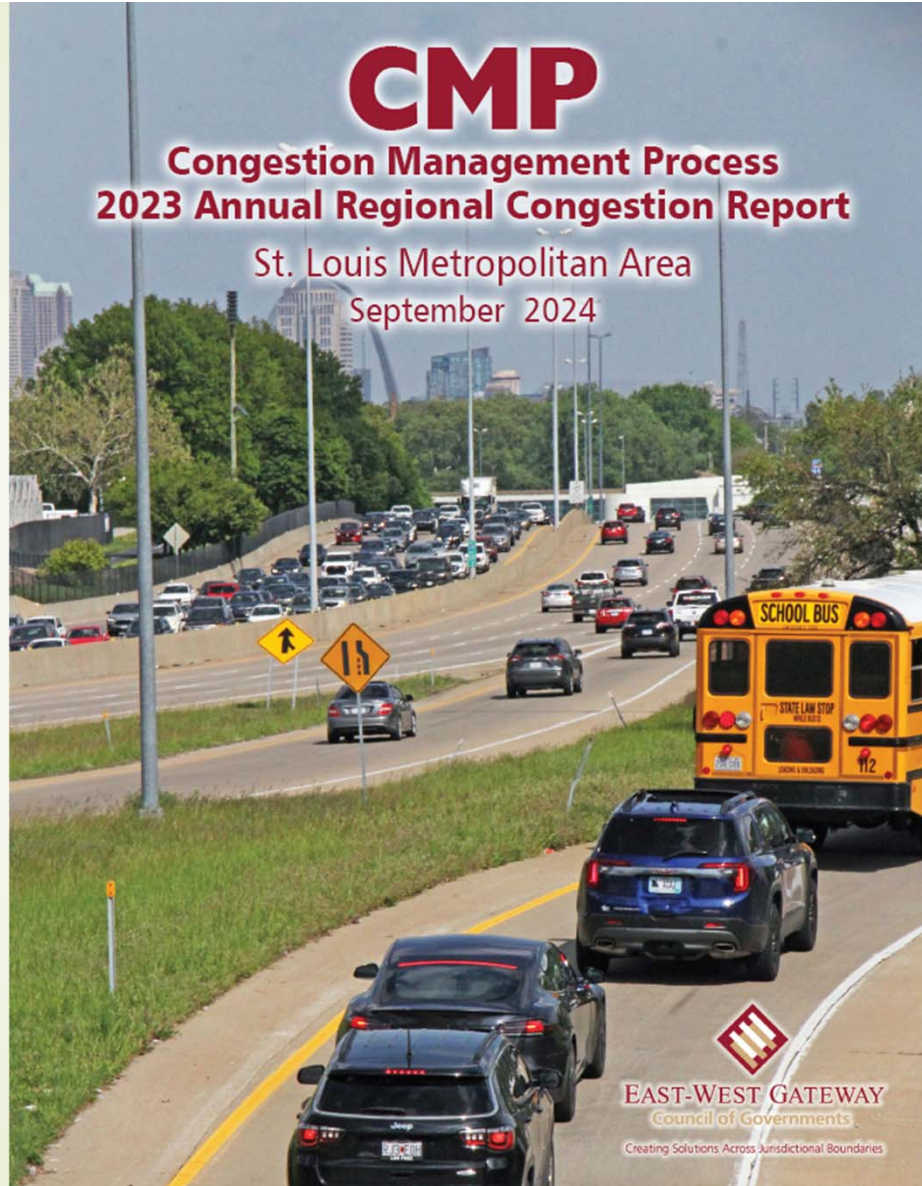


# CMP

## Congestion Management Process 2023 Annual Regional Congestion Report

St. Louis Metropolitan Area  
September 2024



**EAST-WEST GATEWAY**  
Council of Governments

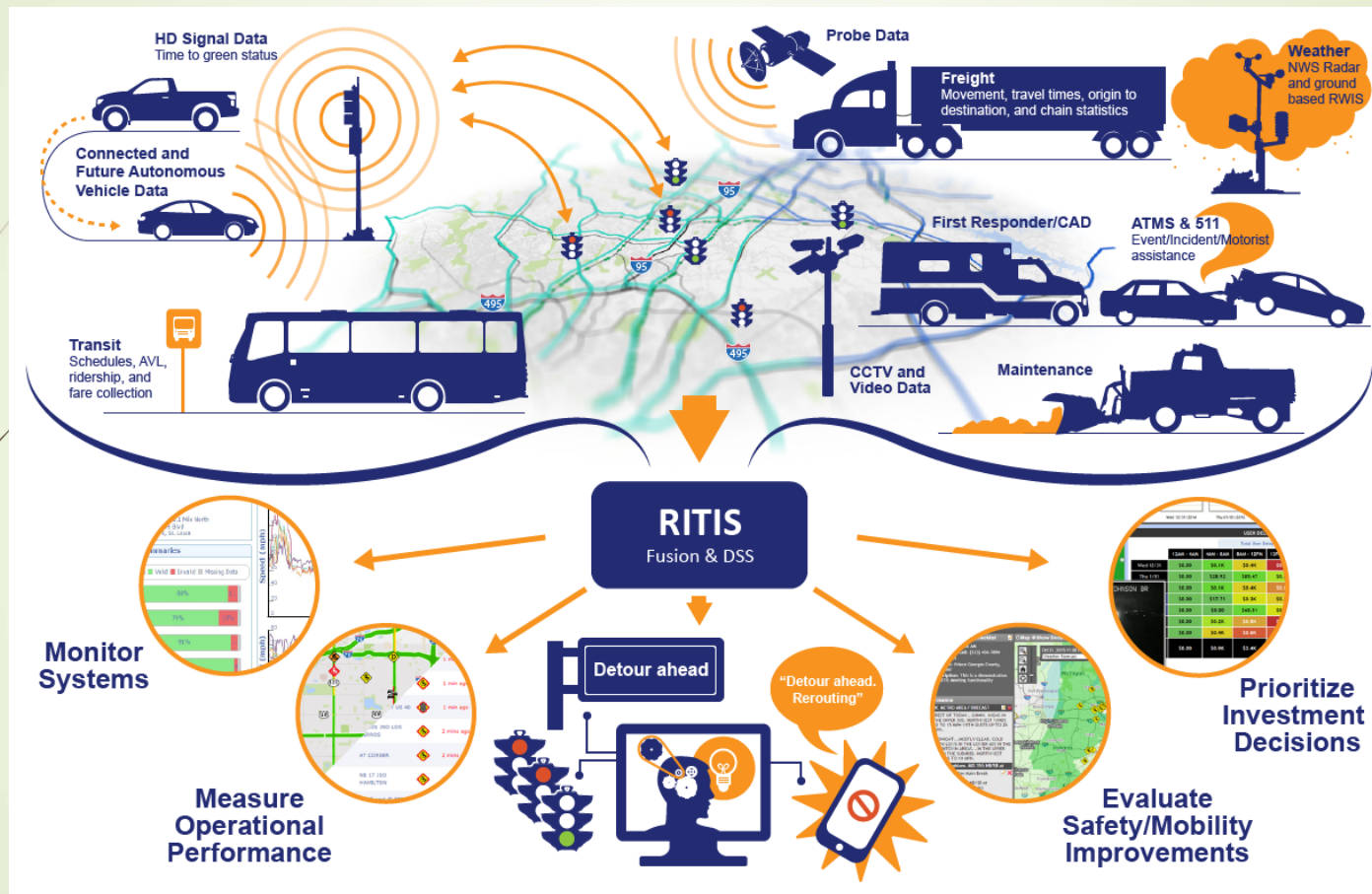
Creating Solutions Across Jurisdictional Boundaries



