

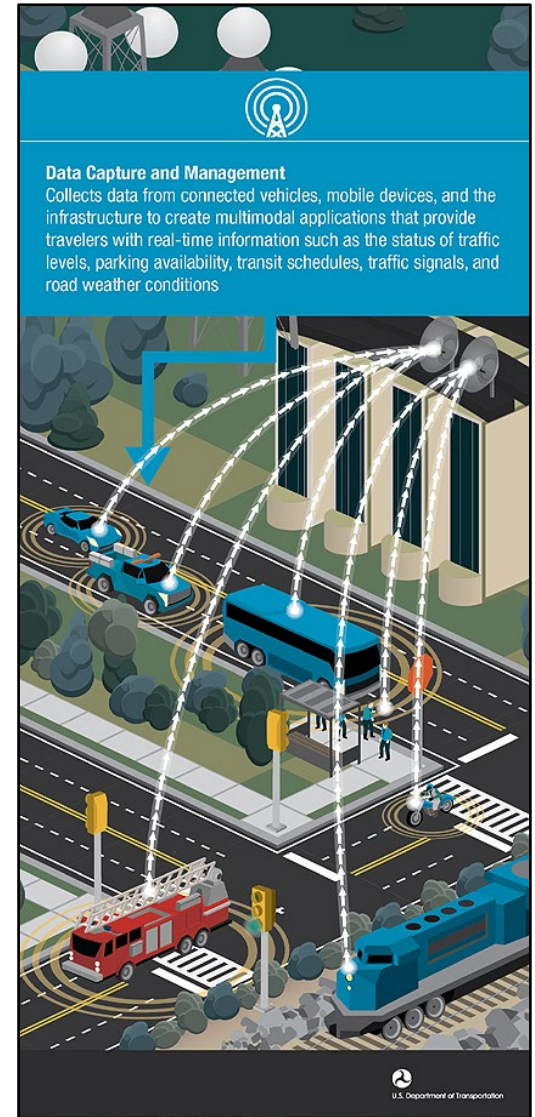
Planning for Operations in the Genesee-Finger Lakes Region



Joseph M. Bovenzi, AICP
2023 Transportation Engineering Safety Conference (TESC)
State College, Pennsylvania
December 6, 2023

Presentation Outline

- **MPO Overview**
 - ❑ **Purpose & Function**
 - ❑ **Long Range Transportation Plan**
- **Unified Planning Work Program (UPWP)**
 - ❑ **TSMO Strategic Planning Tasks**
- **Transportation Improvement Program (TIP)**
- **Challenges and Opportunities**



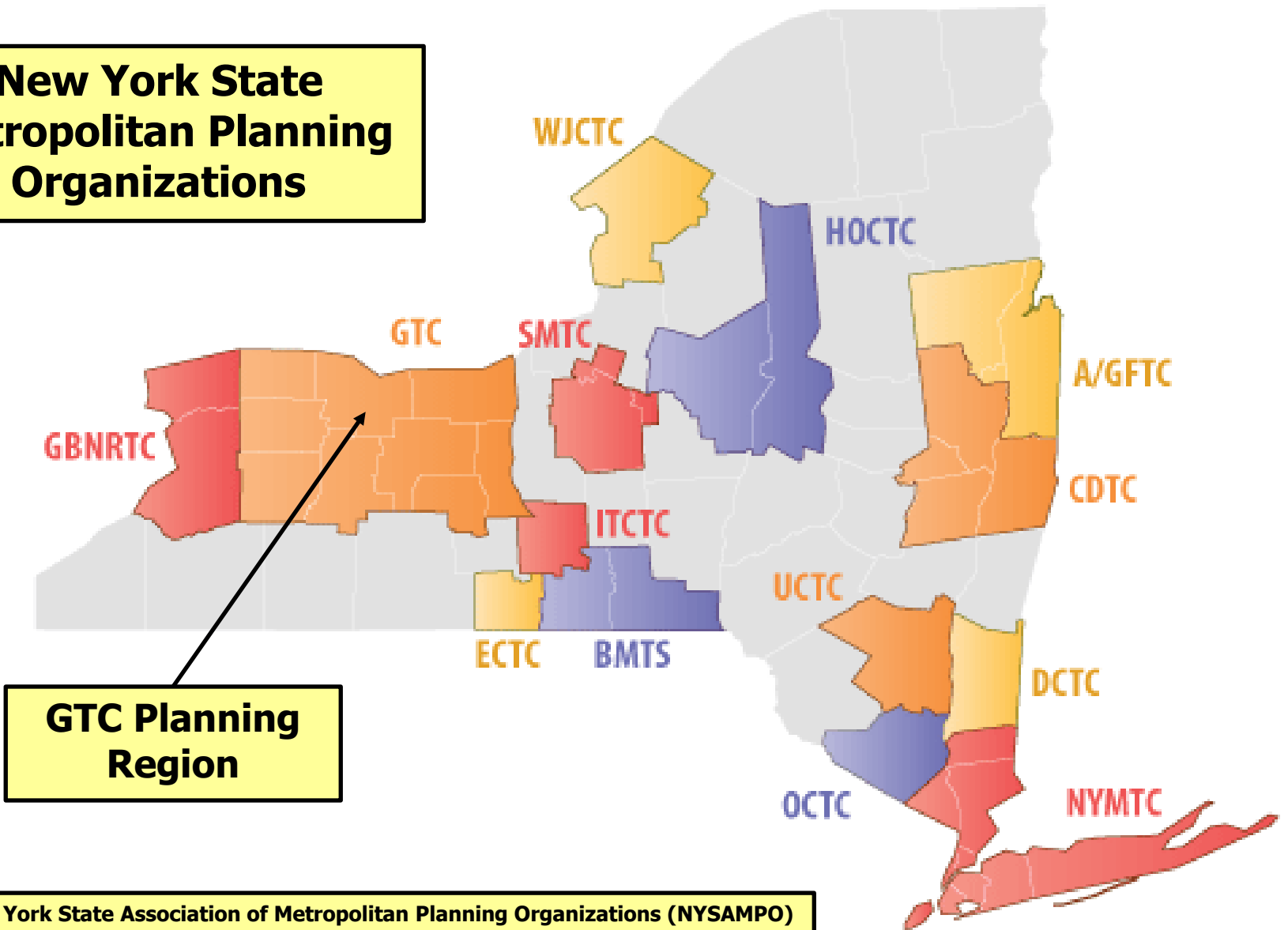
Metropolitan Planning Organizations (MPO)

