

# Syracuse Metropolitan Transportation Council

## 2024-2025 Unified Planning Work Program

### LIVERPOOL MODELING UPDATE AND TECHNICAL ANALYSIS

#### TECHNICAL MEMORANDUM

September 23, 2025

#### **Introduction**

As part of the 2024-2025 Unified Planning Work Program, the SMTC agreed to complete this technical analysis for the Village of Liverpool (Village).

The Village's 2005 Comprehensive Plan identified heavy rush hour traffic as an impediment to the growth of the business district. As mentioned in the 2005 plan, a NYSDOT funded retail marketing analysis of the First Street business district concluded that congestion precludes drivers from leaving their queue in traffic to access local businesses. The report suggested that if traffic through the Village was reduced by 15-20%, the economic activity of the business district would improve.

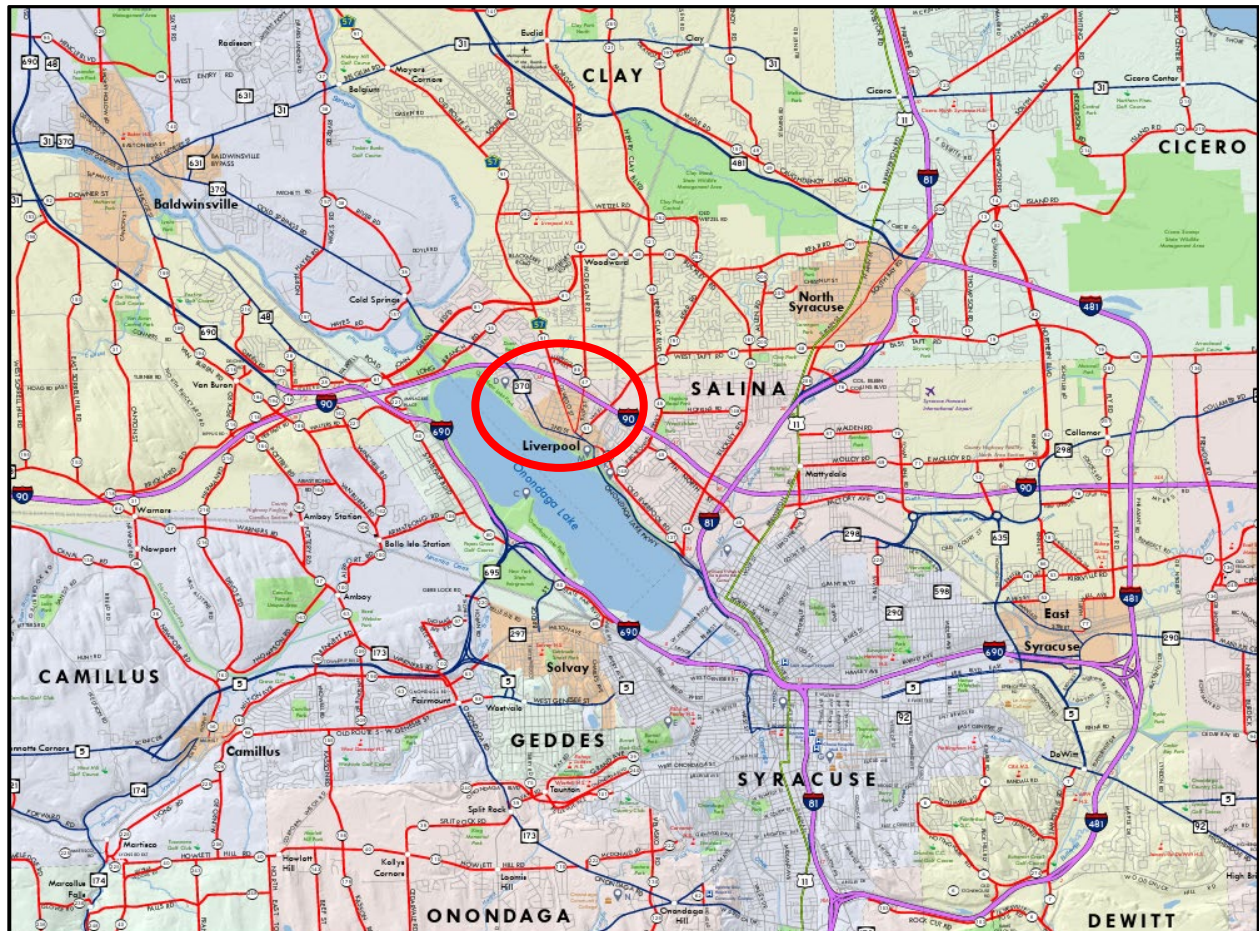
In 2009, the Syracuse Metropolitan Transportation Council (SMTC) completed a regional travel demand modeling analysis on behalf of the Town of Salina and Village of Liverpool to assess various transportation and land use alternatives to determine if there were any feasible alternatives to meet the traffic reduction suggested in the 2005 market analysis. Since that analysis was completed, the SMTC model has been updated several times. The most recent updates include the future I-81 viaduct project network changes and assumed land use changes (no major transportation changes) related to the proposed Micron facility in the Town of Clay. This analysis revisits some of the same alternatives that were analyzed in 2009 as well as a couple new alternatives. The model results will be evaluated regarding their potential for reducing the future volume of traffic through the Village and their impact on the surrounding transportation network.