# Background

- A Congestion Management Process (CMP) is required in large metropolitan areas.
- This report identifies and measures regional congestion.
- Goals:
  - Identify regional congestion.
  - Present implemented congestion management strategies.
  - Engage partners in determining solutions.

# National Performance Management Research Data Set



# Congestion Metrics

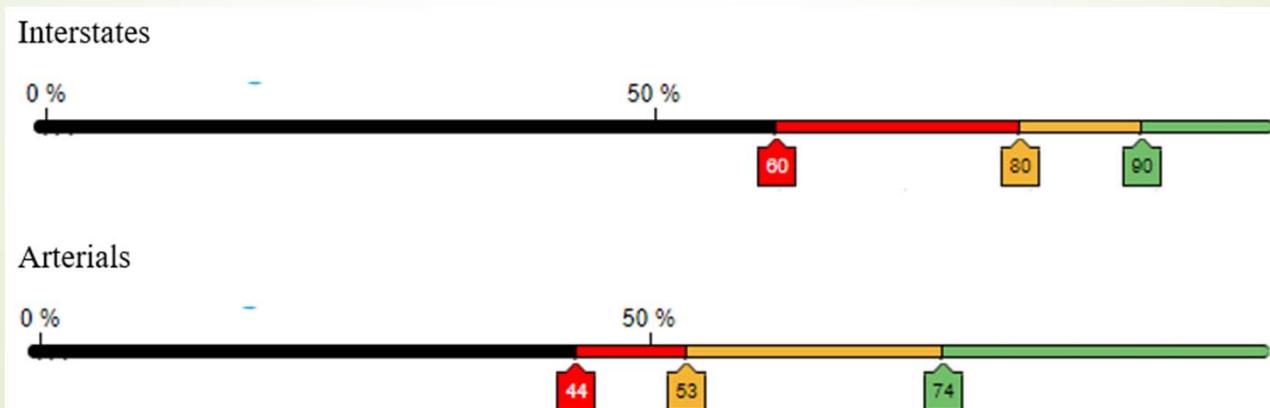
- **Speed Index** – Ideal travel time based on free flow speed
- **Travel Time Index (TTI)** – ratio of ideal travel time. 1.2 → 20% longer trip
- **Planning Time Index (PTI)** – ratio of ideal travel time plus buffer time
  - accounts for unexpected issues (weather, accidents, road work)
- **Severity** – Average of TTI and PTI
- **Delay Impact** – TTI multiplied by length of the congested roadway segment

## Example

Map ID No.	Route	Limits	State	Area	Direction	Peak	Queue Length (Mi)	PTI	TTI	Severity	Delay Impact
1	I-55	Arsenal to Union Rd	MO	St. Louis City	NB	AM	6.08	3.02	1.45	2.24	8.82
2	I-55	Park Ave to Reavis Barracks	MO	St. Louis City	SB	PM	9.81	3.75	1.76	2.76	17.27

# Selecting Congested Locations

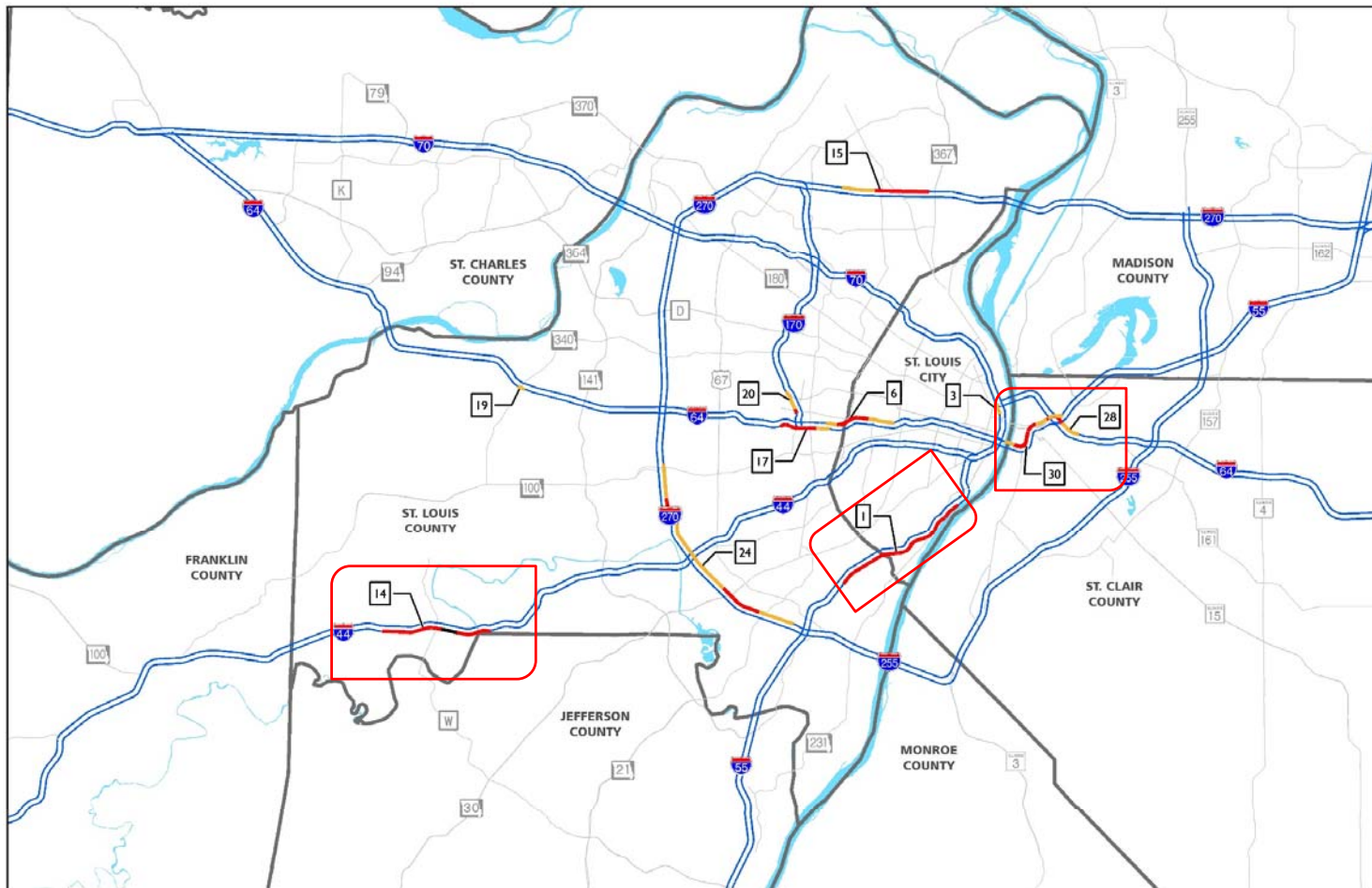
- Examined National Highway System Roads
- Used HERE congestion scans and metrics for 2022 and 2023
- Analyzed AM and PM Peak Periods
  - 6-9 AM Every Weekday
  - 3-6 PM Every Weekday
- Applied following Speed Index thresholds to identify congested locations