- **Federal-Aid Highway Act of 1962**
 - ❑ **Coordinate regional transportation planning and investment decision-making**
- **Federal-Aid Highway Act of 1973**
 - ❑ **Provided transportation planning funds to MPOs**
- **Federally mandated for urbanized areas with populations greater than 50,000**
- **Metropolitan Transportation Planning “3-C” Process**
 - ❑ **Continuing**
 - ❑ **Cooperative**
 - ❑ **Comprehensive**

GENESEE TRANSPORTATION COUNCIL

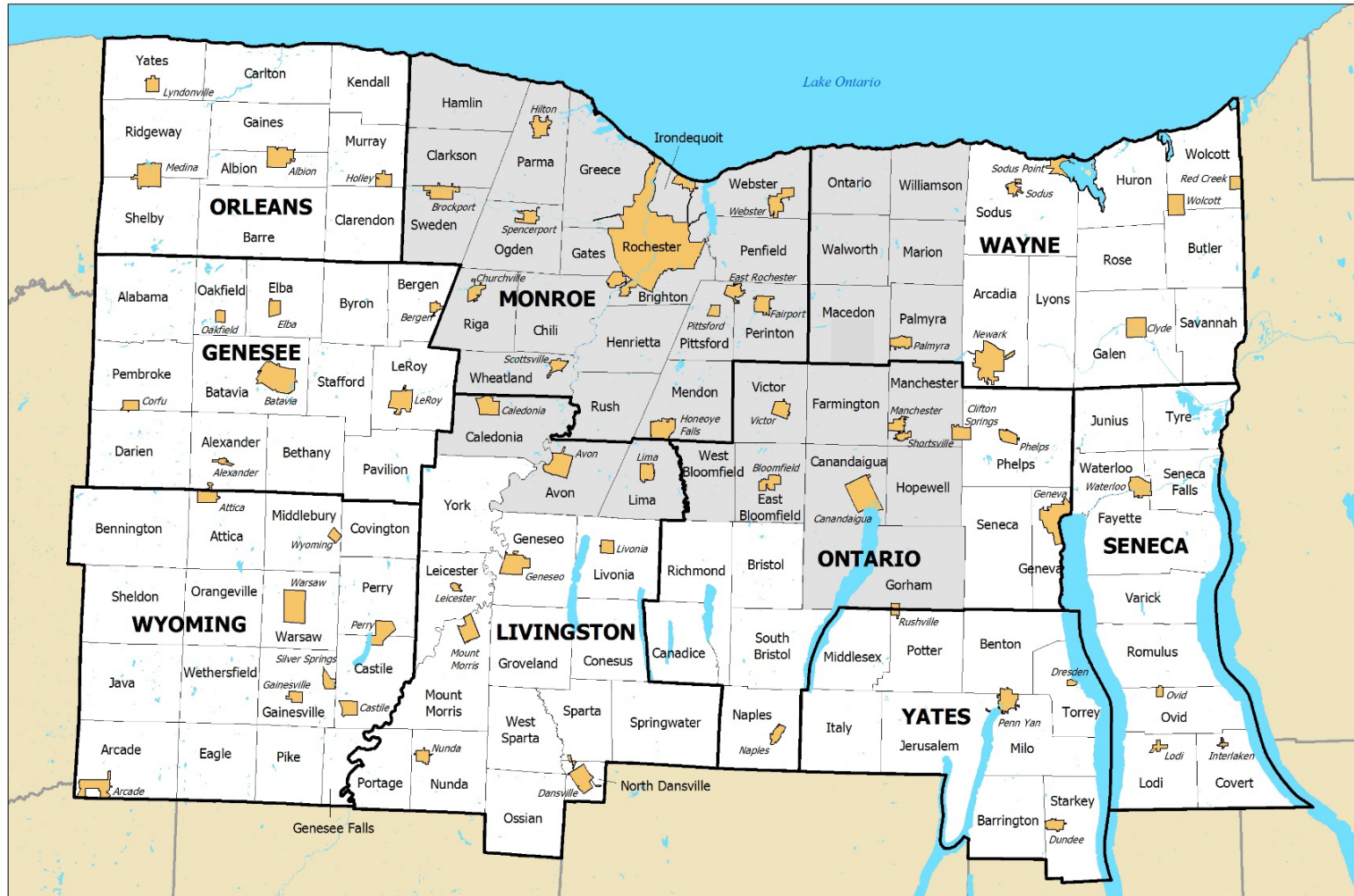
The Metropolitan Planning Organization for the Genesee-Finger Lakes Region

