions in the Q&A box will be monitored and answered either between presentations or at the end of the meeting
- You can keep track of your questions in the “My Questions” tab in the Q&A box



# Asking Questions Verbally



- Please raise your hand (*click on the hand icon at the bottom of the screen*) and a host will unmute you.

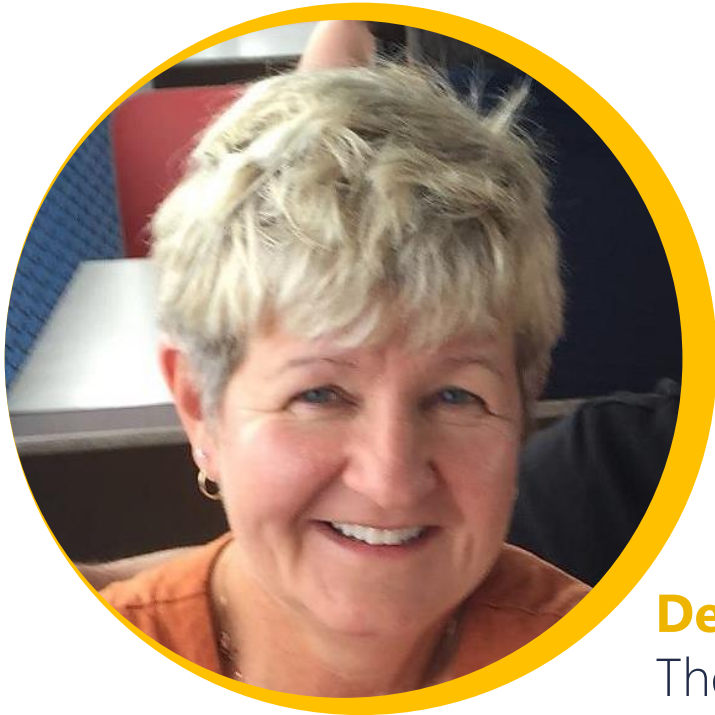


- Please give your name and agency before asking your question
- **Please mute yourself when you are finished speaking**





# Coalition Update



**Denise Markow**

The Eastern Transportation Coalition  
*TSMO Director*

— THE EASTERN —  
TRANSPORTATION  
COALITION



# Coalition Update - Data Events

## RECENT

- ✓ **Making Sense of CAV Data Webinar** - April 28, 2022
- ✓ **RITIS Product Enhancement Working Group Web Meeting** - May 12, 2022
- ✓ **FY2023 Strategic Planning Meetings** - April - June, 2022 – Work Plan is on the website!
- ✓ **RITIS Performance Measures Reporting Working Group Meeting** - June 28, 2022
- ✓ **Freight Data & Planning Working Group Meeting** - June 29, 2022



## UPCOMING

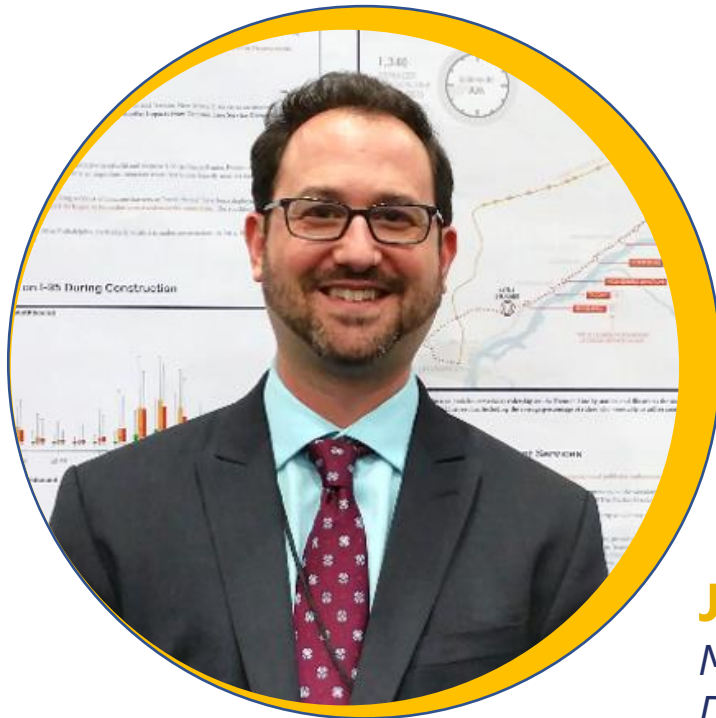
- **Google Maps Working Group – 3<sup>rd</sup> Party Navigation Data Meeting** - August 9, 2022
- **Transportation Data Marketplace: Waypoint Vendor Forum** - August 31, 2022
- **Transportation Data Marketplace: OD Vendor Forum** - September 14, 2022 (*to be confirmed*)
- **Freight Data & Planning Working Group Meeting – Freight Data Vendor Forum** - September 21, 2022
- **TDM Technical Advisory Meeting** - October 11, 2022
- **RITIS User Group Web Meeting** - October 20, 2022

# Transportation Data Marketplace Update



- The new **Transportation Data Marketplace** is now live! (as of July 1<sup>st</sup>)
  - 6 Data Sets: Travel Time & Speed, Volume, Conflation, Origin Destination, Waypoint, and Freight
  - Vendor Forums (for agency members)
    - TDM: Waypoint Vendor Forum - August 31, 2022
    - TDM: OD Vendor Forum - September 14, 2022 (*date to be confirmed*)
    - TDM: Freight Data Vendor Forum - September 21, 2022 (*for Freight Data & Planning Working Group*)
    - Transportation Data Marketplace: Analytics & Volume Vendor Forums – 2023 – stay tuned
  - New Automated DUA process

# Welcome & Introductions



**Jesse Buerk**

*Manager, Office of Capital Programs  
DVRPC  
RITIS User Group Co-chair*



# Today's Meeting

Welcome and Introductions	Denise Markow, TETC Jesse Buerk, DVRPC
GDOT's Use of RITIS for Safety Purposes: A Case Study	Sam Harris, Georgia DOT
Freight Rerouting For An 4-hour Closure Of I-95 In Baltimore	Michael Pack, UMD CATT Lab
PDA Suite Performance Measures Working Group Update	Rick Ayers, UMD CATT Lab
RITIS Product Enhancement Working Group Update	Michael Pack, UMD CATT Lab
New RITIS Tools and Recent Enhancements	Michael Pack
Agency Input Session	All
Wrap Up and Remaining Questions	Jesse Buerk



# Today's Speakers



**Michael Pack**  
UMD CATT Lab  
*Director*



**Sam Harris**  
Georgia DOT  
*State Safety Program Manager*



**Rick Ayers**  
UMD CATT Lab  
*Public Sector Advocate*

# Meeting Participants

## Agencies

AASHTO	Chattanooga TPO	Clayton County DOT	Georgia DOT	Macomb Country Department of Roads	MWCOG	Ohio DOT	Savannah MPC	Vermont AOT
Anne Arundel County Office of Emergency Mgmt	City of Atlanta, GA	Colorado DOT	Georgia Environmental Protection Division	Maricopa Association of Governments	MWVCOG	Old Colony Planning Council	SJTPO	Virginia DOT
Arcadis	City of Bend, OR	Connecticut DOT	Georgia Tech	Maryland Department of Energy	NCTCOG	Oregon DOT	Southern Georgia Regional Commission	Virginia Office of Intermodal Planning and Investment
Arizona DOT	City of Charlotte, NC	Corpus Christi MPO	Henry County, GA	Maryland DOT-SHA	New Jersey DOT	Pennsylvania DOT	Southwestern Pennsylvania Commission	Westwood Professional Services
Arkansas DOT	City of Concord, NC	CPCS	Illinois DOT	Maryland Transportation Authority	New Jersey Sports & Exposition Authority	Pennsylvania Turnpike Commission	Tennessee DOT	Wisconsin DOT
Atlanta Regional Commission	City of Eugene, OR	District DOT	INRIX	Massachusetts DOT	New Mexico DOT	PlanRVA	Texas A&M Transportation Institute	WRA
AutoReturn	City of Gastonia, NC	DVRPC	Jacobs Engineering Group, Inc	Mead & Hunt	New York City DOT	PVPC	Texas DOT	WSP
Baltimore Metropolitan Council	City of Lexington, KY	Fair Fax County DOT	Kentuckiana Regional Planning & Development Agency	Miami-Dale MPO	NJTPA	RTC of Southern Nevada	The University of Texas at Austin	
Capital Region Planning Commission	City of Sandy Springs, GA	Federal Highway Administration	Kentucky Transportation Cabinet	Michael Baker International	North Carolina DOT	Renaissance Planning Group	University of Maryland CATT Lab	
Charlotte DOT	City of The Dalles, OR	Florida DOT	Knoxville TPO	Michigan DOT	North Carolina State University	Rhode Island Division of Statewide Planning	University of Virginia	
Chatham County - Savannah Metro Planning Commission	City of Woodstock, GA	Gannett Fleming	Louisiana DOTD	Modern Mobility Partners	Northern Virginia Transportation Authority	San Diego Association of Governments (SANDAG)	Vectura Consulting Services	





# Poll 1: How often do you attend RITIS User Group Web Meetings?

## Answer Options:

- a. 1-2 times per year
- b. 3-4 times per year
- c. This is my first meeting







# Georgia DOT's use of RITIS for Safety Purposes

*Sam Harris*

*State Safety Program Manager*

*Georgia DOT*





# GDOT's Use of RITIS for Safety Purposes: A Case Study

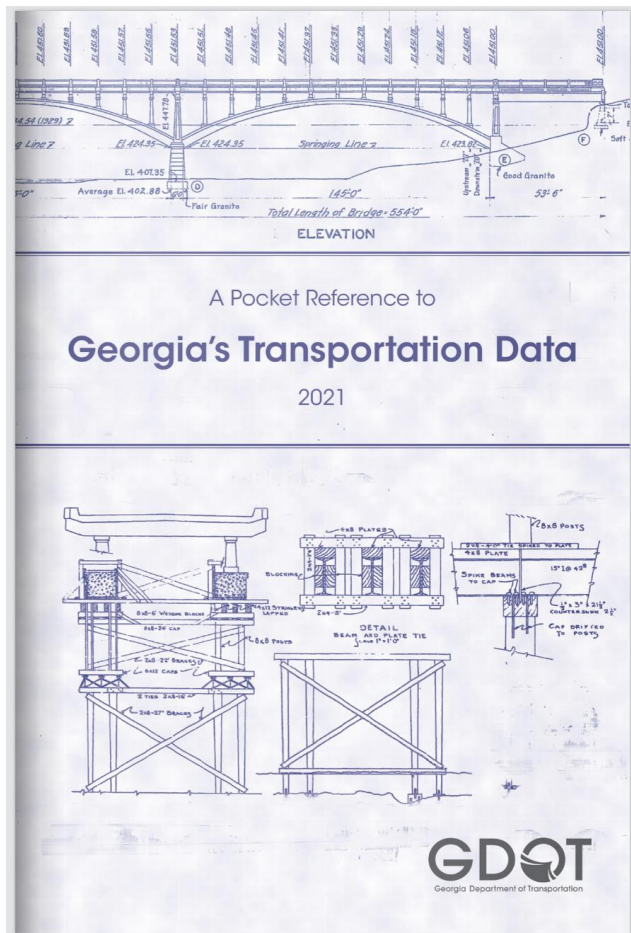
**Samuel Harris, PE**  
**State Safety Engineering Manager**  
**July 28<sup>th</sup>, 2022**

## Three Takeaways

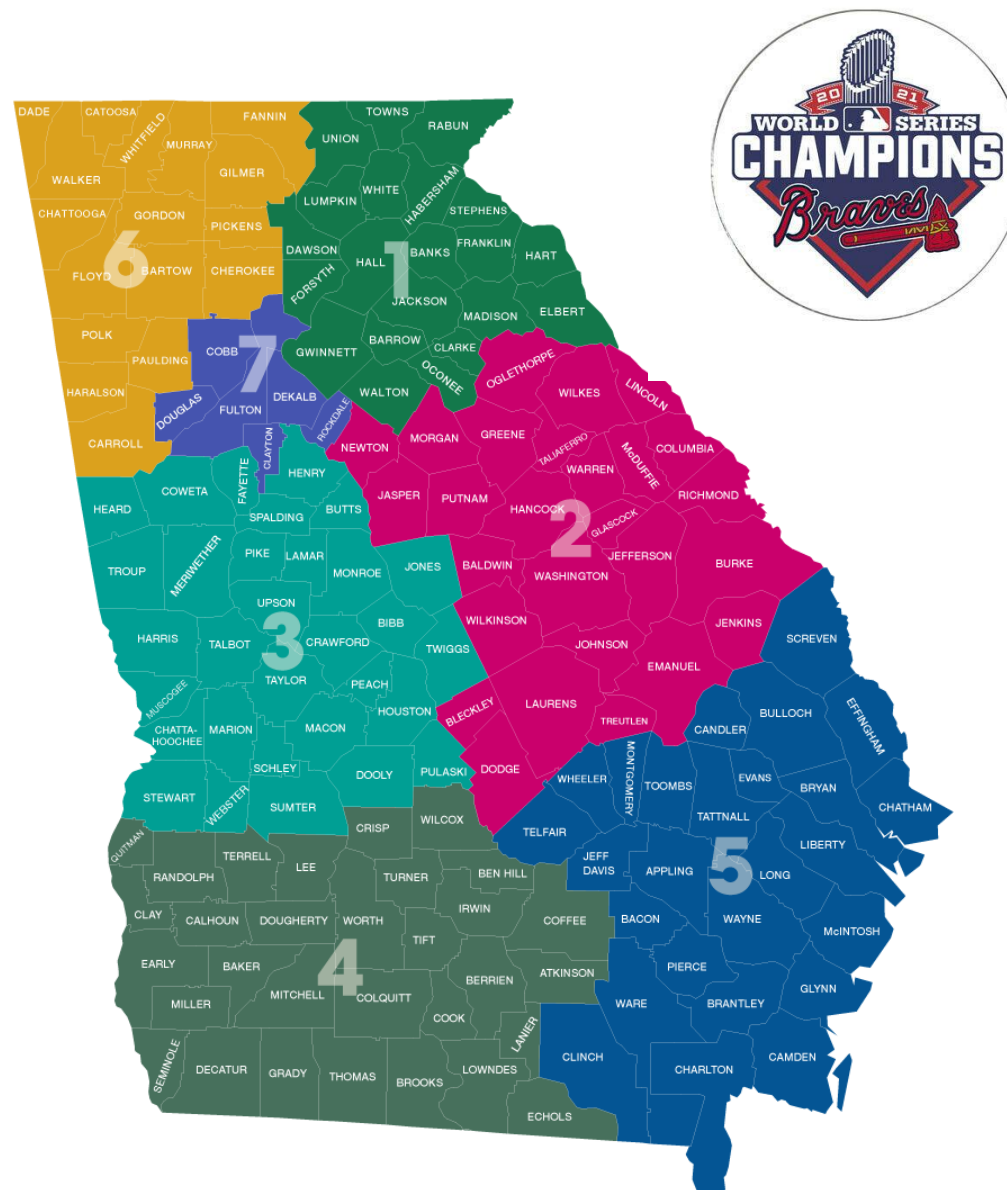
1. What is the GDOT Safety Program?
2. Congestion scans be used to justify safety projects
3. High-level data analysis can be used to program projects



# Agency Overview



- 159 Counties (Only behind Texas)
- Average of 400k crash per year
- 606 state routes (49K lane miles and 18% of total lane miles)
- Interstates comprise 3% of Georgia's lane miles and carry 26% of all traffic





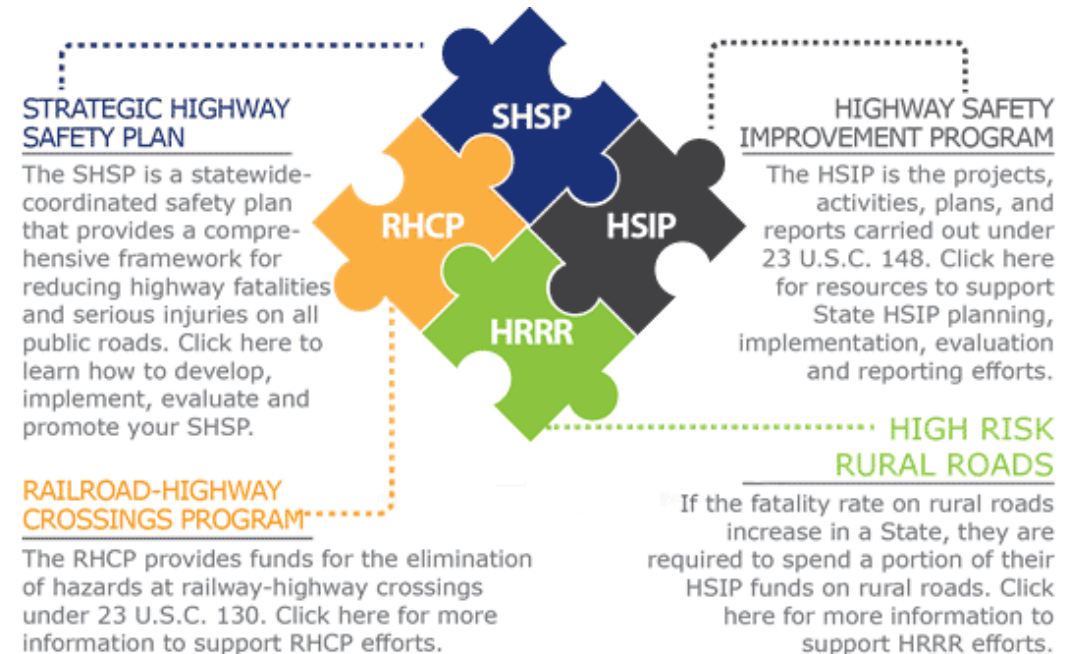
# GDOT's Safety Program

## Vision of the Program

- Reduce fatalities and injury crashes on Georgia roadways by using a safety data driven approach.

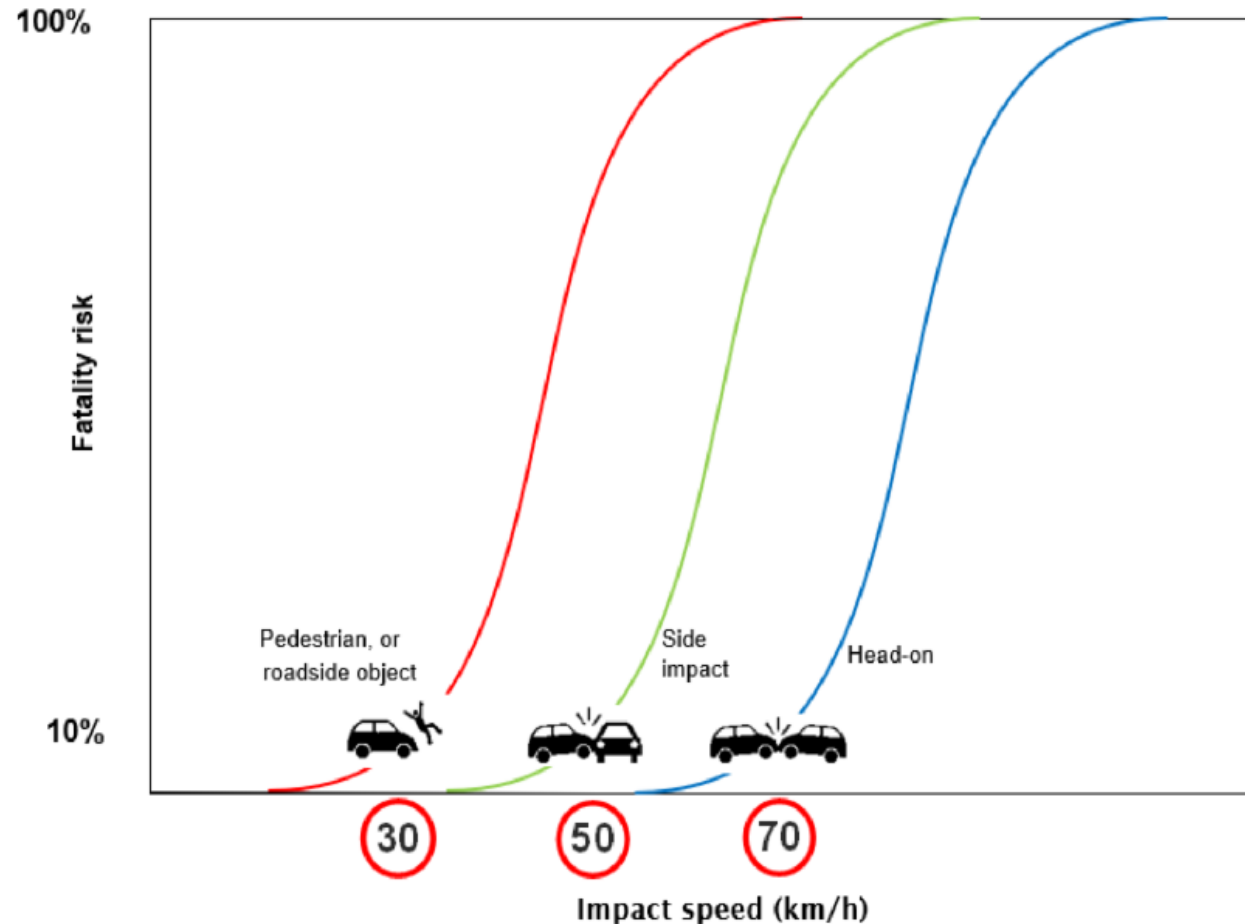
## Objectives of the Program

- Reduce all roadway fatalities
- Reduce pedestrian and bicycle crashes
- Reduce roadway or lane departure crashes
- Reduce intersection crashes
- Reduce off-system crashes
- Reduce crashes on High Risk Rural Roads
- Align goals with stakeholders/partners and SHSP



## KABCO (Crash Severity)

- K = Fatal Crash
- A = Serious Injury
- B = Minor Injury
- C = Complaint Injury
- O = Property Damage Only (PDO) or Non-injury



Source: Wramborg 2005 – Safe System Speeds

# Manner of Collision

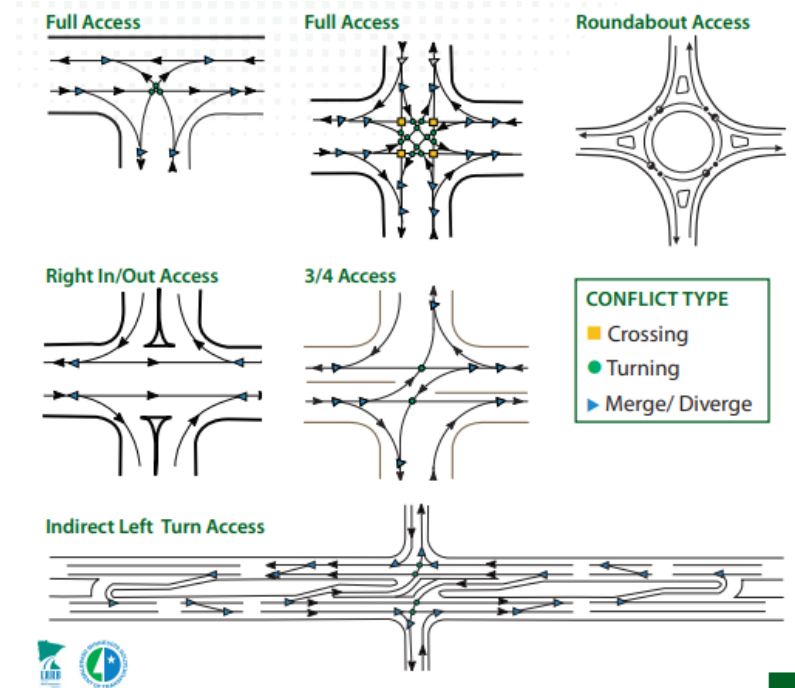
- Rear End
- Angle
  - Left Turn
  - Through
  - Right Turn
- Sideswipe Opposite Direction
- Sideswipe Same Direction
- Not a Collision With a Motor Vehicle
  - Pedestrian
  - Bicycle
  - Scooter
  - Animal
  - Roadway or lane departure
- Head On



Sideswipe, Opposite Direction



Sideswipe, Same Direction



Source: <https://www.dot.state.mn.us/stateaid/trafficsafety/safety/intersection-treatments.pdf>



# Intown Multimodal Safety Analysis

## Need and Purpose of the Study

- Increasing number of requests from stakeholders for more dedicated infrastructure on state routes to serve pedestrians, cyclists, and transit within the Atlanta intown area.
- Need a high-level analysis of crash data, operational data, roadway characteristics, and existing transportation plans.
- Develop a prioritized list of opportunity areas for further planning and potential implementation of multimodal safety projects.

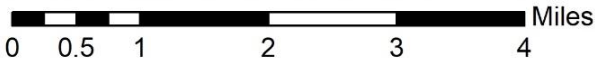
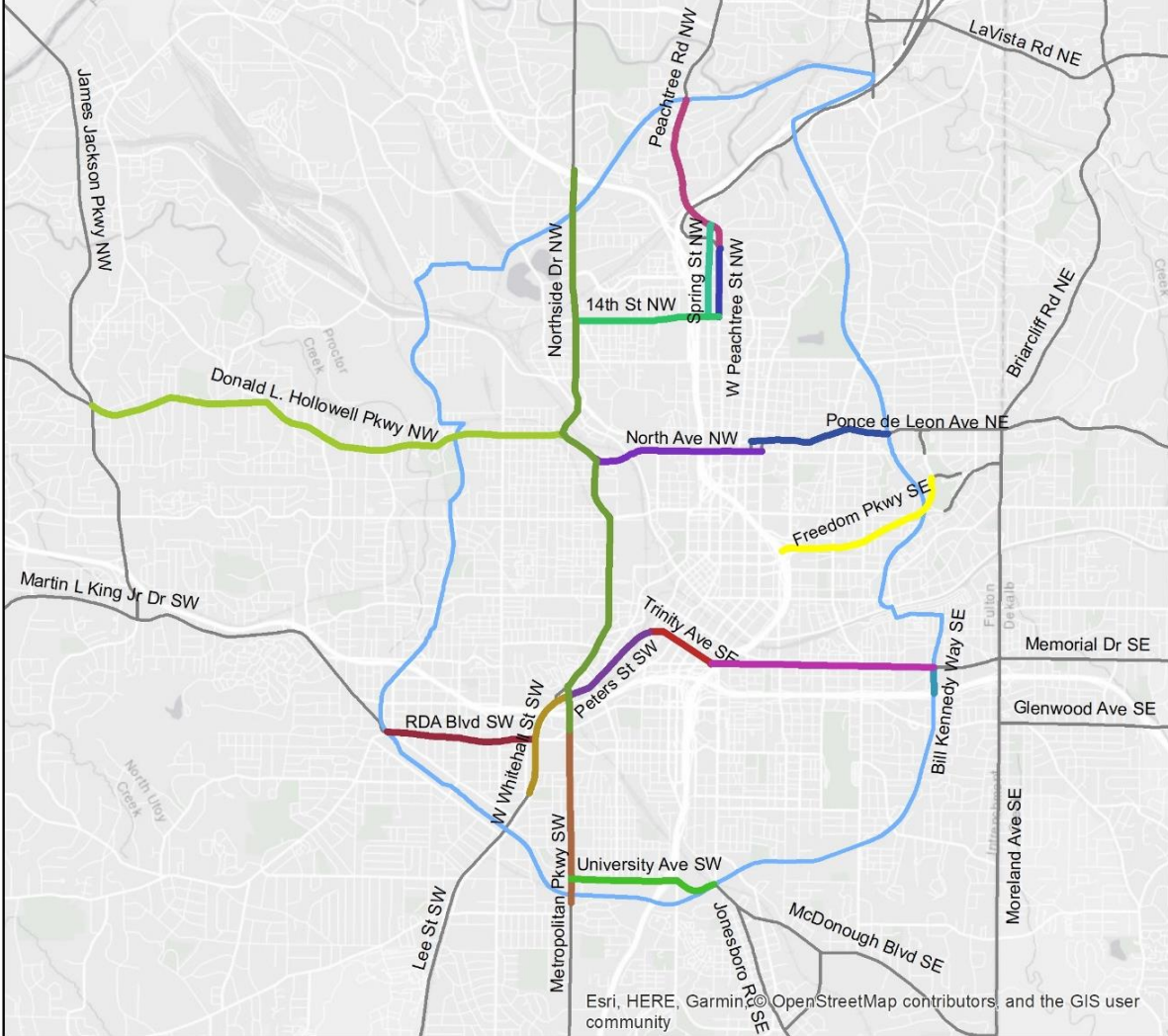
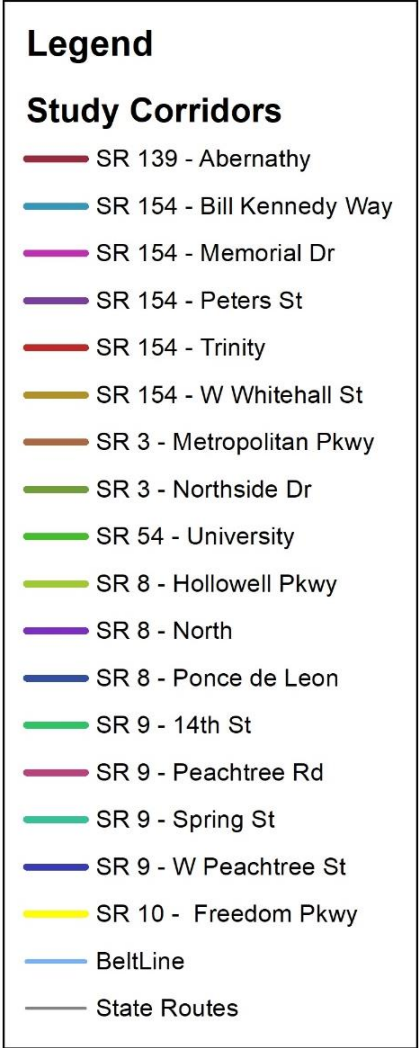






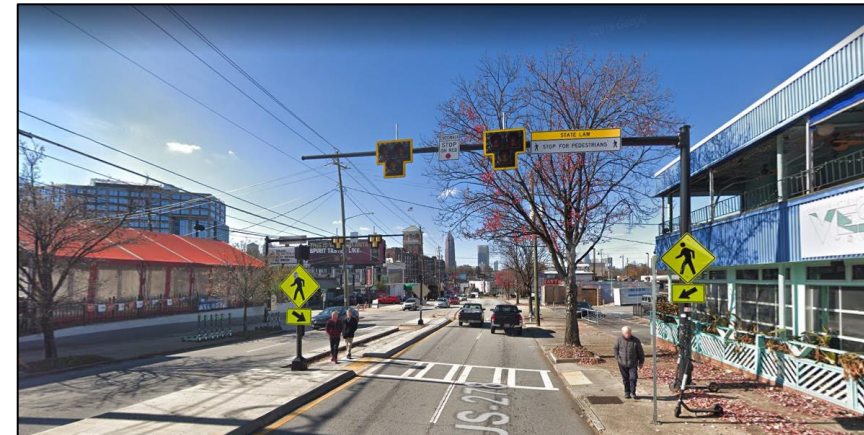
# Methodology

# Atlanta Intown Multimodal Safety Study Corridors



# Design Considerations and Alternatives

- Buffered Bike Lane
- Bike Lane (No Buffer)
- Lighting
- Marked Shared Lane
- Median / Pedestrian Refuge & Crossing
- Road Diet
- Separated Cycle Track
- Side path
- Streetscape Elements
- Transit/HOV Lane

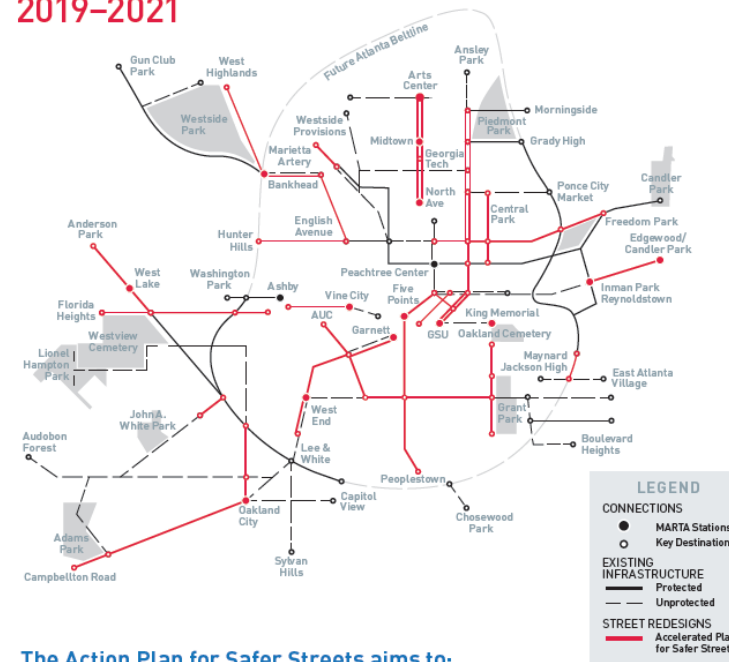


# Studies and Plans Reviewed

- Atlanta Safer Street Plan
- Atlanta Regional Transportation Plan
- Atlanta Transportation Plan
- Beltline Master Plan
- Cycle Atlanta Plan 1.0 and 2.0
- Developments of Regional Impacts (DRIs)
- Downtown Master Plan
- Georgia Pedestrian Safety Action
- Georgia Bicycle Safety Action
- More MARTA Program
- Midtown Transportation Plan
- One Atlanta: Strategic Transportation Plan
- Plus more.....