# Major Impacts: Work Zones 2023

- **I-55 Bridge Rehab both directions (I-55/I-44 Split to Bayless Avenue)**  
Construction on 14 bridges, regular lane shifts and ramp closures. 2 lanes taken in both directions, 3.15-mile bottleneck. Delays of 24 mins
- **I-44 EB Bridge Rehab (Lewis Rd near Eureka)**  
One lane taken, 3.26-mile bottleneck. Delays of 20 – 30 mins
- **I-55/I-64 Bridge Rehab, Repair, and Painting (Poplar St Bridge / East St. Louis)**  
Regular lane shifts and closures, 2.11-mile bottleneck. Delays of 16 mins
- **I-255 Jefferson Barracks Bridge (Into and out of Missouri)**  
Full closure of WB bridge, traffic shifted to one side, narrowed lanes



## 2023 Congested Locations Interstates - AM Peak

*East-West Gateway Region*

### Interstate Congestion

- Severe
- Heavy
- Moderate
- Uncongested

### Other Map Data

- Arterial
- County Boundary
- River / Lake



Sources: Federal Highway Administration, Here Data,  
East-West Gateway Council of Governments



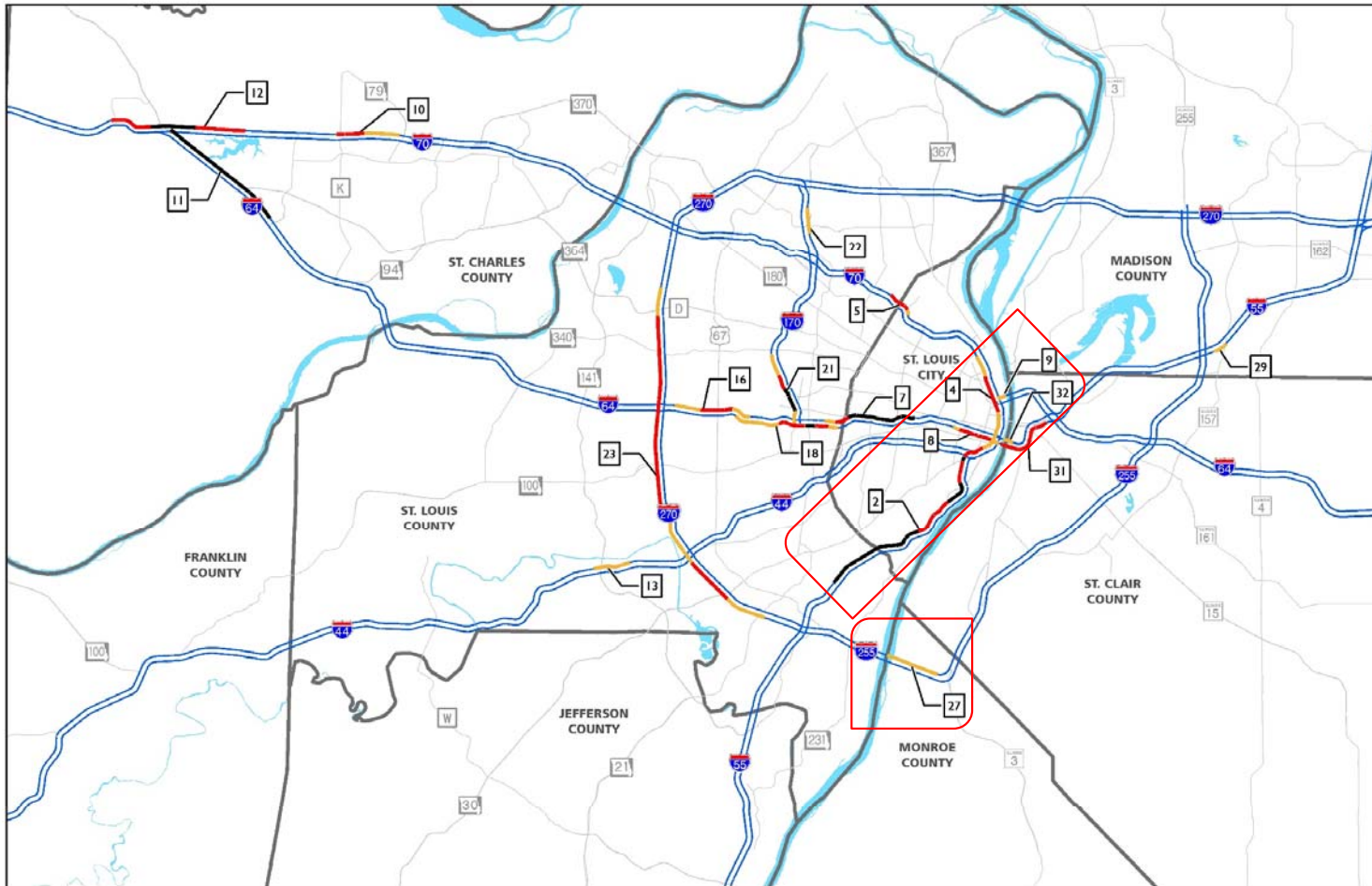
August 2024

## Slide 7

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**QS0** Have memorized the map numbers, locations, and directions of travel for most severe spots  
Quintin Sargent, 2024-08-12T19:14:19.999





## 2023 Congested Locations Interstates - PM Peak

*East-West Gateway Region*

### Interstate Congestion

- Severe
- Heavy
- Moderate
- Uncongested

### Other Map Data

- Arterial
- County Boundary
- River / Lake



Sources: Federal Highway Administration, Here Data;  
East-West Gateway Council of Governments



August 2024

# Recurring Congestion

- I-64 and I-70 St. Charles PM
- I-270 NB AM and SB PM
- I-64 and I-170 AM and PM  
EB and WB, STL city and county



