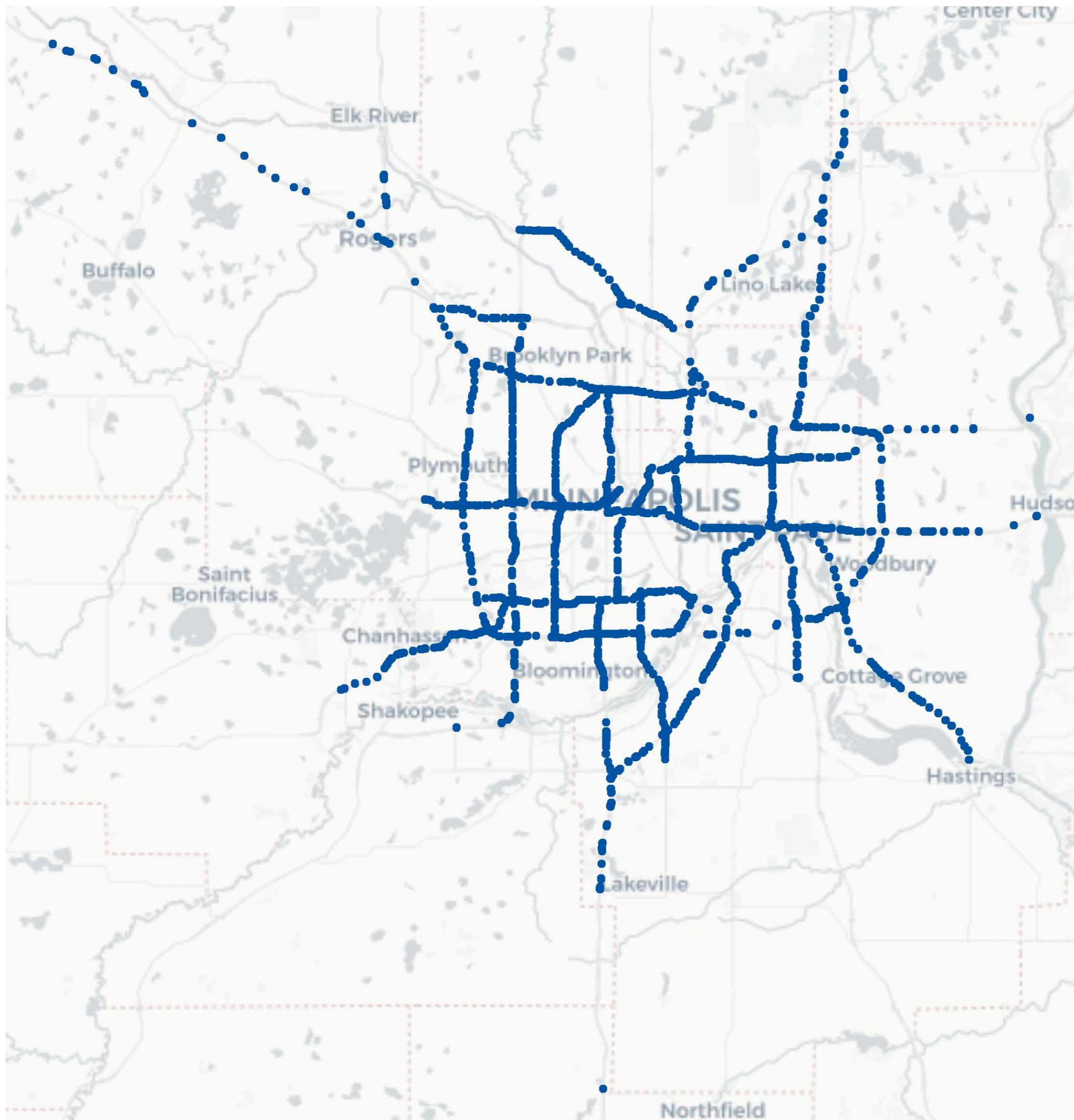AshleyAsmus, Metropolitan Transportation Services