This 2025 technical memorandum includes existing conditions such as current land use, traffic volume trends, truck traffic trends, existing vehicle miles traveled estimates, and a select link analysis including trip origin-destination information. Since this analysis will not result in recommendations, rather an overview of the changes in traffic patterns based on hypothetical land use and transportation alternatives, the existing conditions and current traffic trends summary should identify if and where potential traffic issues may or may not exist. The combination of the following existing conditions summary and the results of the alternatives analysis are intended to be inclusive of new (known at the start of this analysis) regionally significant projects and to inform the Village of any changes since the previous analysis.

This technical memorandum is intended to provide a brief summary of existing land use and transportation conditions in and around the Village and a summary of the results of the various hypothetical land use and transportation alternatives defined by the Village. No recommendations are made as a result of this analysis. However, the information provided in this document could provide justification for the Village to pursue additional more detailed studies.

## Study Area

Like the 2009 analysis, the study area for this analysis generally includes the Village of Liverpool and the surrounding area south to the City of Syracuse, east to I-81, north to Buckley Road, and west to I-690 up to the Baldwinsville area. The study area includes the Thruway (I-90) between exit 36 and exit 39.



**Village of Liverpool Study Area** (Source: SMTC Highway Map of Onondaga County)

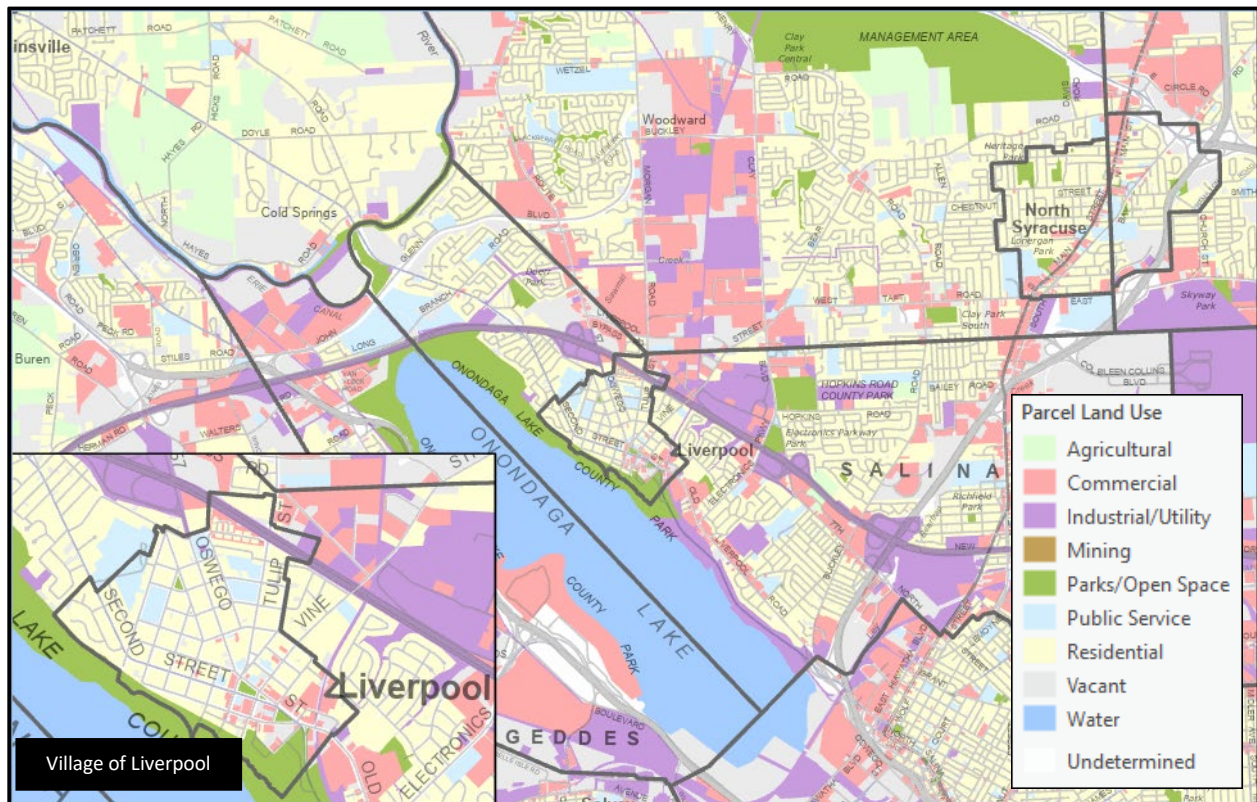
## Existing Conditions Inventory & Analysis

To better understand the current conditions and trends in and around the Village, the SMTC collected various land use and transportation related data. Fortunately, for the benefit of this analysis, the SMTC was also tasked with completing the Greater Liverpool Traffic Study (GLTS). The final GLTS technical memorandum is attached to this document as Appendix A and will be referenced in the sections below.