# Interstate Analysis

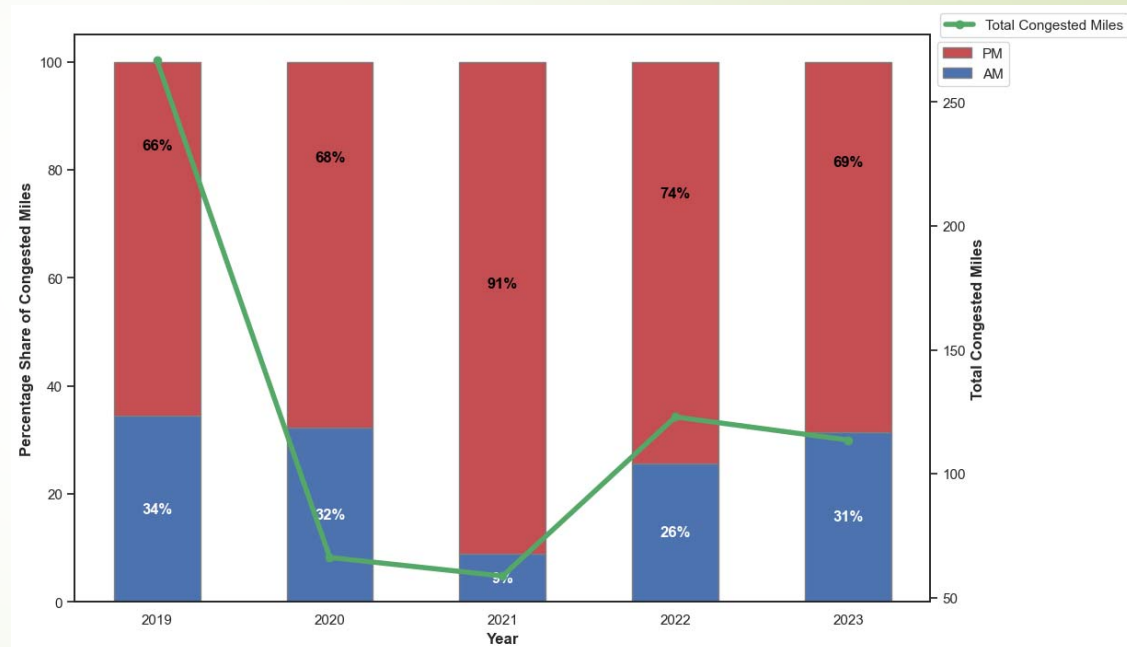
## Total Congested Locations

2022	2023
39	32

## Total Congested Miles

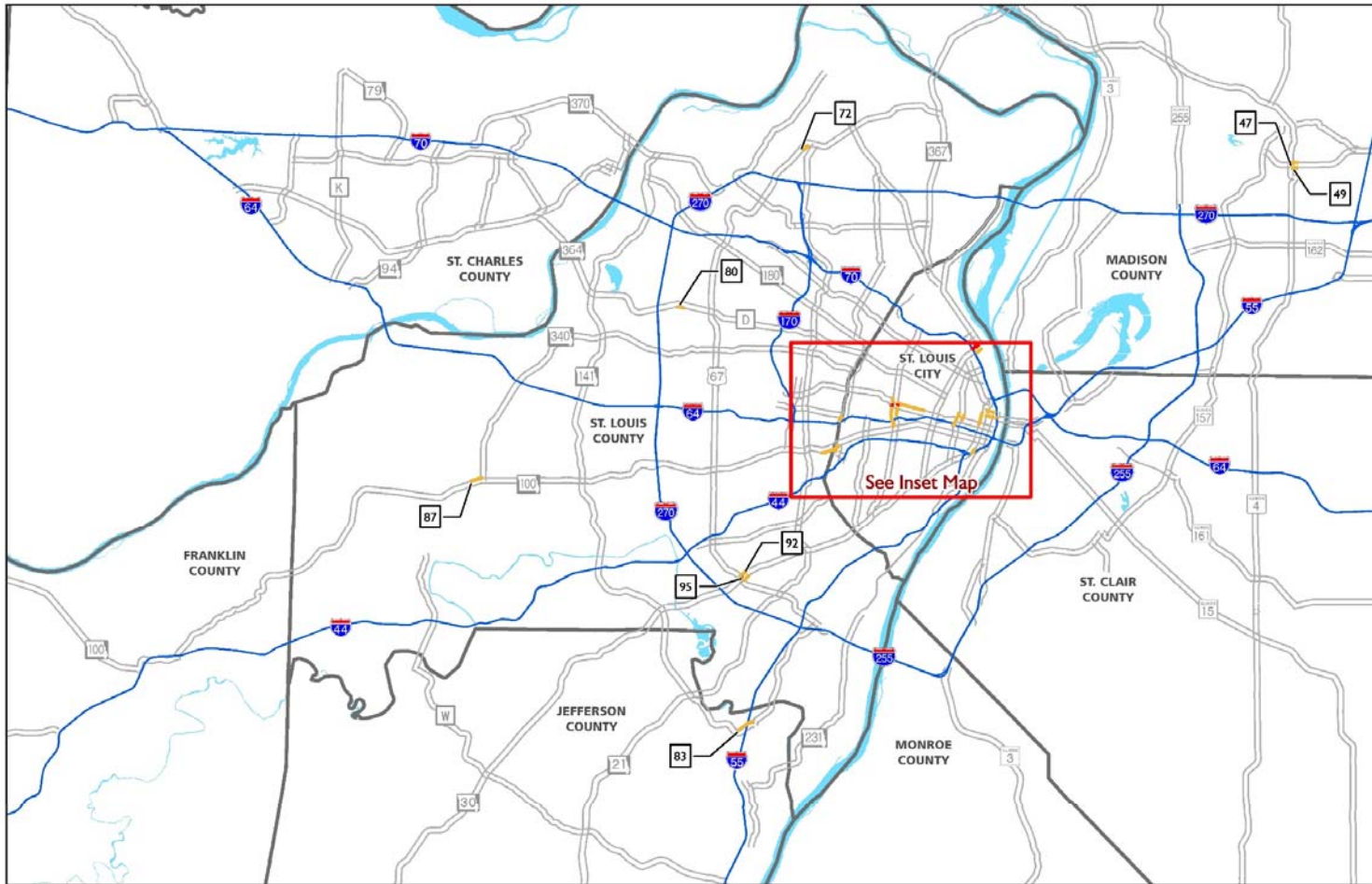
2022	2023
122.9	113.56

## Interstates Past 5 Years



VMT (Million)	2019	2020	2021	2022	2023
	30.72	26.62	30.4	29.4	29.3

Less congestion as total interstate VMT decreased in 2023



## 2023 Congested Locations Arterials - AM Peak

*East-West Gateway Region*

### Arterial Congestion

- ▬ Heavy
- ▬ Moderate