July 28, 2022

## TARGET NETWORK FOR SAFER MULTI-MODAL STREETS 2019-2021



### The Action Plan for Safer Streets aims to:

- Connect SW Atlanta to Westside Trail and MARTA
- Provide north-south connections between Midtown, Downtown, and West End
- Bridge the gap between Grant Park and West End
- Expand access to MARTA stations, city parks, and schools by providing first/last mile connections
- Reduce risk as 100% of routes are on the city's high-injury network or near schools

### TARGET CORRIDORS

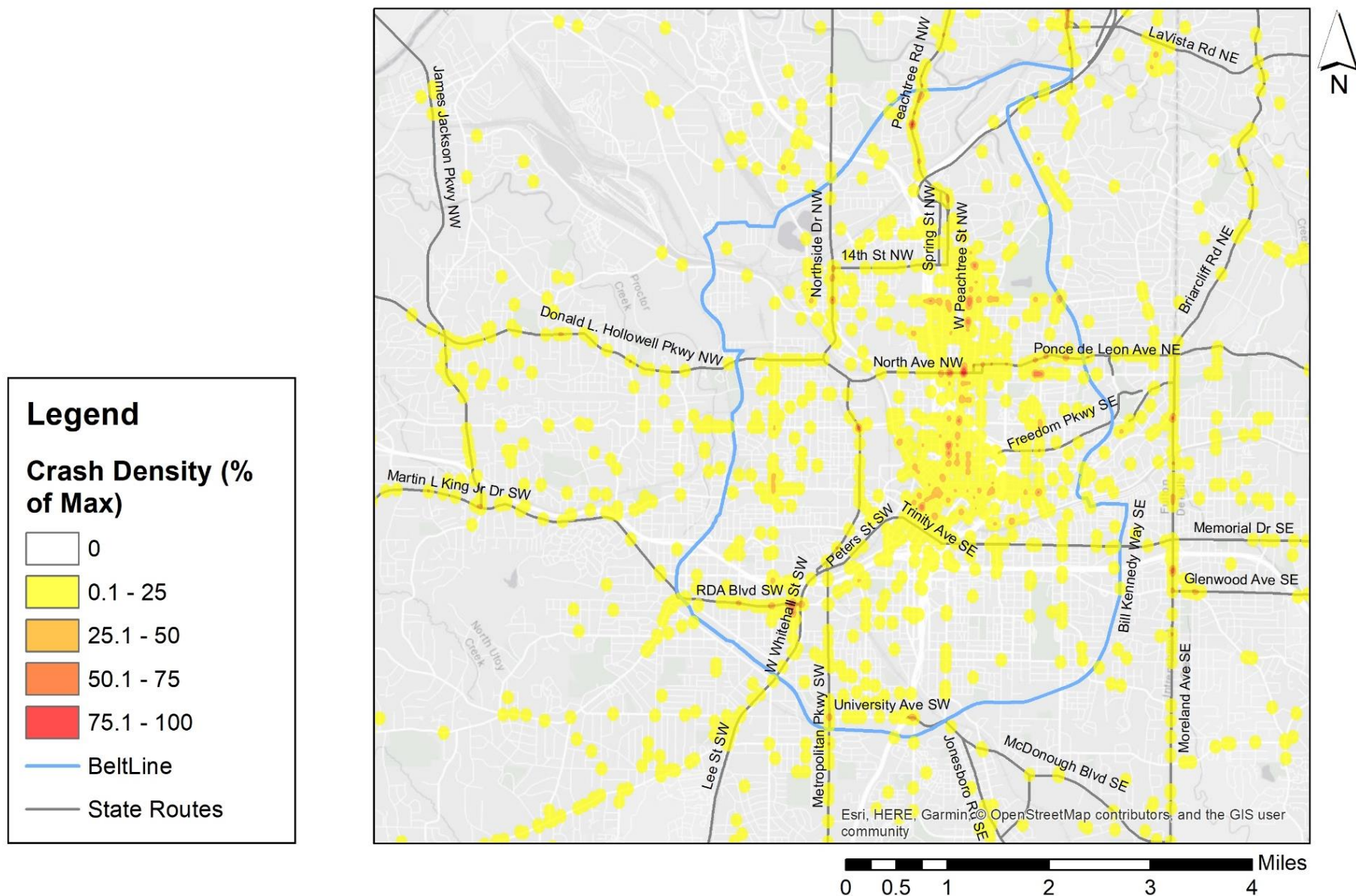
Anderson	Georgia	Pryor St
Bill Kennedy Way	Jesse Hill	Ralph David
Brady Ave	Juniper	Abernathy
Campbellton	Lee	Ralph McGill
Cascade Ave	McDaniel	Spring
Central Park Place	MLK Jr Dr	West Peachtree
Cherokee	Oakland Dr	Whitehall
DeKalb	Piedmont	



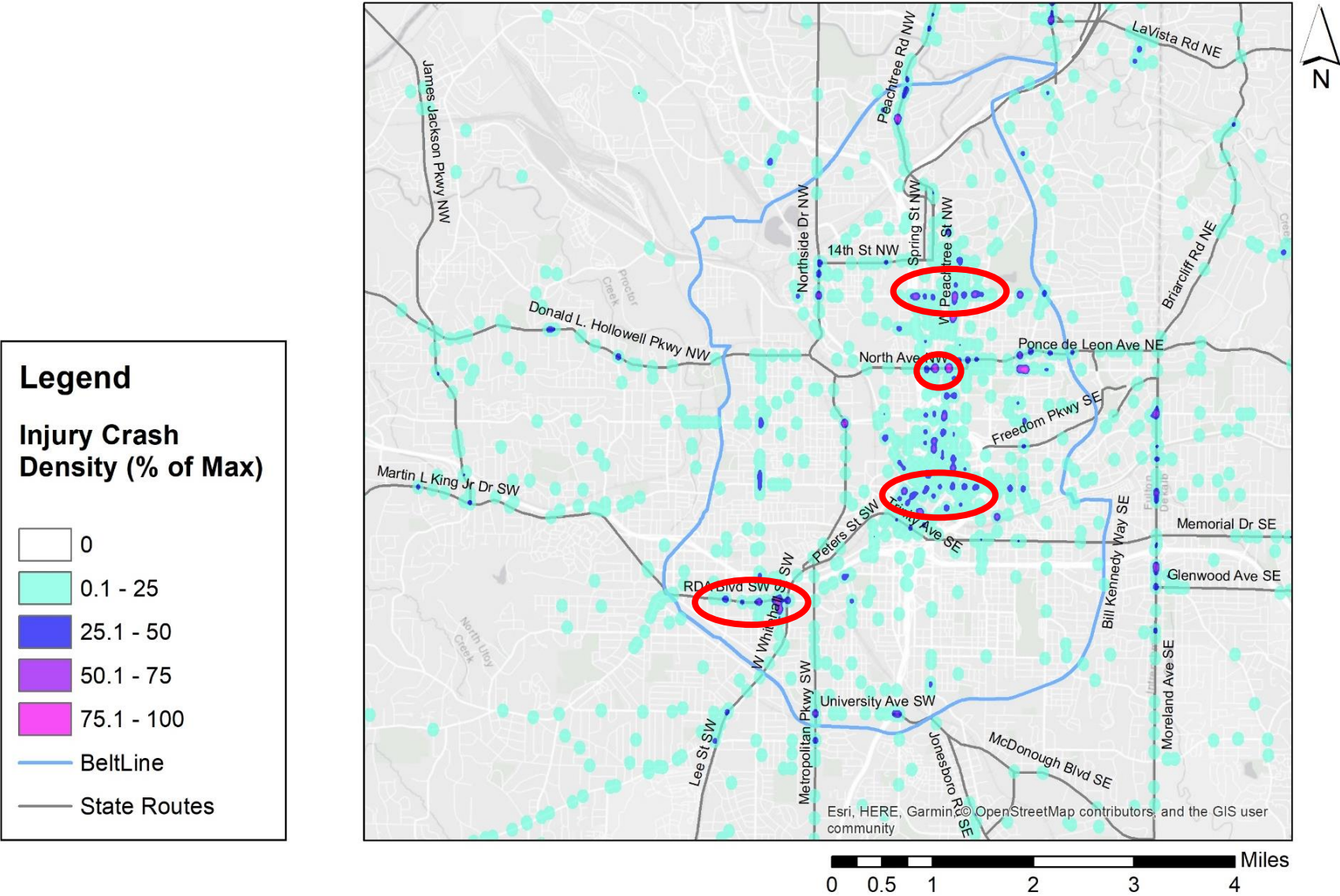
# **Pedestrian and Bicycle Crash Analysis**



## Pedestrian and Cyclist Crash Density 2014-2018

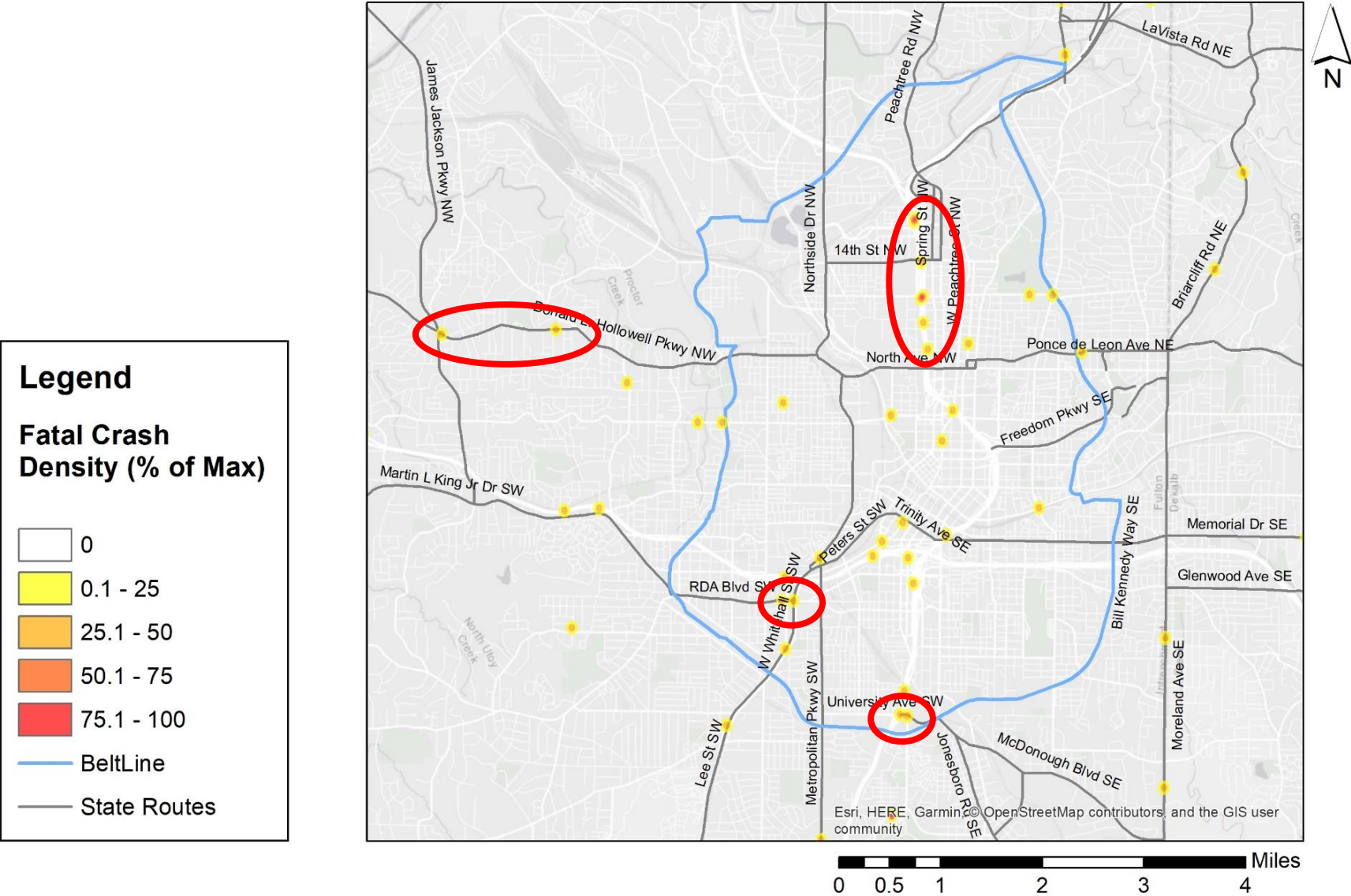


# Pedestrian and Cyclist Injury Crash Density 2014-2018



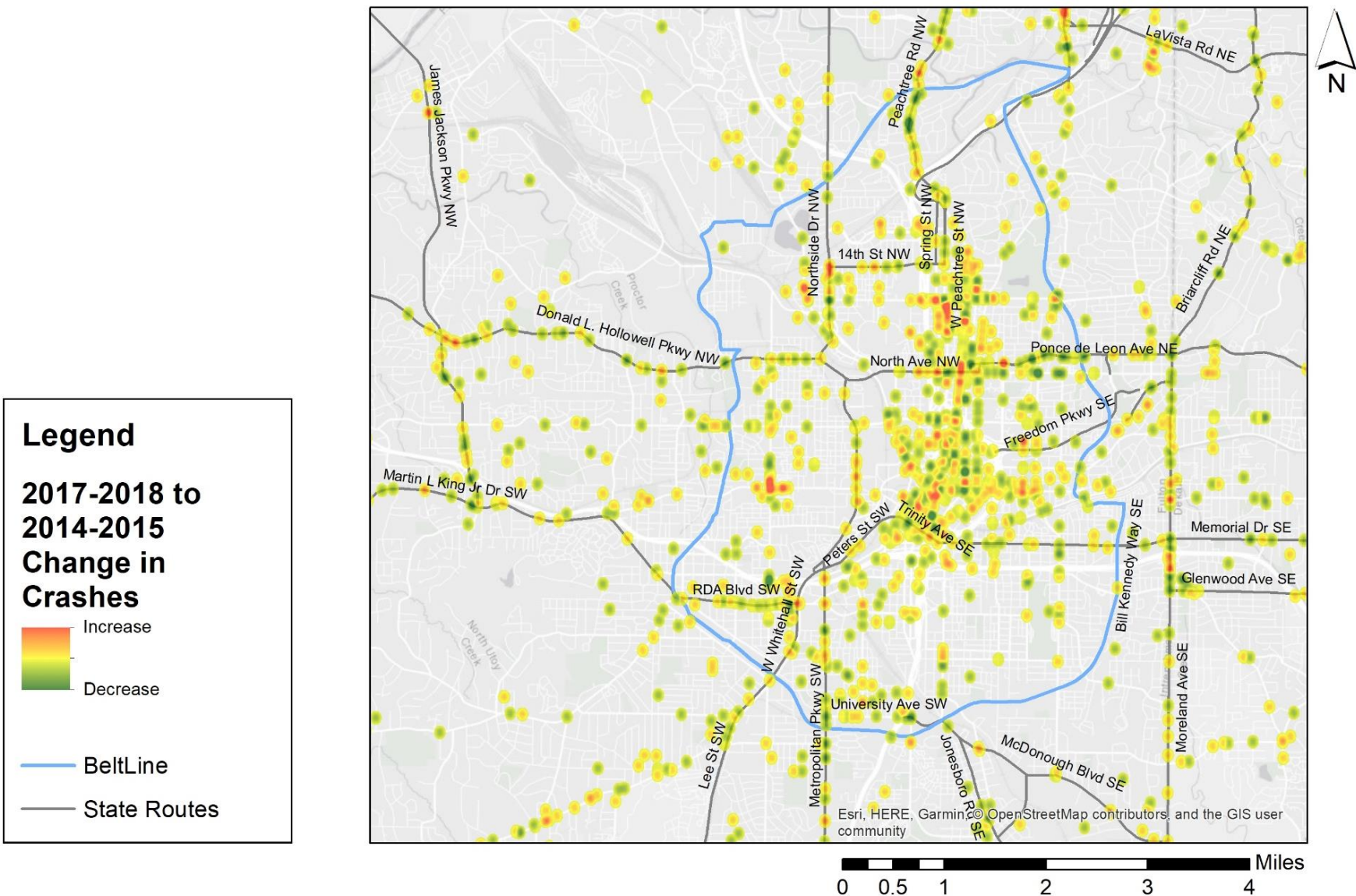


# Pedestrian and Cyclist Fatal Crash Density 2014-2018





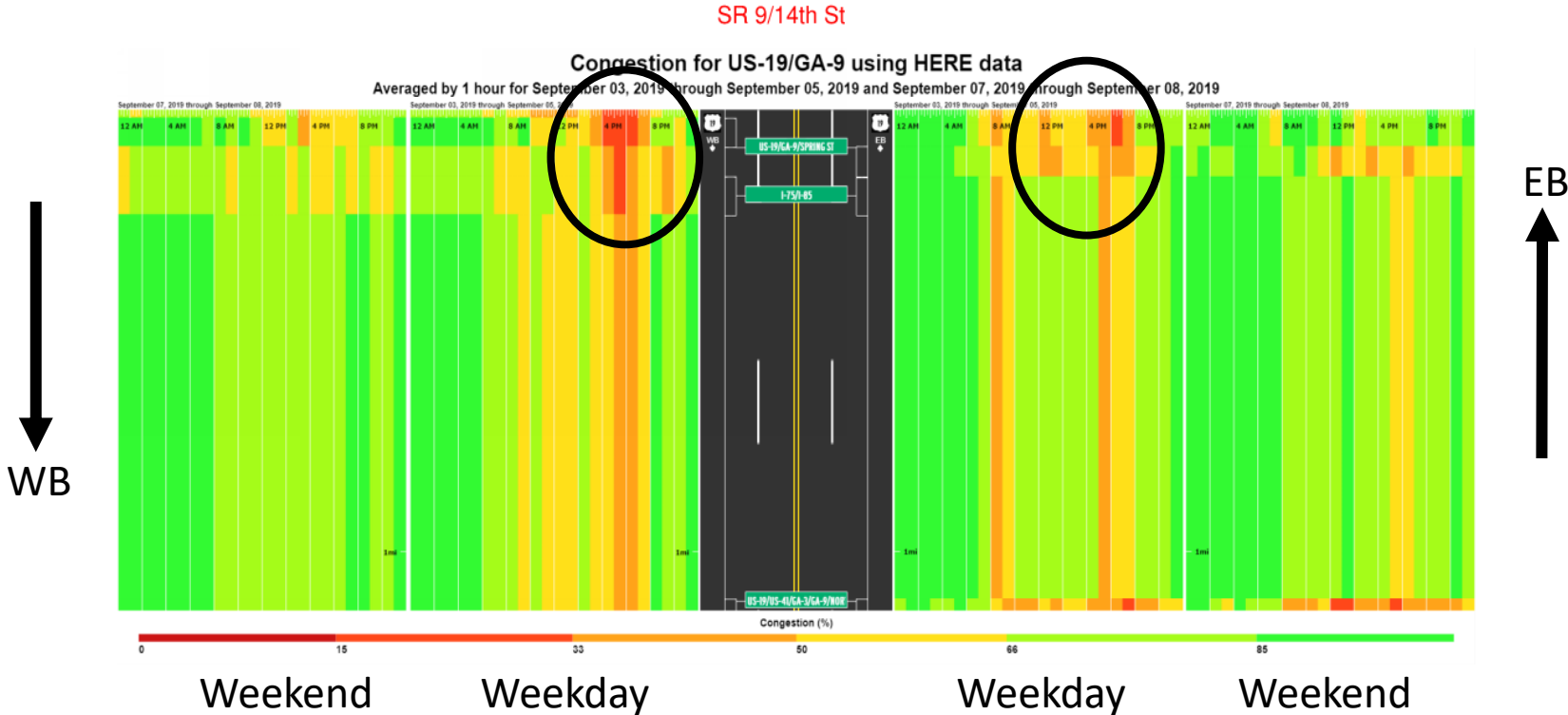
# Pedestrian and Cyclist Crash Density Change from 2014-2015 to 2017-2018



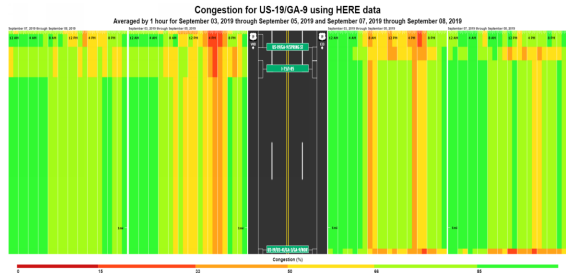


# Operational Analysis

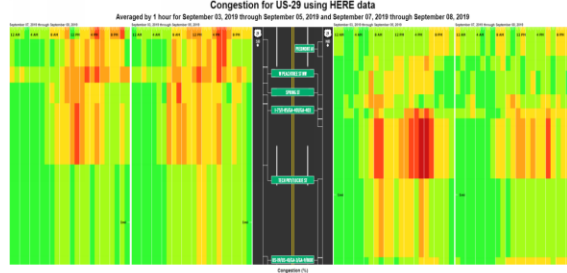
# Congestion Scans



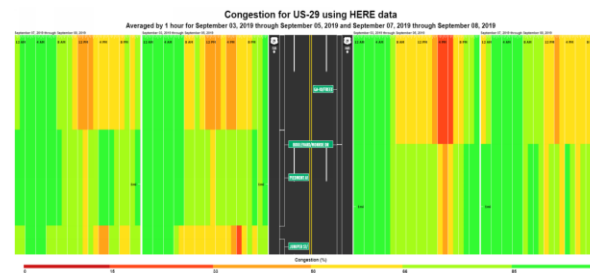
SR 9/14th St



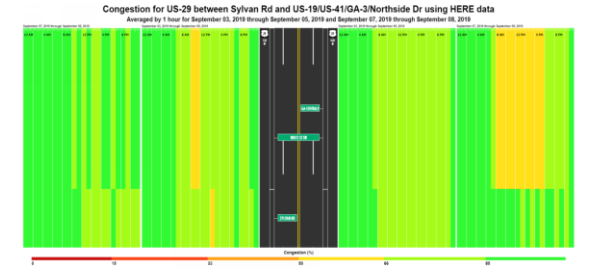
SR 8/North Ave



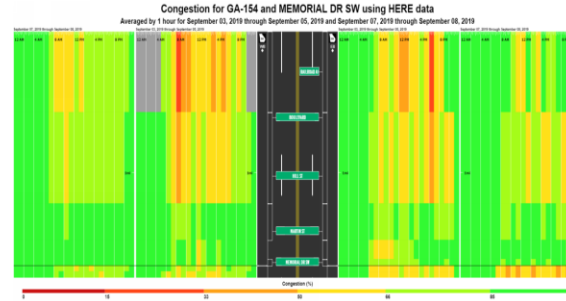
SR 8/Ponce De Leon



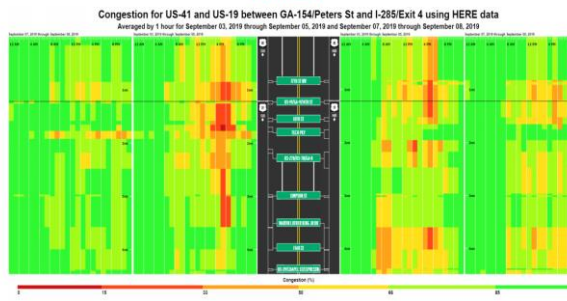
SR 14 Lee St



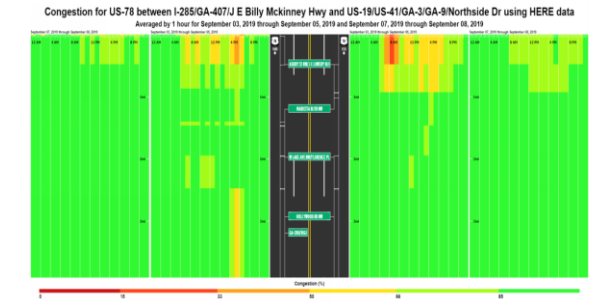
SR 154/Memorial Dr



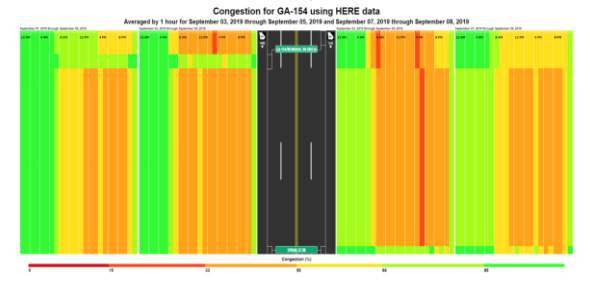
SR 3/Northside Dr



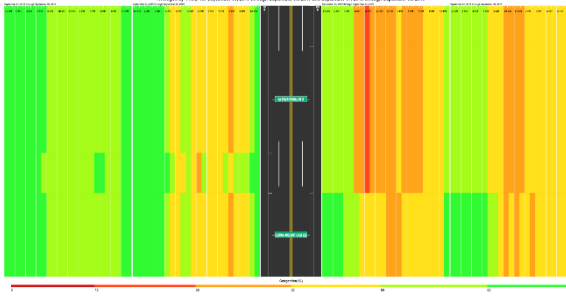
SR 8/Donald Lee Hollowell Pkwy



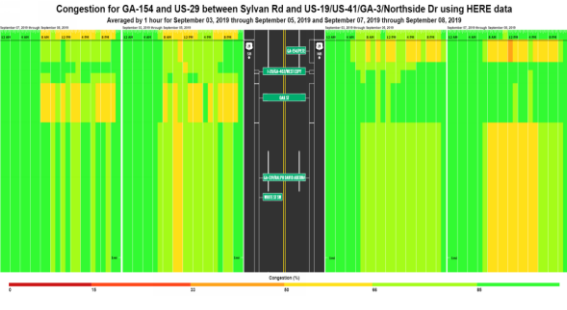
SR 154/Trinity Ave



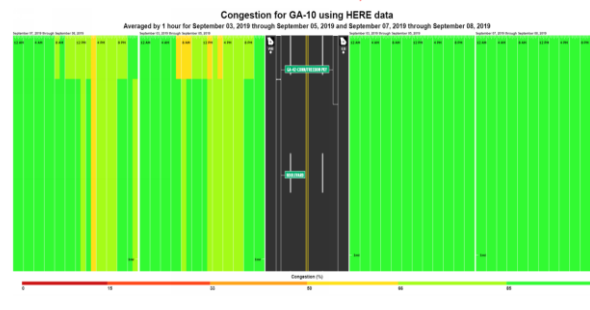
Congestion for BILL KENNEDY WAY SE using HERE data



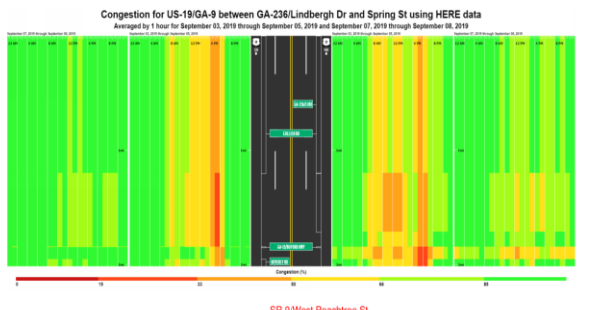
SR 139/West Whitehall St



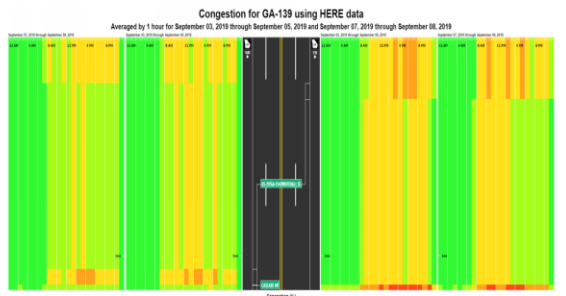
SR 10/Freedom Pkwy



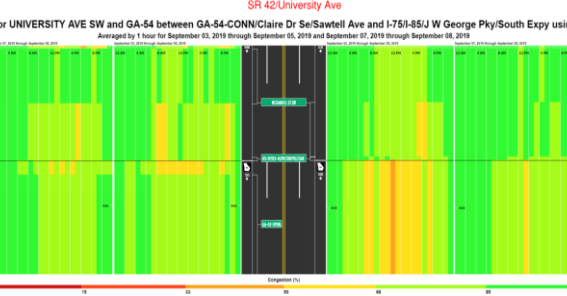
SR 9/Peachtree St



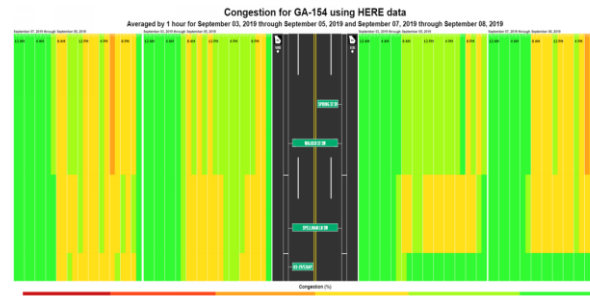
SR 139/Ralph David Abernathy Blvd



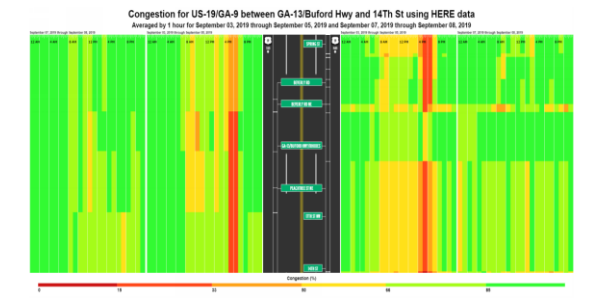
SR 42/University Ave



SR 14/Peters St

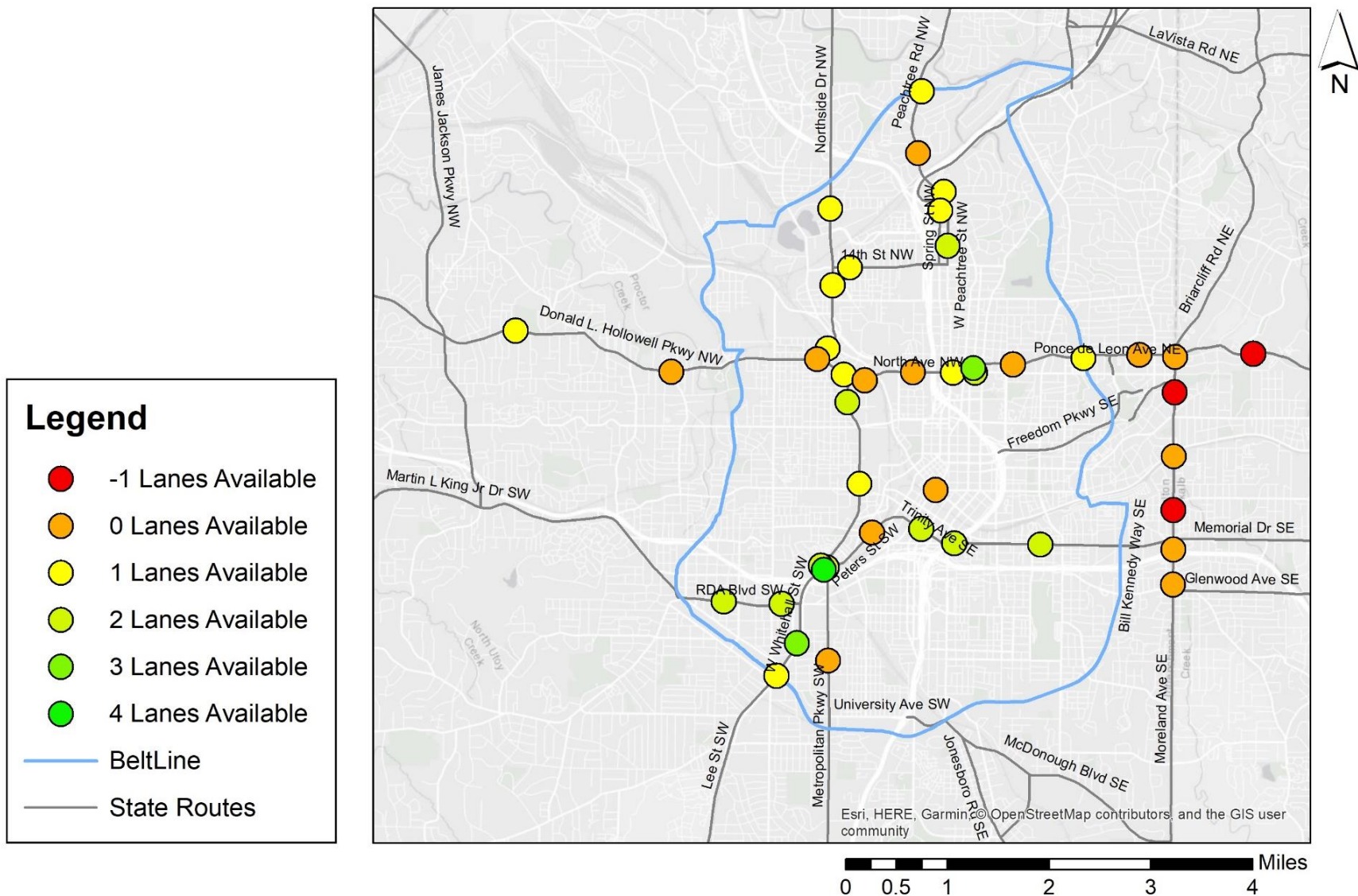


SR 9/West Peachtree St





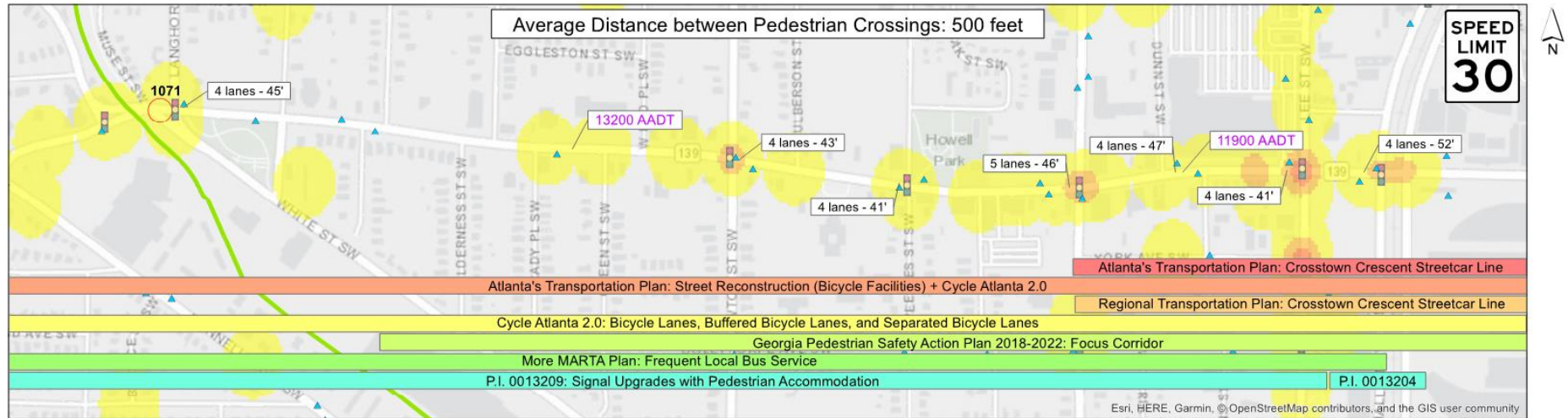
## Atlanta Intown Multimodal Safety Study Corridor Lane Call (2018)





# Corridor Profiles

## SR 139 / Ralph D. Abernathy Blvd from the Atlanta BeltLine Westside Trail to SR 154 / W. Whitehall St



**Pedestrian and Cyclist Crash Summary 2014-2018:**

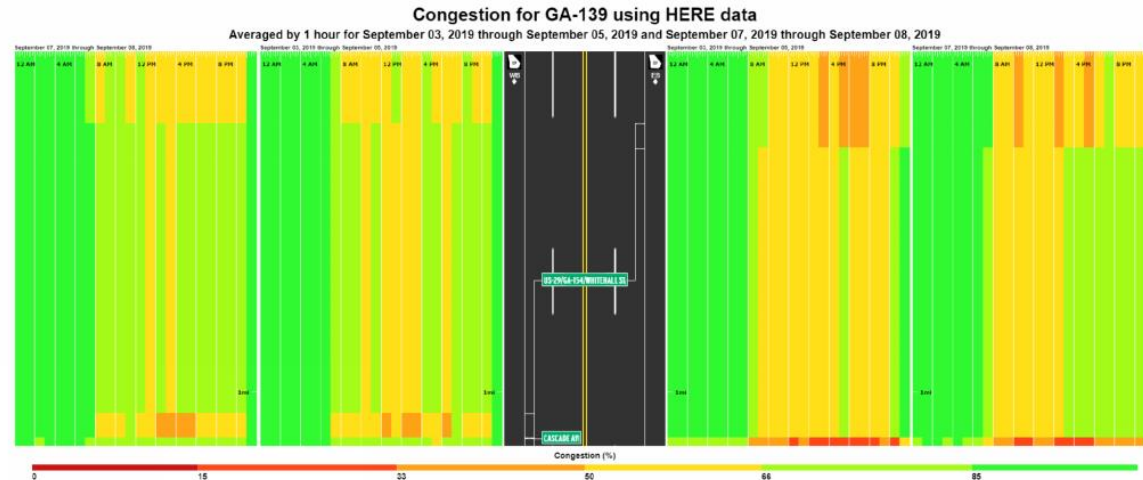
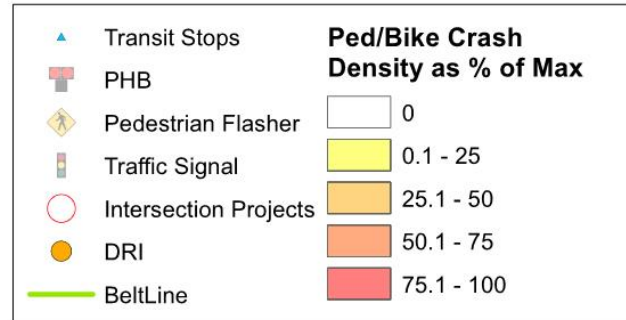
- 46 Pedestrian Crashes
- 3 Bicycle Crashes
- 34 Injury Crashes
- 2 Fatal Crashes
- 43 Crashes per Mile

**Plans Including Corridor:**

- Atlanta's Transportation Plan (Bicycle, Transit, Streetscaping)
- Atlanta Regional Transportation Plan (Transit)
- Cycle Atlanta 2.0
- Georgia Pedestrian Safety Action Plan
- More MARTA Plan

**GDOT Projects in Corridor:**





















































































































































- 0013204 SR 3 Conn; SR 14; SR 139 & SR 154 @ 10 Locs in Fulton County Signal Upgrades
- 0013209 I-20 @ 1 Loc & SR 139 @ 8 Locs in Fulton County Signal Upgrades (under construction)








# Alternative Analysis



	Corridor	Cycle Track	Side Path	Bike Lane + Buffer	Bike Lane	Marked Shared Lane	Median / Ped Refuge	Road Diet	Transit / HOV Lane
	<b>SR 9 / 14th St</b> (SR 3 to Techwood Dr)								
	<b>SR 154 / Memorial Dr</b> (Grant St to Pearl St)								
	<b>SR 8 / North Ave</b> (SR 3 to Tech Pkwy)								
	<b>SR 14 / SR 154 / Peters St</b> (SR 3 to Walker St)								
	<b>SR 14 / SR 154 / W. Whitehall St</b> (Entire Study Limits)								
	<b>SR 139 / R. D. Abernathy Blvd</b> (Entire Study Limits)								
	<b>SR 9 / Spring St</b> (Entire Study Limits)								
	<b>SR 10 / Freedom Pkwy</b> (Entire Study Limits)								
	<b>SR 3 / Metropolitan Pkwy</b> (Entire Study Limits)								
	<b>SR 42 / University Ave</b> (Entire Study Limits)								
	<b>SR 3 / Northside Dr</b> (Chapel St to Wells St)								
	<b>SR 8 / D. L. Hollowell Pkwy</b> (Entire Study Limits)								
	<b>SR 9 / W. Peachtree St</b> (Entire Study Limits)								
	<b>SR 9 / Peachtree Rd</b> (Entire Study Limits)								
	<b>SR 154 / Trinity Ave</b> (Entire Study Limits)								
	<b>SR 8 / Ponce de Leon Ave</b> (Entire Study Limits)								
	<b>SR 154 / Bill Kennedy Way</b> (Entire Study Limits)								

 Continue Study
  Could be Considered
  Not Recommended |
  Already Existing
  Partially Existing