New York State Metropolitan Planning Organizations



Source: New York State Association of Metropolitan Planning Organizations (NYSAMPO)

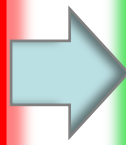
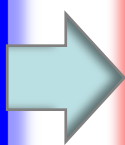
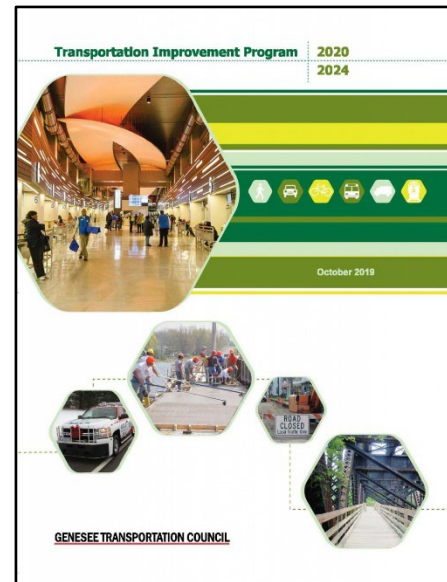
GTC Nine-County Planning Region and Rochester Metropolitan Planning Area



- Towns
- Cities and Villages
- Counties
- Metropolitan Planning Area (MPA)

GENESEE TRANSPORTATION COUNCIL
January 2016

Major MPO Work Products



Long Range Transportation Plan (LRTP) 2045

➤ Adopted June 2021

- ❑ **Region and System Profile**
- ❑ **Emerging Issues and Opportunities**
- ❑ **System Needs**
- ❑ **Recommendations**
 - **Health and Safety**
 - **Access and Equity**
 - **Management and Maintenance**
 - **Sustainability and Resilience**
 - **Economic Development**



Long Range Transportation Plan (LRTP) 2045

➤ System Needs (*Selected*)

- ❑ **Increasing Safety for all Users**
- ❑ **Ensuring Access for All to Employment, Goods, and Services**
- ❑ **Expanding Mobility and Connectivity for Active Transportation Users**
- ❑ **Reducing Energy Usage and Greenhouse Gas Emissions**
- ❑ **Enhancing Connectivity and Access for Freight**
- ❑ **Increasing System Resiliency**



Long Range Transportation Plan (LRTP) 2045

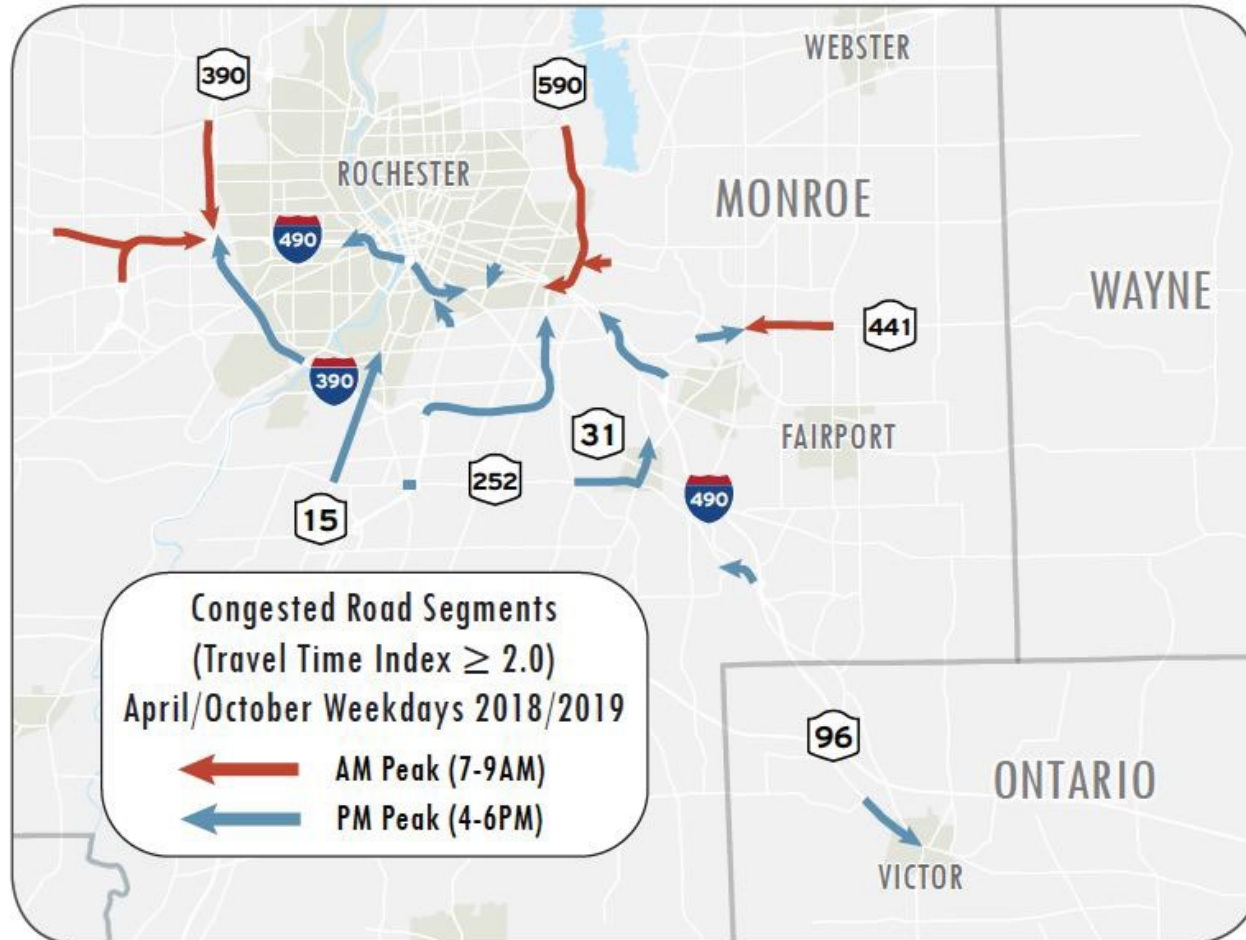
➤ System Management and Maintenance (MM) Recommendations