- ▬ Uncongested

### Other Map Data

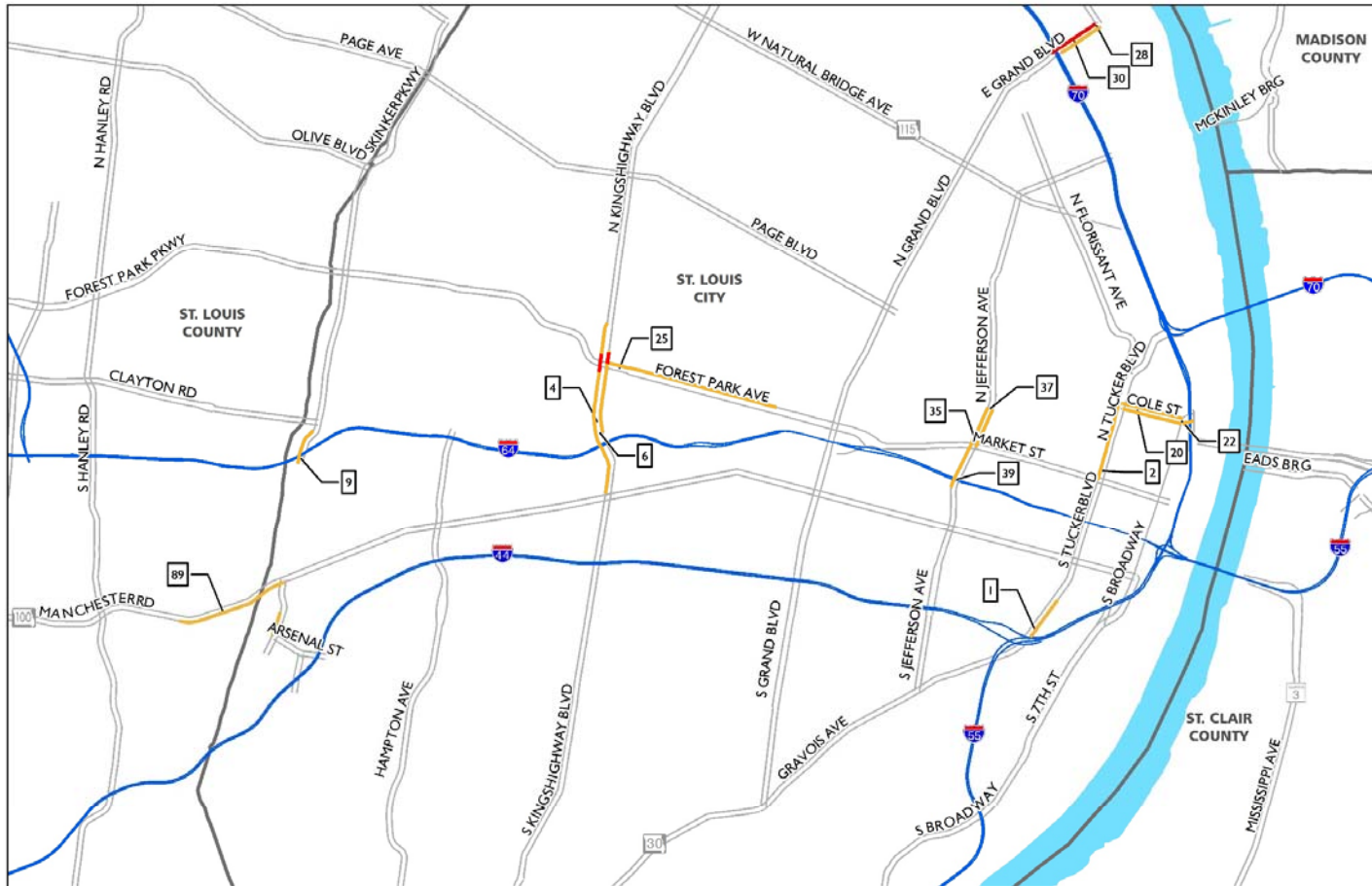
- ▬ Interstate
- County Boundary
- ▬ River / Lake



Sources: Federal Highway Administration, Here Data,  
East-West Gateway Council of Governments



August 2024



**2023 Congested Locations  
Arterials - AM Peak Inset**  
East-West Gateway Region

**Arterial Congestion**

- Heavy
- Moderate
- Uncongested

**Other Map Data**

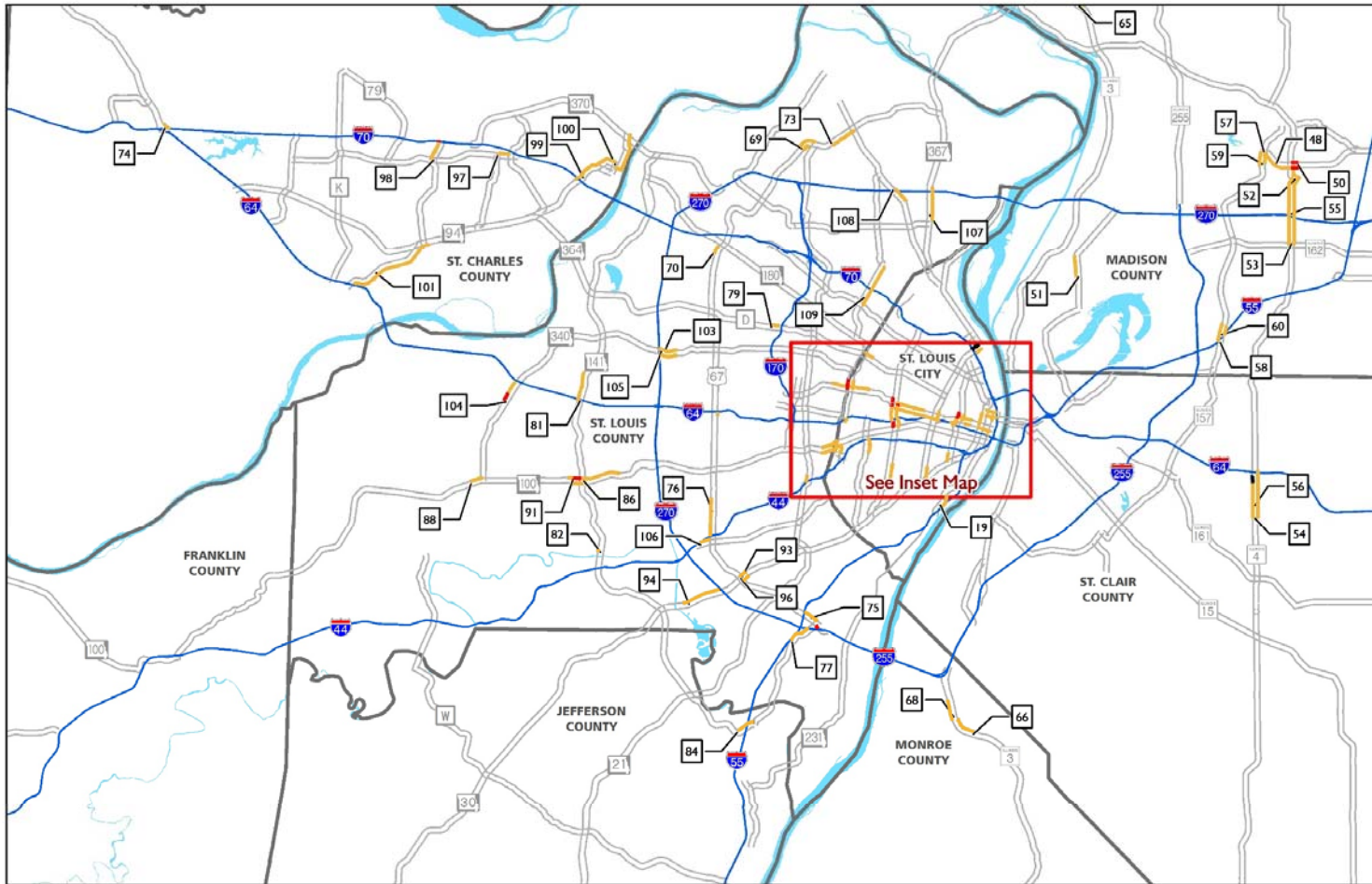
- Interstate
- County Boundary
- River / Lake