ashley.asmus@metc.state.mn.us

COVID-19 Traffic Trends Update

TAC Planning
March 11, 2021

Traffic sensors used in analysis

- 2000+ MnDOT traffic nodes, spread across 26 corridors
- Each node = one or many individual sensors
- For 2020 alone, 14.6 million rows of hourly data for 2,411 nodes
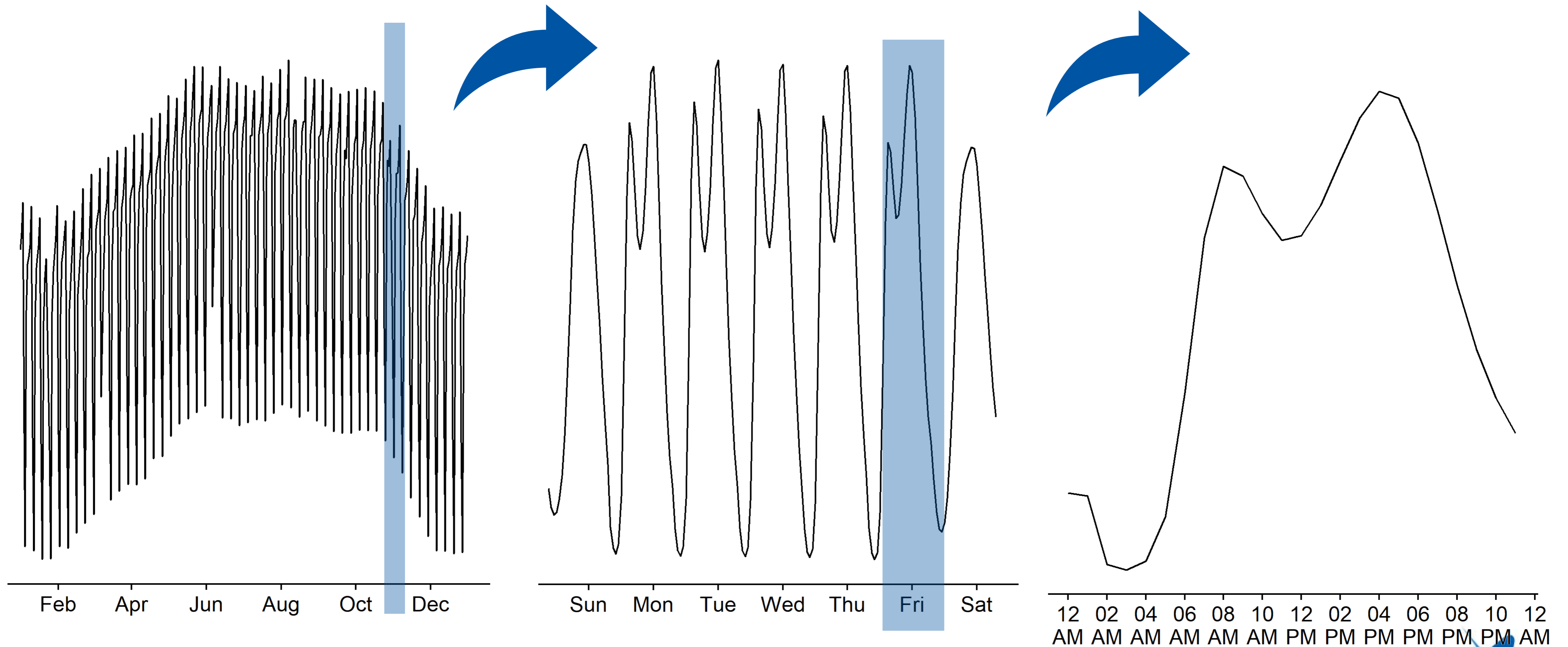- Used 2018 + 2019 data to estimate a "typical" volume