- ❑ **MM-1: Implement TSMO Strategic Plan Recommendations**
- ❑ **MM-2: ITS Integration**
- ❑ **MM-3: ITS Communications**
- ❑ **MM-5: Signal Synchronization**
- ❑ **MM-6: Interagency Operations Coordination**
- ❑ **MM-7: Traffic Incident Management**
- ❑ **MM-15: ITS Asset Management**



Long Range Transportation Plan (LRTP) 2045

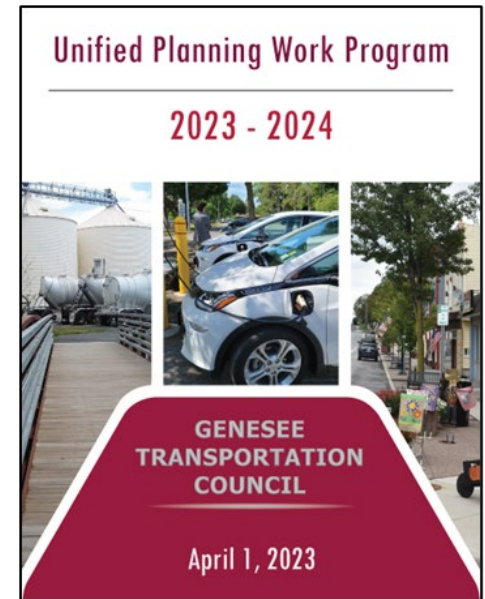
➤ Congestion Management Process (CMP)



Travel Time Index 2.0 or greater indicates corridor travel time is two or more times longer than during free-flow conditions. Source: INRIX © 2020

Unified Planning Work Program (UPWP)

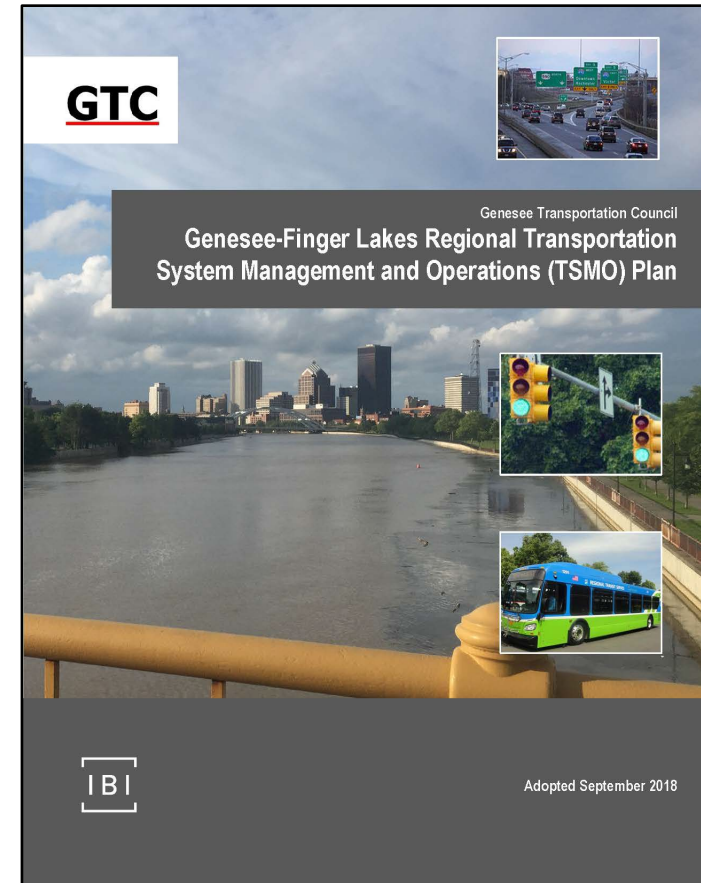
- **Annual work program of federally-funded transportation planning activities**
- **Activities must be consistent with and advance:**
 - ❑ **Federal planning factors**
 - ❑ **Long Range Transportation Plan**
 - ❑ **Local plans and policies**
- **Eligible projects include concept-level planning, analysis, and design initiatives**