Sources: Federal Highway Administration, Here Data;  
East-West Gateway Council of Governments



August 2024



**2023 Congested Locations**  
**Arterials - PM Peak**  
*East-West Gateway Region*

**Arterial Congestion**

- Severe
- - - Heavy
- - - Moderate
- Uncongested

**Other Map Data**

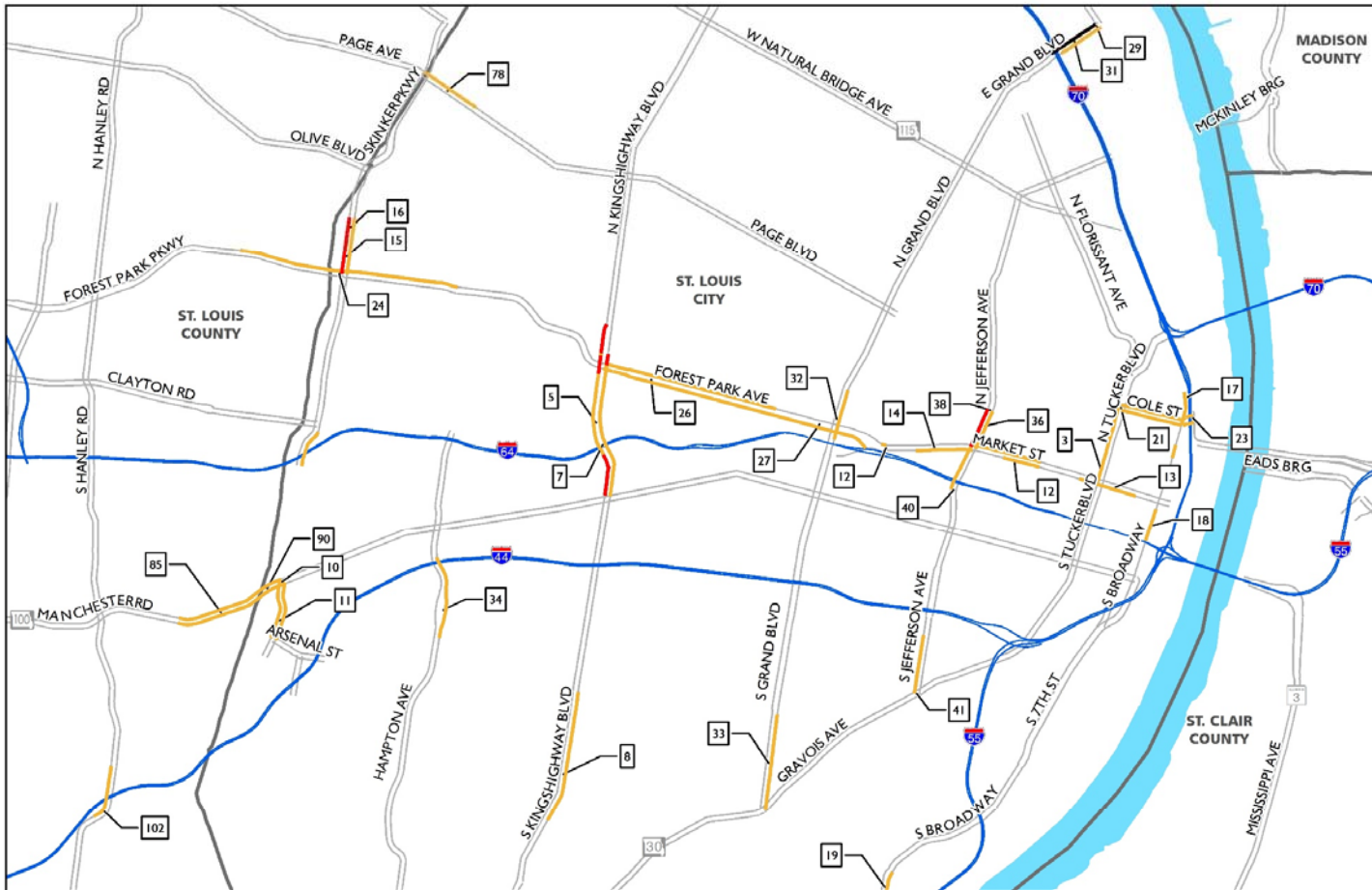
- Interstate
- County Boundary
- River / Lake



Sources: Federal Highway Administration, Here Data,  
 East-West Gateway Council of Governments



August 2024



**2023 Congested Locations**  
**Arterials - PM Peak Inset**  
*East-West Gateway Region*

- |                            |                       |
|----------------------------|-----------------------|
| <b>Arterial Congestion</b> | <b>Other Map Data</b> |
| ~ Severe                   | ~ Interstate          |
| ~ Heavy                    | ~ County Boundary     |
| ~ Moderate                 | ~ River / Lake        |
| ~ Uncongested              |                       |



Sources: Federal Highway Administration, Here Data;  
 East-West Gateway Council of Governments