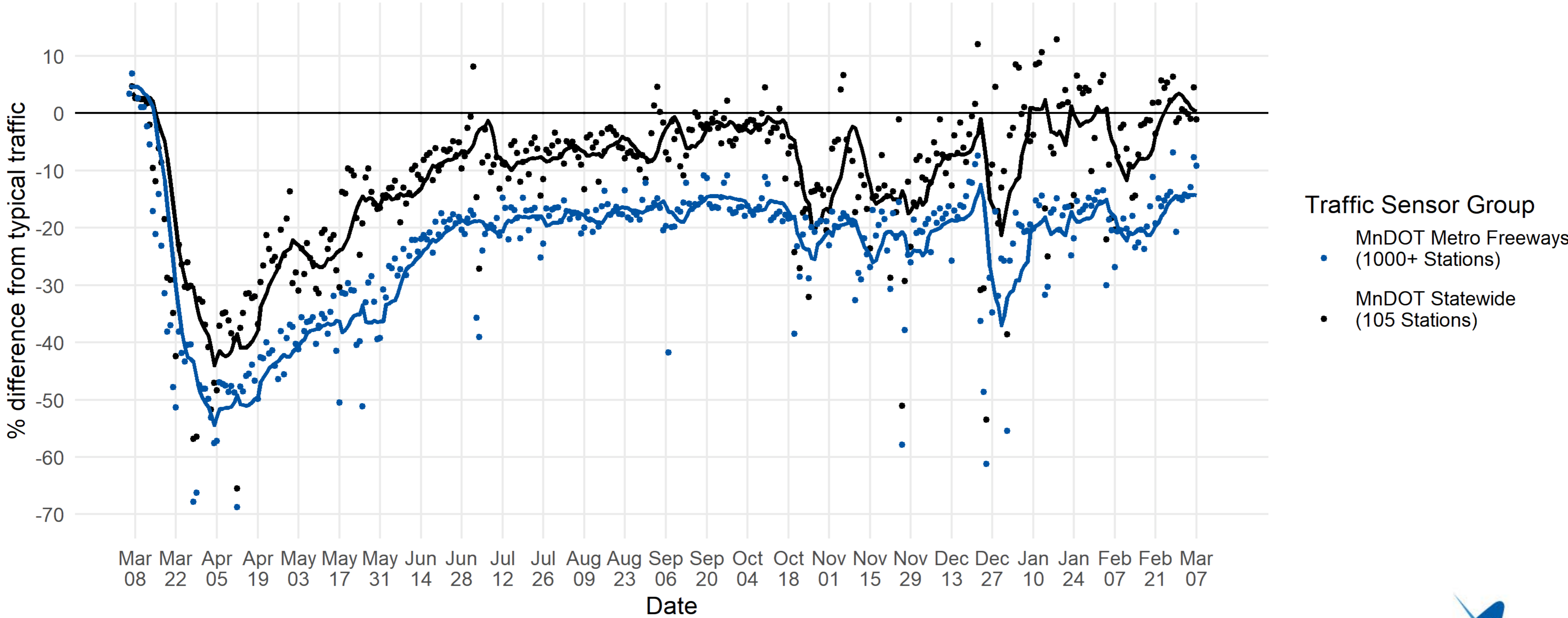http://metrotransitmn.shinyapps.io/covid-traffic-trends/

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Annual

Weekly

Hourly

Traffic Volume

Feb   Apr   Jun   Aug   Oct   Dec

Sun   Mon   Tue   Wed   Thu   Fri   Sat

12 02 04 06 08 10 12 02 04 06 08 10 12
AM AM AM AM AM AM PM PM PM PM PM PM AM

Line graphs show generalized trends based on January 2018-March 2020 traffic data for a subset of the most reliable RTMC traffic nodes. Realized total daily volumes are available at http://metrotransitmn.shinyapps.io/covid-traffic-trends/.
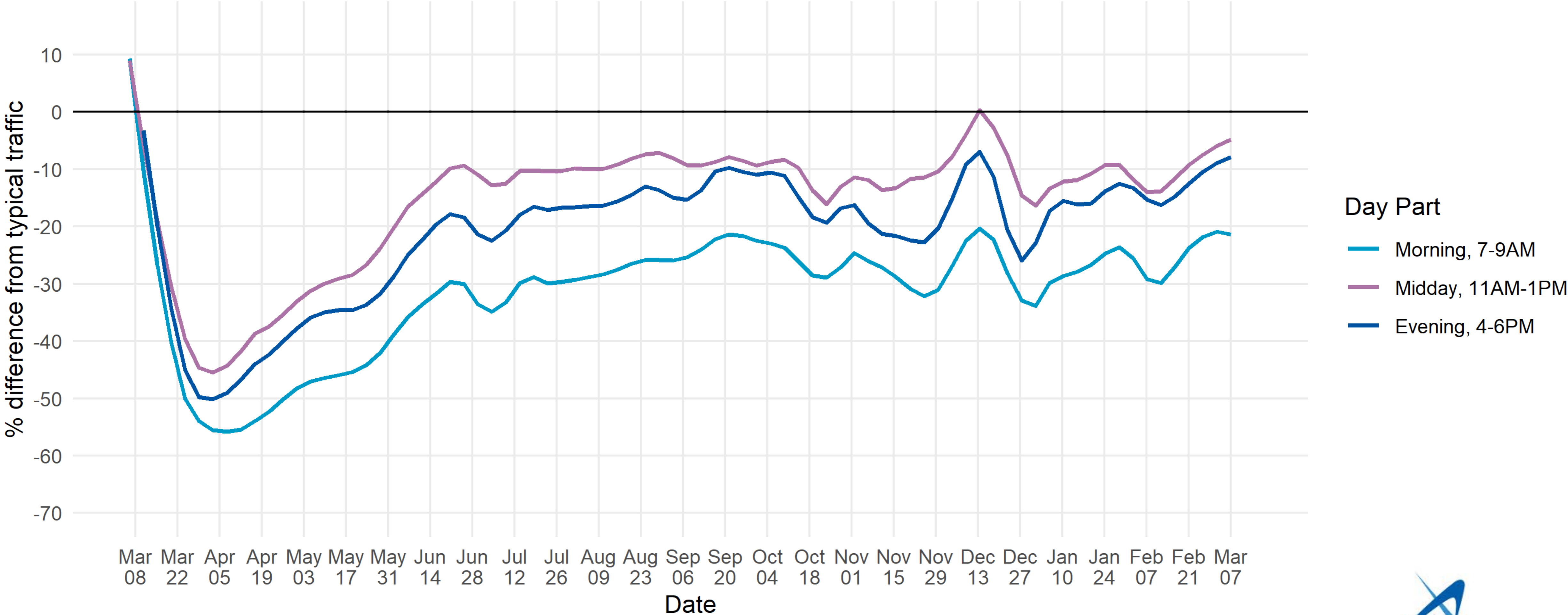
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Traffic trends over time