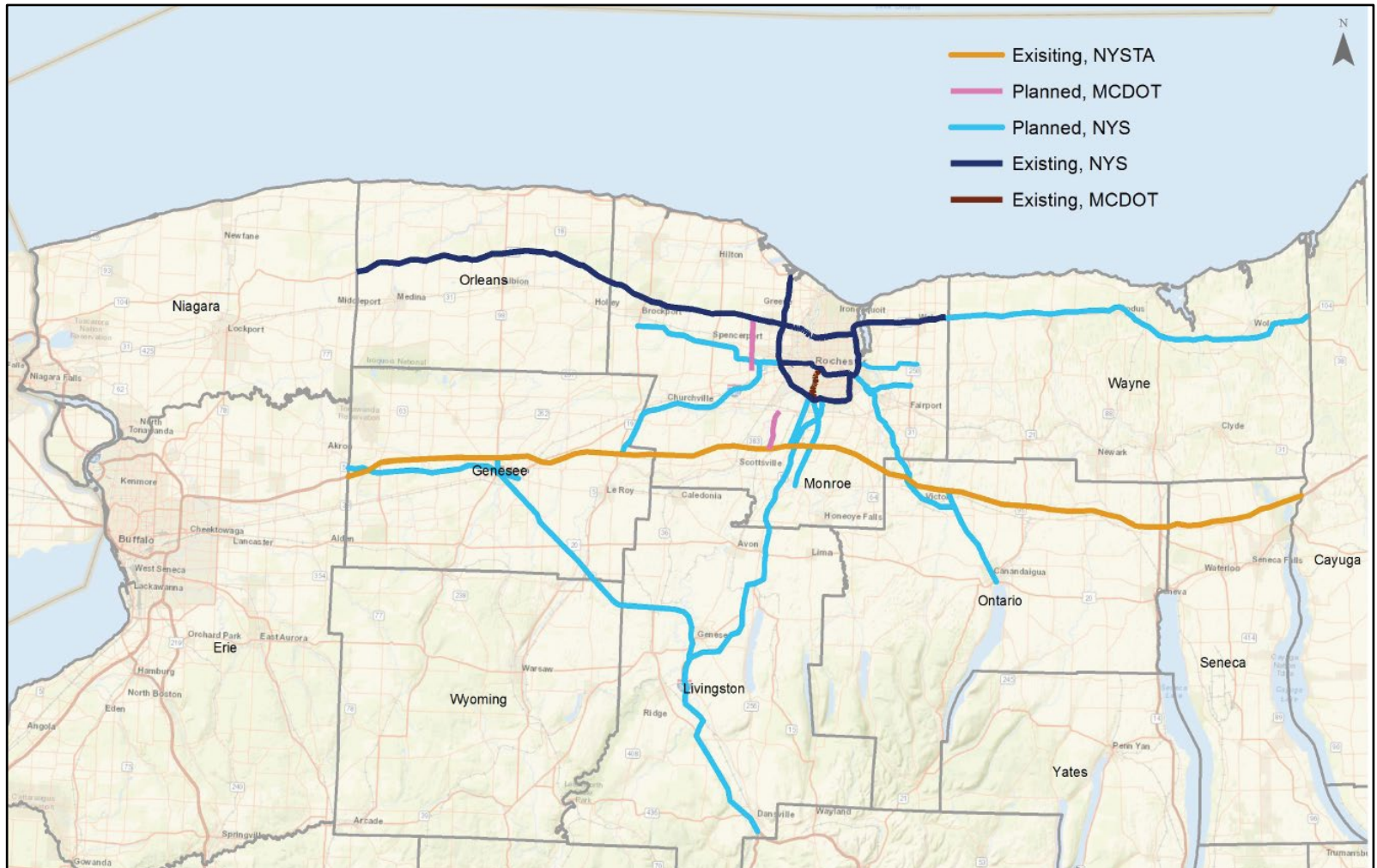
Transportation System Management and Operations (TSMO) Strategic Plan

➤ Objectives

- ❑ Rationale for investments in operations (“Why?”)
- ❑ Roles & responsibilities (“Who?”)
- ❑ Operations strategies (“What?” and “How?”)
- ❑ Ten-year timeframe (“When?”)