# Arterial Analysis

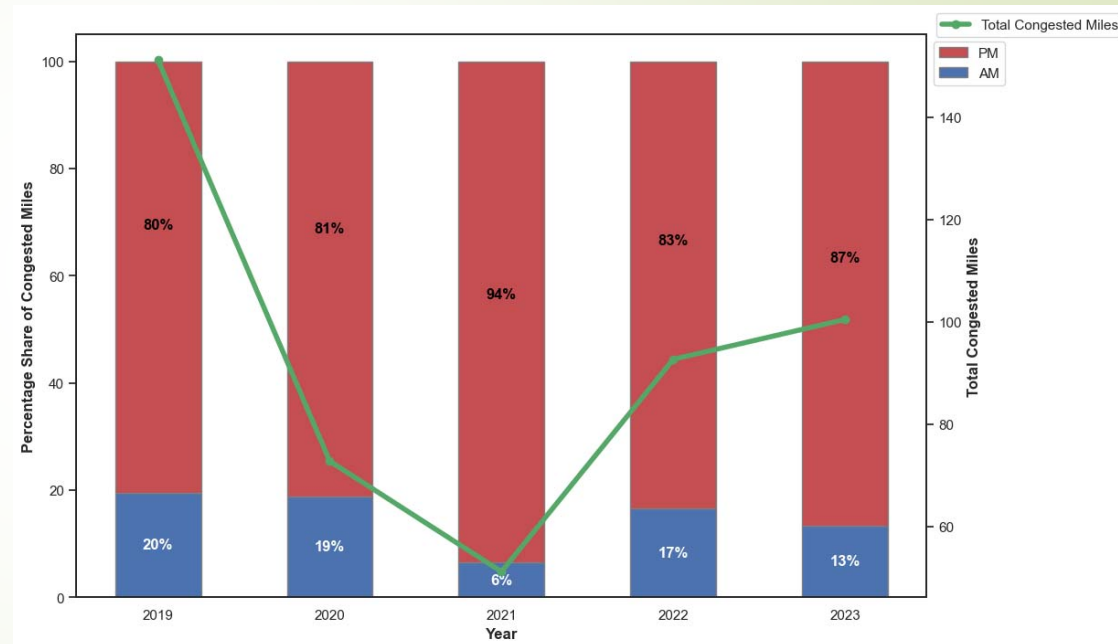
## Total Congested Locations

2022	2023
102	109

## Total Congested Miles

2022	2023
92.71	100.49

Arterials Past 5 Years



VMT (Million)	2019	2020	2021	2022	2023
	22.45	20.23	21.12	20.56	21.58

More congestion as total arterial VMT increased in 2023



## Worst 10 Locations by Severity 2023

Rank	Map ID No.	Route	Limits	County	Direction	Peak	Queue Length (Mi)	Severity	Difference from 2022
1	11	I-64	MO-N to I-70	St. Charles	WB	PM	5.59	2.95	+ 0.08
2	2	I-55	Park Ave to Reavis Barracks	St. Louis City	SB	PM	9.81	2.76	+ 0.13
3	7	I-64	S Kingshighway to Big Bend Blvd	St. Louis City	WB	PM	3.93	2.60	+ 0.05
4	14	I-44	Lewis Rd to MO-109	St. Louis	EB	AM	4.64	2.51	+ 1.44
5	15	I-270	Old Halls Ferry Rd to N Elizabeth Ave	St. Louis	WB	AM	3.66	2.39	+ 0.13
6	1	I-55	Arsenal to Union Rd	St. Louis City	NB	AM	6.08	2.24	- 0.10
7	21	I-170	Delmar Blvd to I-64	St. Louis	SB	PM	3.16	2.10	- 0.04
8	12	I-70	MO-A to Pearce Blvd	St. Charles	WB	PM	5.69	2.06	+ 0.01
9	17	I-64	Big Bend Blvd to I-170	St. Louis	EB	AM	2.17	2.04	+ 0.14
10	6	I-64	Hampton Ave to Big Bend Blvd	St. Louis City	WB	AM	2.93	2.04	+ 0.10

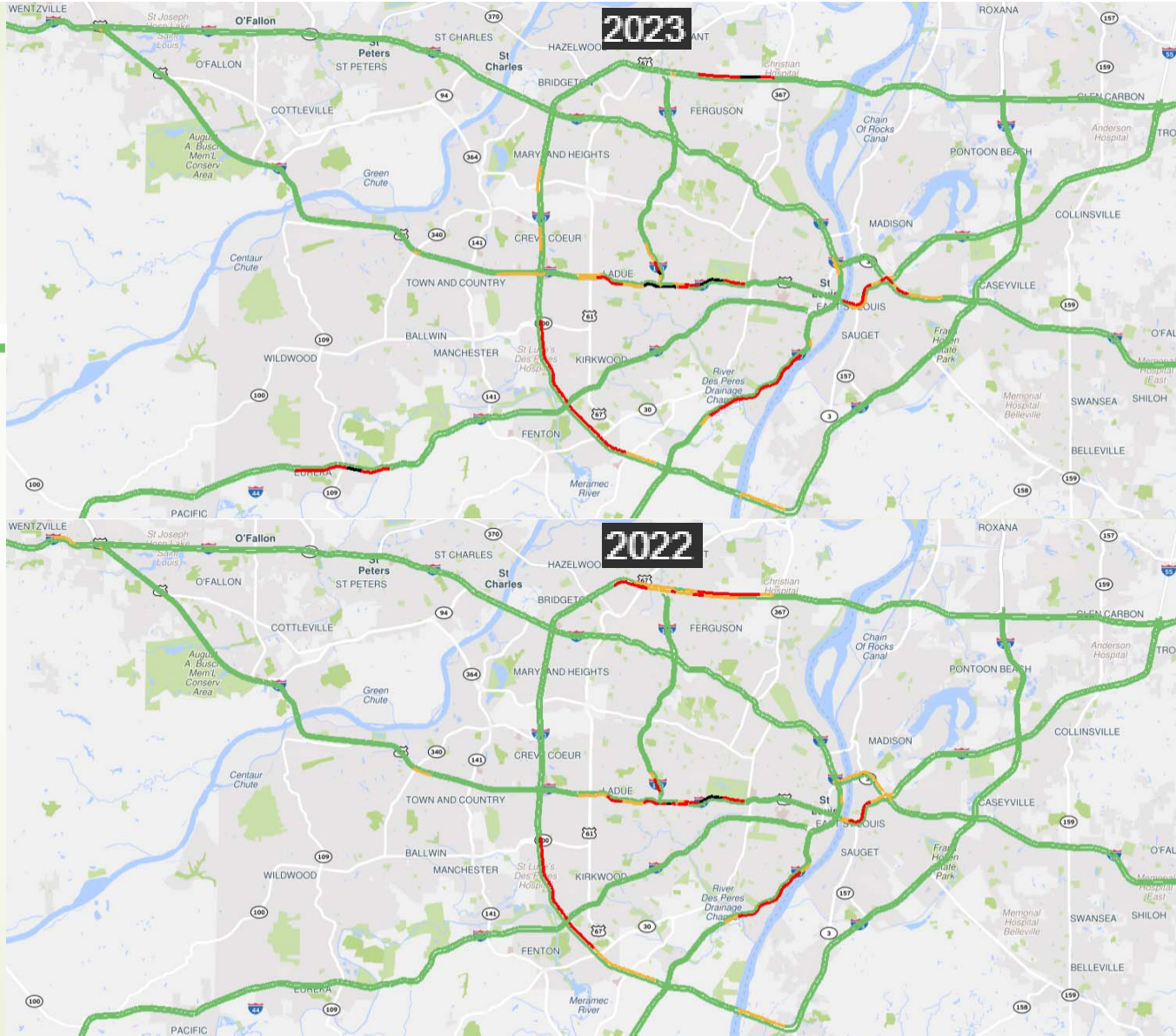
Colors indicate location recurred from 2022