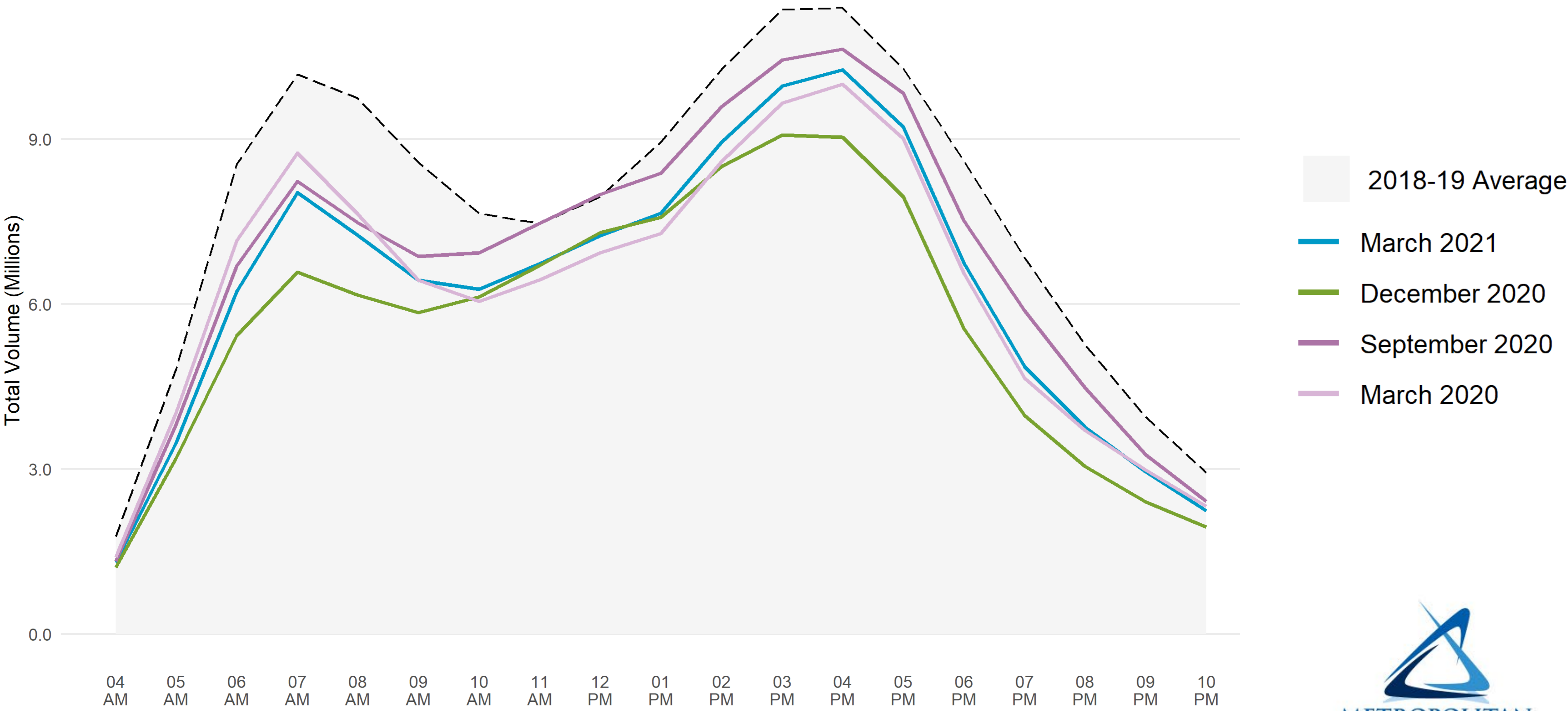http://metrotransitmn.shinyapps.io/covid-traffic-trends/