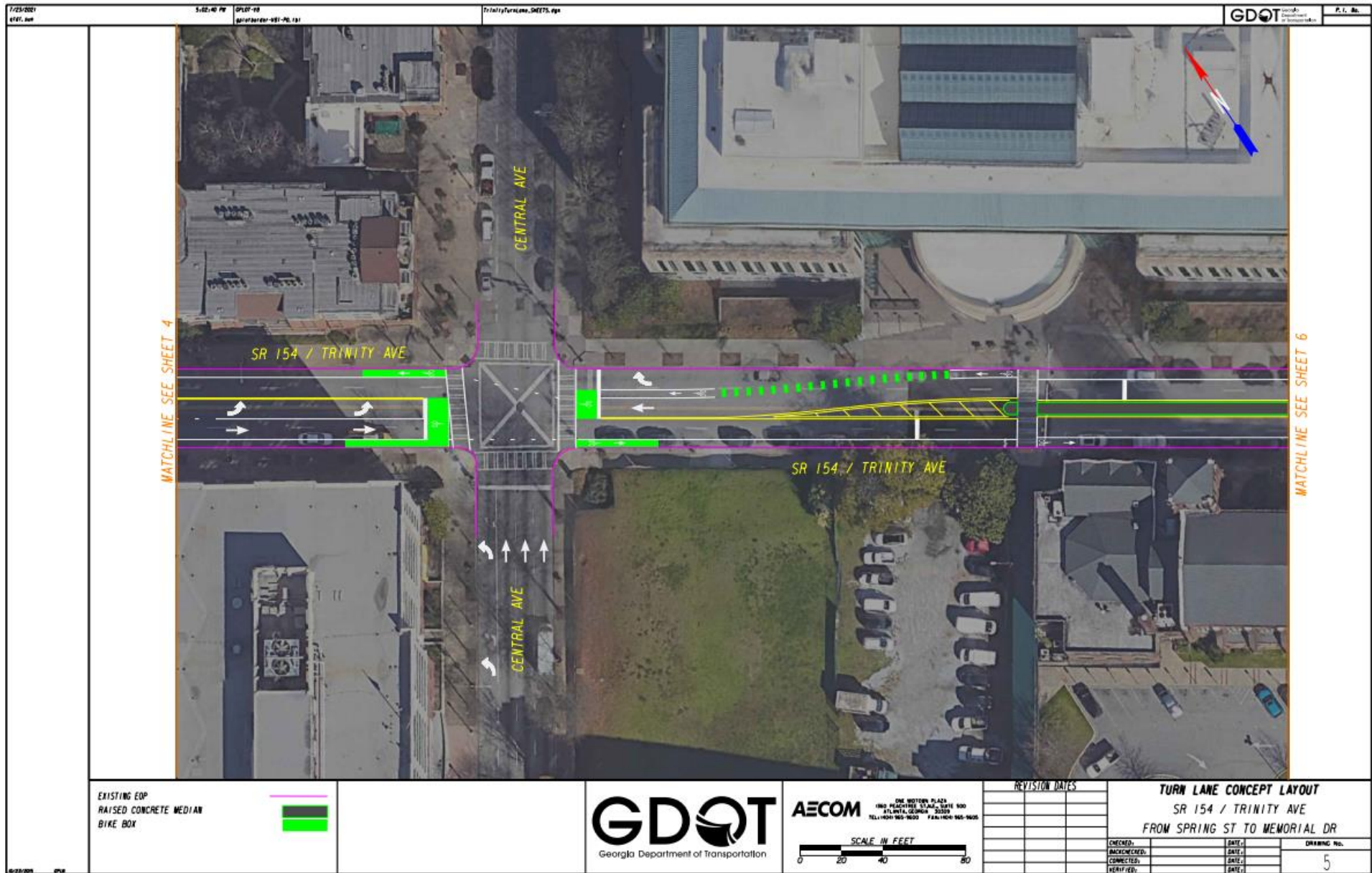
US 278 / US 78 / SR 8 / DONALD LEE HOLLOWELL PKWY

US 278 / US 78 / SR 8 / DONALD LEE HOLLOWELL PKWY



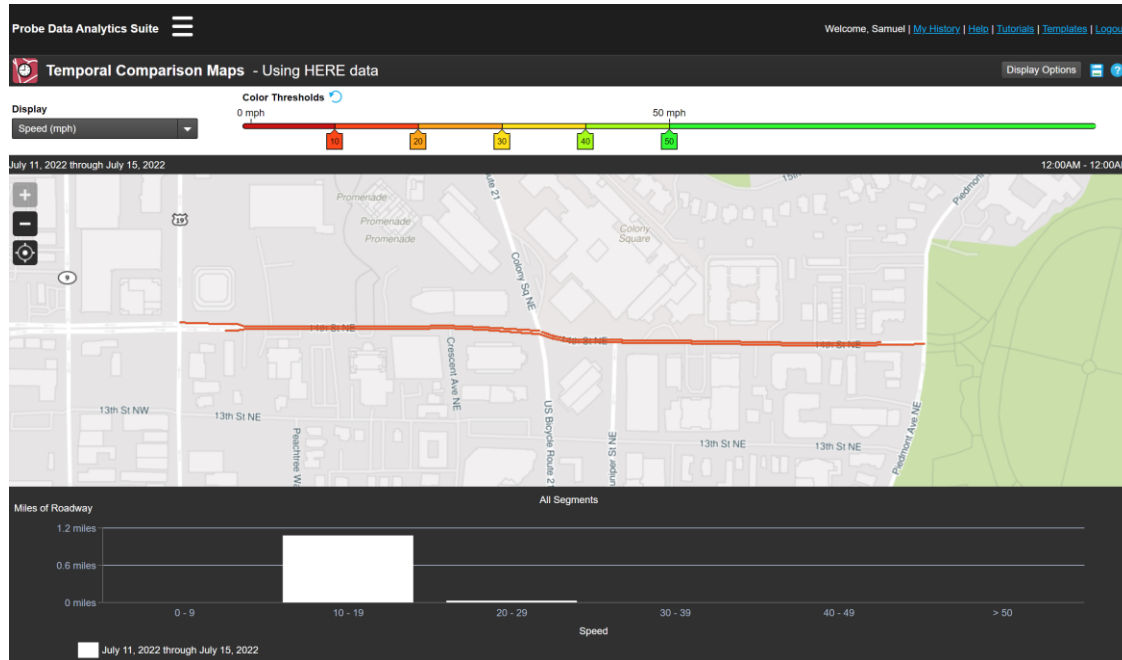
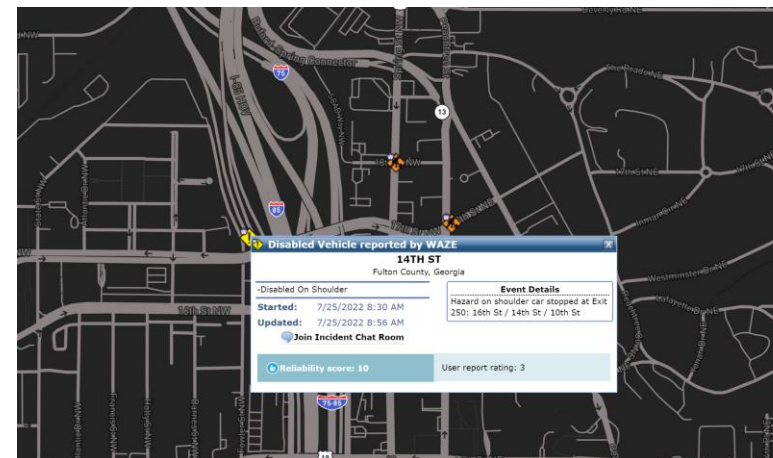




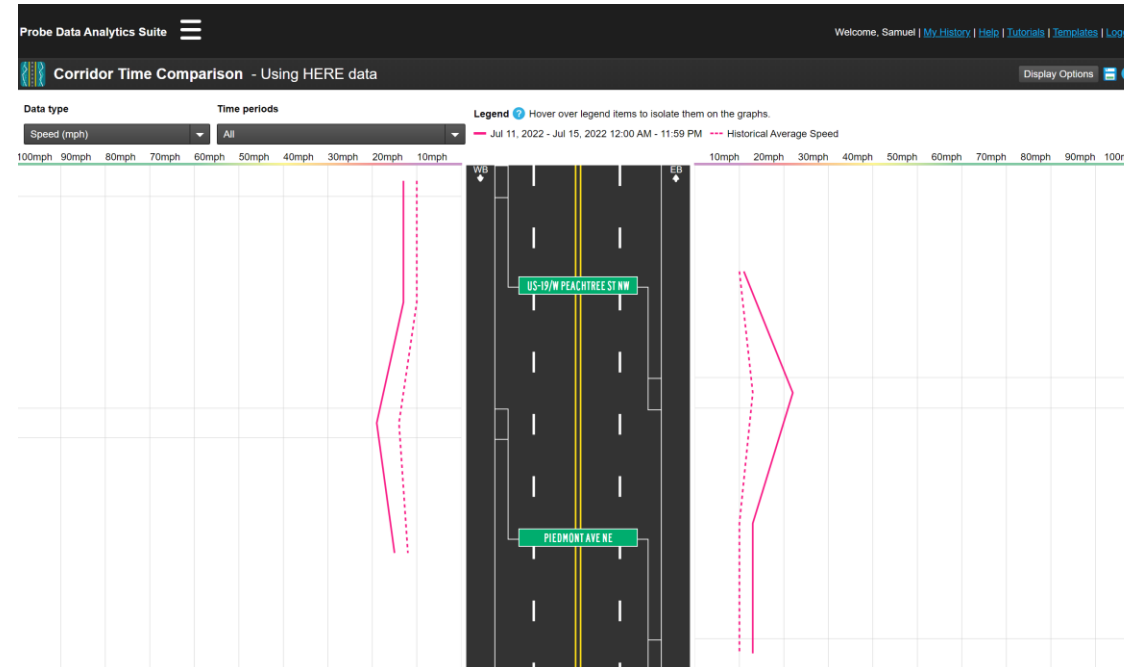


# Lessons Learned

- Recent Waze Enhancements
- Temporal Comparison Maps
  - Travel time
  - Speed
- Corrdior Speed Graphs



July 28, 2022





## Three Takeaways

1. What is the GDOT Safety Program?
2. Congestion scans be used to justify safety projects
3. High-level data analysis can be used to program projects







# Questions?

**Samuel Harris, PE**

**GDOT State Safety Engineering Manager**

**[sharris@dot.ga.gov](mailto:sharris@dot.ga.gov)**

# Freight Rerouting For An 4-hour Closure Of I-95 In Baltimore

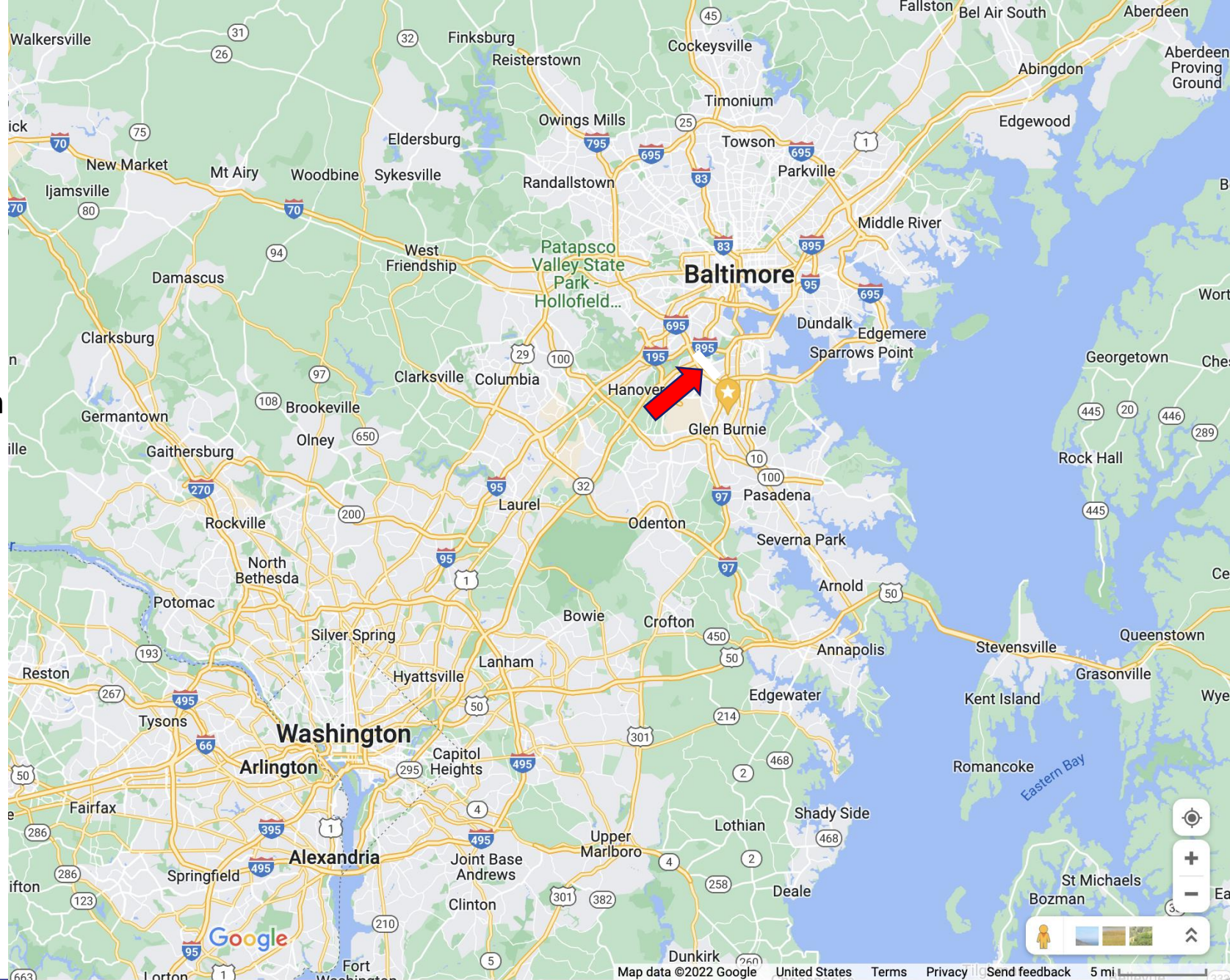


**Michael Pack**  
UMD CATT Lab  
*Director*

# TSMO use-case for Trips Analytics: Freight Rerouting For a 4-hour Closure of I-95 in Baltimore

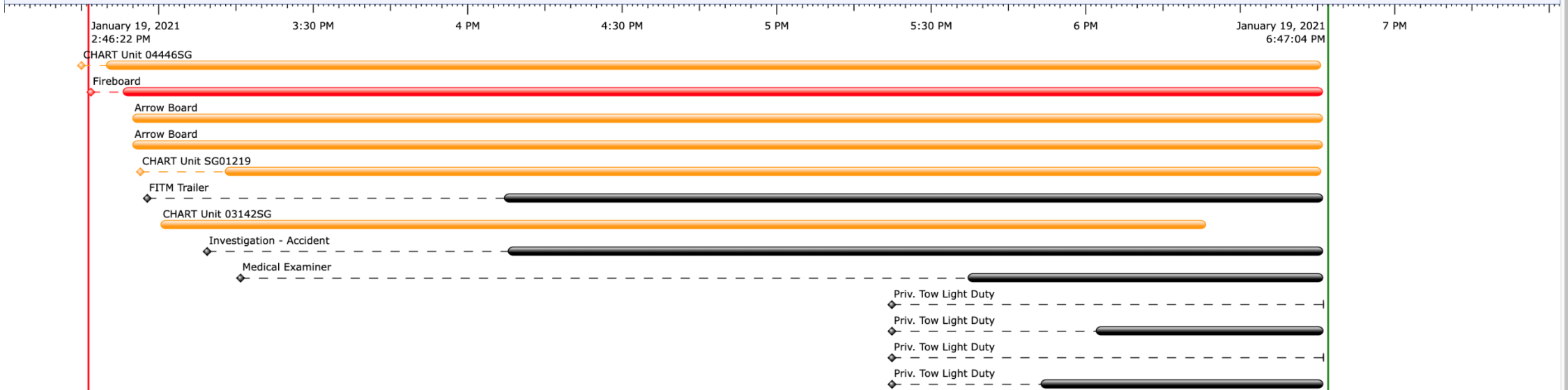
Review of I-95 closure Tuesday January 19, 2021  
NB just S. of I-695, all lanes closed ~2:45 to ~6:45 p.m.

Tuesday  
January 19, 2021  
I-95 NB  
all lanes closed  
~2:45 to ~6:45 pm

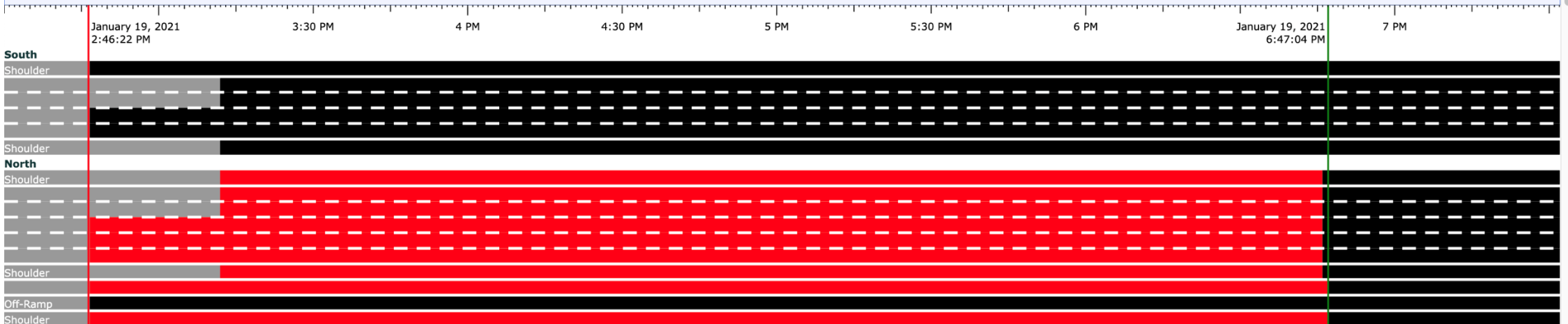


## ► Traffic management center communications

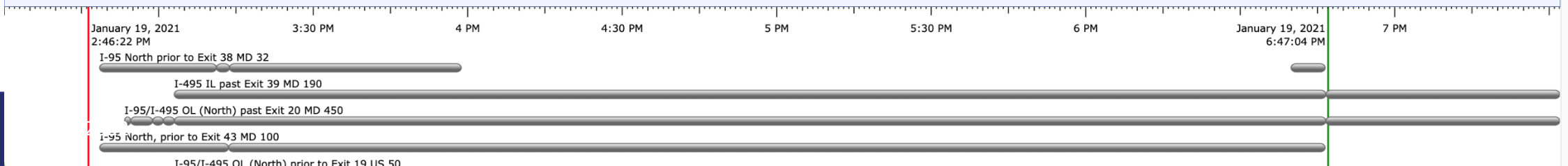
## ▼ Notifications and responders



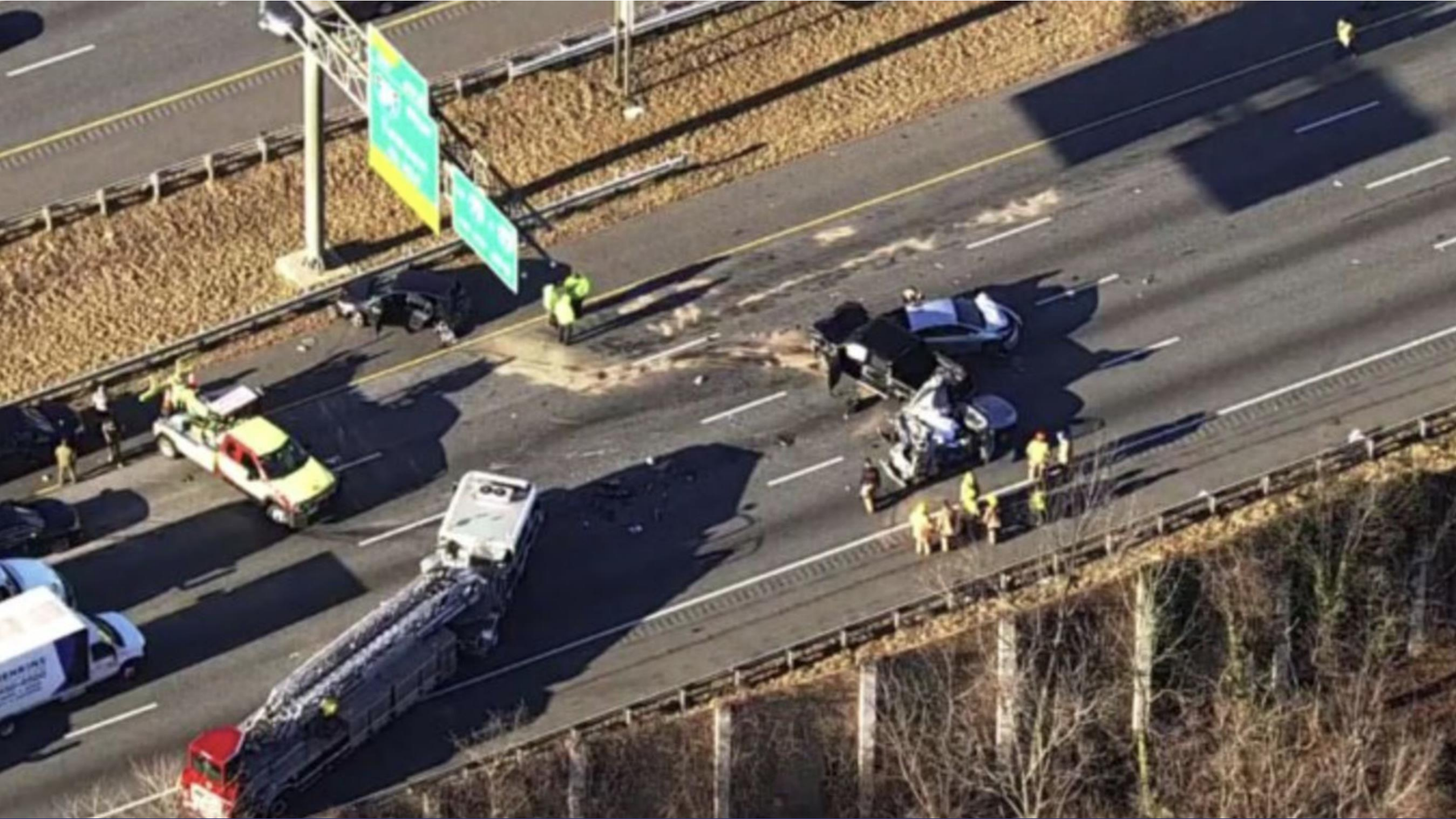
## ▼ Lane Status



## ▼ Overhead sign messages









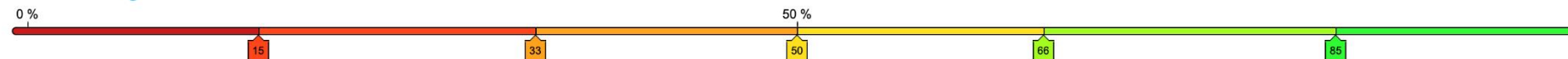
# Trend Map - Using INRIX XD data

Display Options Open with...

Display

Congestion (%)

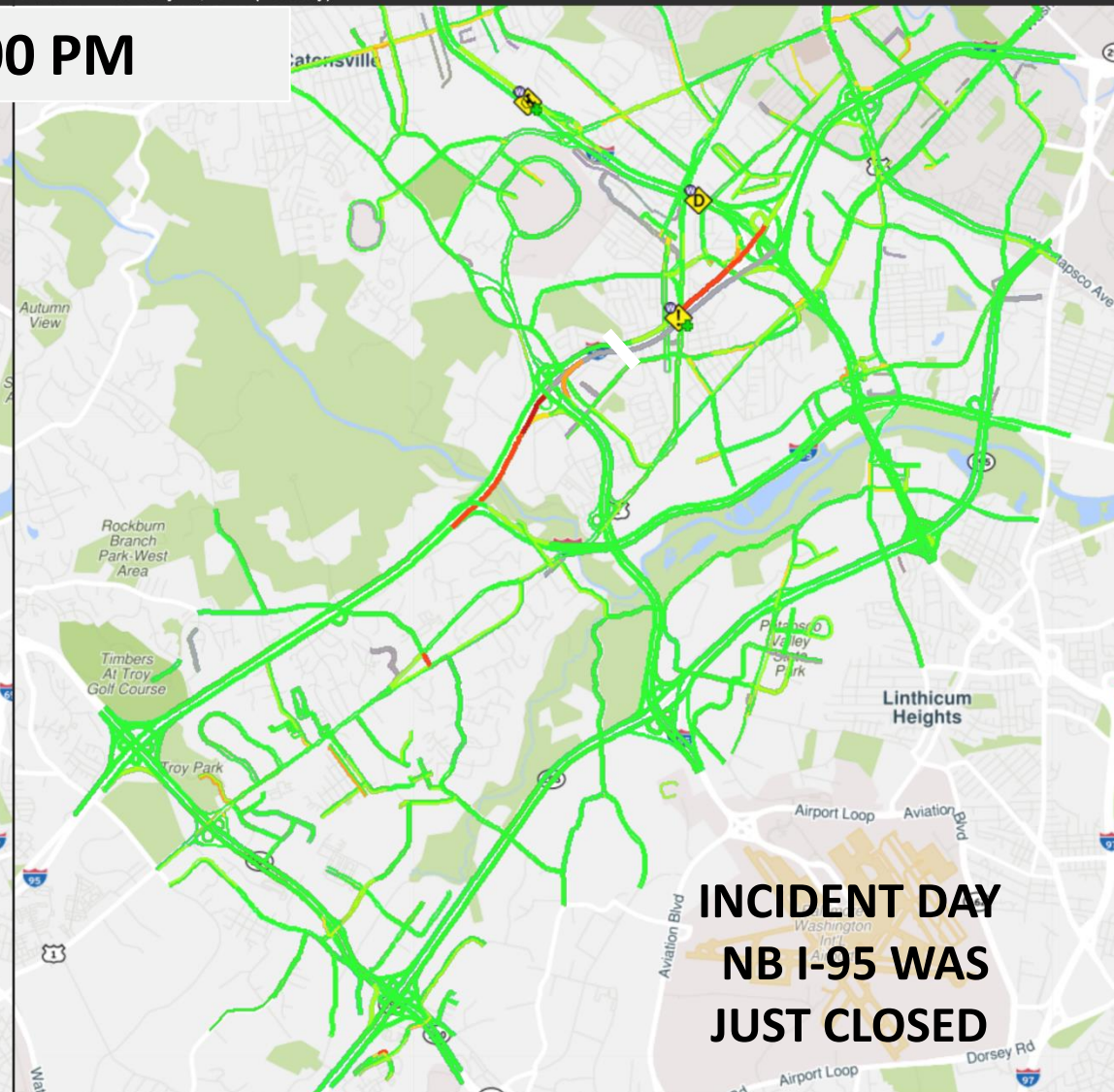
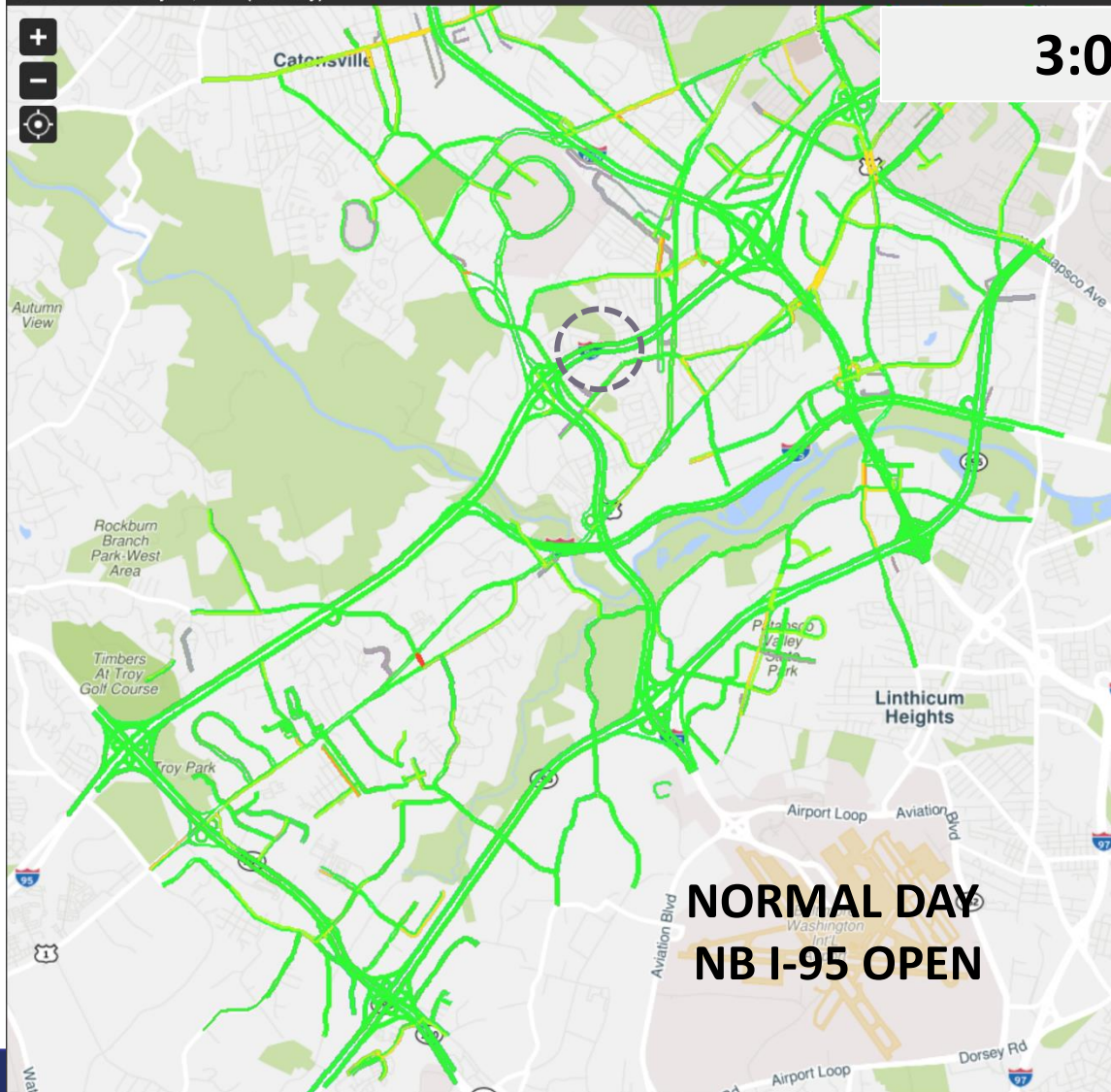
Color Thresholds



03:00 PM - January 12, 2021 (Tuesday)

03:00 PM - January 19, 2021 (Tuesday)

3:00 PM





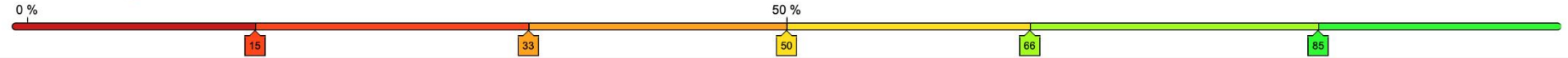
# Trend Map - Using INRIX XD data

Display Options Open with...

Display

Congestion (%)

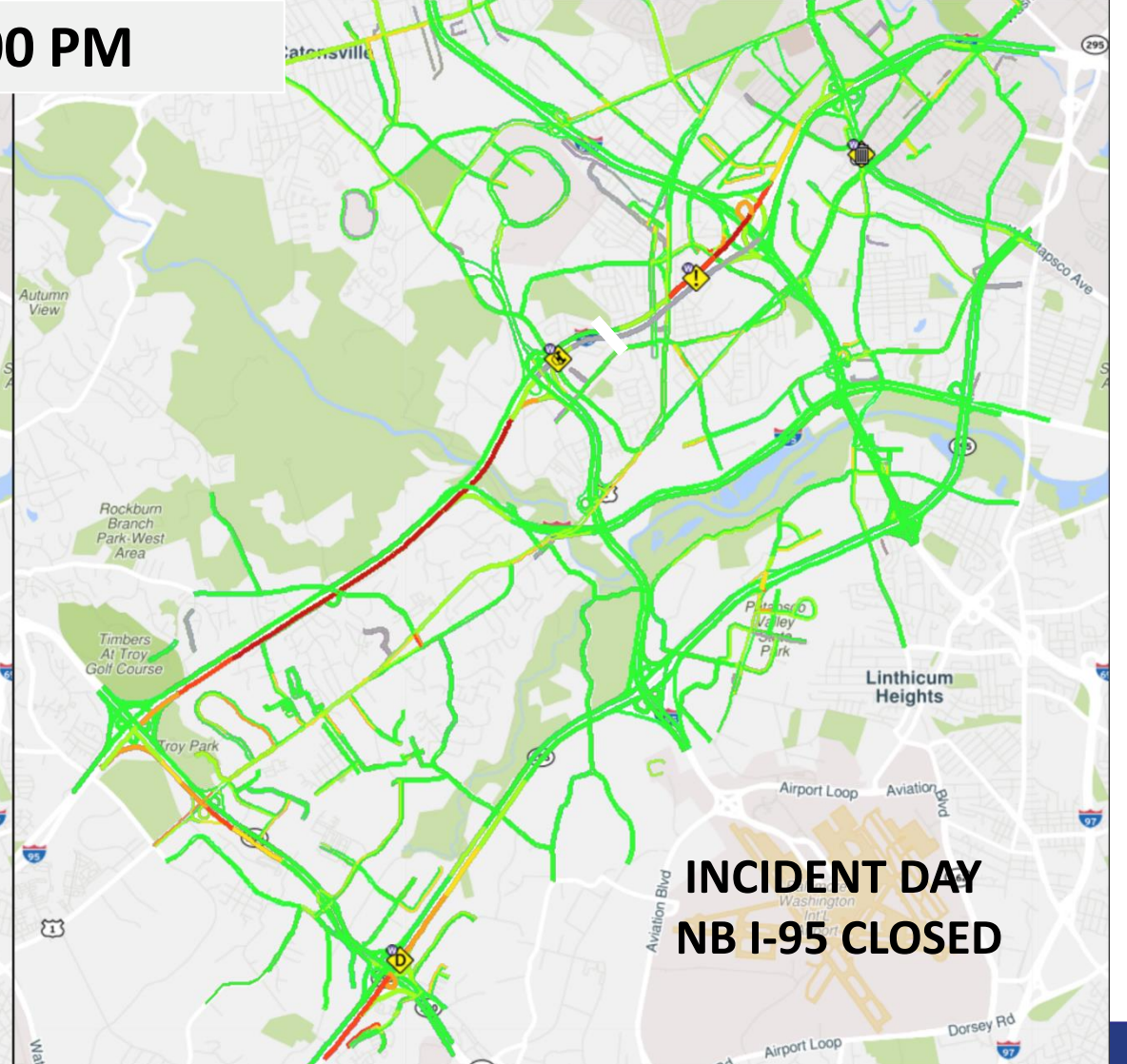
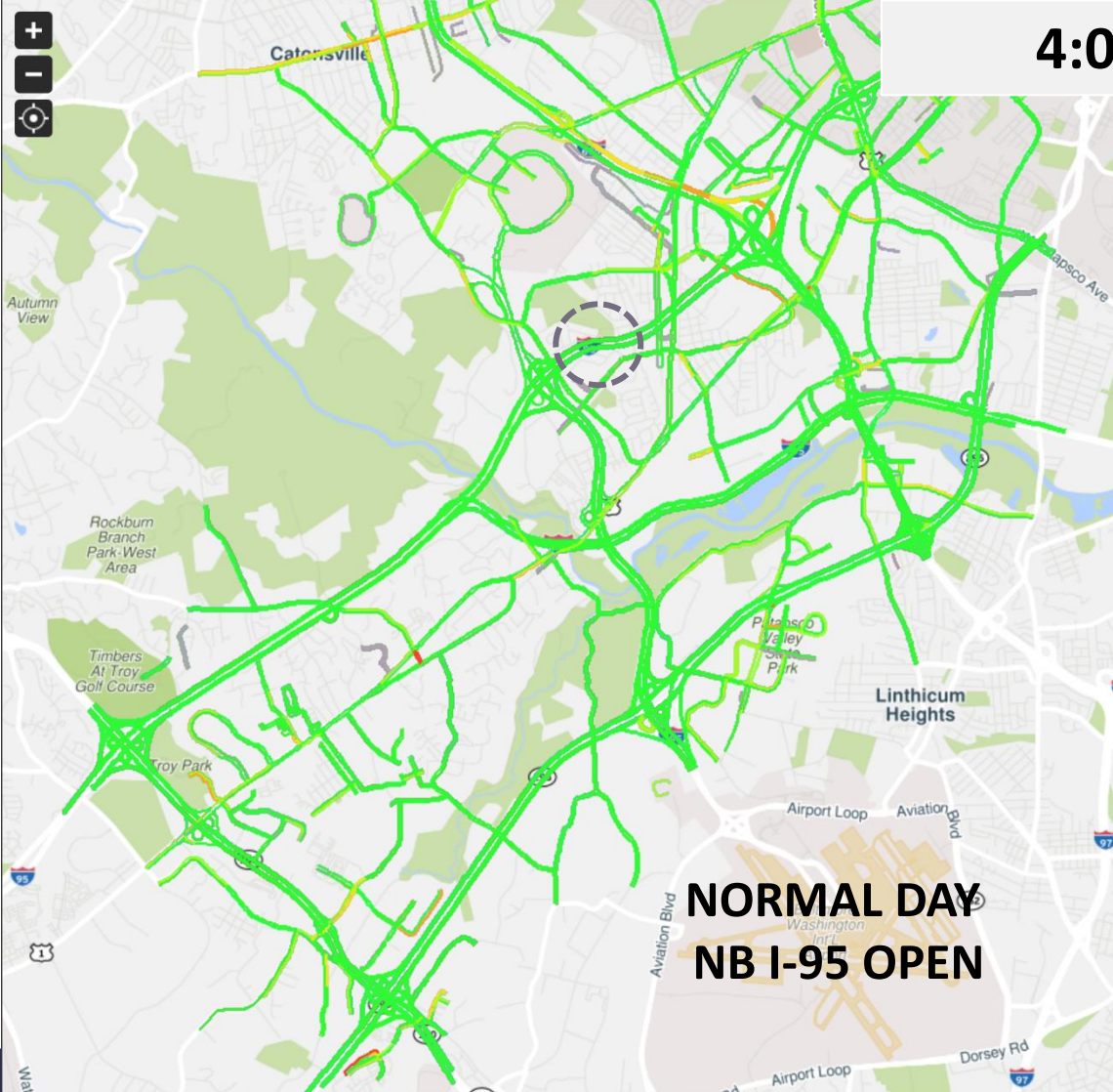
Color Thresholds



04:00 PM - January 12, 2021 (Tuesday)

04:00 PM - January 19, 2021 (Tuesday)

4:00 PM





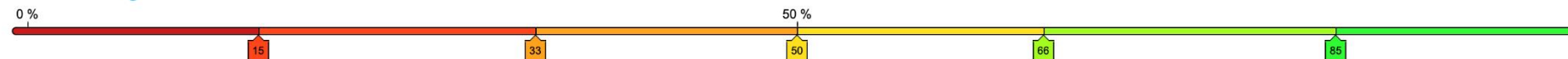
# Trend Map - Using INRIX XD data

Display Options Open with...