TSMO Strategic Plan – Tier I Corridors



TSMO-Supportive Planning – I-490 Integrated Corridor Management (ICM)

➤ Purpose:

- ❑ Guide future ITS deployments on the I-490 corridor
- ❑ Improve safety, minimize delay, and enhance operations efficiency

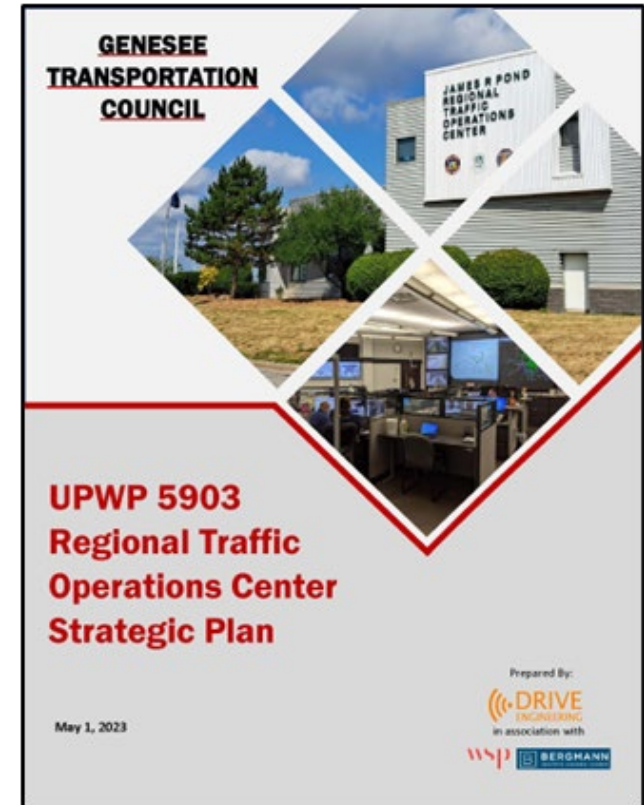
➤ Recommendations

- ❑ ITS Infrastructure
- ❑ Operations and Policy
- ❑ Regional ITS Architecture



TSMO-Supportive Planning – Regional Traffic Operations Center (RTOC) Strategic Plan

- **Purpose: Develop a strategic plan to guide RTOC operations**
- **Recommendations**
 - ❑ **Workforce & Staffing**
 - ❑ **Business Processes**
 - ❑ **Systems & Technologies**
 - ❑ **Performance Measurement**
 - ❑ **Interagency Partnerships**



Regional Performance Measurement Monitoring and Evaluation System

- **Purpose: Establish a program for evaluating and reporting transportation operations data generated by the RTOC**
- **Phase I**
 - ❑ **Understand needs**
- **Phase II**
 - ❑ **Combine ticketing and dispatching services with performance measurement**
 - ❑ **Emphasis on internal data for analysis**



Regional Performance Measurement Monitoring and Evaluation System

- **Ticketing/Dispatching**
 - ❑ **Track ticket resolution**
 - ❑ **Six ticket types**



- **Reports**
 - ❑ **Tracks number and type of tickets**
 - ❑ **Extract data for analysis to better understand trends in service calls**

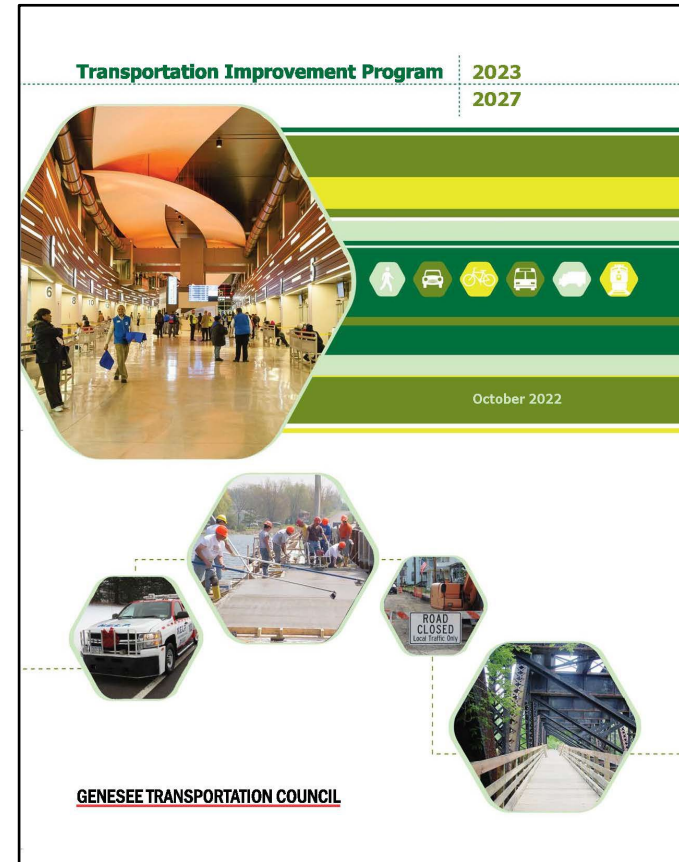
MONDAY May 22, 2023 Communication Relay

TICKETS

| TICKET ID | LEVEL | TICKET TYPE | CONDITIONS | JURISDICTION | STATUS | CREATED BY | OPENED DATE |
|-----------|-------|--------------------------|------------------|----------------------------|--------------|------------|------------------|
| 10269 | L4 | Signals | | Monroe-East | Jurisdiction | Matthew | 05/19/2023 12:23 |
| 10259 | L4 | Signals | | Monroe County DOT | Jurisdiction | Team | 05/08/2023 14:00 |
| 10258 | L4 | Sign's | | Monroe-East | Jurisdiction | Adam | 05/08/2023 13:55 |
| 10256 | L4 | Roadway / Infrastructure | Flooding | Ontario County | Jurisdiction | Matthew | 05/08/2023 13:29 |
| 10255 | L4 | Roadway / Infrastructure | Pothole/Sinkhole | Monroe-East | Jurisdiction | alex | 05/08/2023 13:21 |
| 10254 | L4 | Roadway / Infrastructure | | Bella Paving - Deer Pickup | Jurisdiction | Adam | 05/08/2023 13:15 |
| 10253 | L4 | Sign's | | | Rtoc | Matthew | 05/08/2023 13:15 |
| 10252 | L4 | Crash | | | Rtoc | Matthew | 05/08/2023 13:05 |