Metro freeway traffic trends, by hour

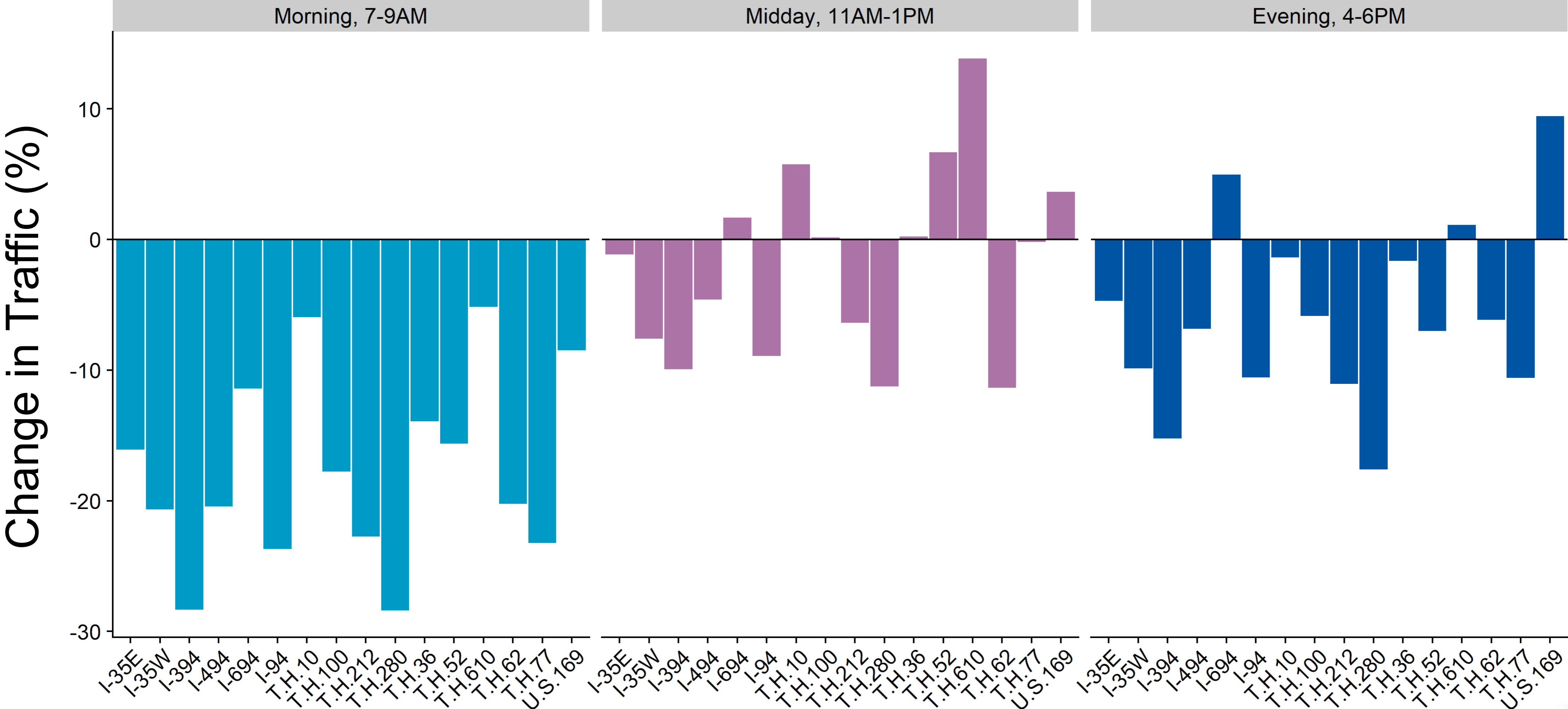*Line show a smoothed trend for traffic volumes during each day part. Total daily volumes are available at http://metrotransitmn.shinyapps.io/covid-traffic-trends/.*

Metro freeway traffic volumes: Monday-Friday

Legend:
- 2018-19 Average
- March 2021
- December 2020
- September 2020
- March 2020

Y-axis: Total Volume (Millions) — 0.0, 3.0, 6.0, 9.0

X-axis: 04 AM, 05 AM, 06 AM, 07 AM, 08 AM, 09 AM, 10 AM, 11 AM, 12 PM, 01 PM, 02 PM, 03 PM, 04 PM, 05 PM, 06 PM, 07 PM, 08 PM, 09 PM, 10 PM

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Metro freeway traffic volumes: Saturday+Sunday

Legend:
- 2018-19 Average
- March 2021
- December 2020
- September 2020
- March 2020