Display

Congestion (%)

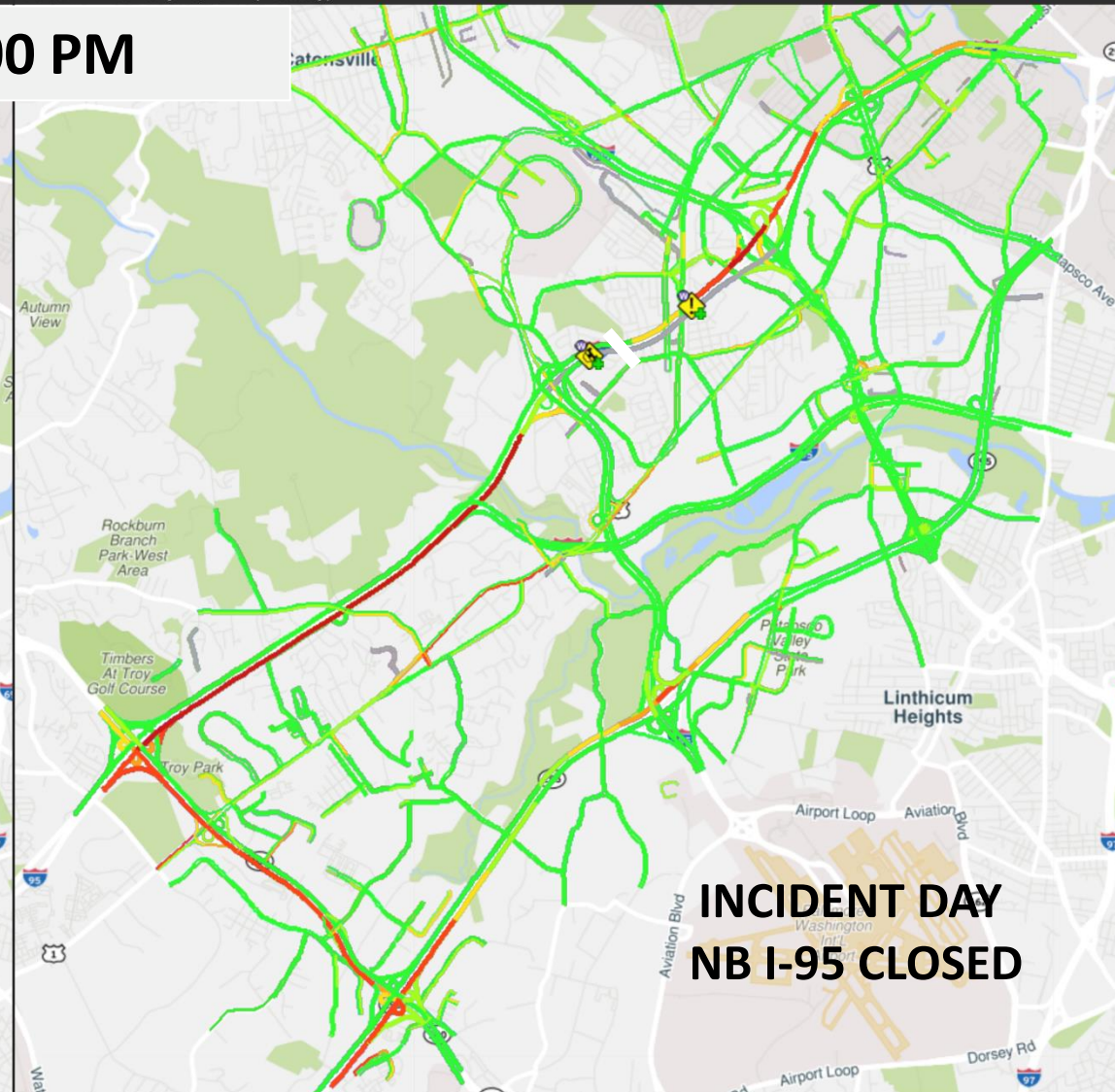
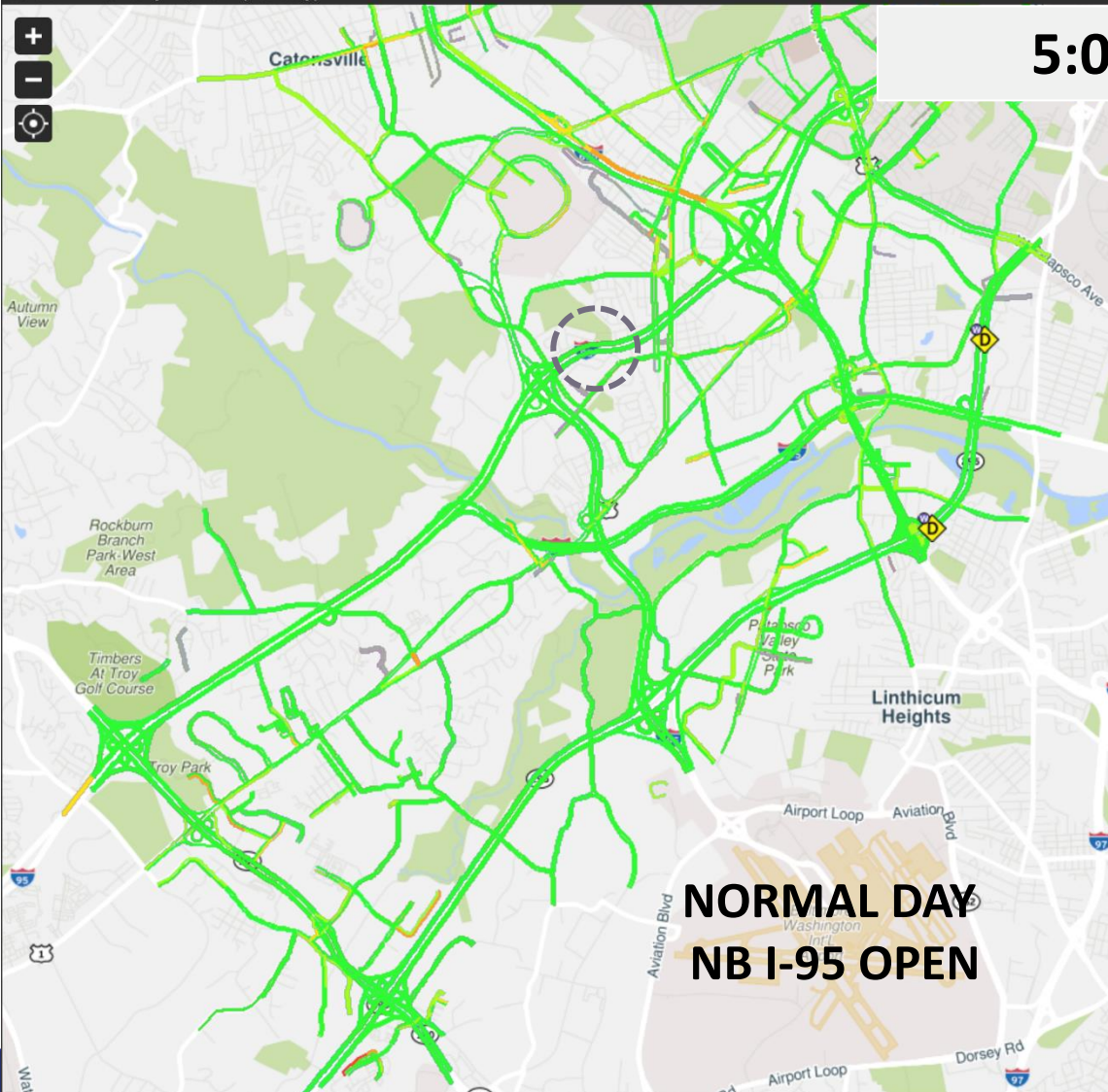
Color Thresholds



05:00 PM - January 12, 2021 (Tuesday)

05:00 PM - January 19, 2021 (Tuesday)

5:00 PM





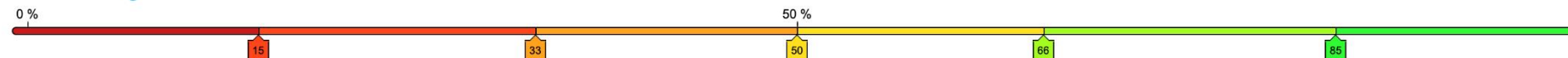
# Trend Map - Using INRIX XD data

Display Options Open with...

Display

Congestion (%)

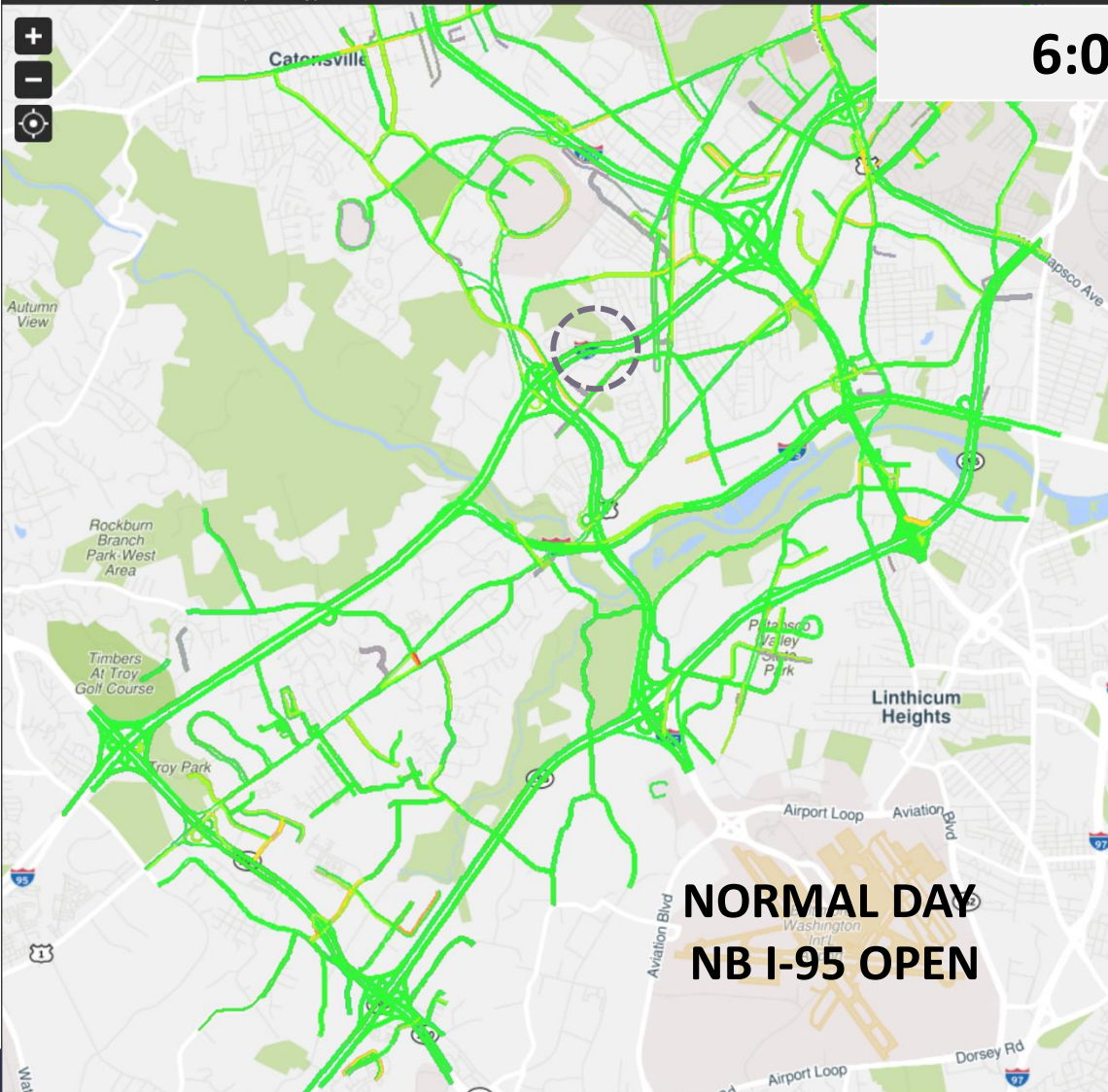
Color Thresholds



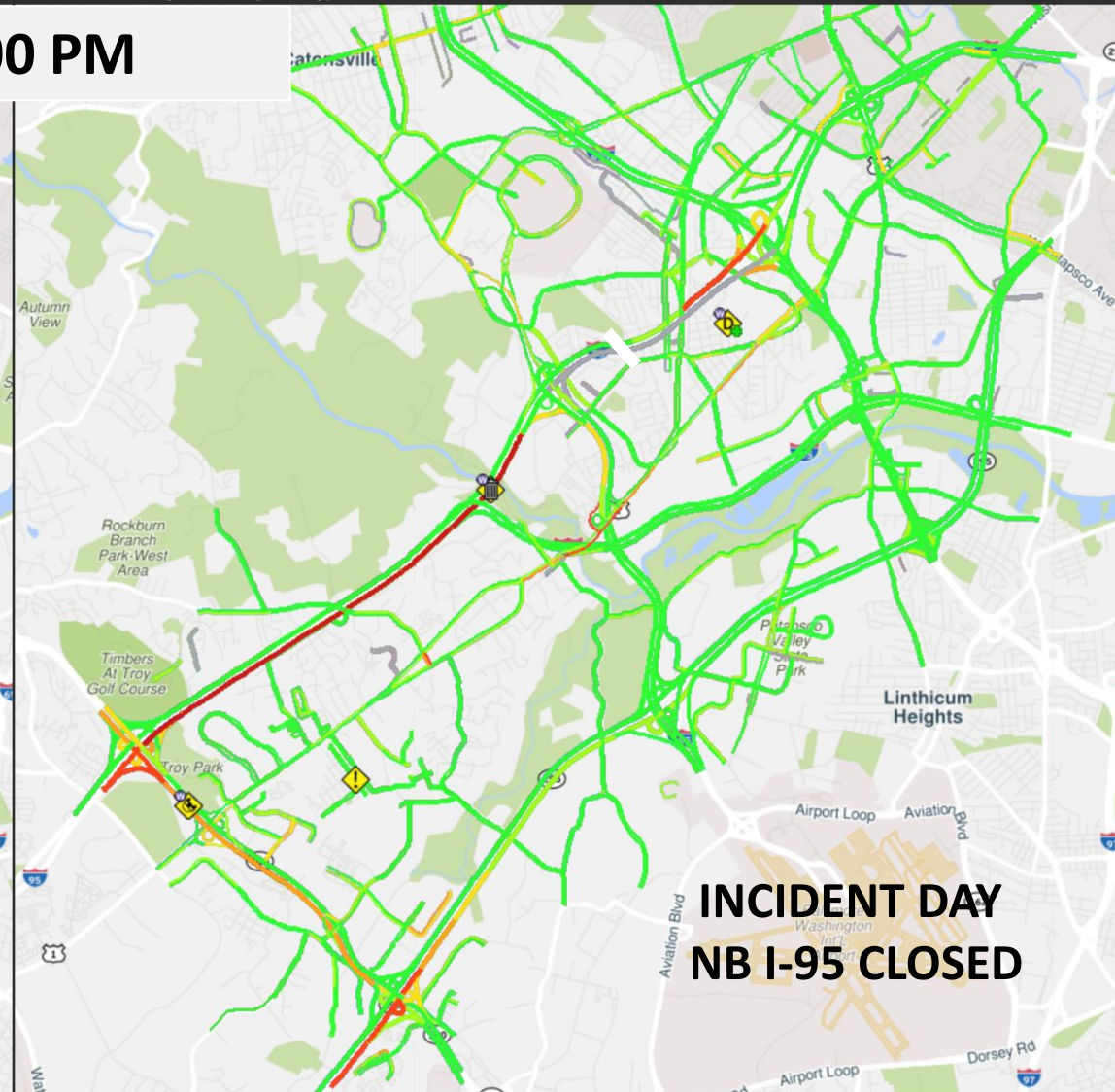
06:00 PM - January 12, 2021 (Tuesday)

06:00 PM - January 19, 2021 (Tuesday)

6:00 PM



**NORMAL DAY**  
**NB I-95 OPEN**



**INCIDENT DAY**  
**NB I-95 CLOSED**



**Trend Map** - Using INRIX XD data

Display Options

Open with...



Display

Congestion (%)

Color Thresholds

0 %

50 %

15

33

50

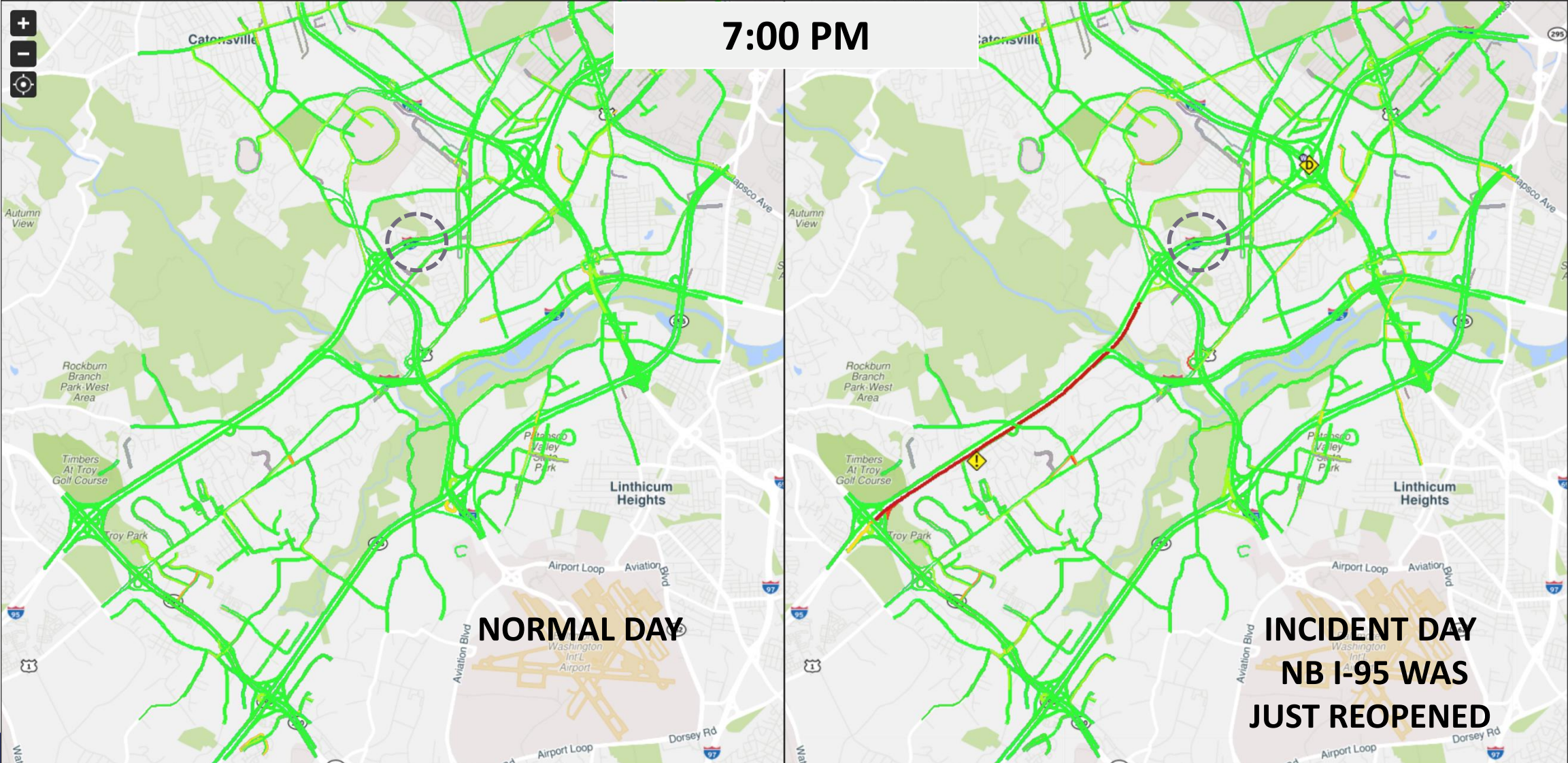
66

85

07:00 PM - January 12, 2021 (Tuesday)

07:00 PM - January 19, 2021 (Tuesday)

7:00 PM

**NORMAL DAY****INCIDENT DAY  
NB I-95 WAS  
JUST REOPENED**

07:00 PM

11:50 PM at 10 minute intervals



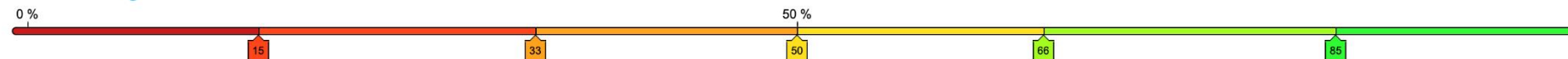
# Trend Map - Using INRIX XD data

Display Options Open with...

Display

Congestion (%)

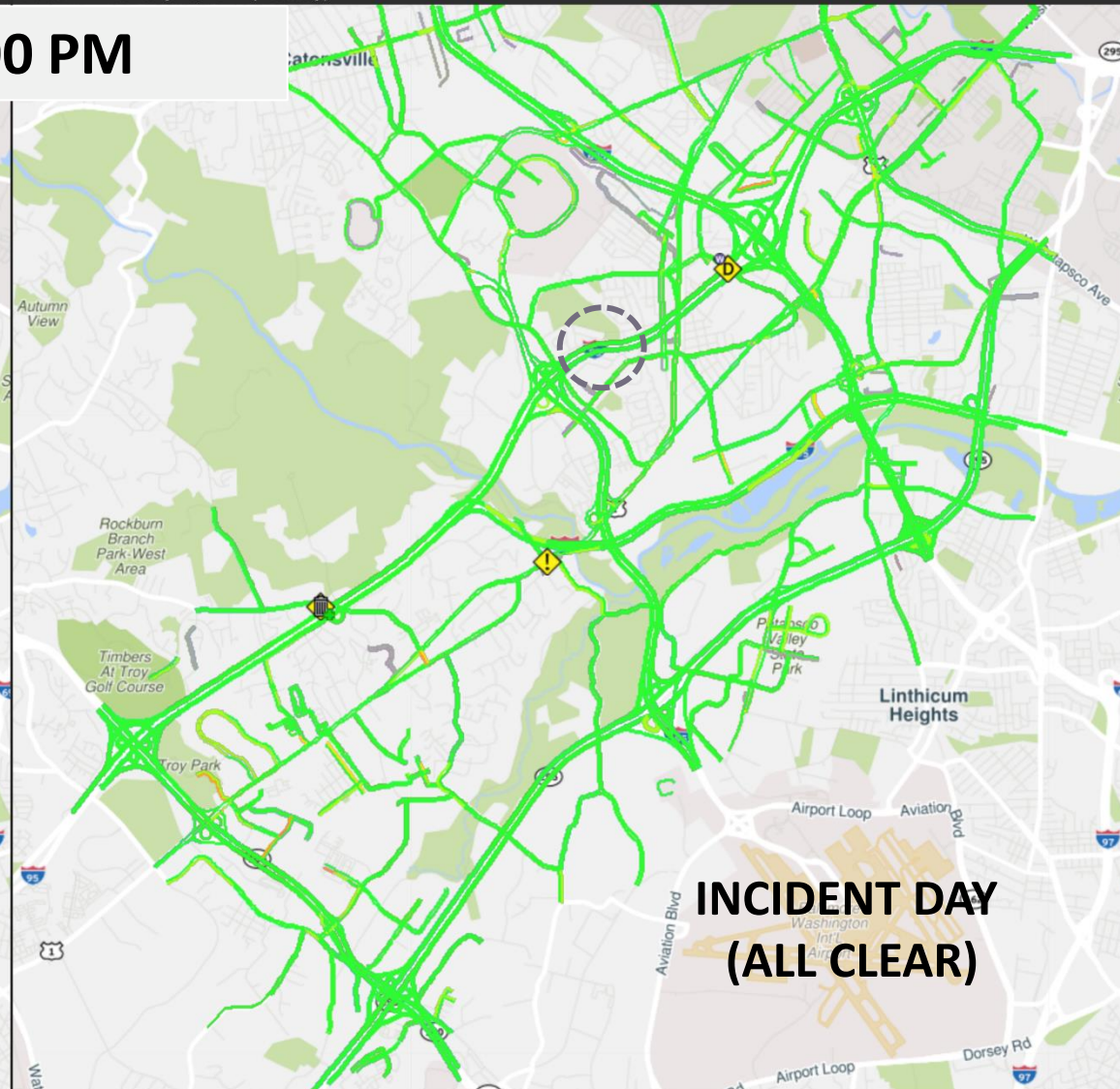
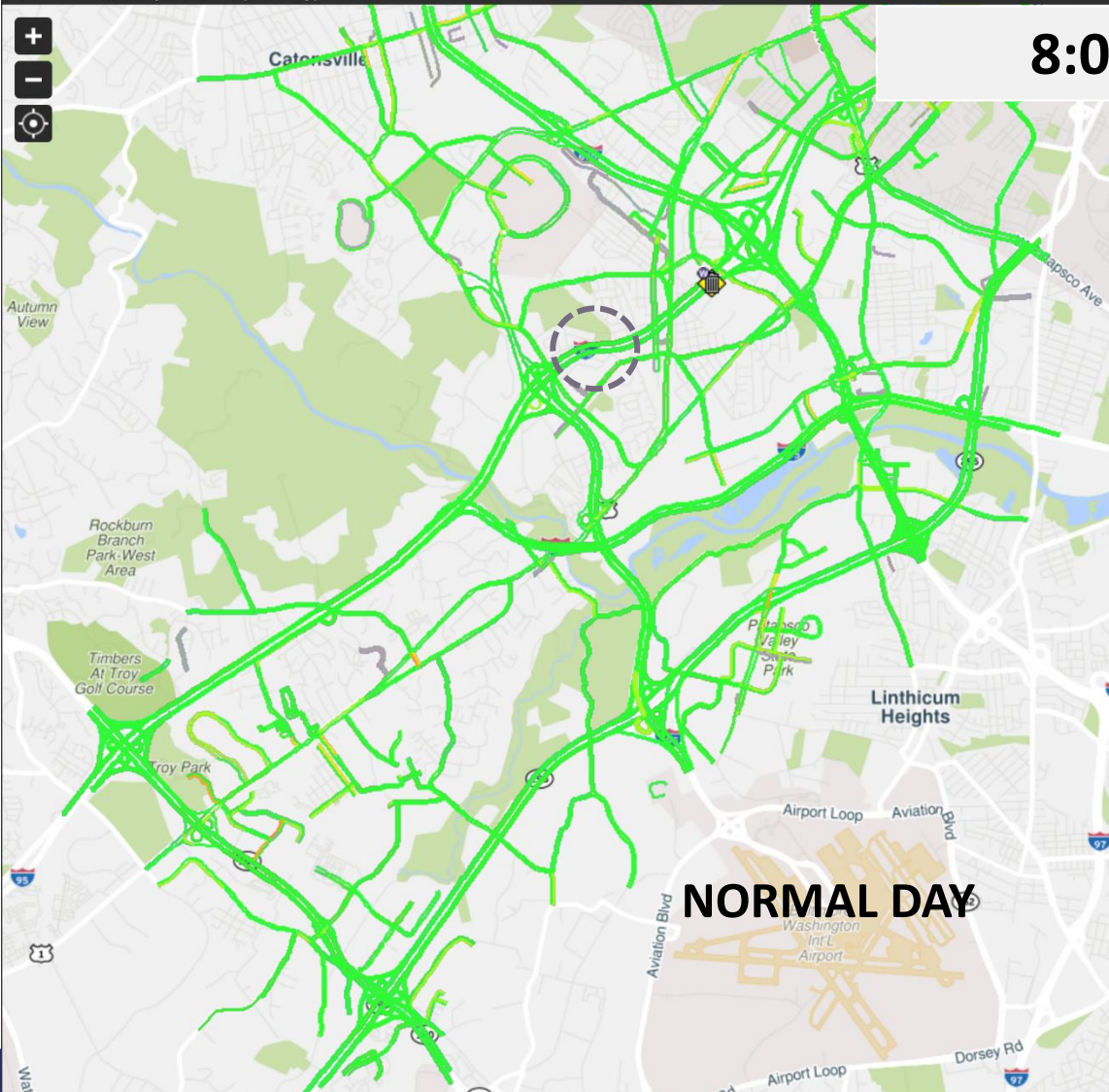
Color Thresholds



08:00 PM - January 12, 2021 (Tuesday)

08:00 PM - January 19, 2021 (Tuesday)

8:00 PM





## 2. Set Filters and Submit Query

### ▼ Set Spatial Filter(s)

#### ► Spatial Filter 1

☒ From ☐ To

Use a custom area as a Spatial Filter: MD 2021-01-19 Sampling line south V2.geojson

Include trips that:

- ☐ Started Inside  
☒ Started Outside

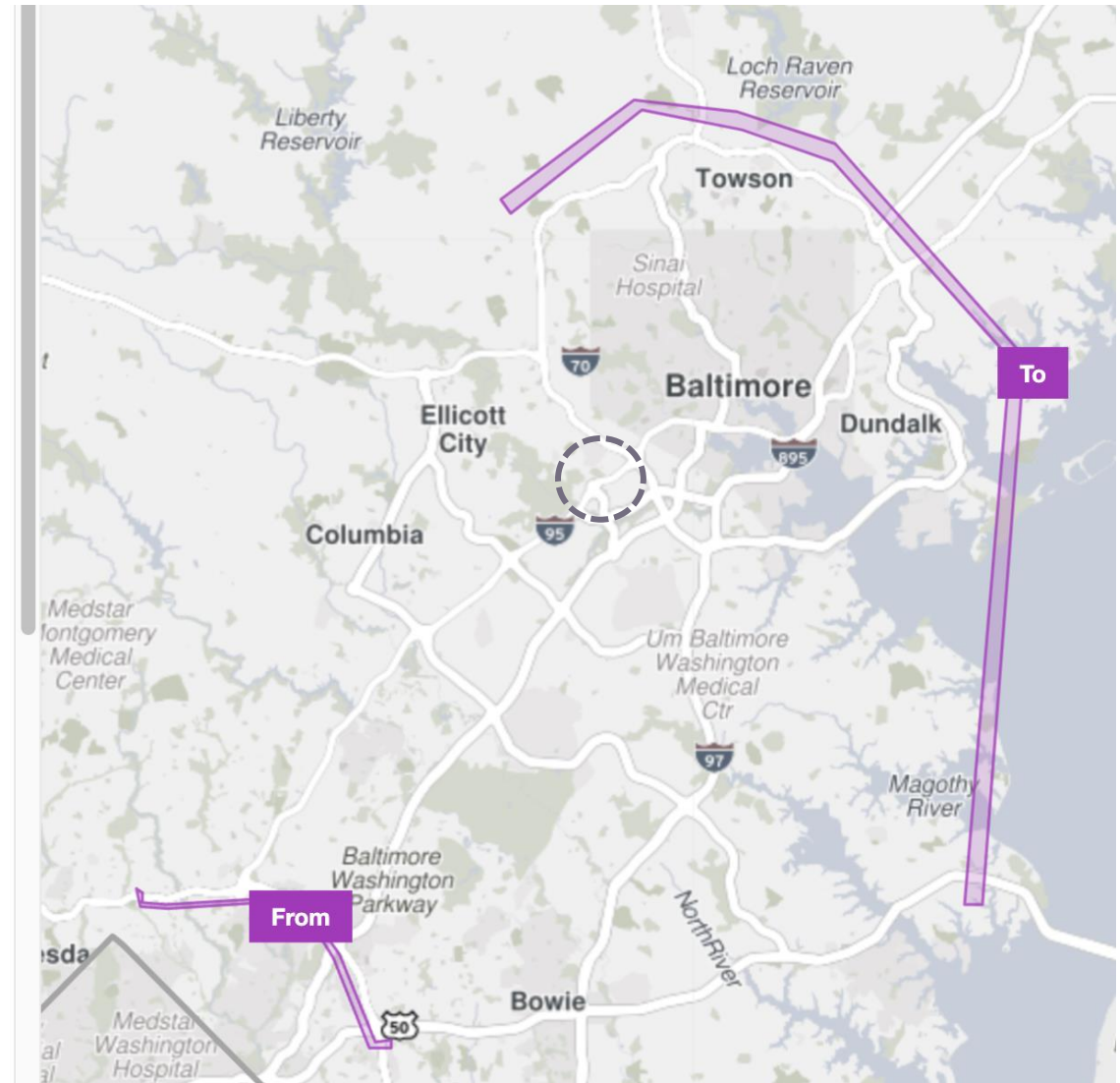
#### ► Spatial Filter 2

☐ From ☒ To

Use a custom area as a Spatial Filter: MD 2021-01-19 Sampling line north V2.geojson

Include trips that:

- ☐ Ended Inside  
☒ Ended Outside



## Truck crash detour in MD

Data Set: Maryland  
(Freight-only after 2019)

Study Area: Unbounded

Internal Zones: Counties

Spatial Filter: 2 custom areas in Maryla...

Temporal Filter: 1/26/2021 - 1/26/2021

Other Filters: Vehicle type: Medium, He...

184 trips in 184 routes

Display Options

OPEN AS...

EXPORT

## Screen line summary

## Screen line summary

Crossing	# Trips*	% Trips
B <input checked="" type="checkbox"/> I 95	111	60%
A <input checked="" type="checkbox"/> John Hanson Highway, US 50, US 301	50	27%
C <input checked="" type="checkbox"/> Baltimore-Washington Parkway	10	5%
D <input checked="" type="checkbox"/> Columbia Pike, US 29	8	4%
E <input checked="" type="checkbox"/> Robert Crain Highway, MD 3	2	1%
G <input checked="" type="checkbox"/>	2	1%
F <input checked="" type="checkbox"/>	1	0.5%
H <input checked="" type="checkbox"/> I 95	1	0.5%
Total	185	100%

\*# Trips is the sum of displayed routes through each crossing. Routes not shown on map are not included.

Warning! Route 24 crosses the screen line more than once, inflating trip count

## Coordinates:

(39.19474, -76.91551), (39.00939, -76.66147), (38.93201, -76.65529), (38.93522, -76.64842)

Replace coordinates

User clicked here to turn  
underlying routes blue

NORMAL  
DAY



## Truck crash detour in MD

Study Area: Unbounded

Spatial Filter: 2 custom areas in Maryla...

Data Set: Maryland  
(Freight-only after 2019)

Internal Zones: Counties

Temporal Filter: 1/19/2021 – 1/19/2021

Other Filters: Vehicle type: Medium, He...

129 trips in 129 routes

Display Options

OPEN AS...

EXPORT

## Screen line summary

## Screen line summary

Crossing	# Trips*	% Trips
A <input checked="" type="checkbox"/> John Hanson Highway, US 50, US 301	57	44%
B <input checked="" type="checkbox"/> I 95	46	36%
C <input checked="" type="checkbox"/> Columbia Pike, US 29	11	9%
E <input checked="" type="checkbox"/> Baltimore-Washington Parkway	9	7%
F <input checked="" type="checkbox"/> Robert Crain Highway, MD 3	4	3%
D <input checked="" type="checkbox"/> Washington Boulevard, US 1	1	0.8%
G <input checked="" type="checkbox"/>	1	0.8%
Total	129	100%

\*# Trips is the sum of displayed routes through each crossing. Routes not shown on map are not included.