# Worst 10 Locations by Delay Impact 2023

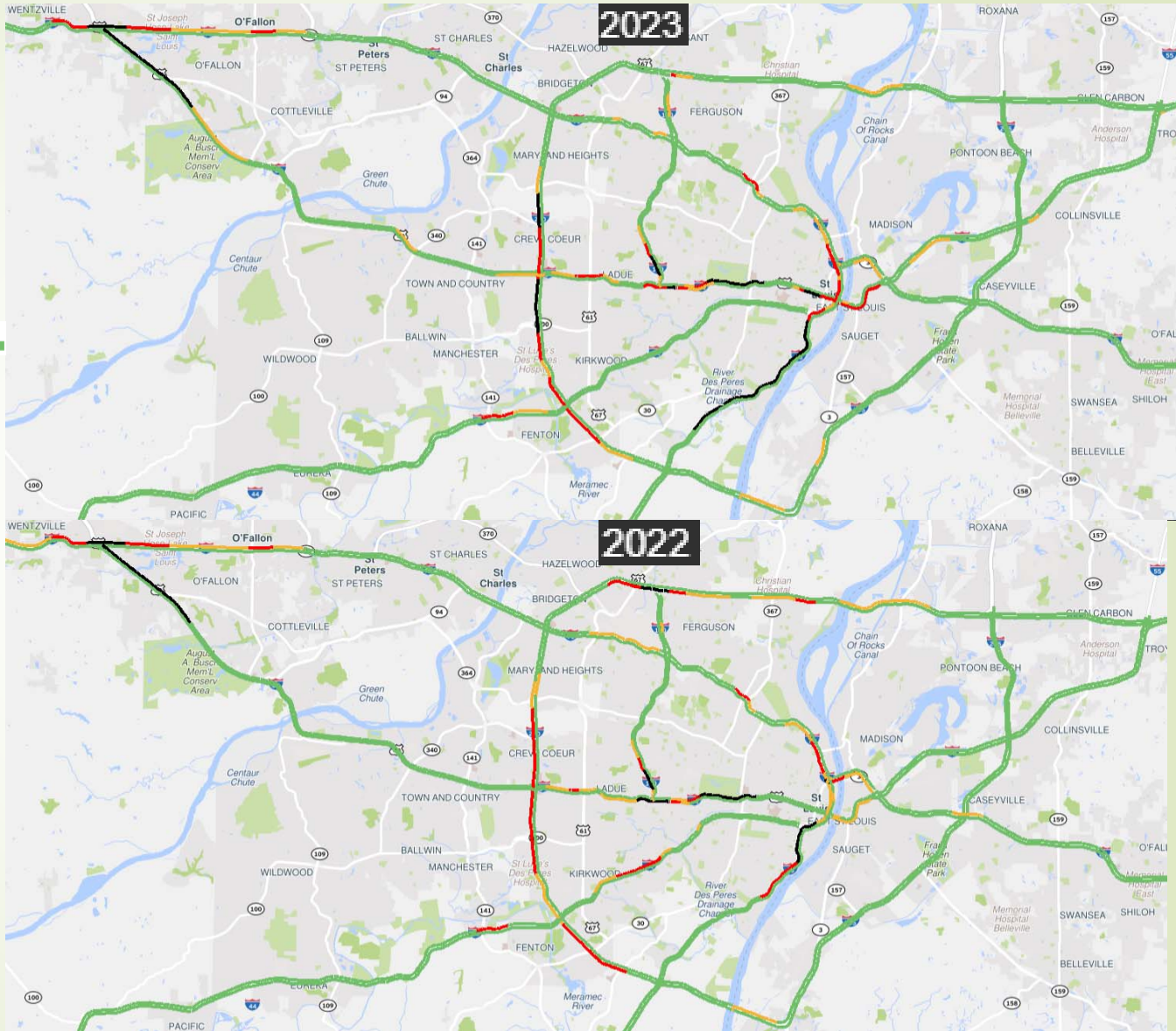
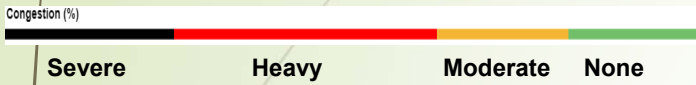
Rank	Map ID No.	Route	Limits	County	Direction	Peak	Queue Length (Mi)	Delay Impact	Difference from 2022
1	23	I-270	Page Ave to Tesson Ferry Rd	St. Louis	SB	PM	15.75	21.26	+ 2.44
2	2	I-55	Park Ave to Reavis Barracks	St. Louis City	SB	PM	9.81	17.27	+ 8.19
3	24	I-270	Tesson Ferry Rd to Manchester Rd	St. Louis	NB	AM	9.58	11.88	+ 0.34
4	11	I-64	MO-N to I-70	St. Charles	WB	PM	5.59	10.34	+ 0.33
5	1	I-55	Arsenal to Union Rd	St. Louis City	NB	AM	6.08	8.82	+ 1.4
6	12	I-70	MO-A to Pearce Blvd	St. Charles	WB	PM	5.69	8.36	- 2.81
7	25	I-55	MO-Z to McNutt St	Jefferson	SB	PM	6.46	7.62	+ 0.05
8	7	I-64	S Kingshighway to Big Bend Blvd	St. Louis City	WB	PM	3.93	7.47	- 0.23
9	14	I-44	Lewis Rd to MO-109	St. Louis	EB	AM	4.64	6.77	+ 1.85
10	18	I-64	Bellevue Ave to 40 Dr	St. Louis	EB	PM	4.34	5.99	- 0.09

Colors indicate location recurred from 2022

# Congestion Progression 8 AM



# Congestion Progression 4 PM





# Key Takeaways

- ▶ **Covid forced a reduction in vehicular travel** as the public adapted with remote work, school, and online shopping.
- ▶ **Congestion severity is on the rise.** Likely attributable to road work on major highways in the region.
- ▶ Even though some interstate congestion was resolved, most interstates experienced **more severe delays during the 2023 PM peak time.**
- ▶ While interstate congestion decreased, **arterials experienced more congestion in 2023.**

## Report available

<https://www.ewgateway.org/transportation-planning/transportation-systems-management-operations/congestion-management-process/>

Thank you for your ideas and strategies to help reduce congestion in our region.



Any questions?

[cmp@ewgateway.org](mailto:cmp@ewgateway.org)