Transportation Improvement Program (TIP)

- **Multi-year program of projects**
- **Categories:**
 - ❑ **Highway**
 - ❑ **Bridge**
 - ❑ **Transit**
 - ❑ **ITS/Operations**
 - ❑ **Bicycle & Pedestrian**
- **Schedules**
- **Funding sources**



Transportation Improvement Program (TIP)

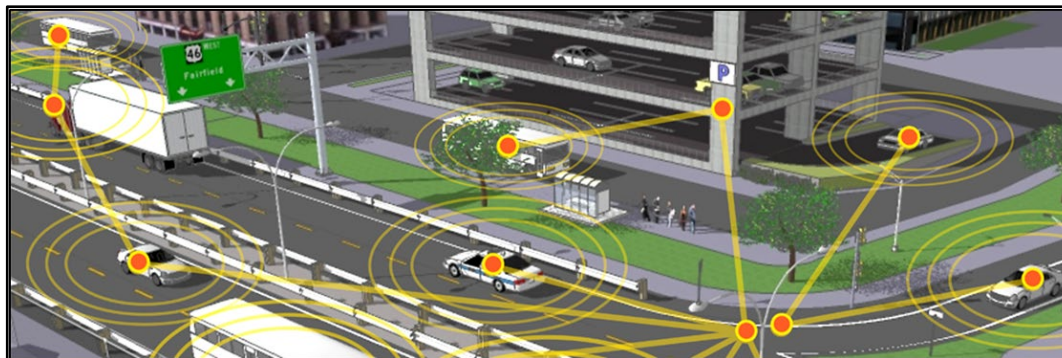
➤ Project Evaluation – Common Criteria

| Area | Criteria |
|----------------------------------|--|
| Safety | <ul style="list-style-type: none">• Improve safety |
| Mobility | <ul style="list-style-type: none">• Improve efficiency and reliability |
| Accessibility | <ul style="list-style-type: none">• Promote travel alternatives |
| Community & Economic Development | <ul style="list-style-type: none">• Support new and existing business• Support from state, regional, or local policy• Enhances designated freight corridor |
| System Continuity & Operations | <ul style="list-style-type: none">• Advance UPWP recommendations• Improve resiliency |
| Environment | <ul style="list-style-type: none">• Reduce vehicle emissions |
| Fiscal Responsibility | <ul style="list-style-type: none">• Minimize lifetime maintenance• Increased non-federal share• Innovative funding/financing partnerships |

Transportation Improvement Program (TIP)

➤ Project Evaluation – Mode-Specific Criteria

| Mode | Criteria |
|---|---|
| System Management & Operations | <ul style="list-style-type: none">• Reduce travel times on major roadways• Reduce incident clearance times• Increase productivity of regional transportation agencies/providers• Support or advance existing & proposed ITS elements |



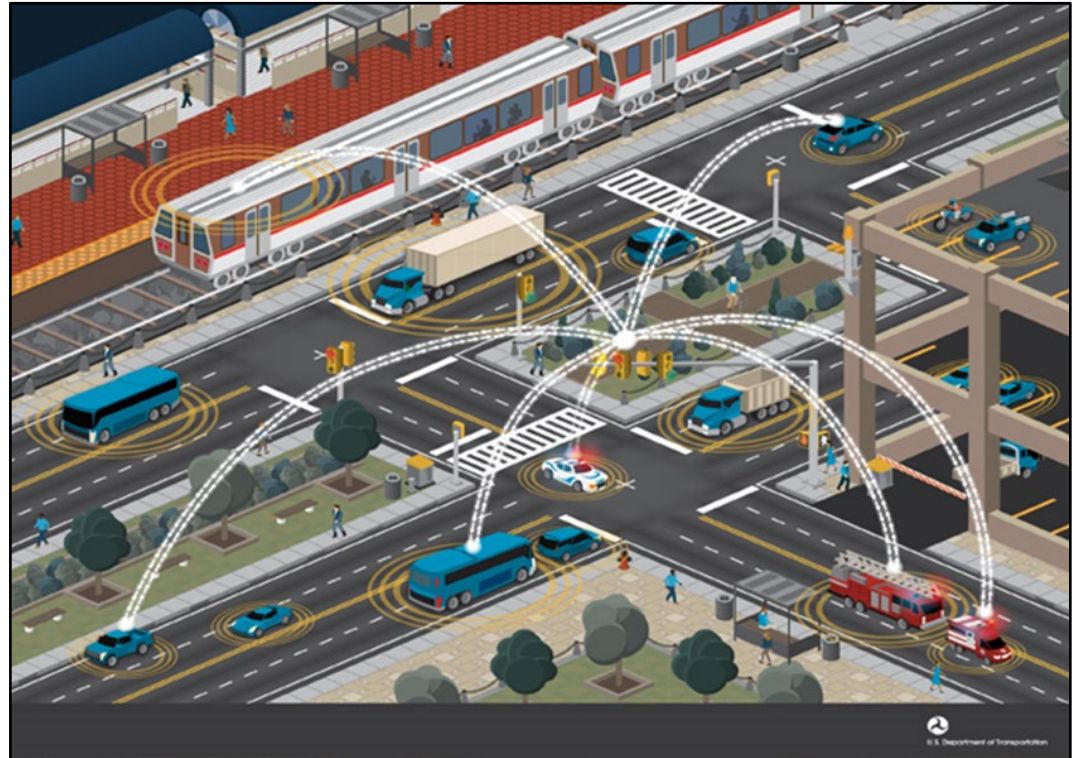
Transportation Improvement Program (TIP)