## Coordinates:

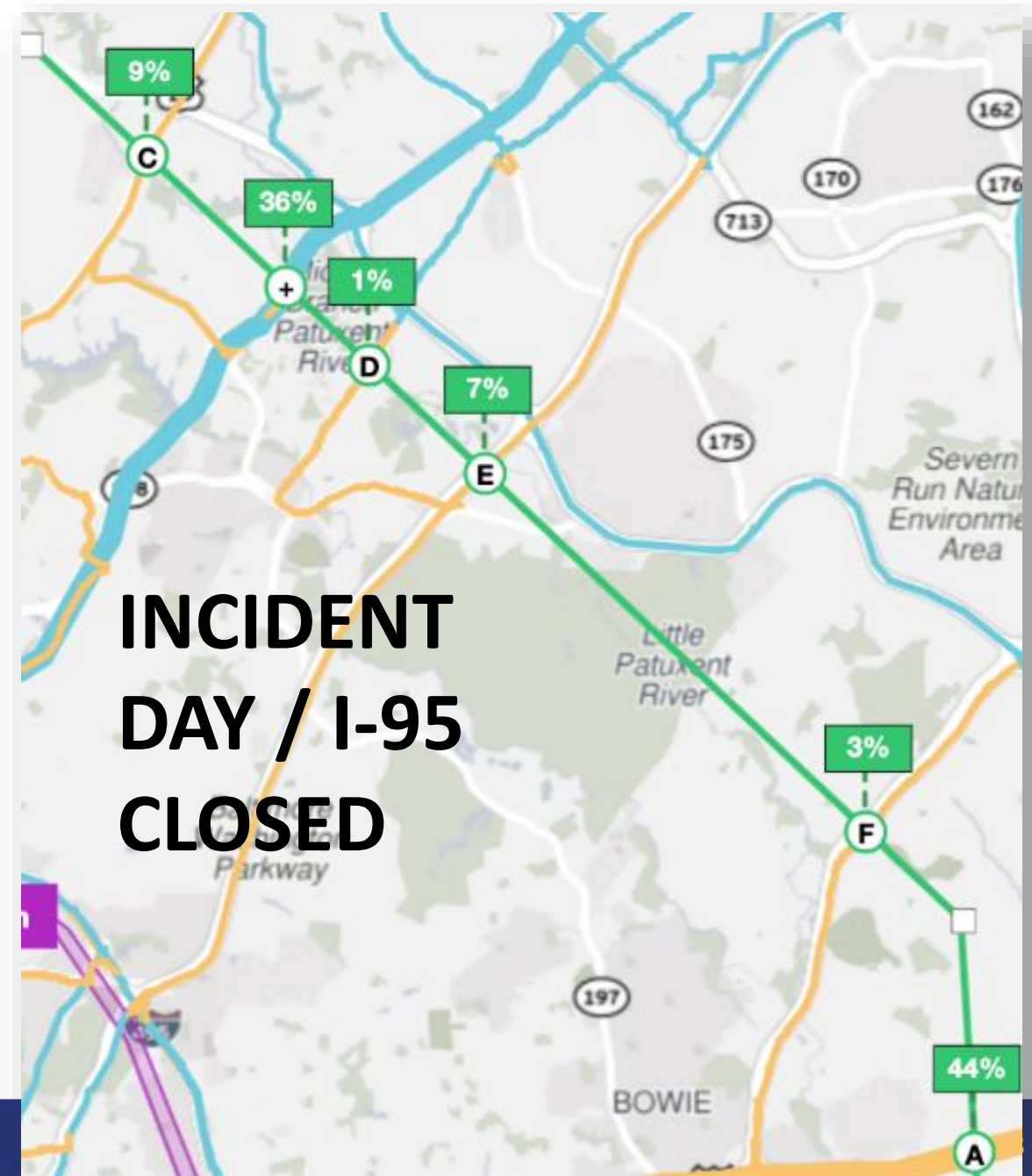
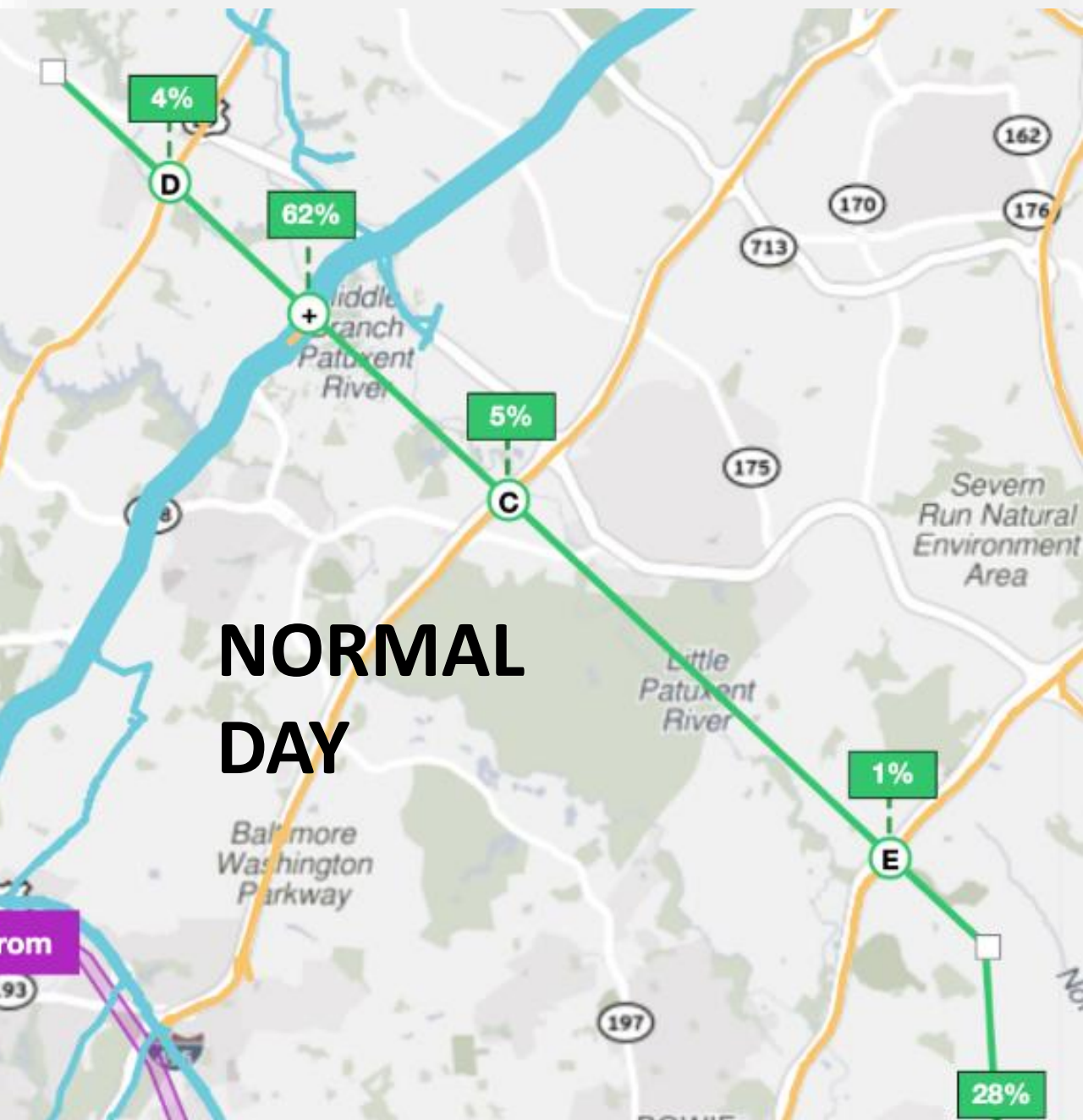
(39.19474, -76.91551), (39.00939, -76.66147), (38.93201, -76.65529), (38.93522, -76.64842)

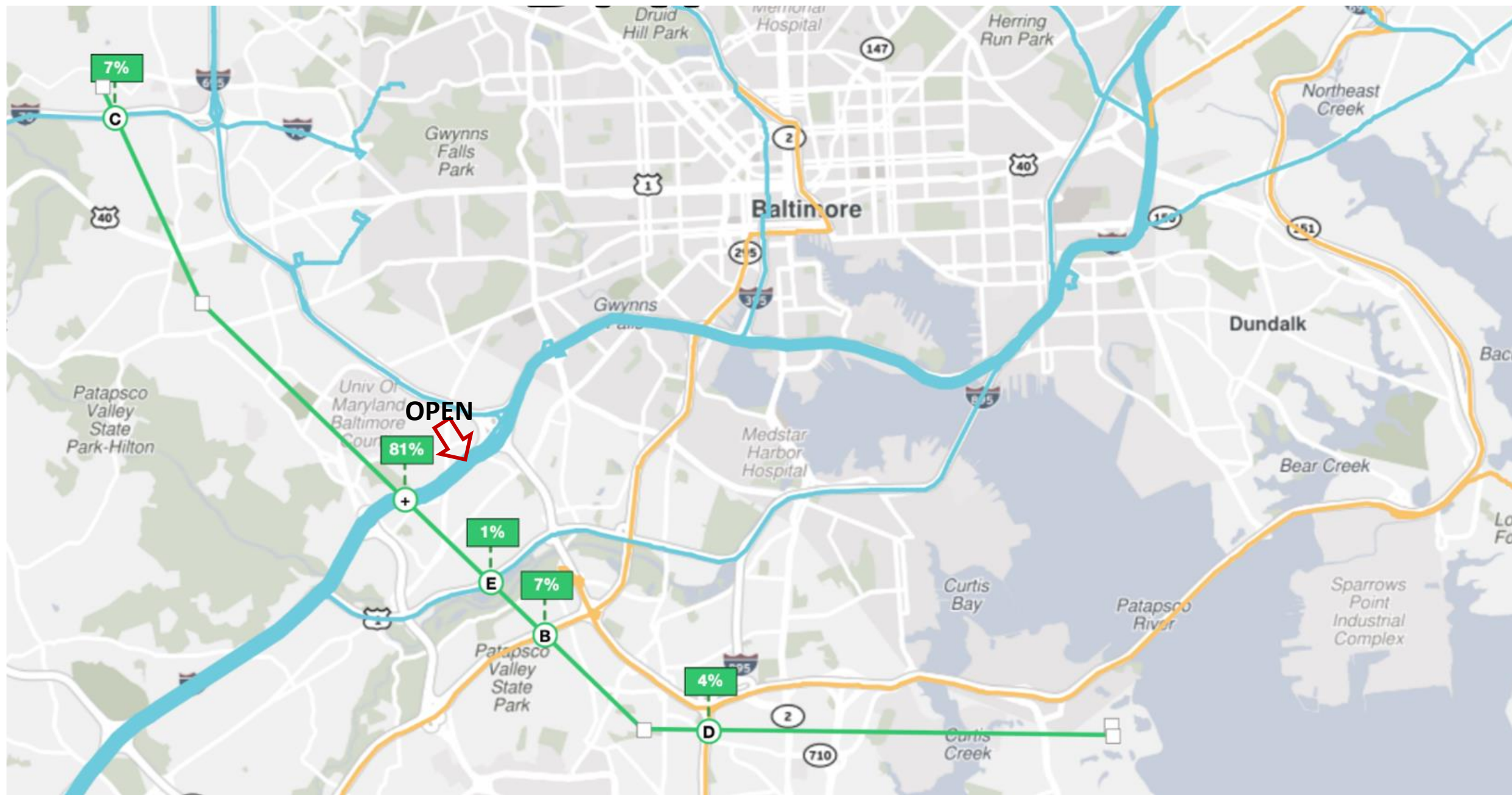
Replace coordinates

User clicked here to turn  
underlying routes blue

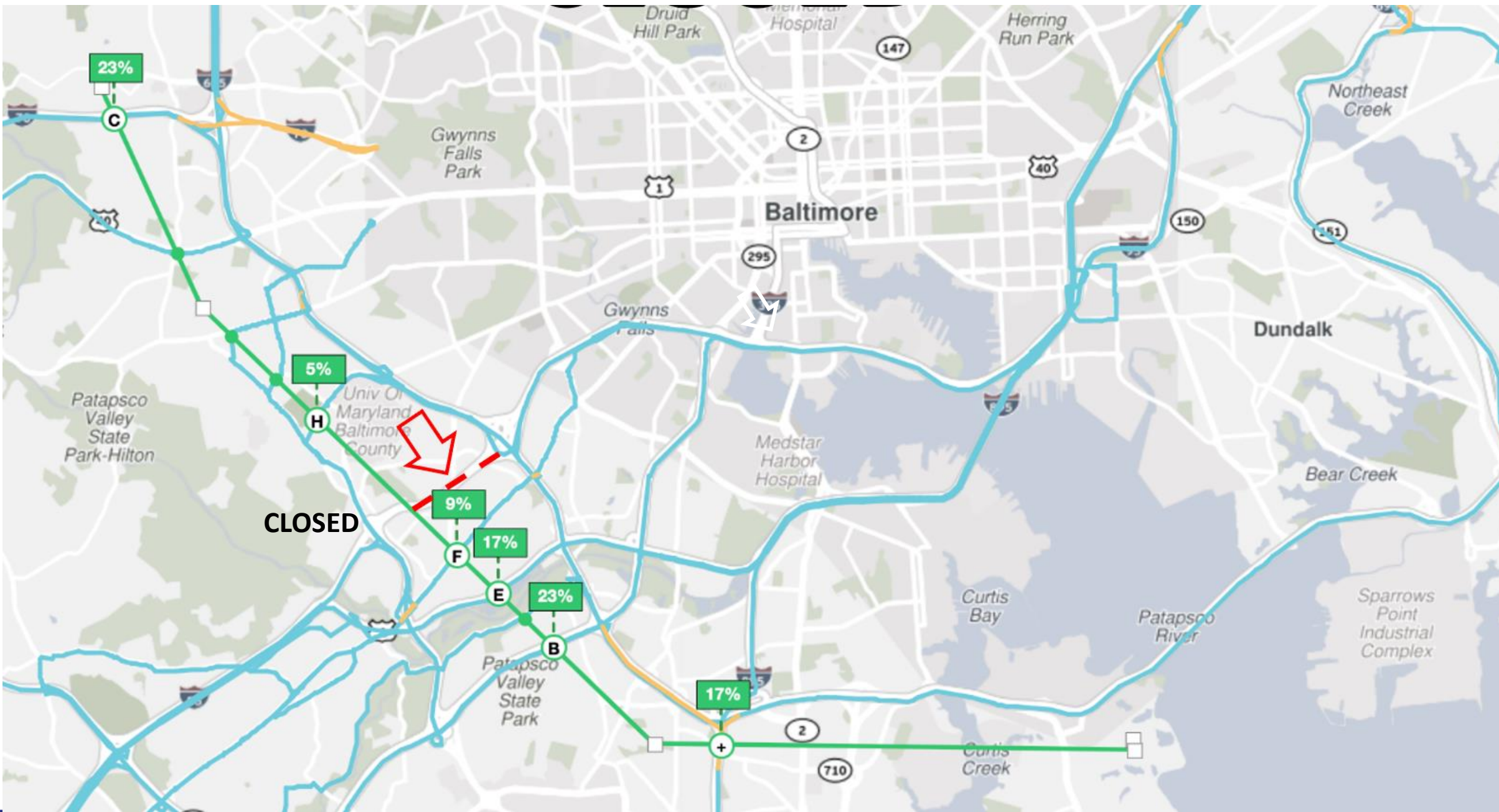
INCIDENT  
DAY / I-95  
CLOSED



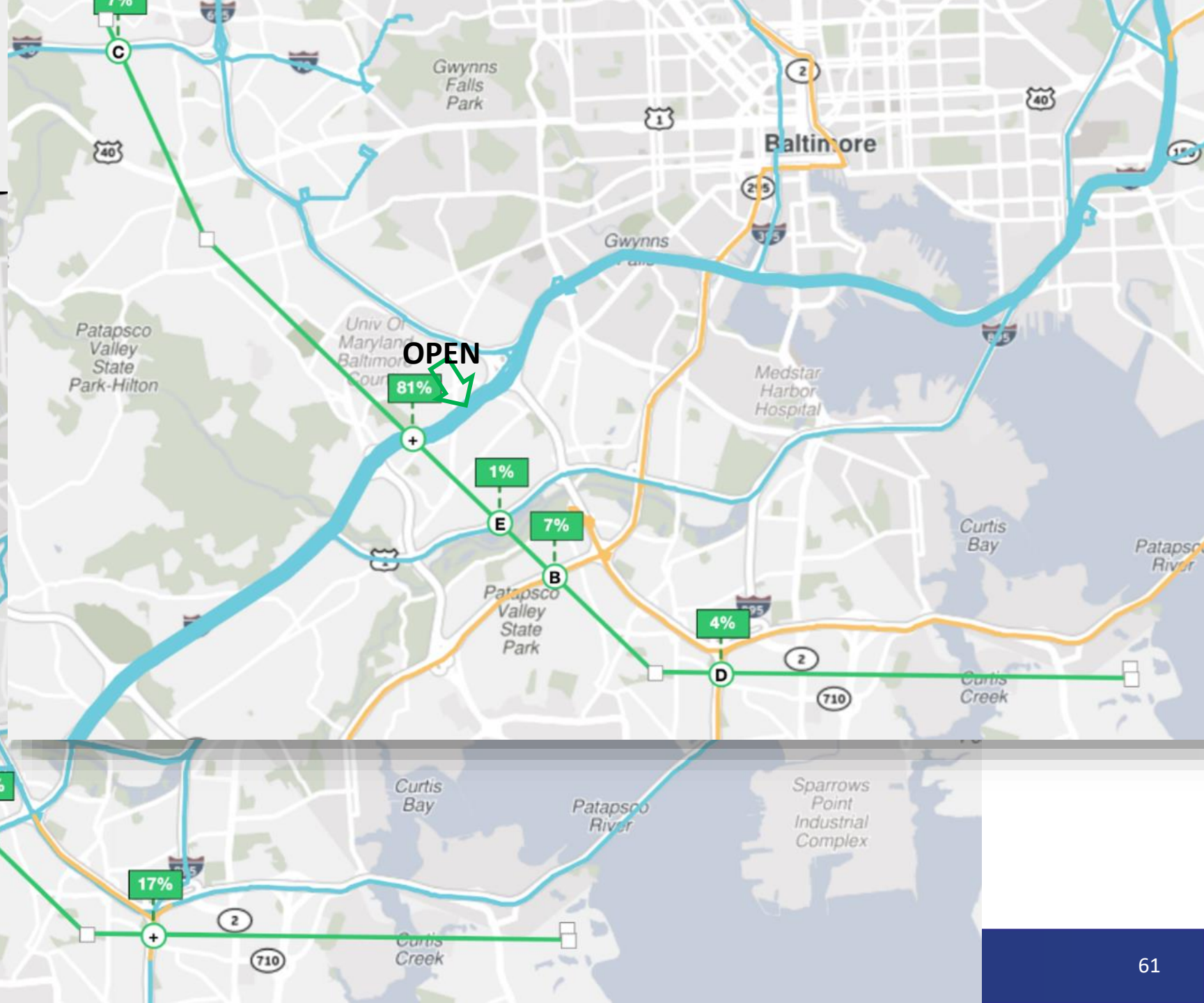
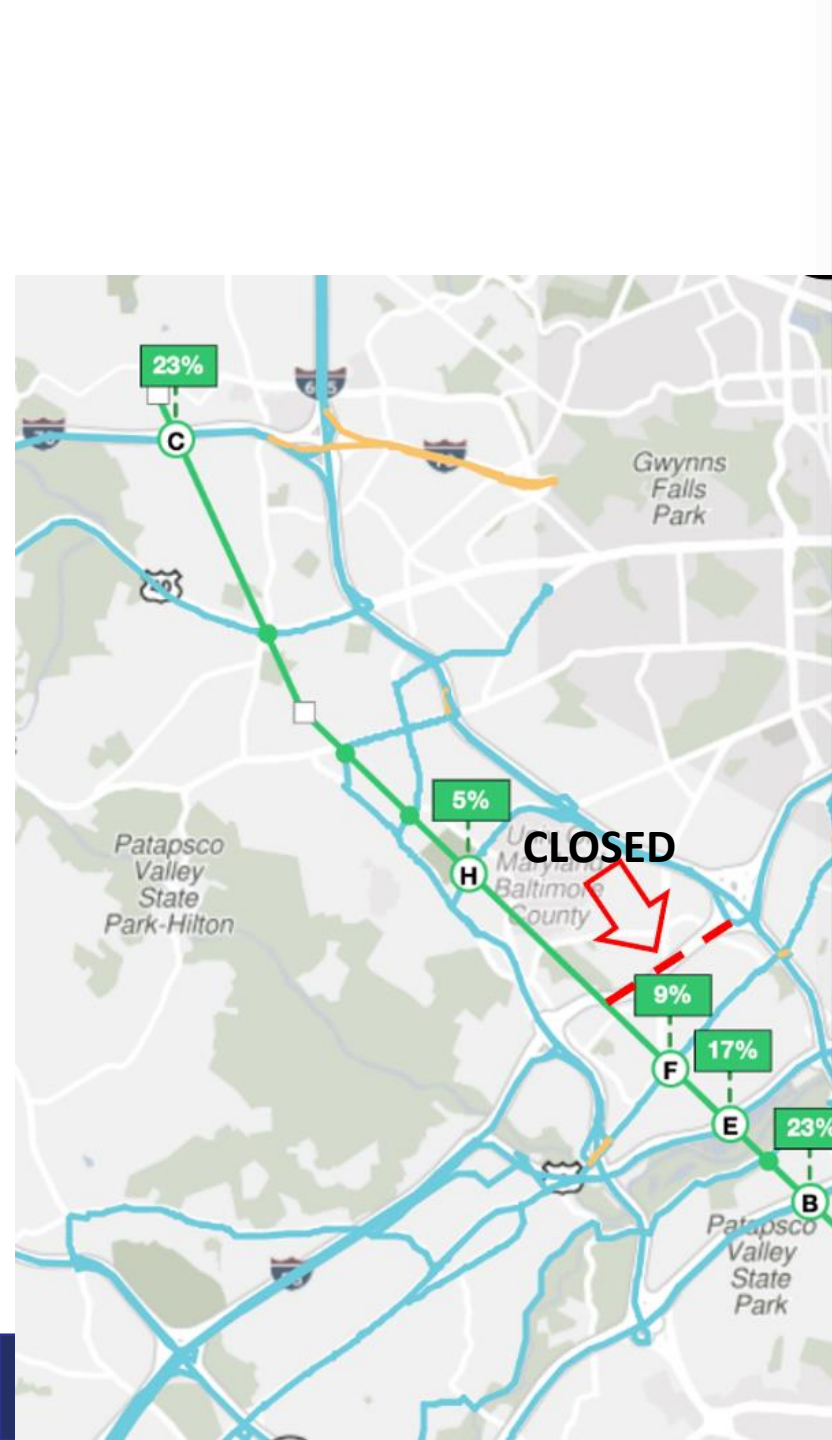












# Signal Analytics along the detour route





# Intersection Analysis

Analyze statistics on the number of vehicles that have passed through intersections to identify issues with signal timing.

1. Select intersections by road name or directly from the map

Select a region: Maryland

4 intersections matching current search filters

Road

+ Add intersections

2. Create a time period to analyze

01/19/2021 - through - 01/19/2021

+ Add another date range

3. Select days of week

Sun Mon Tue Wed Thu Fri Sat

4. Select time of day

12:00 AM 12:00 PM 6: 7:00 PM

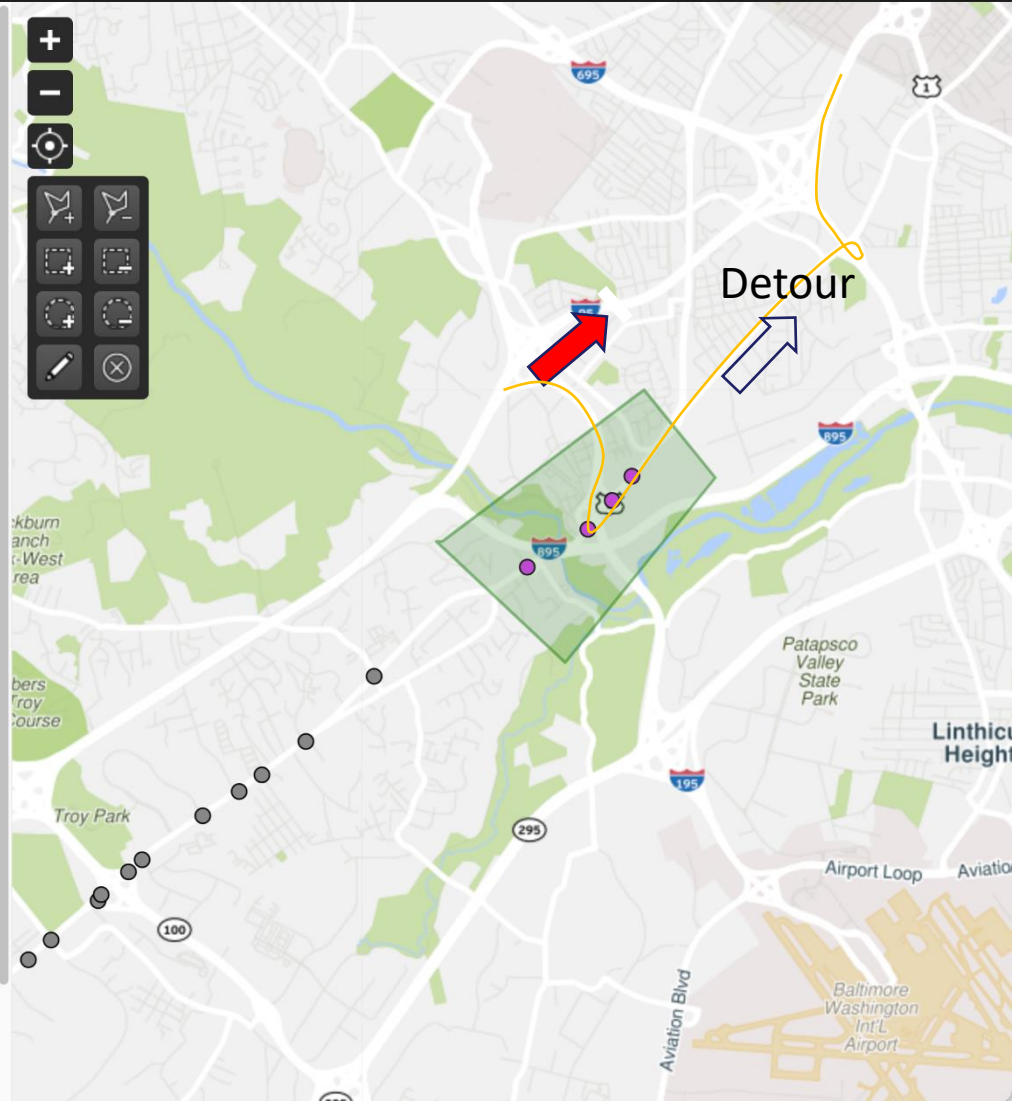
+ Add another time of day

5. Provide a title for this report (optional)

Crash day, 6-7 pm

6. Notes (optional)

+ Add notes





# Intersection Analysis



Requested 6-7 p.m., four signals US1 at I-195



## Ranked intersection movements for 4 intersections on January 19, 2021 from 6 PM to 7 PM

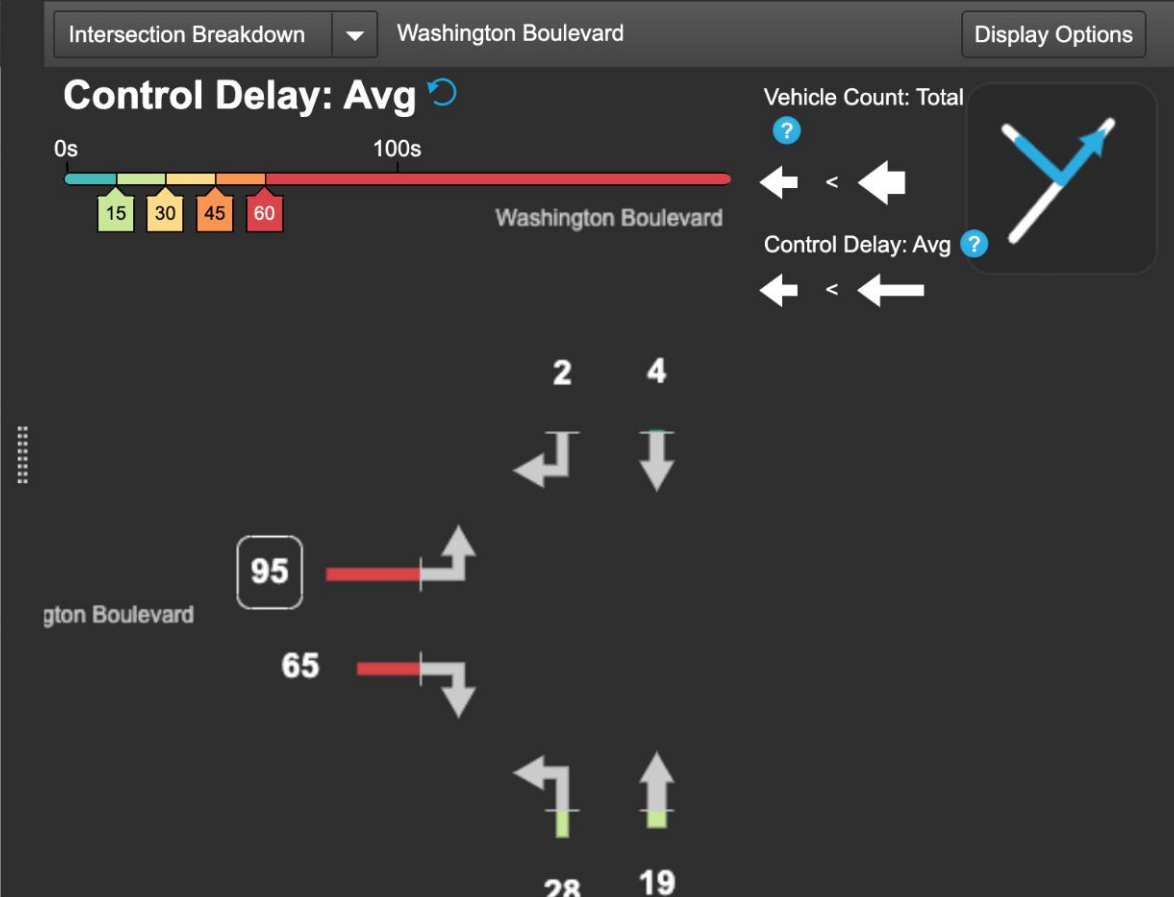
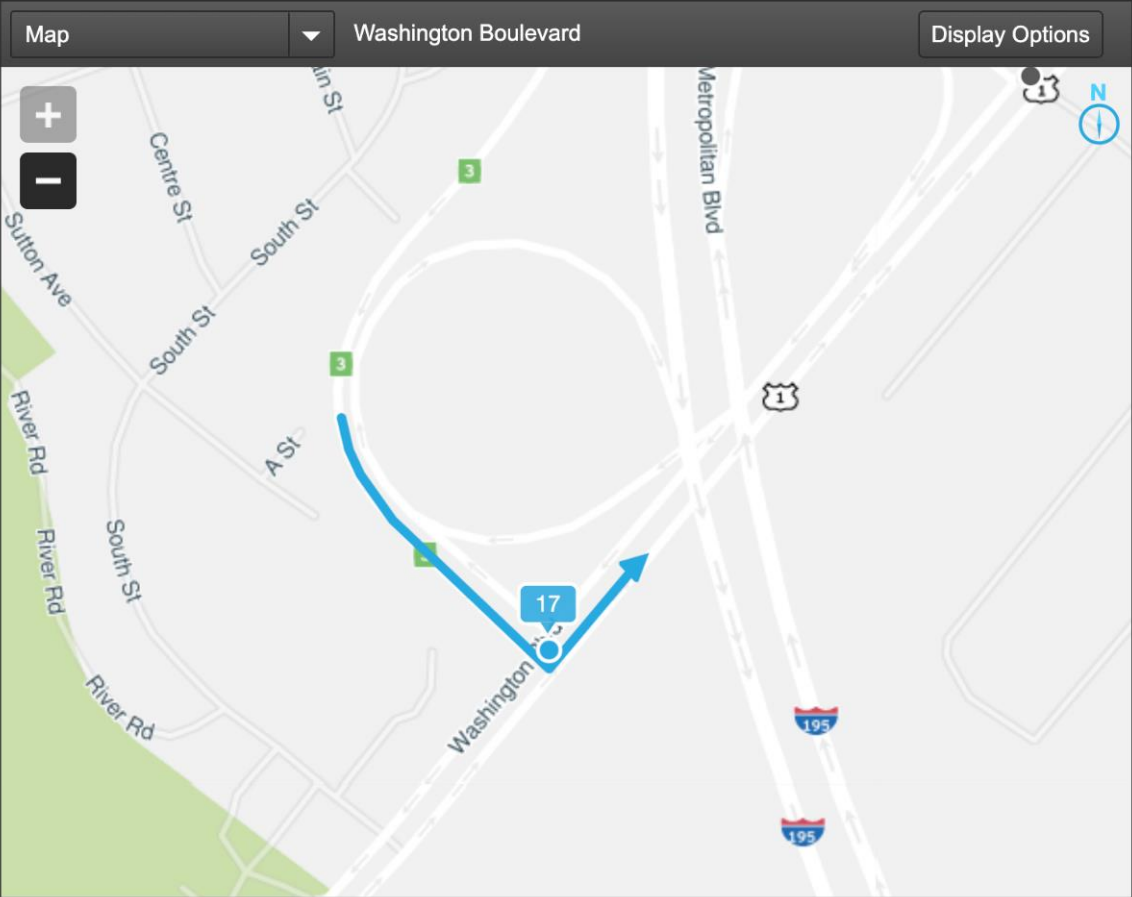
Filters (0)

Display Options



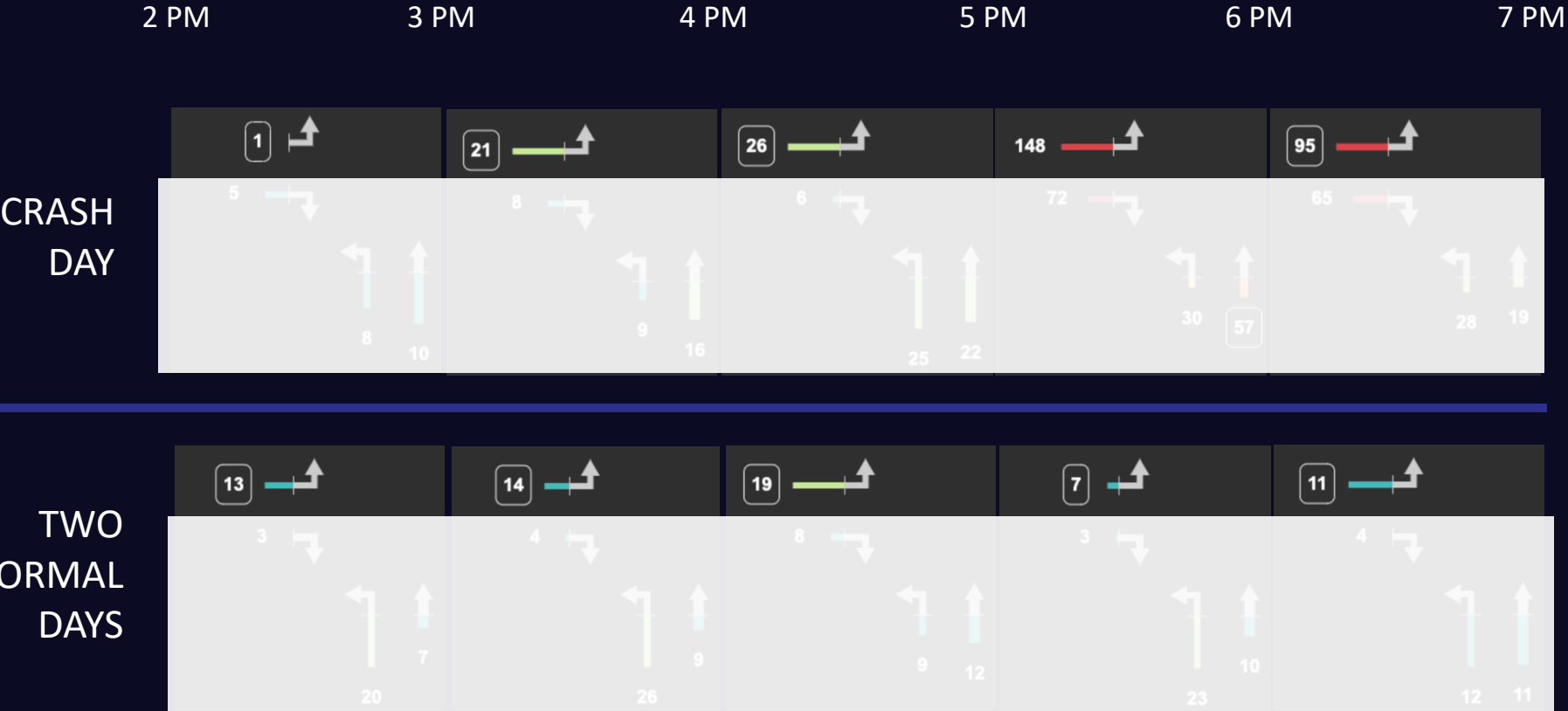
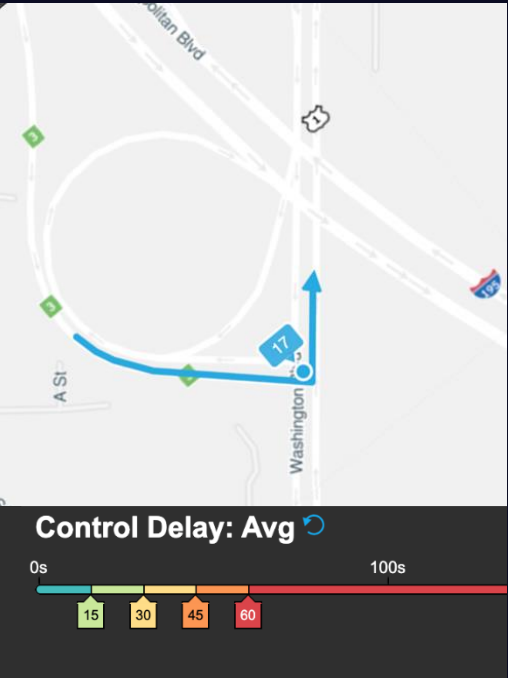
Intersection	Approach	Movement	Vehicle C...	Vehicle Count: Stopped	Split Failure: Count	Travel Time: Avg (sec)	Control Delay: Avg (sec)	Control Delay: Max (sec)
Washington Boulevard	Northbound	Through	22	14	0	31	22	56
Washington Boulevard & Leverin...	Northbound	Left	1	1	0	56	21	21
Washington Boulevard	Northbound	Left	3	3	0	43	28	33
Washington Boulevard	Eastbound	Left	5	5	0	107	95	116
Washington Boulevard	Eastbound	Left	4	4	0	65	49	79
Washington Boulevard	Southbound	Right	1	1	0	23	11	11

.....