Y-axis: Total Volume

X-axis: 04 AM, 05 AM, 06 AM, 07 AM, 08 AM, 09 AM, 10 AM, 11 AM, 12 PM, 01 PM, 02 PM, 03 PM, 04 PM, 05 PM, 06 PM, 07 PM, 08 PM, 09 PM, 10 PM
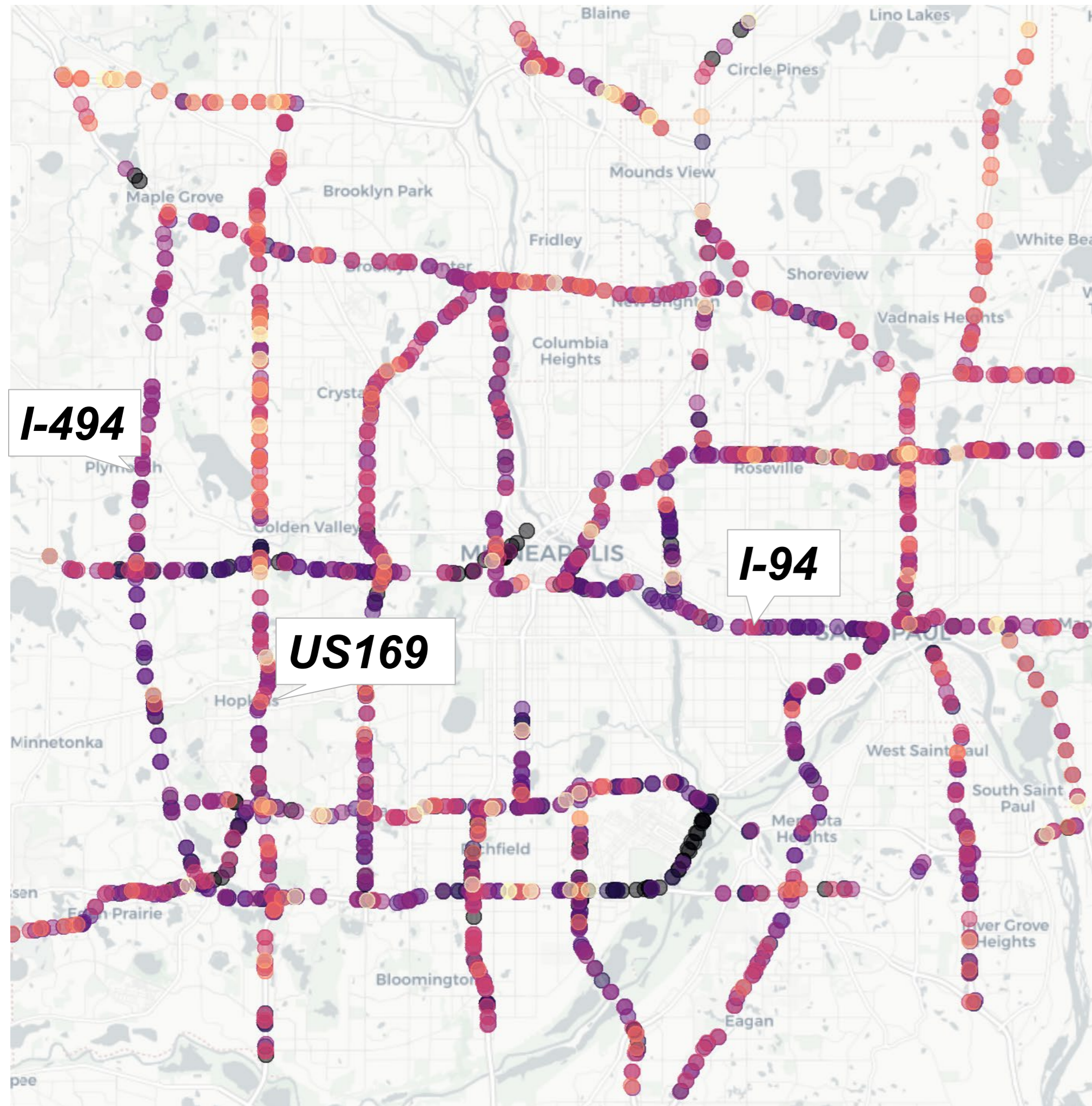
METROPOLITAN COUNCIL
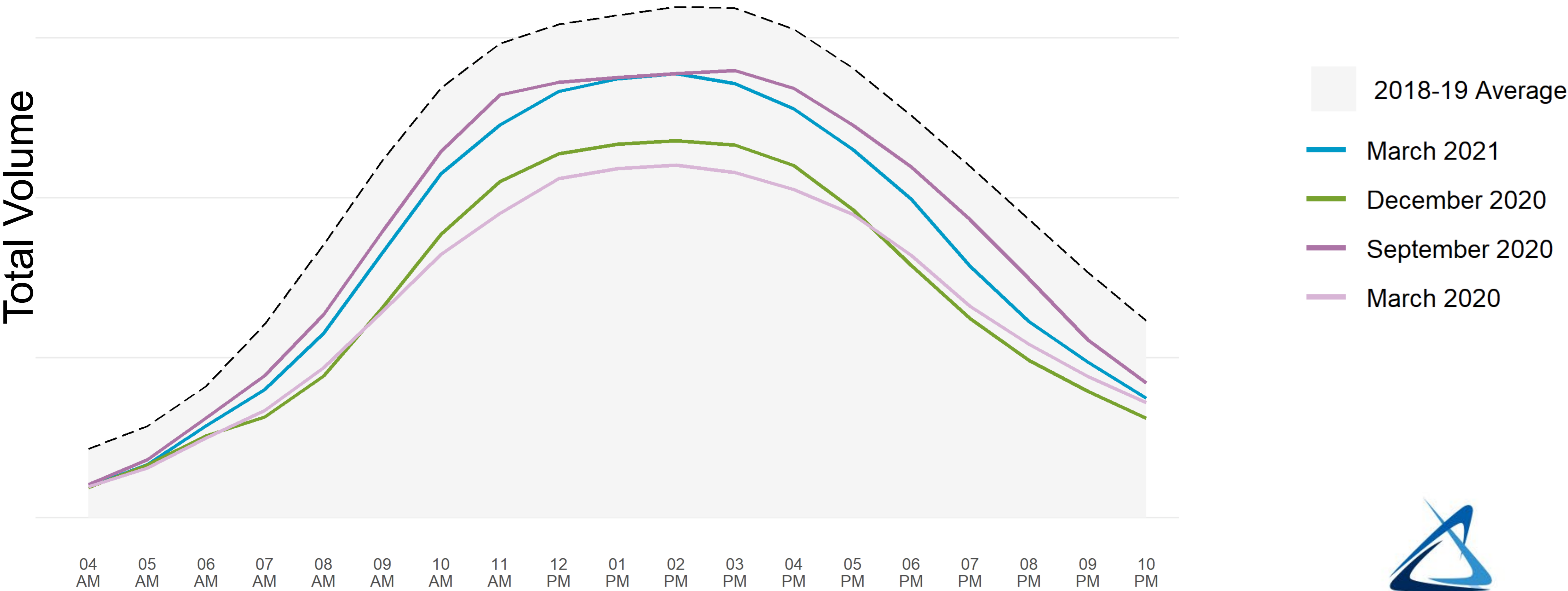
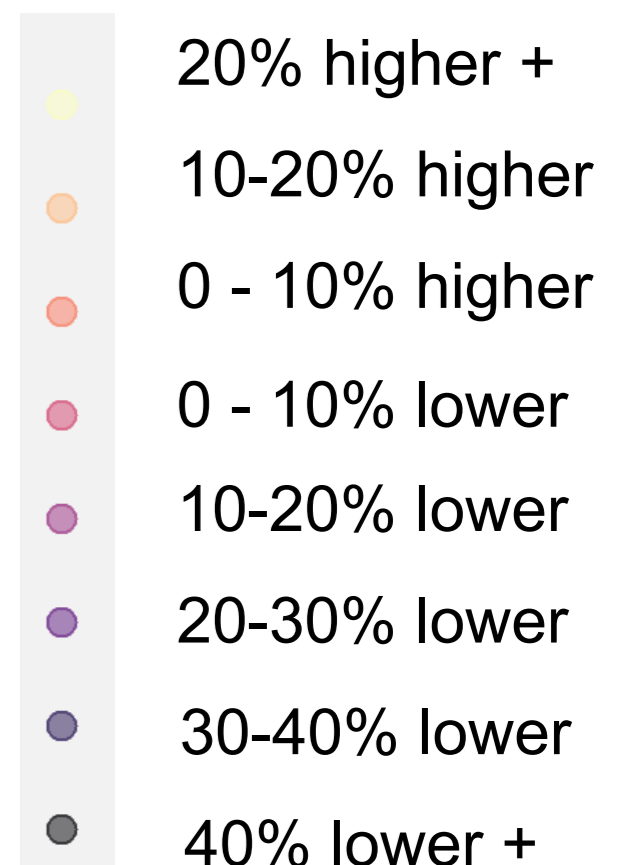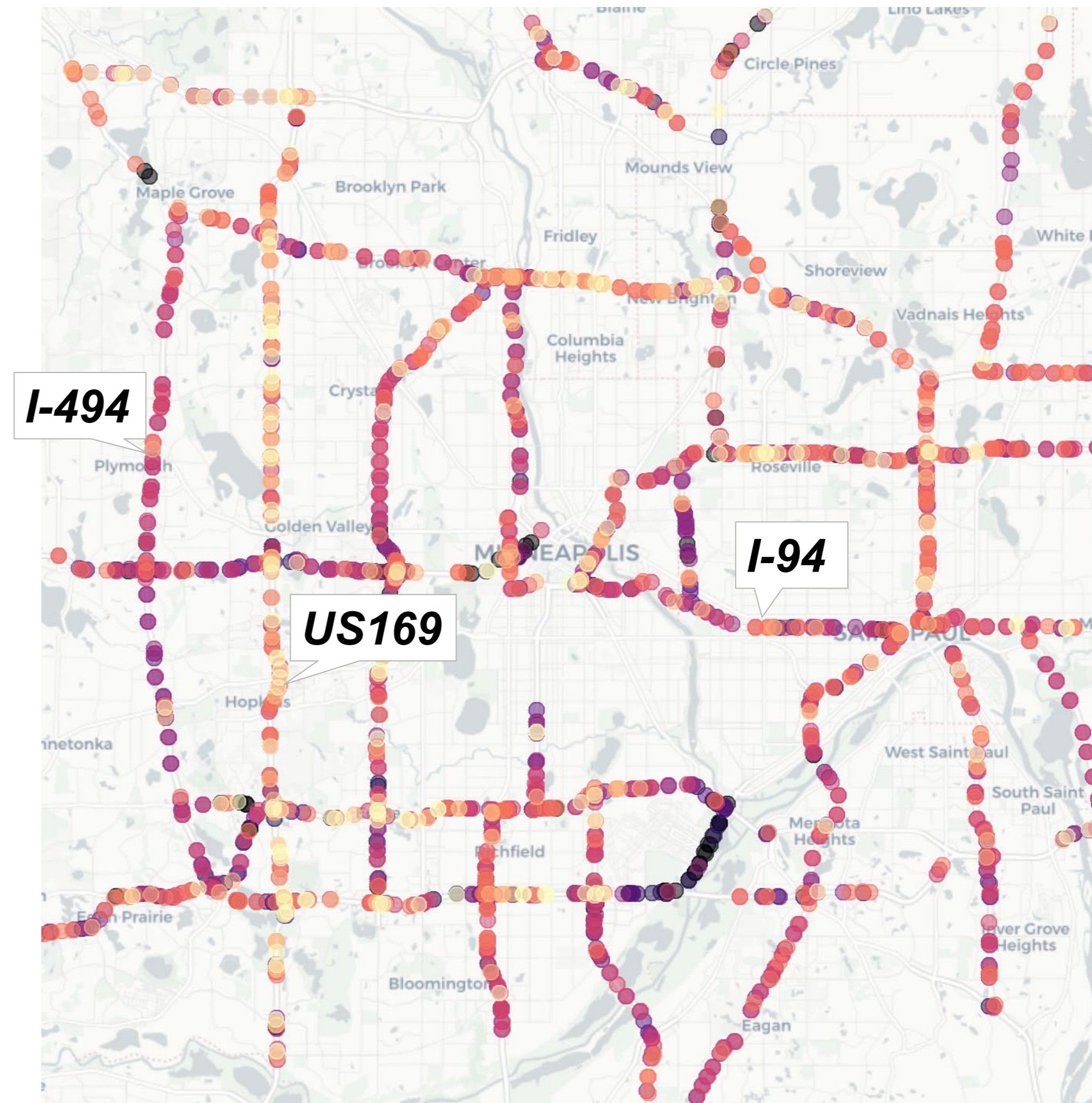# Trends by Corridor - Week of March 1, 2021

corridors from highest -> lowest typical volume

Weekday Mornings

Weekday Evenings

Maps show traffic declines at metro-area RTMC nodes during the week of 3/1/2021 relative to a 2018-2019 baseline.
Mornings = 7-9AM; Evenings = 4-6PM.

Ongoing work

- Refreshing traffic data weekly

- Collaborating with experts at MnDOT Regional Traffic Management Center

- Expanding the Traffic Trends App to include the ability to view and download data for each corridor and hour (by March 26)

- Refining our statistical models to predict the effects of weather and special events on traffic (Q2-Q3 2021)

- Exploring sources of data for non-freeway, non-auto travel

- Improving our understanding of who is traveling less (or more) and why by conducting the Travel Behavior Inventory Household Survey

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