➤ 2023-2027 TIP – TSMO Project Table

| 2023-2027 TIP - TSMO Projects | | | | |
|---|-------------------------|------------------------|------------------------|-------------------------|
| Project: | Federal Share: | State Share: | Local Share: | Total: |
| Highway Emergency Local Patrol [HELP] (2023-2027) | \$ 2,564,000.00 | \$ 641,000.00 | \$ - | \$ 3,205,000.00 |
| MCDOT RTOC Operations (2023-2027) | \$ 3,160,000.00 | \$ 110,600.00 | \$ 679,400.00 | \$ 3,950,000.00 |
| MCDOT Traffic Signal Replacements-Group 1 | \$ 2,414,800.00 | \$ - | \$ 603,700.00 | \$ 3,018,500.00 |
| NYS DOT RTOC Operations (2023-2027) | \$ 4,620,000.00 | \$ 1,155,000.00 | \$ - | \$ 5,775,000.00 |
| NYS DOT RTOC Staffing (2023-2027) | \$ 8,500,000.00 | \$ 2,125,000.00 | \$ - | \$ 10,625,000.00 |
| Totals: | \$ 21,258,800.00 | \$ 4,031,600.00 | \$ 1,283,100.00 | \$ 26,573,500.00 |

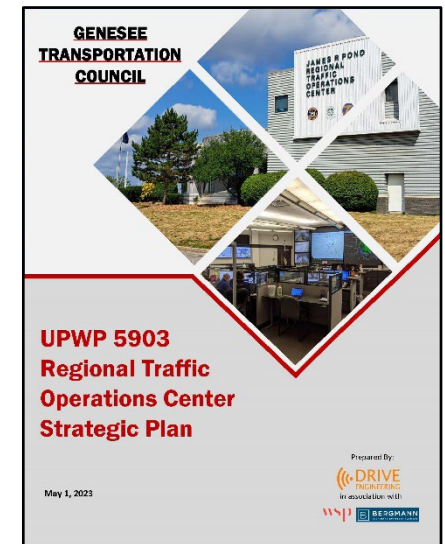
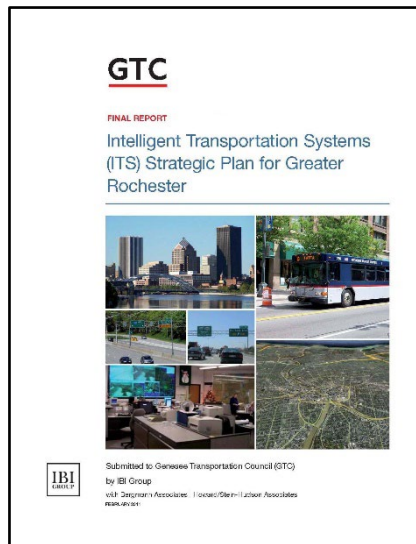
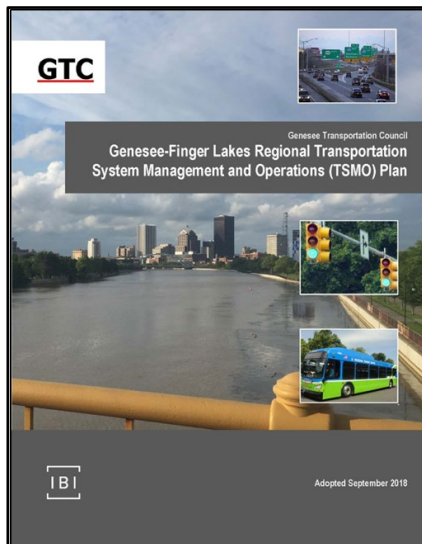
Challenges and Opportunities

- **ITS Asset Management**
- **Expanding Core Capabilities & Functions**
- **Operations Data & Performance Measurement**
- **Future-Proofing**
- **Vulnerability & Resiliency**
- **Cybersecurity**



GTC Plans and Studies

➤ Available: <https://www.gtcmpo.org/plans-and-studies>





GENESEE TRANSPORTATION COUNCIL

50 West Main Street-Suite 5131

Rochester, NY 14614

www.gtcmpo.org

 @gtcmpo