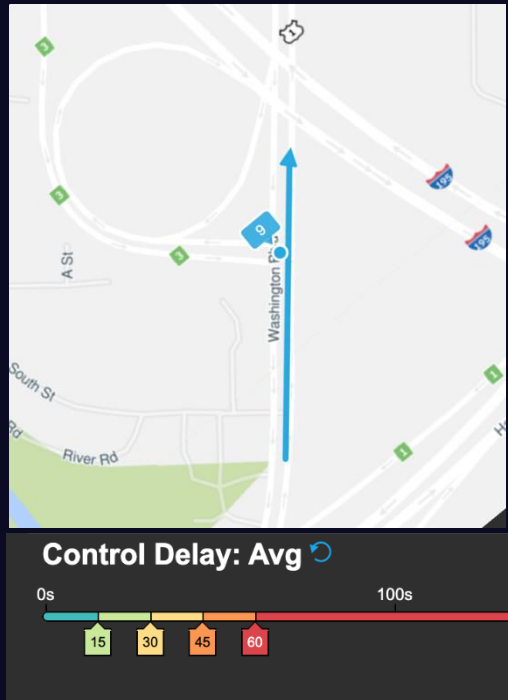
# Jan. 19 (crash day) vs. average of Jan. 12 & 26 (2021)

## LEFT TURN FROM EASTBOUND I-195 RAMP TO NORTHBOUND US 1 Average control delay (sec)



# Jan. 19 (crash day) vs. average of Jan. 12 & 26 (2021)

## NORTHBOUND THROUGH-TRAFFIC ON US 1 AT I-195 Average control delay (sec)





# PDA Suite Performance Measures Working Group

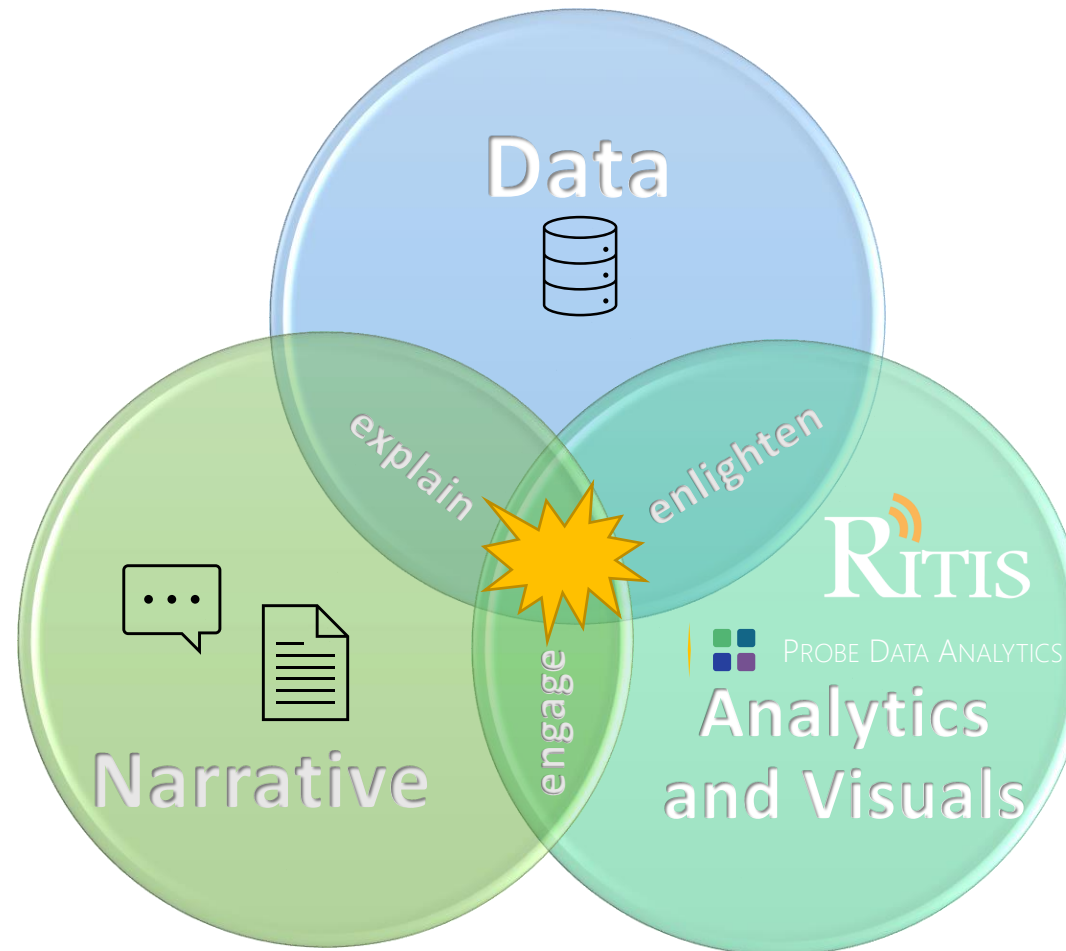


**Rick Ayers**

UMD CATT Lab  
Public Sector Advocate

# Performance Reporting **Templates**

Empowering Your Story - RITIS Templates...



# Performance Reporting **Templates**

There are two new templates available on the [RITIS Templates page](#)...



Top 10  
Bottlenecks



After-action  
Review



Holiday Travel  
Forecast

...with this template to follow very soon.



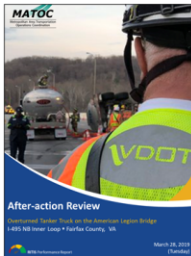
# Performance Reporting Templates

Here's what you'll see on the RITIS Templates landing page for the two new templates...

## After-action Review Report

Use this template package along with RITIS tool results to create an after-action review report, including front and back covers, an event high-level summary page and an impact evaluation page that graphically depicts mainline and regional impacts, delay costs, vehicle hours of delay, key takeaways, and more. There are also several use case examples with varying levels of event complexities and some more technical-oriented report examples.

### Overview



1. Click to download the PowerPoint template to create a report that presents an evaluation summary of the top 10 bottlenecks in a region. Additional design resources are also available.

[Download Template](#)

[Download Design Resources](#)

2. Download Agency Use Case examples below to see how other agencies have used these templates or have created similar reports using content from RITIS:

- MATOC Overturned Tanker Truck on the American Legion Bridge (using this template) [🔗](#)
- GDOT I-75 Pedestrian Fatality (executive-level template) [🔗](#)
- MATOC Vehicle Collision and Truck Fire on the Woodrow Wilson Bridge (1 technical, 3 executive templates) [🔗](#)
- massDOT Truck Bridge Strike I-95 SB at Exit 30B (includes Trend Map animation) [🔗](#)

3. Scroll down to learn how to create this report or click on the 'How To Create Report' in the navigational menu.

## Top 10 Bottleneck Report

Use this template package to create a report that summarizes the top 10 bottlenecks in your area. There are two parts to this template package—the first is a "Top 10 Bottlenecks in the Region" summary report page, that summarizes various attributes for all the top 10 bottlenecks for a specific time period, depicted on a location map. The second is a template for each individual bottleneck, that includes detailed results for six metrics, presented in an infographic style format.

### Overview



1. Click to download the PowerPoint template to create a report that presents an evaluation summary of the top 10 bottlenecks in a region. Additional design resources are also available.

[Download Template](#)

[Download Design Resources](#)

2. Download Agency Use Case examples below to see how other agencies have used these templates or have created similar reports using content from RITIS:

- BMC Quarterly Top 10 Bottlenecks in the Baltimore Region (using this template) [🔗](#)
- BMC Quarterly Top 10 Bottlenecks in the Baltimore Region (executive-level template: 4 versions) [🔗](#)

3. Scroll down to learn how to create this report or click on the 'How To Create Report' in the navigational menu.

# Performance Reporting Templates

You'll be able to access this material to help build your report...

## Blank Templates

**Your agency logo here**

**Incident Summary (add event description here)**

**Add location map here**

**Incident Timeline** | Show Total Elapsed Time here for the event, (e.g., from 1<sup>st</sup> detection to traffic returning to free-flow conditions)

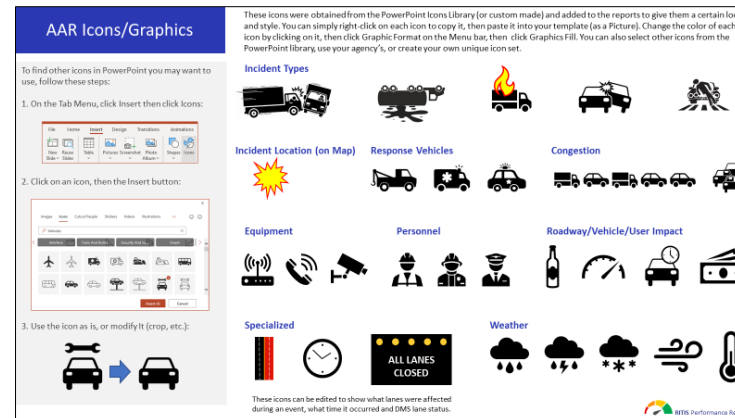
**Add a timeline here** - the [Design Resources](#) document has two, editable timeline graphics:

- A simple timeline with hourly tick marks to help related to the incident response and clearance
- A TIM element timeline with incident elements and timeline structure that was developed by the USDOT ITS Joint Program Office and includes key incident measures and times

**Add a legend here**

To make it easy to add your own content

## Design Resources



To make your report tell a better story

## A How-to Guide

**b** Add an agency logo, heading, location map, images, icons, and some summary text

**Approx. Crash Location**

- Fill in the top half of the Summary page by adding your Agency's logo, a heading (what happened, where and when it happened) and a simple location map.
- For the **Location Map**, we used a screenshot from a RITIS Map, added some route shields and a crash icon to show its approximate location.
- We then added four icons across the top of the image placeholders from the AAR Icons/Graphics page – an overturned tanker leaking fuel, a clock (with the time set to the approximate time when the incident occurred), a roadway section (with the NB direction colored red to show impact) and an ambulance.
- We then added brief narrative to summarize what, where, when things happened.
- Next, we added images obtained from the Agency, or ones gathered from images from the Media content in RITIS Incident Timeline (see below), then captioned them. We also added a black box behind the images to give them some definition.
- The top half of the **Incident Summary** is now complete!

With easy-to-follow, step by step instructions on every aspect of the build, from start to finish

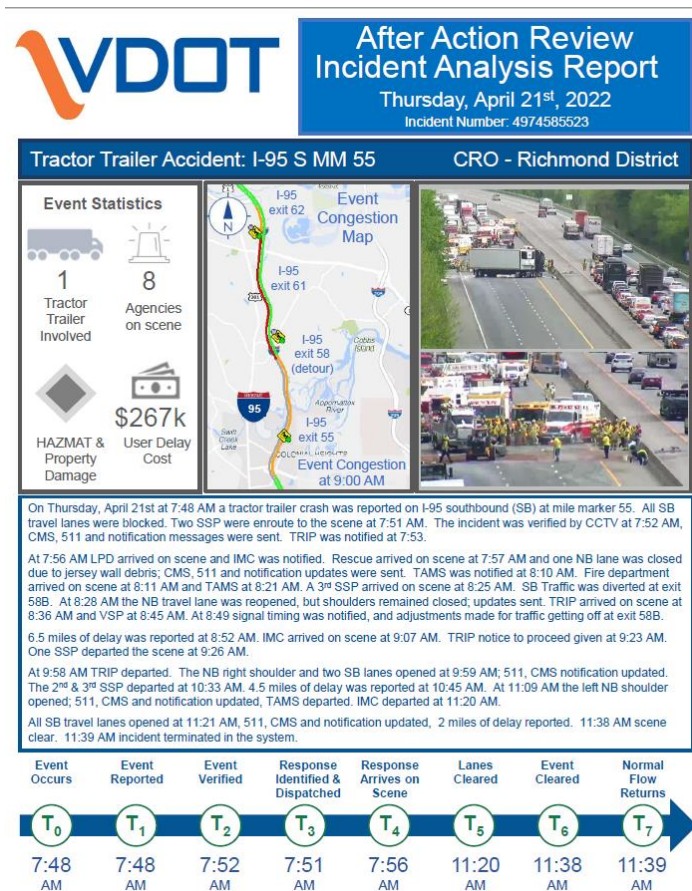


Also included are a selection of fully editable agency use cases (using other template layouts & content) that give you maximum flexibility in developing your own reporting.

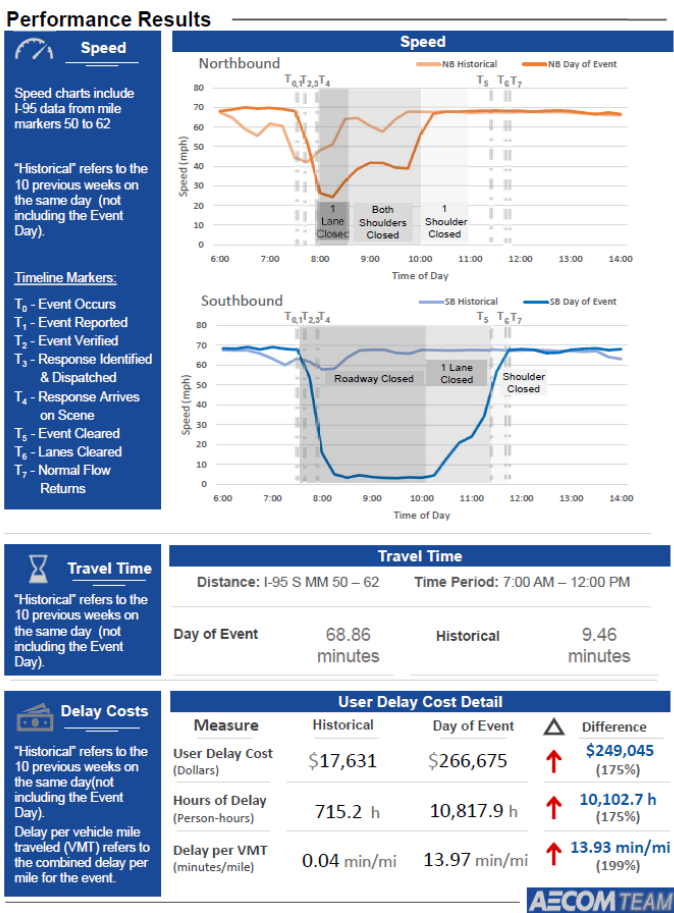
# Performance Reporting Templates

Example configuration from Virginia DOT...

## Incident Summary and Timeline



## Performance Results from Incident



Travel Time

Distance: I-95 S MM 50 – 62

Time Period: 7:00 AM – 12:00 PM

Day of Event

68.86 minutes

Historical

9.46 minutes

Delay Costs

"Historical" refers to the 10 previous weeks on the same day (not including the Event Day).  
Delay per vehicle mile traveled (VMT) refers to the combined delay per mile for the event.

User Delay Cost Detail

Measure

Historical

Day of Event

Difference

User Delay Cost (Dollars)

\$17,631

\$266,675

\$249,045 (175%)

Hours of Delay (Person-hours)

715.2 h

10,817.9 h

10,102.7 h (175%)

Delay per VMT (minutes/mile)

0.04 min/mi

13.97 min/mi

13.93 min/mi (199%)

AECOM TEAM





# RITIS Workshop

We'd like to schedule **Session 2** of our series of RITIS Workshops, where we will walk you through taking an incident use case, running RITIS tool queries and using the results along with our templates to produce a professional report.



## RITIS Workshop

**Session 2** | How to Create an **After-action Review Report**

**When: November 17, 2022**

# Questions?

Rick Ayers

Public Sector Advocate

University of Maryland CATT Laboratory

rayers@umd.edu



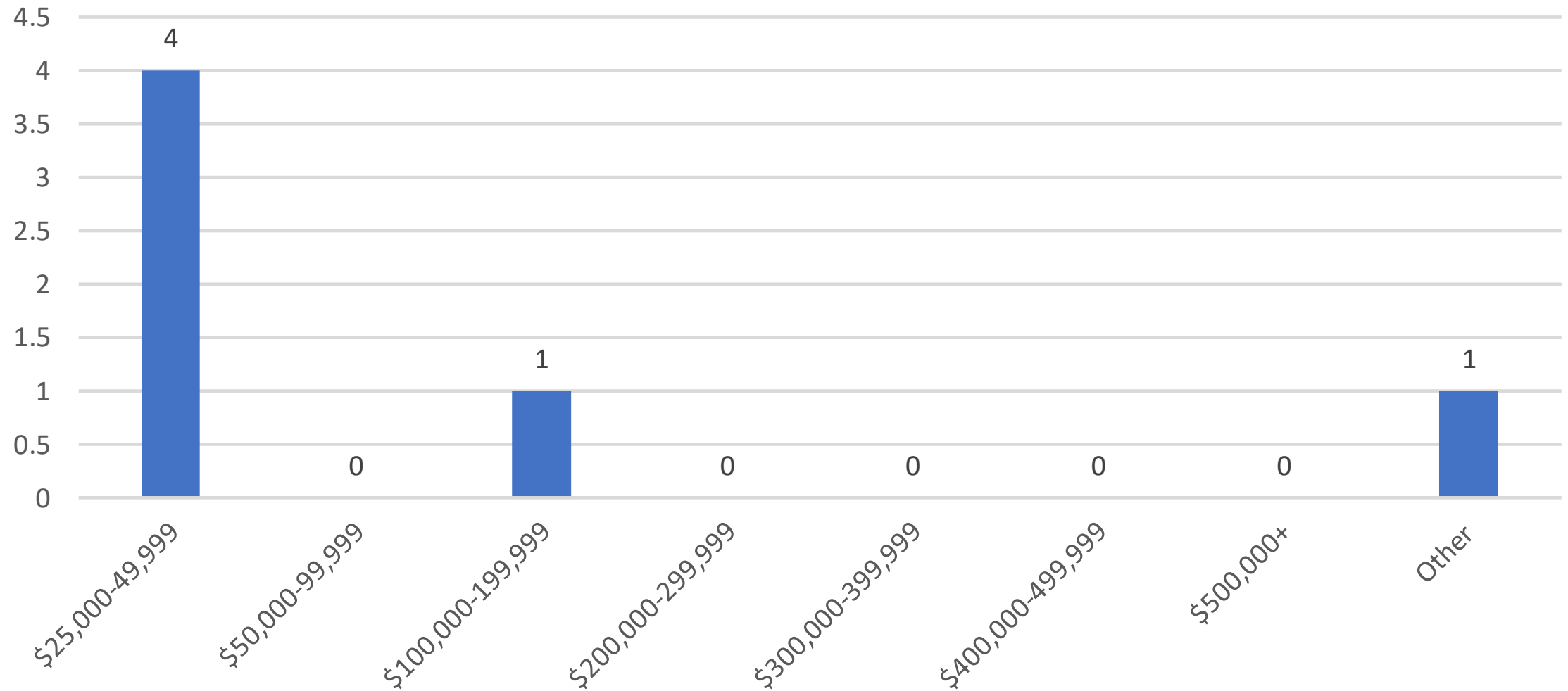
# RITIS Enhancement Working Group



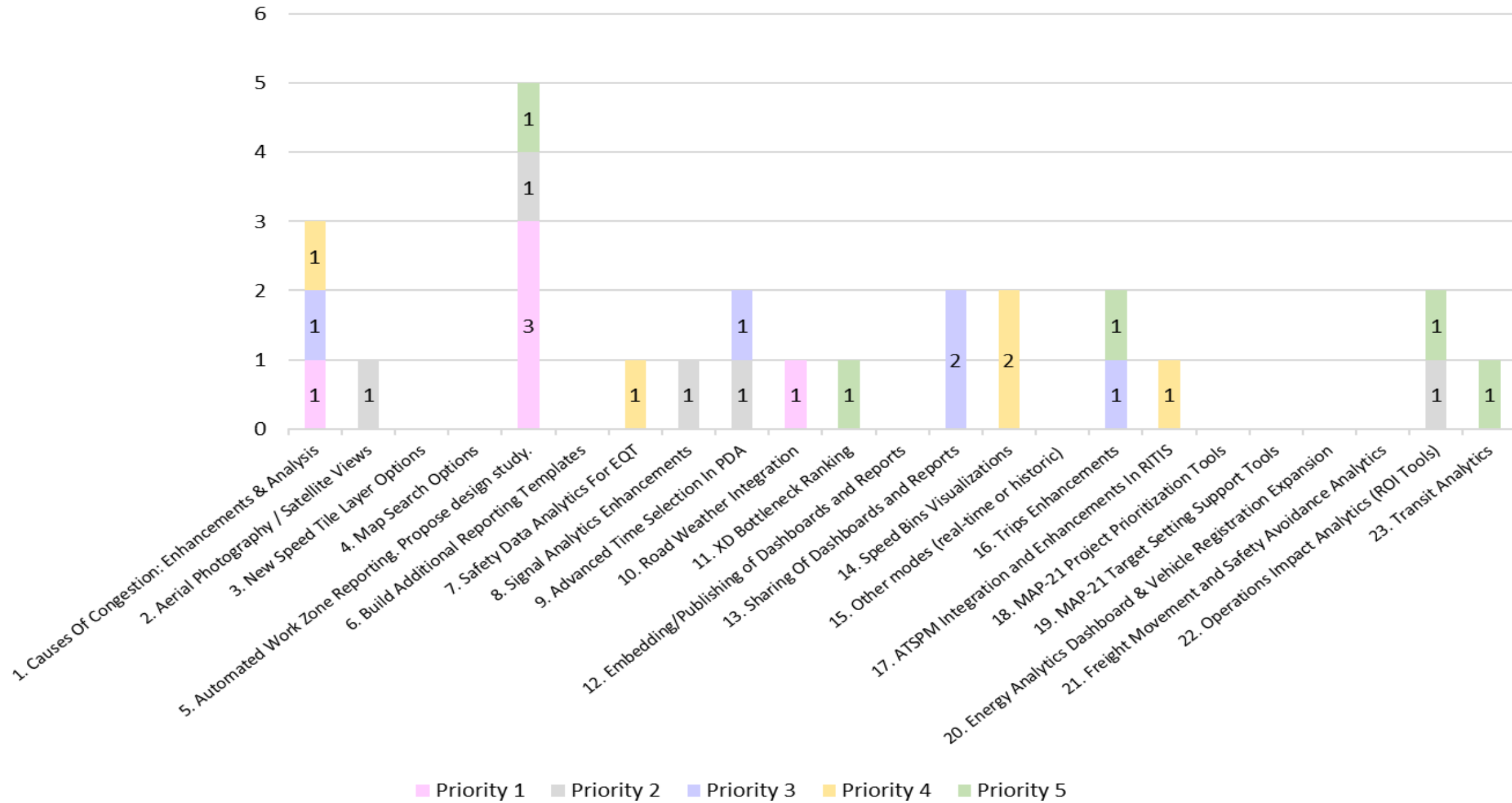
**Michael Pack**  
UMD CATT Lab  
*Director*



For this current fiscal year, how much money does your agency have available for new RITIS features?



## Top RITIS Enhancements - Contributors Only





PROBE DATA  
ANALYTICS SUITE

# New RITIS Tools and Recent Enhancements



**Michael Pack**  
UMD CATT Lab  
*Director*





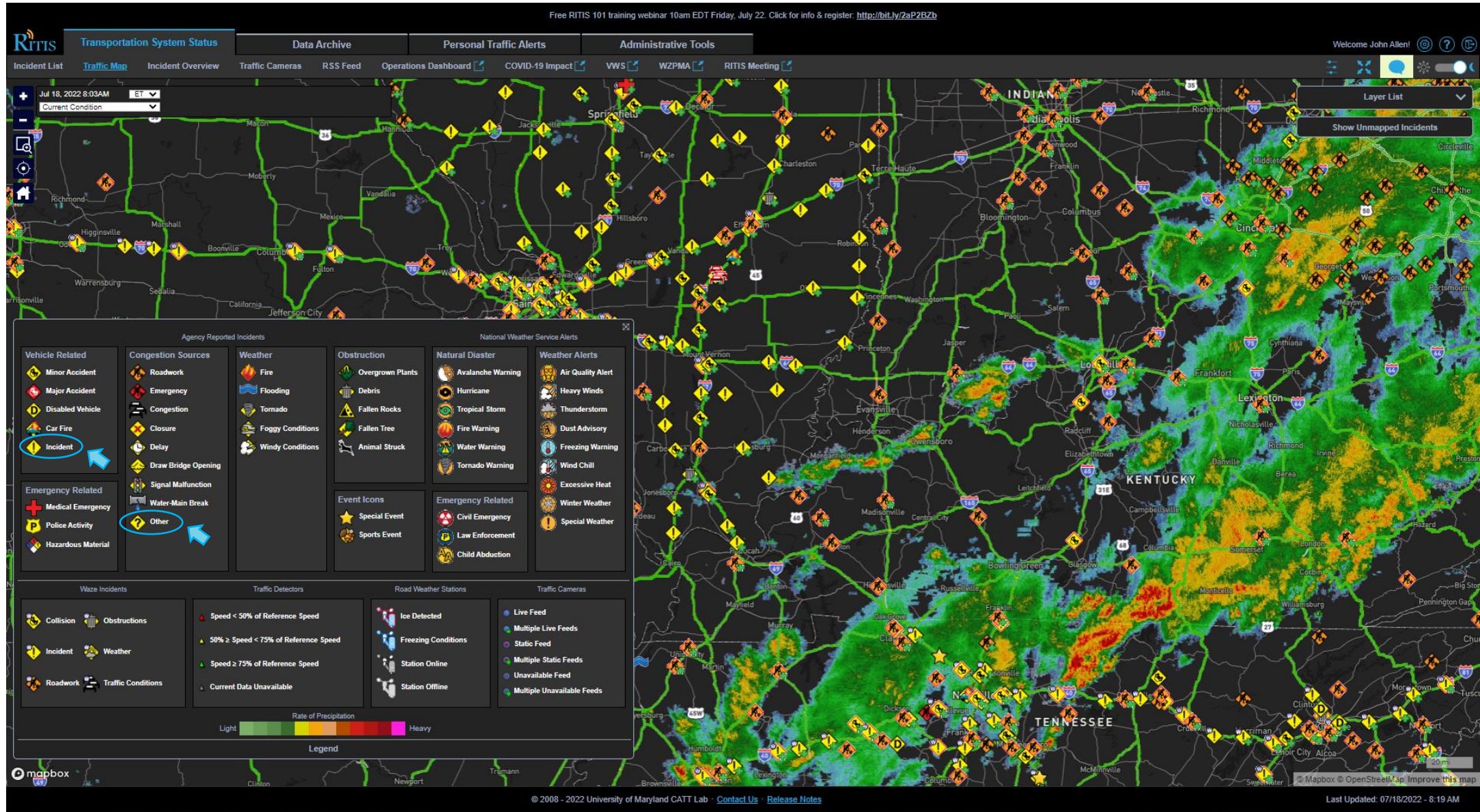
# Traffic Map

Updated the [Traffic Map](#) legend to include **Incident** and **Other** icons.



# Traffic Map

Updated the  
[Traffic Map](#)  
legend to  
include  
**Incident** and  
**Other** icons.





# Incident List

Improved the sort order on the [Incident List](#) page

Free RITIS 101 training webinar 10am EDT Friday, July 22. Click for info & register: <http://bit.ly/2aP2BZb>

RITIS Transportation System Status Data Archive Personal Traffic Alerts Administrative Tools Welcome John Allen!

[Incident List](#) [Traffic Map](#) [Incident Overview](#) [Traffic Cameras](#) [RSS Feed](#) [Operations Dashboard](#) [COVID-19 Impact](#) [VWS](#) [WZPMA](#) [RITIS Meeting](#) 1130 incidents

State	Source	Location	Type	Updated	Start Time	Lane Status	Event Details
VA	INRIX	Atwood Rd both ways		13 mins ago	03/04/22 08:42 AM	—	Road closed due to long-term construction on
VA	VDOT	BALLS HILL RD north		1 hr ago	07/18/22 09:30 AM	South North	Planned Event: WZ - Construction
VA	WMATA	Ballston-MU - Escalator between middle landing and		6 days ago	07/08/22 05:03 AM	—	Modernization - Escalator between middle landing and mezzanine
VA	WMATA	Ballston-MU - Escalator between street and middle		6 days ago	07/08/22 05:02 AM	—	Modernization - Escalator between street and middle landing
MD	WAZE	BALTIMORE BLVD		1 hr 27 mins ago	07/18/22 08:31 AM	—	Hazard on shoulder car stopped at Baltimore Blvd
MD	MDOT CHART	BALTIMORE COUNTY: MD-41 NORTH/SOUTH		6 mins ago	07/18/22 08:41 AM	South North	RAYMOND 717-598-7800
MD	WAZE	BALTIMORE WASHINGTON PKWY		5 mins ago	07/18/22 10:27 AM	—	Hazard on shoulder car stopped at Baltimore Washington Pkwy N
MD	WAZE	BALTIMORE WASHINGTON PKWY		2 mins ago	07/18/22 10:17 AM	—	Hazard on shoulder car stopped at Baltimore Washington Pkwy N
MD	WAZE	BALTIMORE WASHINGTON PKWY		5 mins ago	07/18/22 10:23 AM	—	Hazard on shoulder car stopped at Baltimore Washington Pkwy S
MD	WAZE	BALTIMORE WASHINGTON PKWY		2 mins ago	07/18/22 10:24 AM	—	Hazard on shoulder car stopped at Baltimore Washington Pkwy S
MD	WAZE	BALTIMORE WASHINGTON PKWY		5 mins ago	07/18/22 10:24 AM	—	Hazard on shoulder car stopped at Baltimore Washington Pkwy N

1 2 3 4 5 ... 12 1 - 100 incidents (of 1130 incidents) © 2008 - 2022 University of Maryland CATT Lab · [Contact Us](#) · [Release Notes](#) Last Updated: 07/18/2022 - 10:34 AM



# RITIS Tool Catalog

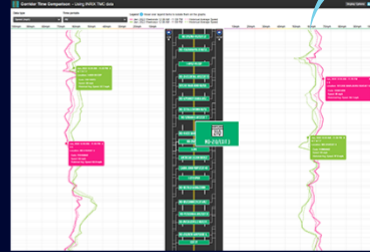


## PDA - Corridor Time Comparison

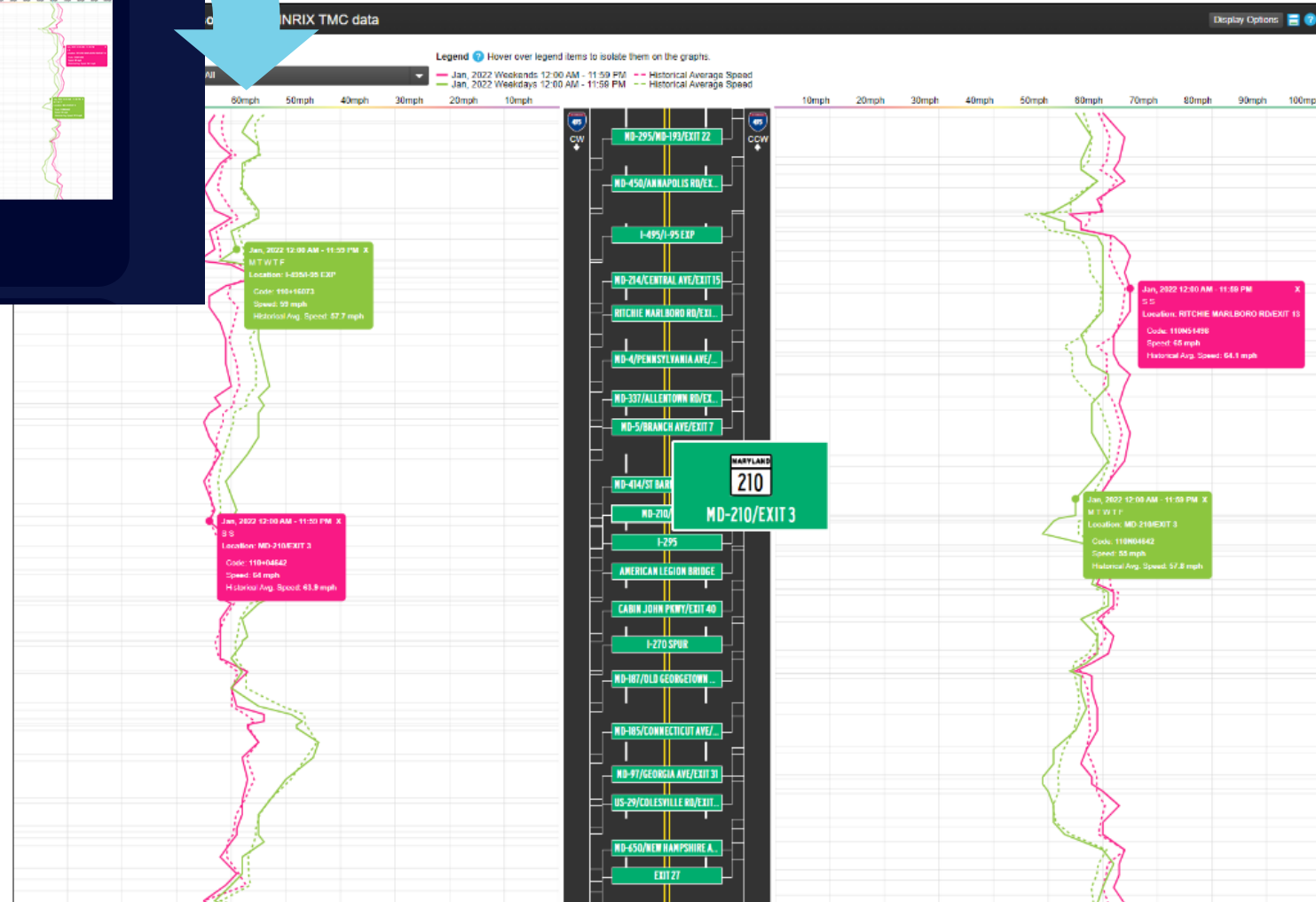
Corridor Time Comparison gives you the ability to visualize the variations in key performance measures along a roadway corridor.

Corridor Time Comparison displays bi-directional line charts associated with roadway segments along a corridor. You can select up to two separate date ranges and up to seven different time ranges within the date ranges selected. There is also a choice of five different metrics that can be displayed, giving you great flexibility and depth in your corridor analyses.

▶ [Corridor Time Comparison tutorial](#)



Updated the [Tool Catalog](#) to include the Probe Data Analytics Suite [Corridor Time Comparison](#) tool.
















Added capability to show former names of a selected detector in [Detector Tools](#).

▶ RITIS RELEASE NOTES

# My History

This new function allows you to delete reports from **My History** that you no longer need.

STATUS	DOWNLOADS AND REPORTS	▼ DATE CREATED	FAVORITES	
	 <a href="#">Open report</a>			
	 I-270 <a href="#">Open report</a>			
	 I-270 on Friday, September 24, 2021 <a href="#">Open report</a>			
	 I-270 on Friday, September 24, 2021 <a href="#">Open report</a>			
	 I-270 on Friday, September 24, 2021 <a href="#">Open report</a>	Sep 24, 2021 11:02 AM		
	 I-270 <a href="#">Open report</a> <a href="#">Open with...</a>	Sep 24, 2021 10:54 AM		

Delete Selected Entry

Are you sure that you want to delete this entry?

Confirm



# Massive Data Downloader

We've added four new optional columns to **MDDs** *NPMRDS* from *INRIX* exports with values for:

- estimated unidirectional thru lanes,
- AADT,
- single-unit truck & bus AADT, and
- combination truck AADT

where available.

You can choose whether to include these four new columns in your export as the last option under "Select data sources and measures".

**Probe Data Analytics Suite**

Welcome, John | My History | Help | Tutorials | Templates | Logout

### Massive Data Downloader

Use the Massive Data Downloader to download raw probe data from our archive for offline analysis.

- Select a country**  
United States
- Select roads**  
TMC segments from: HERE  
Road: Region: Segment codes: Map: Saved: Advanced  
Search in Maryland...  
Your selected roads: I-270  
Directions: ☒ Northbound ☒ Southbound  
Intersections: 18  
Entire ☒ Partial ☐  
65 miles of roadway selected (70 TMC segments)  
Segments from HERE  
[Report a problem with this road](#)  
[Show segment IDs](#) [Save as segment set](#)
- Select one or more date ranges**  
01/01/2022 - through - 07/18/2022  
[Add another date range](#)
- Select days of week**  
Sun Mon Tue Wed Thu Fri Sat
- Select one or more times of day**  
12:00 AM - to - 11:59 PM  
[Add another time of day](#)
- Select data sources and measures**  
☐ INRIX  
☐ HERE  
☒ TomTom  
NPMRDS from INRIX is available from January 1, 2016 to June 30, 2022 in one year intervals.  
☒ NPMRDS from INRIX (Passenger vehicles)  
☒ Speed  
☒ Historical average speed  
☒ Reference speed  
☒ Travel time  
☒ Data Density  
☒ Unidirectional AADT and thru lanes  
☐ NPMRDS from INRIX (Trucks and passenger vehicles)

**Map View:** A map of Maryland showing a route along I-270 from Frederick to Rockville. The route is highlighted in purple.

**Selected Data Sources and Measures:**

- ☒ NPMRDS from INRIX (Passenger vehicles)
- ☒ Speed
- ☒ Historical average speed
- ☒ Reference speed
- ☒ Travel time
- ☒ Data Density
- ☒ Unidirectional AADT and thru lanes

# Massive Data Downloader

We completed **Revision 2.0** to the NPMRDS **Descriptive Metadata Document** that includes many updates, as well as information on new optional fields available for NPMRDS data.

National Performance Management Research Data Set (NPMRDS)  
**Descriptive Metadata Document**  
Revision 2.0

**Prepared by:** Rick Schuman, Dataset Delivery PM, INRIX  
Tom Jones, Deputy PM, University of Maryland, CATT Laboratory  
Shawn Turner, Technical Lead Support, Texas A&M Transportation Institute



# NextGen Trips Analytics

After you select a data set, if it has trip paths, you'll see a new menu letting you continue with the current tools or try **Nextgen Trips Analytics**.

The Nextgen option goes to the beta site that lets you preview the new features we're working on.

Trip Analytics

Logged in as jallen35@umd.edu

LOGOUT

Welcome to Trip Analytics

What's New  
Jul 11, 2022

Pick one of the available data sets to explore.

DATA SETS	DATA PROVIDER	DATE RANGE	DETAILS
407ETR	INRIX	2021: January - December	<div>Learn more about the <a href="#">407ETR data set</a>.</div> <div>Trip Types Included:</div> <ul style="list-style-type: none"><li>Internal (trips starting and ending in 407ETR)</li><li>From - To (trips starting in 407ETR and ending outside of 407ETR)</li><li>To - From (trips starting outside of 407ETR and ending in 407ETR)</li><li>Pass Through (trips starting and ending outside of 407ETR that have at least one waypoint in 407ETR)</li></ul> <div><a href="#">More information...</a></div>
Georgia	INRIX	2019: February, August, October 2020: February, August, October 2021: February, August, October, December 2022: January - May	<div>Learn more about the <a href="#">Georgia data set</a>.</div> <div>Trip Types Included:</div> <ul style="list-style-type: none"><li>Internal (trips starting and ending in GA)</li><li>From - To (trips starting in GA and ending outside of GA)</li><li>To - From (trips starting outside of GA and ending in GA)</li><li>Pass Through (trips starting and ending outside of GA that have at least one waypoint in GA)</li></ul> <div><a href="#">More information...</a></div>

Trip Analytics

Use the current OD Matrix, Segment Analysis and Route Analysis tools.

START

Nextgen Trip Analytics

BETA

Use the new version for bounded study areas, pass-through filtering, and more.

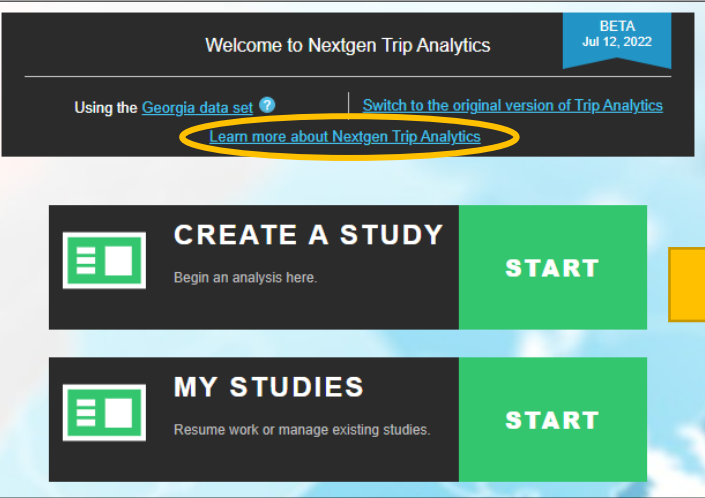
START



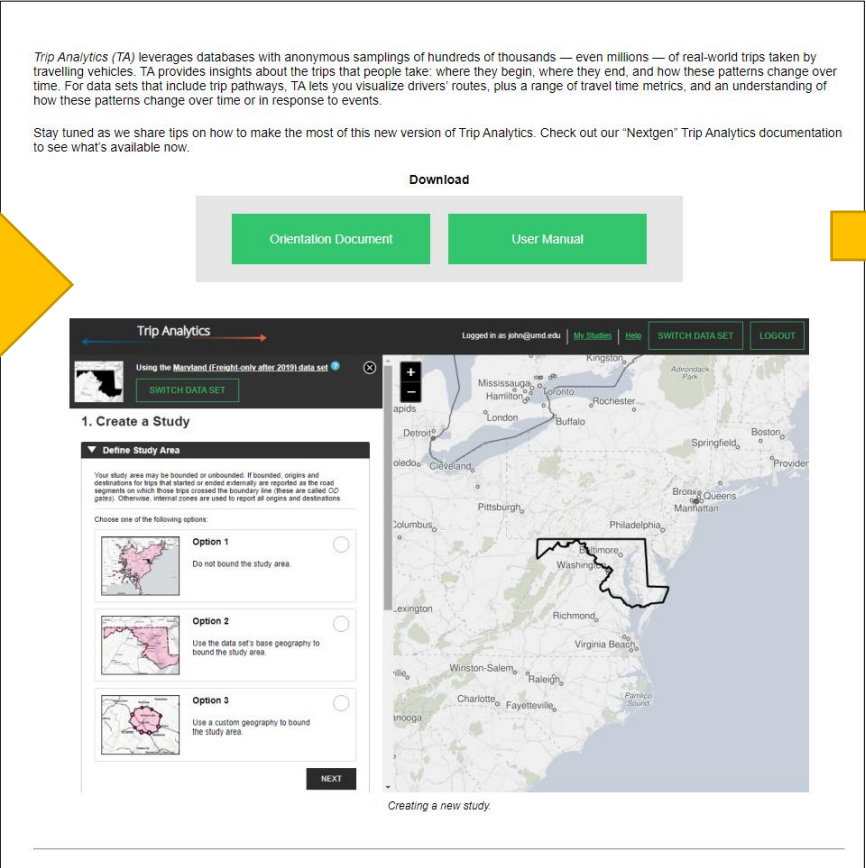


# NextGen Trip Analytics

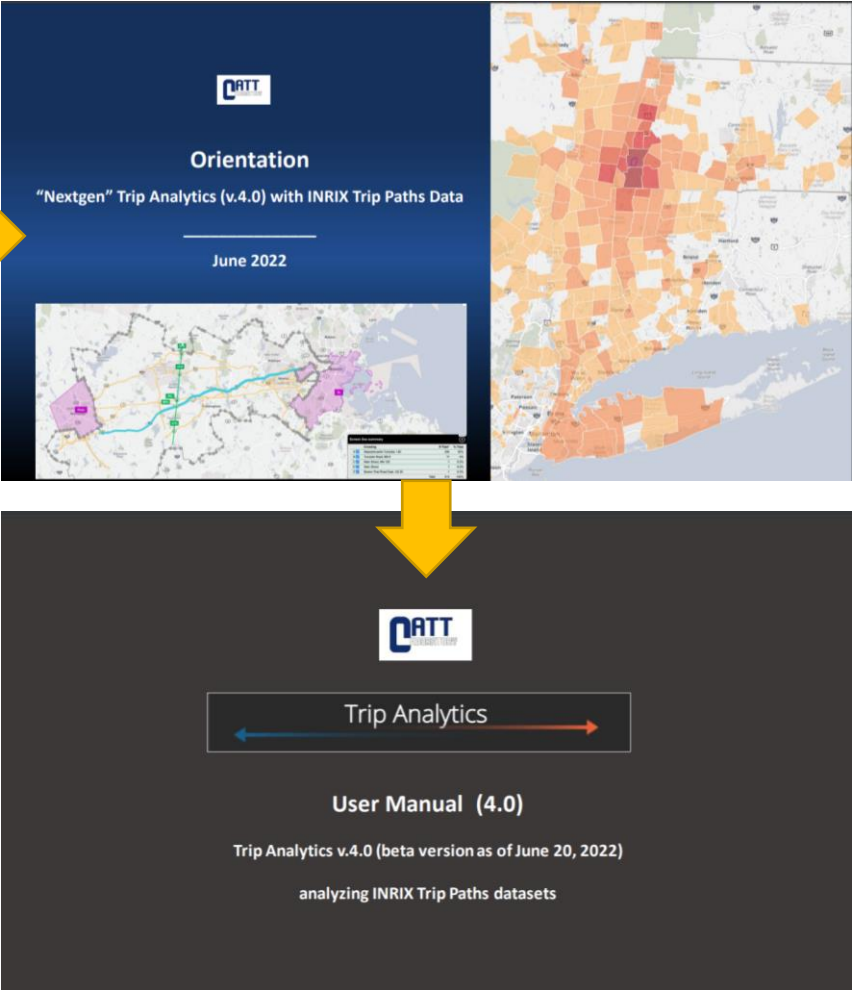
1 Under NextGen Trip Analytics, click the “Learn more...” link



2 Read about NextGen Trip Analytics, then click the buttons to download support documents...



3 Orientation / User Manual



Trip Analytics

Logged in as gjordan1@umd.edu | My Studies | Help | SWITCH DATA SET | LOGOUT

Using the Tennessee data set


SWITCH DATA SET

1. Study: GSNP Unbounded

▼ Define Study Area


Your study area may be bounded or unbounded. If bounded, origins and destinations for trips that started or ended externally are reported as the road segments on which those trips crossed the boundary line (these are called OD gates). Otherwise, internal zones are used to report all origins and destinations.

Choose one of the following options:




Option 1

Do not bound the study area.



Option 2

Use the data set's base geography to bound the study area.



Option 3

Use a custom geography to bound the study area.

NEXT

► Specify Zones for Origins and Destinations

Counties

► Name Study

GSNP Unbounded

SAVE CHANGES

CREATE CLONE STUDY

CANCEL

2. Set Filters and Submit Query

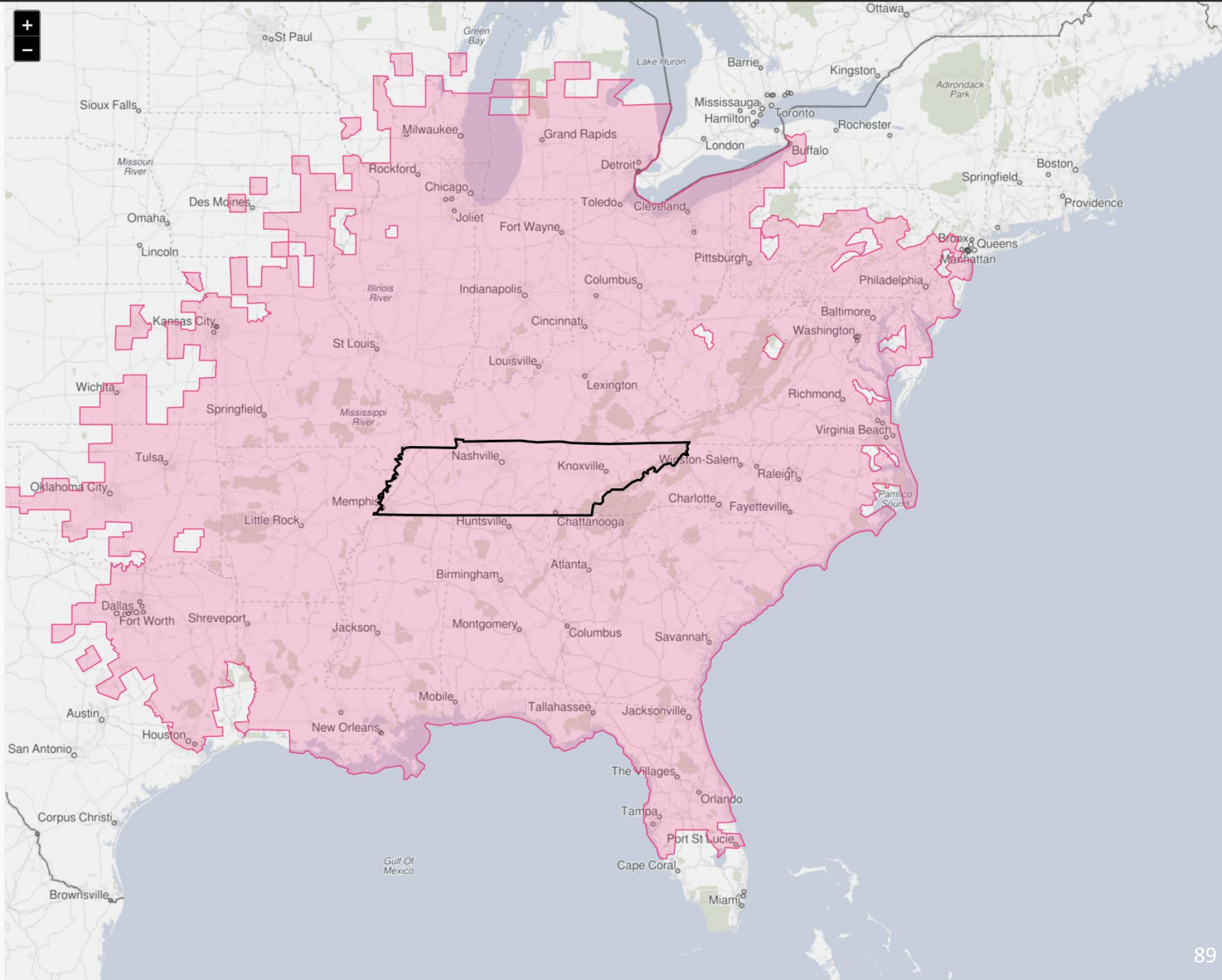
► Filter(s)

Spatial Filter(s):  
Use a custom area as a Spatial Filter: GSNP Study Area V3.geojson  
Include trips that: Started Outside and Ended Inside and Outside

Temporal Filter(s):  
Date Range: 7/1/2021 to 7/4/2021  
Times of Day: 12:00 AM to 11:59 PM  
Days of Week: All days of week  
Other Filter(s): Light

+

-




1. SET-UP

Type of study area

Zones for naming Os & Ds

Save the study

2. QUERY

 <https://trips-beta.ritis.org>

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# 1. Study: GSNP Unbounded

Option 1: Unbounded  
Internal Zones: Counties

## 2. Set Filters and Submit Query

**Set Spatial Filter(s)**

Choose one of the following spatial filters. This geography will be used to further filter out trips that don't interact with it.

Add an area for spatial filtering

☐ Use Predefined Areas ☒ Load File

Upload a GeoJSON file to replace GSNP Study Area V3.geojson with a new area. The file must contain only a single polygon or multi-polygon. Geometry and feature collections are not accepted.

Choose File No file chosen

If a multipolygon is used for the study area, only the largest polygon will be used to generate OD gates.

**Selection Summary**

1 Custom Area

Select pass-through settings for this filter:

☐ Started Inside ☒ Ended Inside  
☒ Started Outside ☒ Ended Outside

+ ADD 2ND FILTER FOR A FROM / TO QUERY DONE

**Set Temporal Filter(s)**

Date Range: 7/1/2021 to 7/4/2021  
Times of Day: 12:00 AM to 11:59 PM  
Days of Week: All days of week

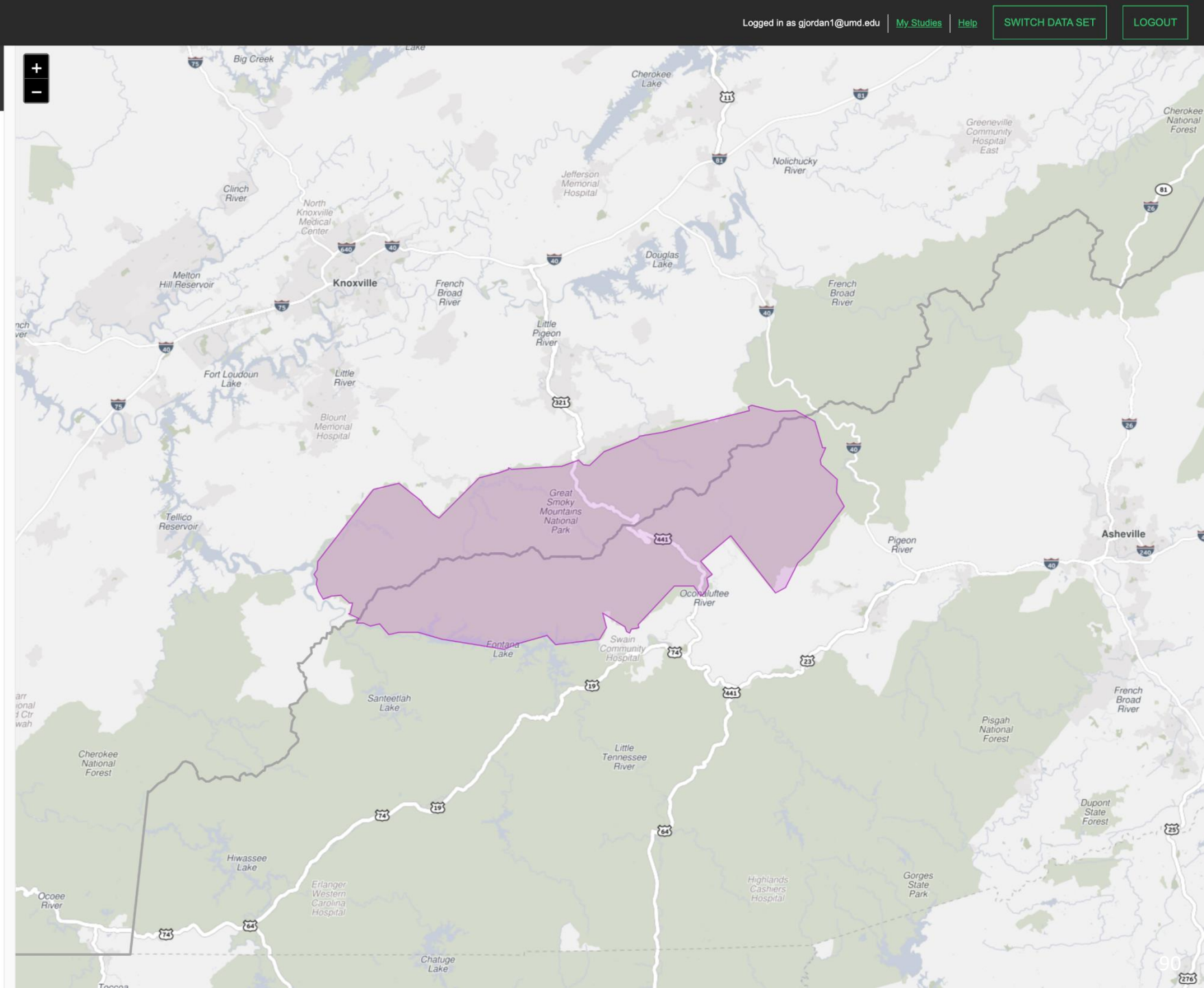
**Set Other Filter(s)**

Light

Choose which report to open first.

☐ OD Matrix ☐ Zone Map ☐ Route Map

SUBMIT



1. SET-UP  
(done once)

2. QUERY  
Where did they go?

When did they go there?  
Which ones are "they"?

3. SUBMIT



GSMNP Demo 6  
Unbounded

Data Set: Tennessee

## Study Summary

Study Area: Unbounded

Internal Zones: Counties

Spatial Filter: 1 custom area in Te...

Temporal Filter: 7/1/2021 - 7/4/2021

Other Filters: Vehicle type: Light

OPEN AS...

EXPORT

▶ Top Ten Interzonal OD Pairs

## ▼ Zone Map Controls

## Map Options

Show trip...

- ☐ Origins and destinations
- ☒ Origins
- ☐ Destinations

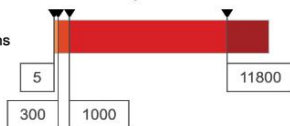
☒ Show values on map ⓘ

- ☒ Sample counts
- ☐ Percentages

## Color thresholds

- ☒ Enter exact values
- ☐ Hide lowest color range

Origins

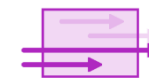


# JULY 4 HOLIDAY WEEKEND, 2021

## ORIGINS

Select pass-through settings for this filter:

- ☐ Started Inside
- ☒ Ended Inside
- ☒ Started Outside
- ☒ Ended Outside



(The GSMNP outline is used for this query as the spatial filter; the study area is unbounded / incl. all trip pathways)

Trip Analytics

Using the Tennessee data set


SWITCH DATA SET

1. Study: GSNP Demo V5 (using V3 regions)


▼ Define Study Area

Your study area may be bounded or unbounded. If bounded, origins and destinations for trips that started or ended externally are reported as the road segments on which those trips crossed the boundary line (these are called OD gates). Otherwise, internal zones are used to report all origins and destinations.


Choose one of the following options:



**Option 1**  
Do not bound the study area.



**Option 2**  
Use the data set's base geography to bound the study area.



**Option 3**  
Use a custom geography to bound the study area.

☐ Use Predefined Areas

☒ Load File

Upload a GeoJSON file to replace GSNP Study Area V3.geojson with a new area. The file must contain only a single polygon or multi-polygon. Geometry and feature collections are not accepted.

Choose File No file chosen

If a multipolygon is used for the study area, only the largest polygon will be used to generate OD gates.

NEXT

► Specify Internal Zones for Origins and Destinations  
Custom (GSNP internal zone COLLECTION V3.geojson)

► Specify External Zones  
Counties

► Name Study  
GSNP Demo V5 (using V3 regions)

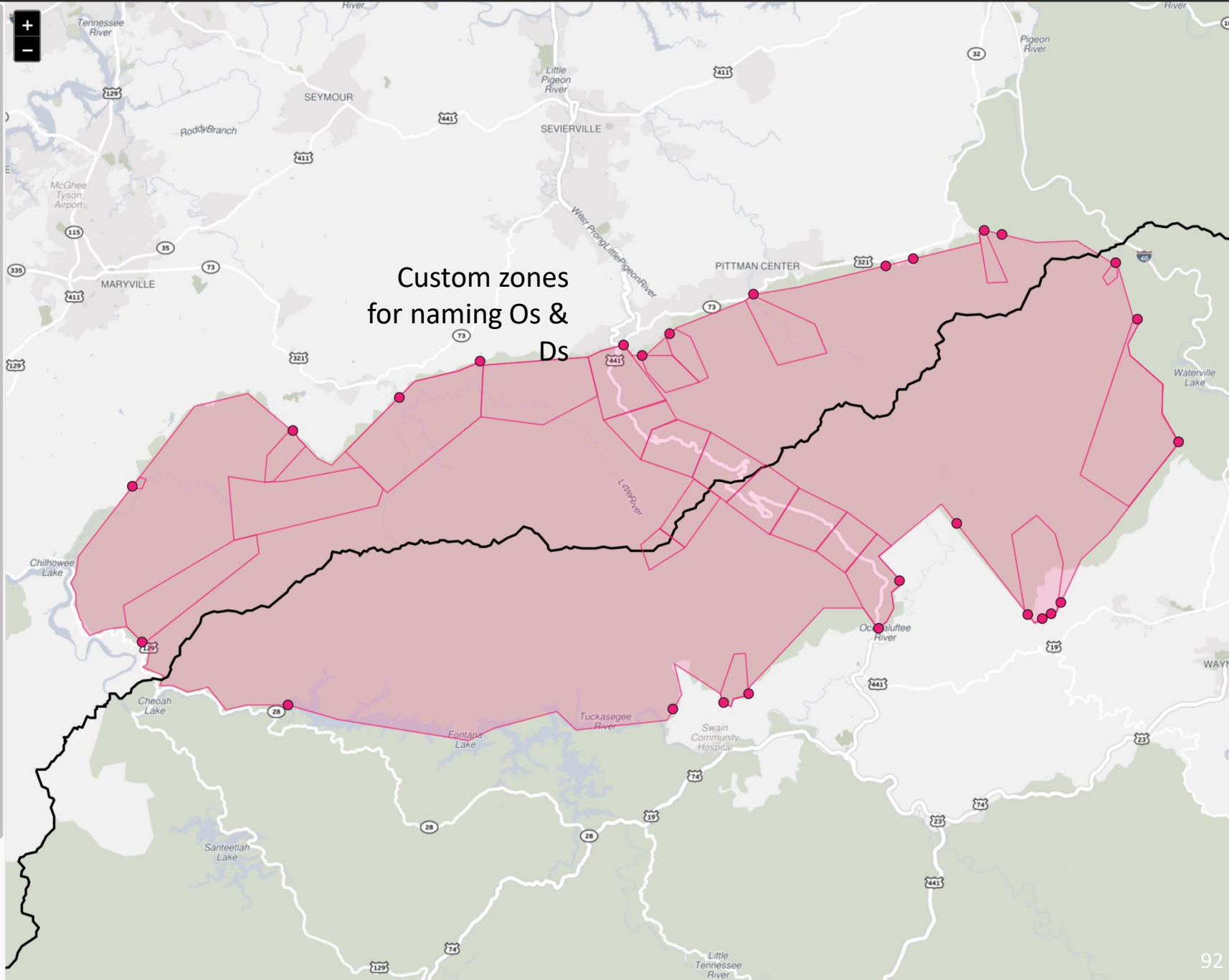
SAVE CHANGES

CREATE CLONE STUDY

CANCEL

2. Set Filters and Submit Query


Custom zones for naming Os & Ds



1. SET-UP

Type of study area

Zones for naming Os & Ds  
Save the study



https://trips-beta.ritis.org

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GSMNP Demo V5  
(using V3)

Data Set: Tennessee

Study Summary

Study Area: Custom Geography

Internal Zones: Custom

External Zones: OD gates

Spatial Filter: 1 area in Tennessee...

Temporal Filter: 7/1/2021 - 7/14/2021

Other Filters: Vehicle type: Light

OPEN AS...

EXPORT



Top Ten Interzonal OD Pairs

## BOUNDED STUDY AREA JULY 2021 (2 weeks)

### ORIGINS (percentages)

#### Map Options

##### Show trip...

- ☐ Origins and destinations  
☒ Origins  
☐ Destinations

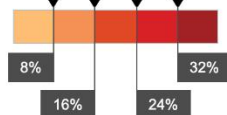
##### Show values on map

- ☐ Sample counts  
☒ Percentages

##### Color thresholds

- ☐ Enter exact values  
☐ Hide lowest color range

##### Origins



Map does not show 7 undefined origins and 8 undefined destinations.

Select pass-through settings for this filter:

- ☐ Started Inside  
☒ Started Outside  
☒ Ended Inside  
☒ Ended Outside



(The GSMNP outline is used as the study area and, for this query, as the spatial filter)



GSMNP Demo V5  
(using V3)

Data Set: Tennessee

Study Summary

Study Area: Custom Geography

Internal Zones: Custom

External Zones: OD gates

Spatial Filter: 1 area in Tennessee...

Temporal Filter: 7/1/2021 - 7/14/2021

Other Filters: Vehicle type: Light

OPEN AS...

EXPORT



Top Ten Interzonal OD Pairs

## BOUNDED STUDY AREA JULY 2021 (2 weeks)

### DESTINATIONS (percentages)

#### Map Options

Show trip...

- ☐ Origins and destinations  
☐ Origins  
☒ Destinations

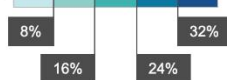
☒ Show values on map

- ☐ Sample counts  
☒ Percentages

#### Color thresholds

- ☐ Enter exact values  
☐ Hide lowest color range

Destinations



Map does not show 7 undefined origins and 8 undefined destinations.

Select pass-through settings for this filter:

- ☐ Started Inside ☒ Ended Inside  
☒ Started Outside ☒ Ended Outside



(The GSMNP outline is used as the study area and, for this query, as the spatial filter)

GSMNP Demo V5  
(using V3)

Data Set: Tennessee

Study Summary

Study Area: Custom Geography

Internal Zones: Custom

External Zones: OD gates

Spatial Filter: 1 area in Tennessee...

Temporal Filter: 7/1/2021 - 7/14/2021

Other Filters: Vehicle type: Light

OPEN AS...

EXPORT

+

-

Gheen  
son  
Airport

## BOUNDED STUDY AREA JULY 2021 (2 weeks)

### Origins of trips to Cades Cove

Top Ten Interzonal OD Pairs

#### Zone Map Controls

##### Map Options

Show trip...

- ☐ Origins and destinations
- ☐ Origins
- ☒ Destinations

☒ Show values on map

- ☒ Sample counts
- ☐ Percentages

##### Color thresholds

- ☐ Enter exact values
- ☐ Hide lowest color range

Destinations



Map does not show 7 undefined origins and 8 undefined destinations.

Select pass-through settings for this filter:

- ☐ Started Inside
- ☒ Ended Inside
- ☒ Started Outside
- ☒ Ended Outside



(The GSMNP outline is used as the study area and, for this query, as the spatial filter)



## 1. Create a Study

► **Define Study Area**  
Option 3: Using Custom Geography as Study Area  
Number of study area OD gates: 433

### ► Specify Internal Zones for Origins and Destinations

▼ Specify External Zones

External zones will only be used when the analyst wants information beyond the OD gates, to understand where external (trimmed) legs actually started or ended. A control box will be provided later enabling the analyst to toggle between OD gates and external zones.

Select one...

NEXT

▶ **Name Study**

**SAVE STUDY AND PROCEED TO FILTERS**

## 2. Set Filters and Submit Query

▶ **Filter(s)**

**Spatial Filter(s):**  
Use an area as a Spatial Filter: 0 counties in Tennessee data set  
Include trips that: Started Inside and Ended Inside

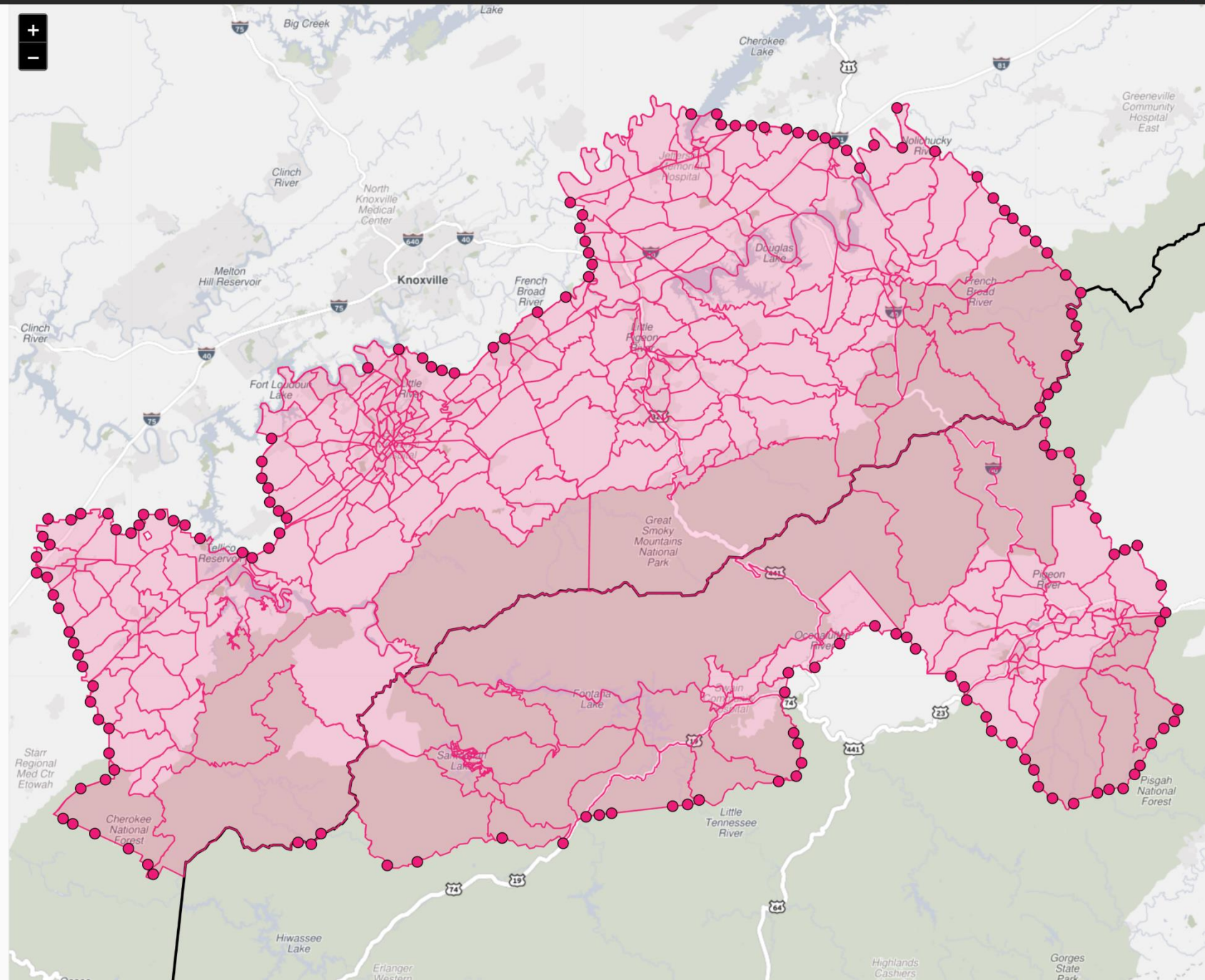
**Temporal Filter(s):**

Month: March 2022

**Times of Day: 7:00 AM to 8:59 AM**

Days of Week: Tuesday, Wednesday and Thursday

Other Filter(s): All Vehicles







Using the Tennessee data set

[SWITCH DATA SET](#)

## 1. Study: Demo GSNP 6

### Demo GSNP 6

Option 3: Using Custom Geography as Study Area

Number of study area OD gates: 433

Internal Zones: TAZs

External Zones: Counties

## 2. Set Filters and Submit Query

### Set Spatial Filter(s)

Choose one of the following spatial filters. This geography will be used to further filter out trips that don't interact with it.

☐ Use Predefined Areas ☒ Load File

Upload a GeoJSON file to replace GSNP Study Area V3.geojson with a new area. The file must contain only a single polygon or multi-polygon. Geometry and feature collections are not accepted.

 GSNP Stud...a V3.geojson

If a multipolygon is used for the study area, only the largest polygon will be used to generate OD gates.

#### Selection Summary

1 Custom Area

Select pass-through settings for this filter:

☐ Started Inside ☒ Ended Inside  
☒ Started Outside ☒ Ended Outside[+ ADD 2ND FILTER FOR A FROM / TO QUERY](#)[DONE](#)

### Set Temporal Filter(s)

Month: January 2022

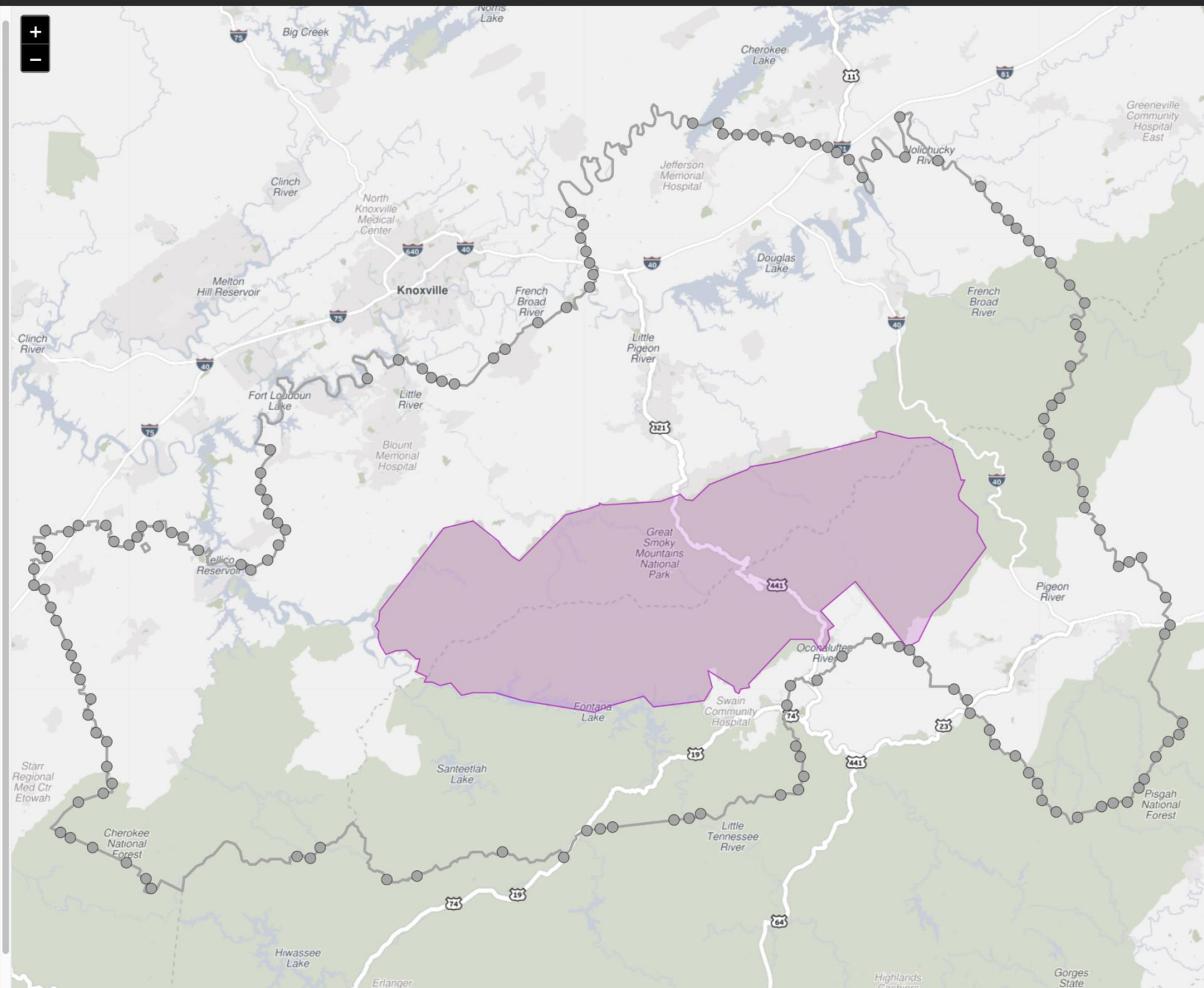
Times of Day: 7:00 AM to 9:00 PM

Days of Week: Wednesday

### Set Other Filter(s)

Light

Choose which report to open first.

☐ OD Matrix☐ Zone Map☐ Route Map[SUBMIT](#)

Demo GSNP 6

Study Area: Custom Geography

Spatial Filter: 1 custom area in Tennes...

Data Set:  
Tennessee

Internal Zones: TAZs

External Zones: OD gates

Temporal Filter: 1/1/2022 – 1/31/2022

Other Filters: Vehicle type: Light

3,159 trips in 2,466 routes

Display Options

OPEN AS...

EXPORT

Map	Rank	Route	# of Trips	Length
<input checked="" type="checkbox"/>	1	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	105	6 mi
<input checked="" type="checkbox"/>	2	Parkway, US 321, US 441; Wears Valley Road, US 321; East Lamar Alexander Parkway, SR 73 Scenic; Townsend Entrance Road	61	17 mi
<input checked="" type="checkbox"/>	3	Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlinburg Spur Road (south), US 321, US 441; Parkway, US 441; Newfound Gap Road North, US 441	52	12 mi
<input checked="" type="checkbox"/>	4	Spirit Loop Way; Glory Ridge Way; Proffitt Road; Glades Road, CH 1284; East Parkway, US 321; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North	50	7 mi
<input checked="" type="checkbox"/>	5	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	50	33 mi
<input checked="" type="checkbox"/>	6	Parkway, US 441; Newfound Gap Road North, US 441; Fighting Creek Gap Road	30	6 mi
<input checked="" type="checkbox"/>	7	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	30	27 mi
<input checked="" type="checkbox"/>	8	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	26	2 mi
Total			3159	

## Page Layout

☒ Table☒ Map

## Show on Map

☐ Only highlighted routes (blue)☐ Labels

## Trip Filters for Map

☒ Routes with the following number of trips:

1

to

105

☐ Routes with travel time greater than:

Hours

Minutes

00

00

☒ Routes with travel time less than:

Hours

Minutes

02

00

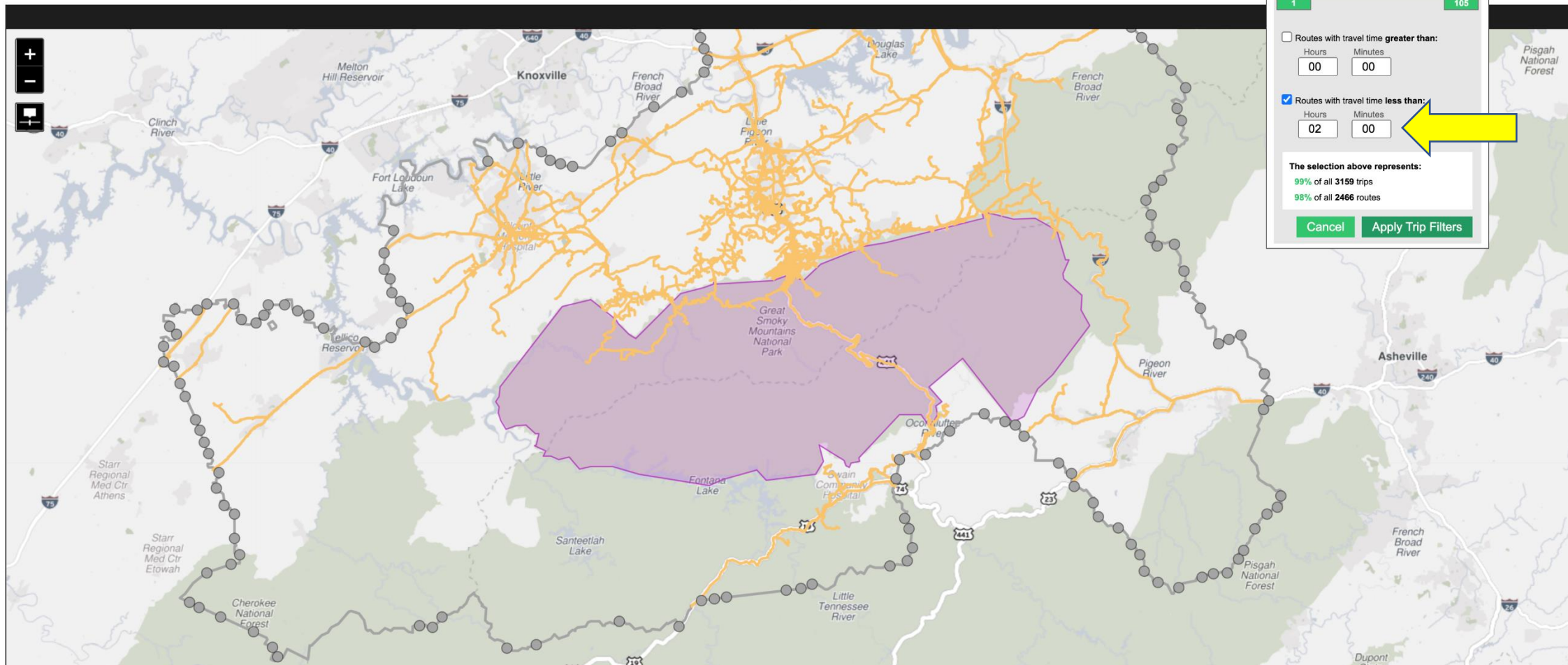
The selection above represents:

99% of all 3159 trips

98% of all 2466 routes

Cancel

Apply Trip Filters

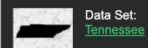




Demo GSNP 6

Study Area: Custom Geography

Spatial Filter: 1 custom area in Tennes...

Data Set:  
TennesseeInternal Zones: TAZs  
External Zones: OD gatesTemporal Filter: 1/1/2022 – 1/31/2022  
Other Filters: Vehicle type: Light

3,159 trips in 2,466 routes

▼ Display Options

[OPEN AS...](#)[EXPORT](#)

Map	Rank	Route	# of Trips ▼	Length
<input checked="" type="checkbox"/>	1	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	105	6 mi
<input checked="" type="checkbox"/>	2	Parkway, US 321, US 441; Wears Valley Road, US 321; East Lamar Alexander Parkway, SR 73 Scenic; Townsend Entrance Road	61	17 mi
<input checked="" type="checkbox"/>	3	Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlinburg Spur Road (south), US 321, US 441; Parkway, US 441; Newfound Gap Road North, US 441	52	12 mi
<input checked="" type="checkbox"/>	4	Spirit Loop Way; Glory Ridge Way; Proffitt Road; Glades Road, CH 1284; East Parkway, US 321; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North	50	7 mi
<input checked="" type="checkbox"/>	5	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	50	33 mi
<input checked="" type="checkbox"/>	6	Parkway, US 441; Newfound Gap Road North, US 441; Fighting Creek Gap Road	30	6 mi
<input checked="" type="checkbox"/>	7	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	30	27 mi
<input checked="" type="checkbox"/>	8	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	26	2 mi
Total			3159	

**Page Layout**

☒ Table

☒ Map

**Show on Map**

☐ Only highlighted routes (blue)

☐ Labels

**Trip Filters for Map**

☒ Routes with the following number of trips:

1

 to 

105

1

105

☐ Routes with travel time greater than:

Hours 

00

 Minutes 

00

☒ Routes with travel time less than:

Hours 

02

 Minutes 

00

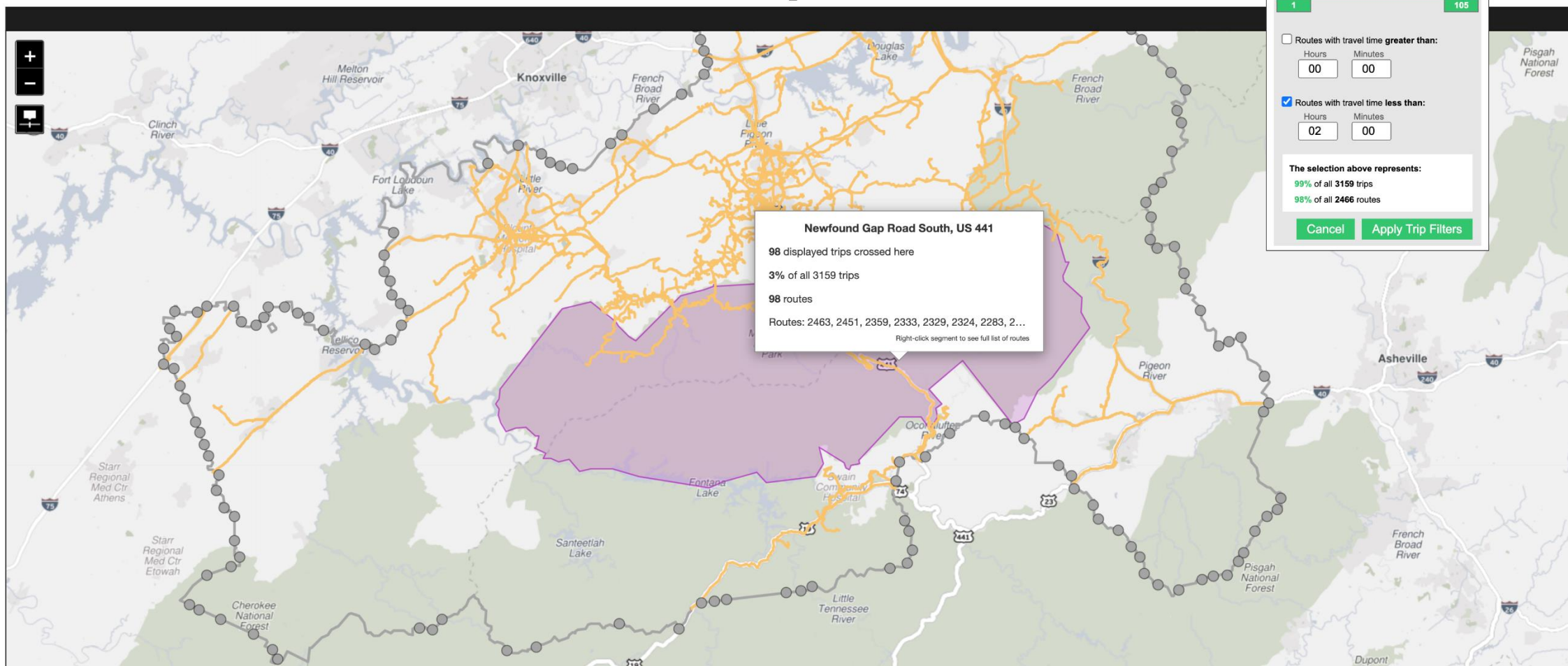
**The selection above represents:**

99% of all 3159 trips

98% of all 2466 routes

[Cancel](#) [Apply Trip Filters](#)

Reliability
1.36
1.22
1.21
1.4
1.17
1.74
1.15
1.28





Demo GSNP 6

Study Area: Custom Geography

Spatial Filter: 1 custom area in Tennes...

Data Set:  
TennesseeInternal Zones: TAZs  
External Zones: OD gatesTemporal Filter: 1/1/2022 – 1/31/2022  
Other Filters: Vehicle type: Light

3,159 trips in 2,466 routes

▼ Display Options

[OPEN AS...](#)[EXPORT](#)

Map	Rank	Route	# of Trips ▼	Length
<input checked="" type="checkbox"/>	1	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	105	6 mi
<input checked="" type="checkbox"/>	2	Parkway, US 321, US 441; Wears Valley Road, US 321; East Lamar Alexander Parkway, SR 73 Scenic; Townsend Entrance Road	61	17 mi
<input checked="" type="checkbox"/>	3	Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlinburg Spur Road (south), US 321, US 441; Parkway, US 441; Newfound Gap Road North, US 441	52	12 mi
<input checked="" type="checkbox"/>	4	Spirit Loop Way; Glory Ridge Way; Proffitt Road; Glades Road, CH 1284; East Parkway, US 321; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North	50	7 mi
<input checked="" type="checkbox"/>	5	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	50	33 mi
<input checked="" type="checkbox"/>	6	Parkway, US 441; Newfound Gap Road North, US 441; Fighting Creek Gap Road	30	6 mi
<input checked="" type="checkbox"/>	7	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	30	27 mi
<input checked="" type="checkbox"/>	8	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	26	2 mi
Total			3159	

**Page Layout**

☒ Table

☒ Map

**Show on Map**

☐ Only highlighted routes (blue)

☐ Labels

**Trip Filters for Map**

☒ Routes with the following number of trips:

1

 to 

105

1

105

☐ Routes with travel time greater than:

Hours 

00

 Minutes 

00

☒ Routes with travel time less than:

Hours 

02

 Minutes 

00

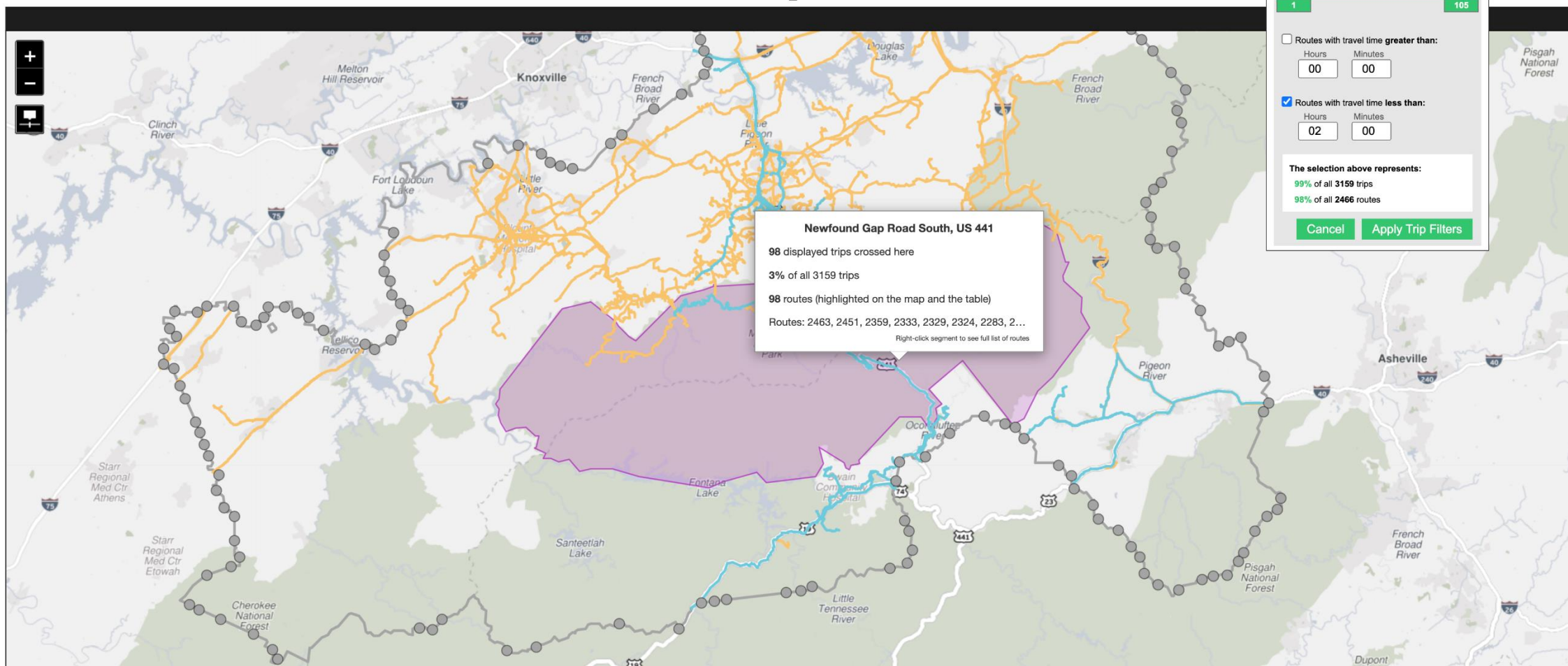
**The selection above represents:**

99% of all 3159 trips

98% of all 2466 routes

[Cancel](#) [Apply Trip Filters](#)

Reliability
1.36
1.22
1.21
1.4
1.17
1.74
1.15
1.28



## Demo GSNP 6

Study Area: Custom Geography

Spatial Filter: 1 custom area in Tennes...

Data Set:  
Tennessee

Internal Zones: TAZs

External Zones: OD gates

Temporal Filter: 1/1/2022 – 1/31/2022

Other Filters: Vehicle type: Light

3,159 trips in 2,466 routes

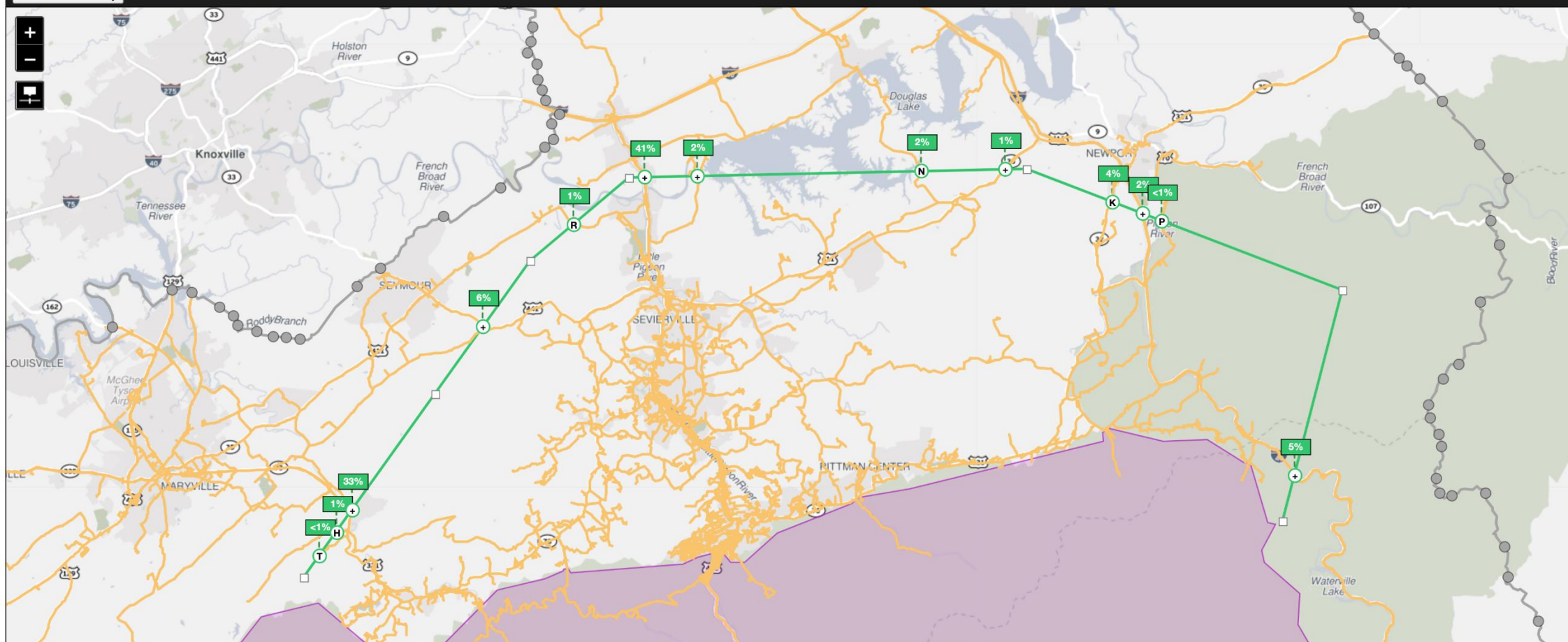
Display Options

OPEN AS...

EXPORT

Map	Rank	Route	# of Trips ▼	Length	Travel Time	Avg TT	Min TT	Max TT	Reliability
<input checked="" type="checkbox"/>	1	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	105	6 mi	12 m	12 m	2 m	32 m	1.36
<input checked="" type="checkbox"/>	2	Parkway, US 321, US 441; Wears Valley Road, US 321; East Lamar Alexander Parkway, SR 73 Scenic; Townsend Entrance Road	61	17 mi	32 m	33 m	24 m	47 m	1.22
<input checked="" type="checkbox"/>	3	Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlinburg Spur Road (south), US 321, US 441; Parkway, US 441; Newfound Gap Road North, US 441	52	12 mi	22 m	21 m	11 m	32 m	1.21
<input checked="" type="checkbox"/>	4	Spirit Loop Way; Glory Ridge Way; Proffitt Road; Glades Road, CH 1284; East Parkway, US 321; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North	50	7 mi	19 m	22 m	10 m	53 m	1.4
<input checked="" type="checkbox"/>	5	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	50	33 mi	50 m	51 m	31 m	1 h 36 m	1.17
<input checked="" type="checkbox"/>	6	Parkway, US 441; Newfound Gap Road North, US 441; Fighting Creek Gap Road	30	6 mi	10 m	13 m	4 m	32 m	1.74
<input checked="" type="checkbox"/>	7	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	30	27 mi	48 m	49 m	28 m	1 h 12 m	1.15
<input checked="" type="checkbox"/>	8	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	26	2 mi	6 m	7 m	2 m	21 m	1.28
Total			3159						

## Screen line summary





## Demo GSNP 6

Study Area: Custom Geography

Spatial Filter: 1 custom area in Tennes...

Data Set:  
Tennessee

Internal Zones: TAZs

External Zones: OD gates

Temporal Filter: 1/1/2022 – 1/31/2022

Other Filters: Vehicle type: Light

3,159 trips in 2,466 routes

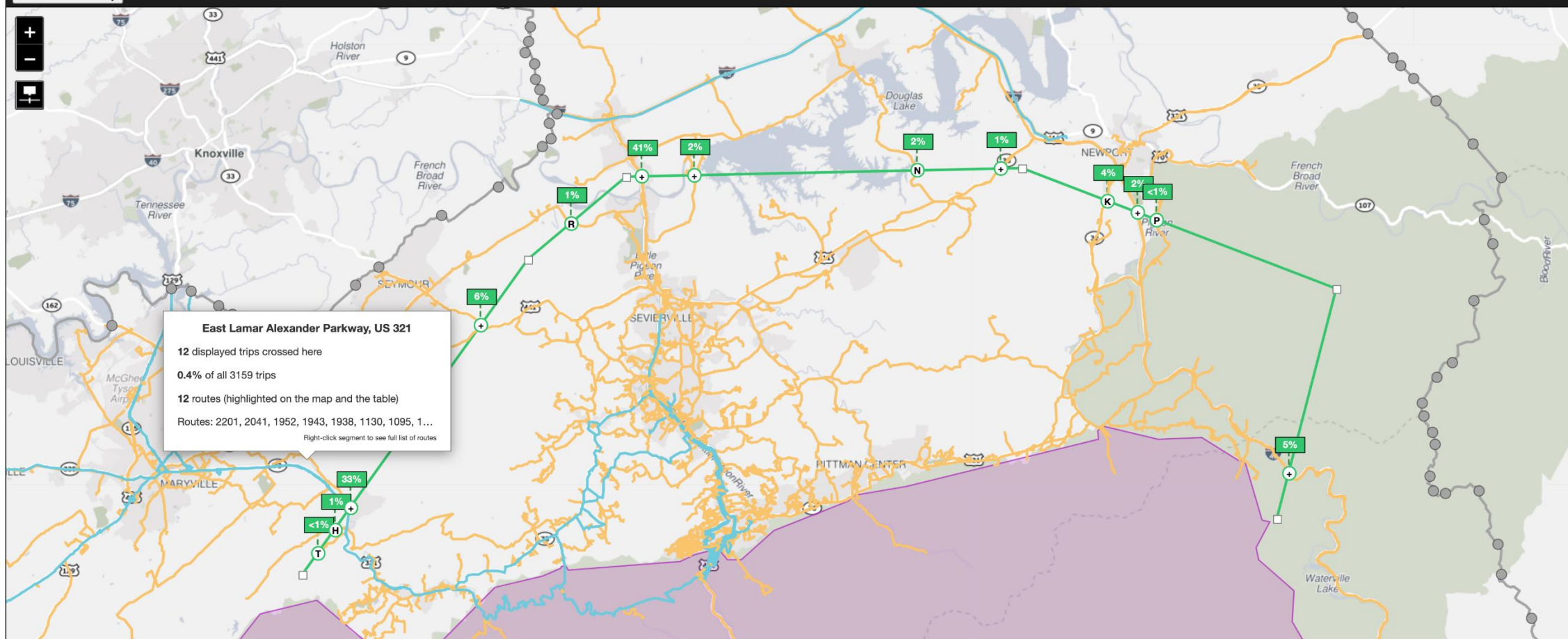
Display Options

OPEN AS...

EXPORT

Map	Rank	Route	# of Trips ▼	Length	Travel Time	Avg TT	Min TT	Max TT	Reliability
<input checked="" type="checkbox"/>	1	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	105	6 mi	12 m	12 m	2 m	32 m	1.36
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<input checked="" type="checkbox"/>	3	Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlinburg Spur Road (south), US 321, US 441; Parkway, US 441; Newfound Gap Road North, US 441	52	12 mi	22 m	21 m	11 m	32 m	1.21
<input checked="" type="checkbox"/>	4	Spirit Loop Way; Glory Ridge Way; Proffitt Road; Glades Road, CH 1284; East Parkway, US 321; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North	50	7 mi	19 m	22 m	10 m	53 m	1.4
<input checked="" type="checkbox"/>	5	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	50	33 mi	50 m	51 m	31 m	1 h 36 m	1.17
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<input checked="" type="checkbox"/>	7	► I 40; Winfield Dunn Parkway, TN 66; Winfield Dunn Parkway, TN 66, SR 338; Forks of the River Parkway, US 441; Parkway; Parkway, US 441; Parkway, US 321, US 441; Gatlinburg Spur Road, US 321, US 441; Gatlin	30	27 mi	48 m	49 m	28 m	1 h 12 m	1.15
<input checked="" type="checkbox"/>	8	Historic Nature Trail; Parkway, US 441; Newfound Gap Road North, US 441; Gatlinburg Bypass Road; Newfound Gap Road North; Fighting Creek Gap Road	26	2 mi	6 m	7 m	2 m	21 m	1.28
Total			3159						

## Screen line summary





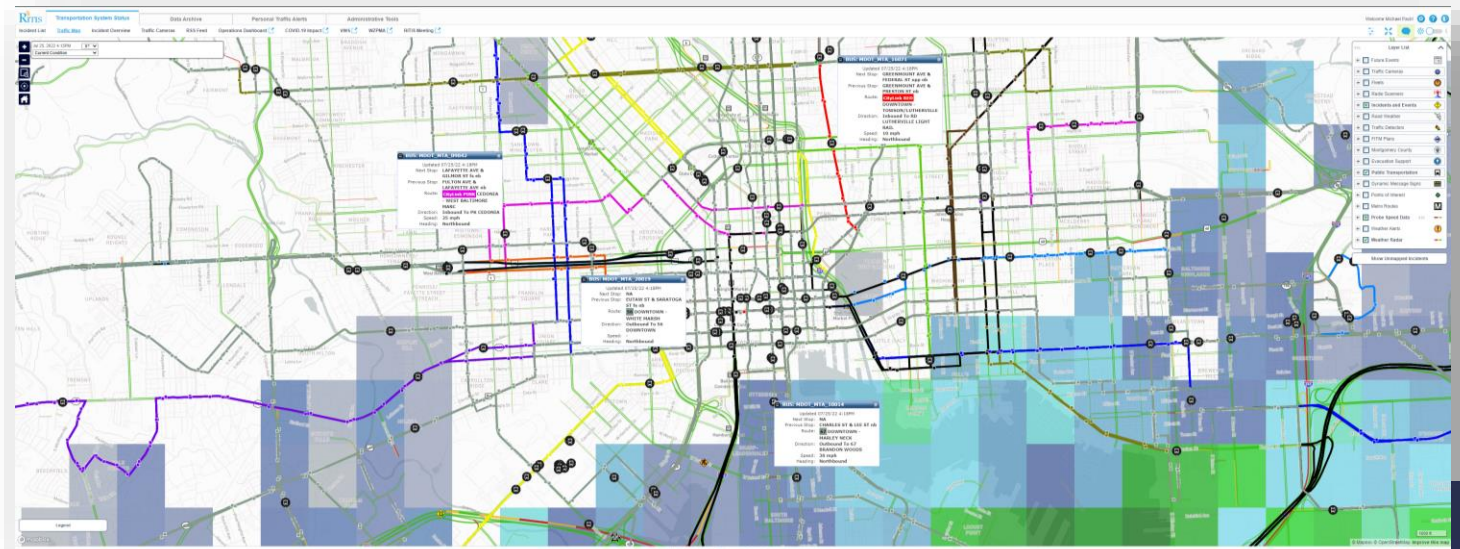
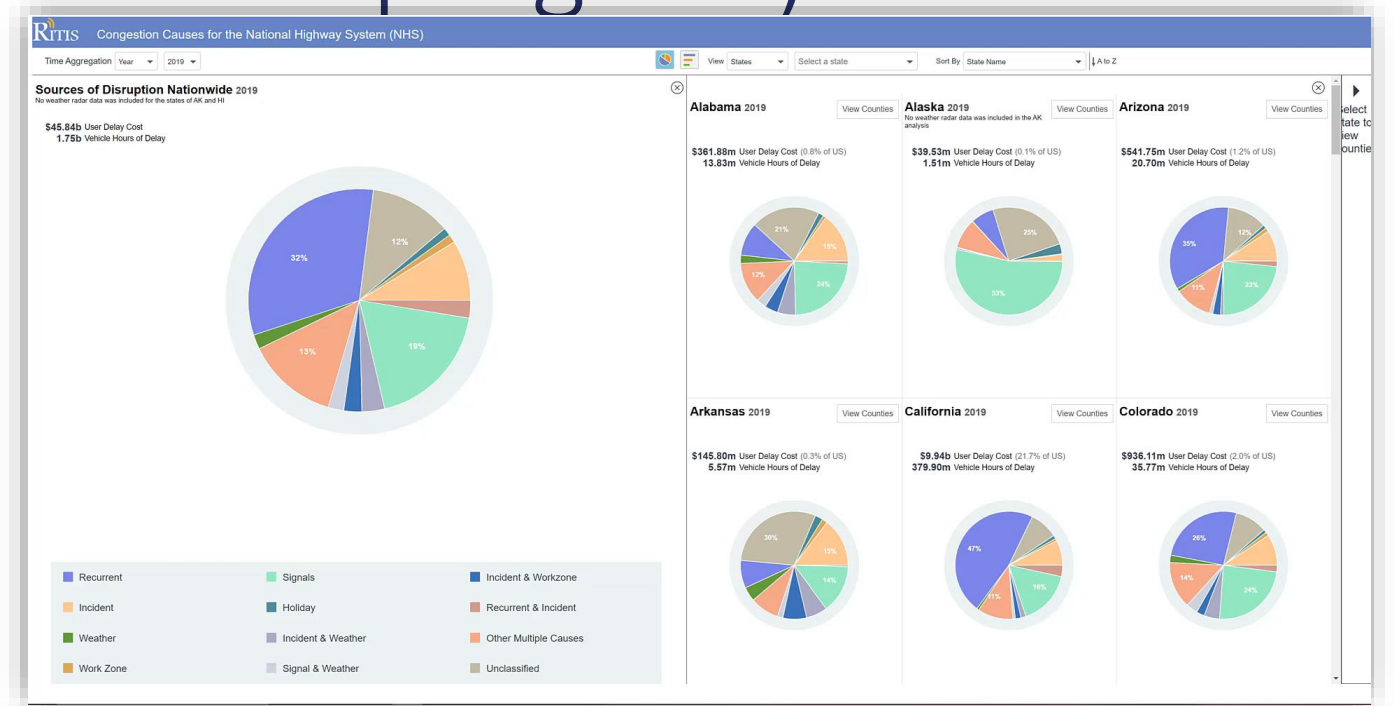
# Corrected Issues

- ✓ Fixed an issue that prevented the previous and next arrows from being disabled on the **Incident List** page
- ✓ When reordering **Traffic Map** layers, sub-menus now automatically close
- ✓ Disabled **Traffic Map** layers are now ordered properly when re-enabled
- ✓ Fixed an issue that caused errors on the **Public Transportation** layer on the **Traffic Map** when showing large numbers of transit routes
- ✓ Fixed an issue in the **WZPMA** that prevented some work zone profiles from showing Associated DMS, Nearby Cameras, and Nearby Incidents
- ✓ Fixed an issue that prevented the **WZPMA** Profile page from loading data when an associated TMC had recently been updated



# Almost finished (or works in progress)

- Causes of Congestion Deep Dive Analytics
- Transit Layer Visualizations and Optimization
- Bikeshare locations and related data in D.C.





# Agency Input Session

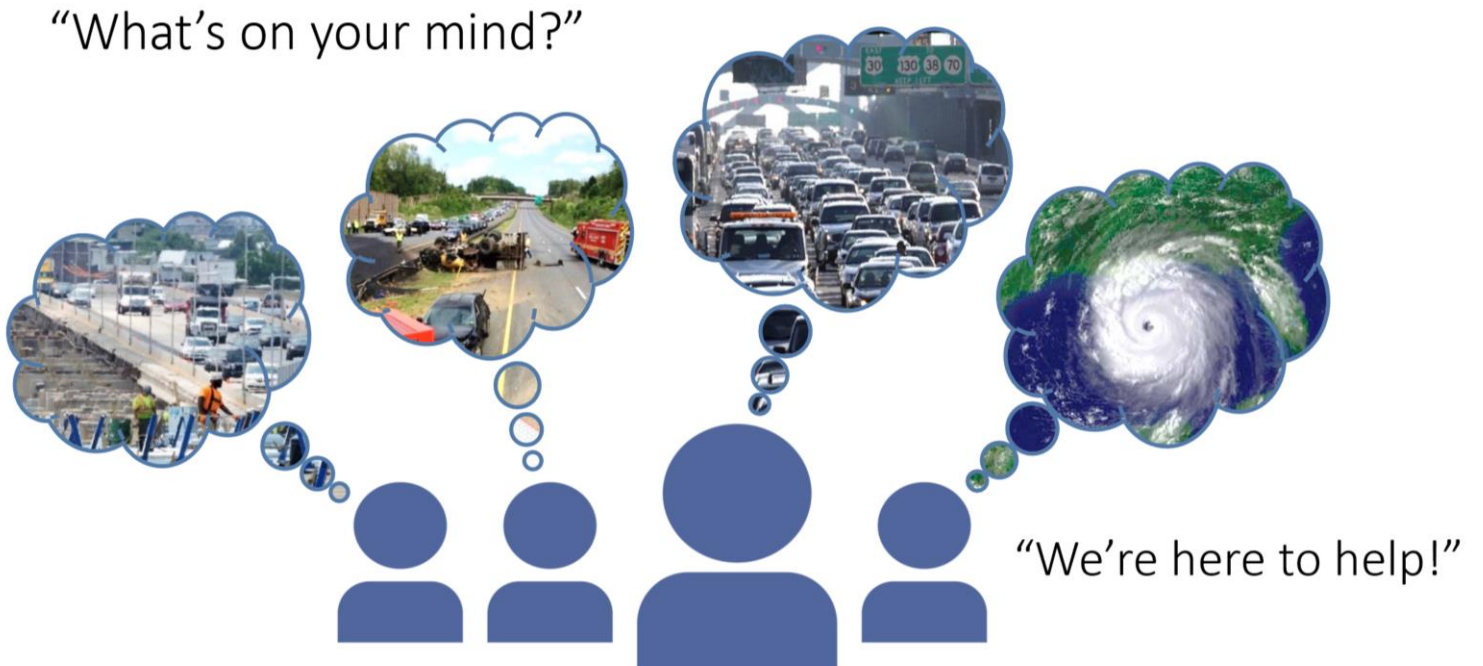


**Michael Pack**  
UMD CATT Lab  
*Director*

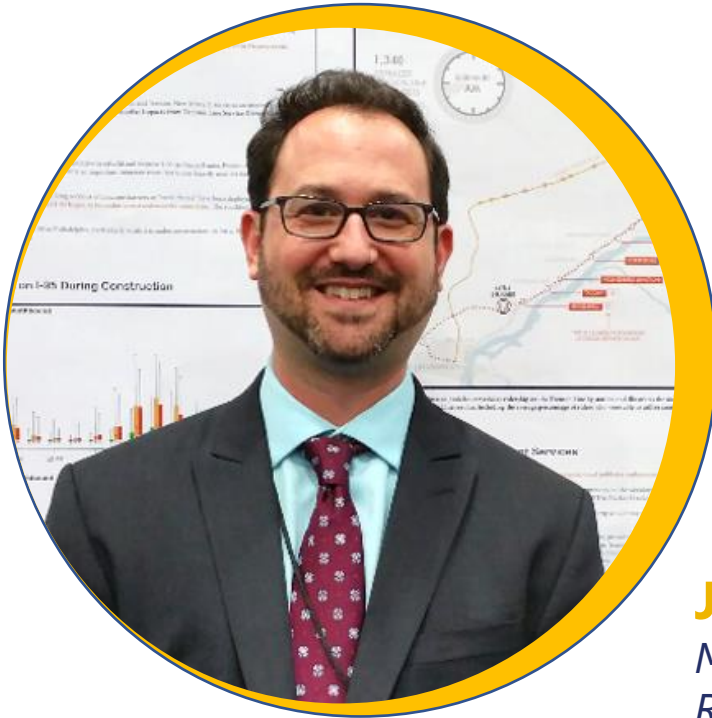


# We want to hear from you!

- All features and functionality are driven by state/mpo users.
- You are welcome to join any of our User Groups / Working Groups / Listening Sessions to brainstorm/define these new features and functionality.
- You can also type your comments to us today either in the Q&A box or with an email to [support@ritis.org](mailto:support@ritis.org)



# Wrap Up



**Jesse Buerk**

*Manager, Office of Capital Programs  
RITIS User Group Co-chair  
DVRPC*



# Questions?



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# Thank you!



— THE EASTERN —  
TRANSPORTATION  
COALITION