### Existing Land Use

The Village of Liverpool has a mixed-use core surrounded by residential uses. The commercial area spreads south outside the Village along Old Liverpool Road. North of the Village are a commercial corridor along Route 57 and a mixed commercial and industrial area between Morgan Road and Henry Clay Blvd. A significant number of households are located north of the Village in the Towns of Lysander and Clay and the City of Syracuse is approximately 2 miles south of the Village. A substantial number of jobs are located

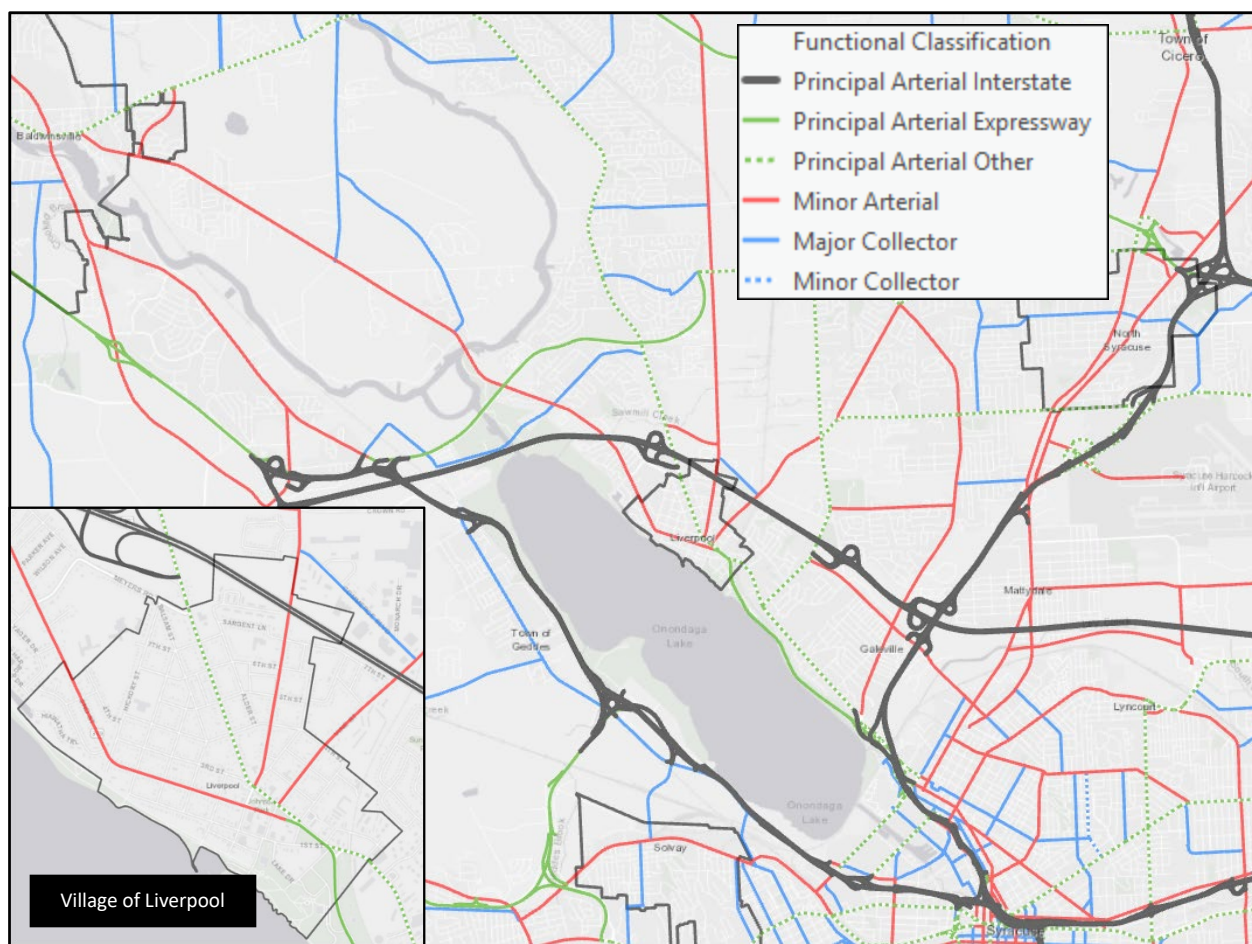
north, south, and east of the Village in the Town of Clay, City of Syracuse, and Towns of Salina and DeWitt respectively. The Village of Liverpool is adjacent to Onondaga Lake County Park, which is a major recreational attraction in the county.



**Existing Land Use** (Source: Onondaga County Department of Planning)

### Transportation Network

Several arterial roads converge in and pass through the Village of Liverpool. The NYS Thruway passes through the northern border of the Village with access from Route 57 immediately north of the Village. Due to the transportation constraints created by Onondaga Lake to the west of the Village, commuters and travelers with origins and destinations north or south of the Village are funneled through the Village as it is generally the most direct north-south route to the City of Syracuse east of the lake until you get to I-81. West of Onondaga Lake is I-690 which is a parallel route for travelers but with limited access depending on the origin of the trip.



**Roadway Functional Classification** (Source: NYSDOT GIS Portal)

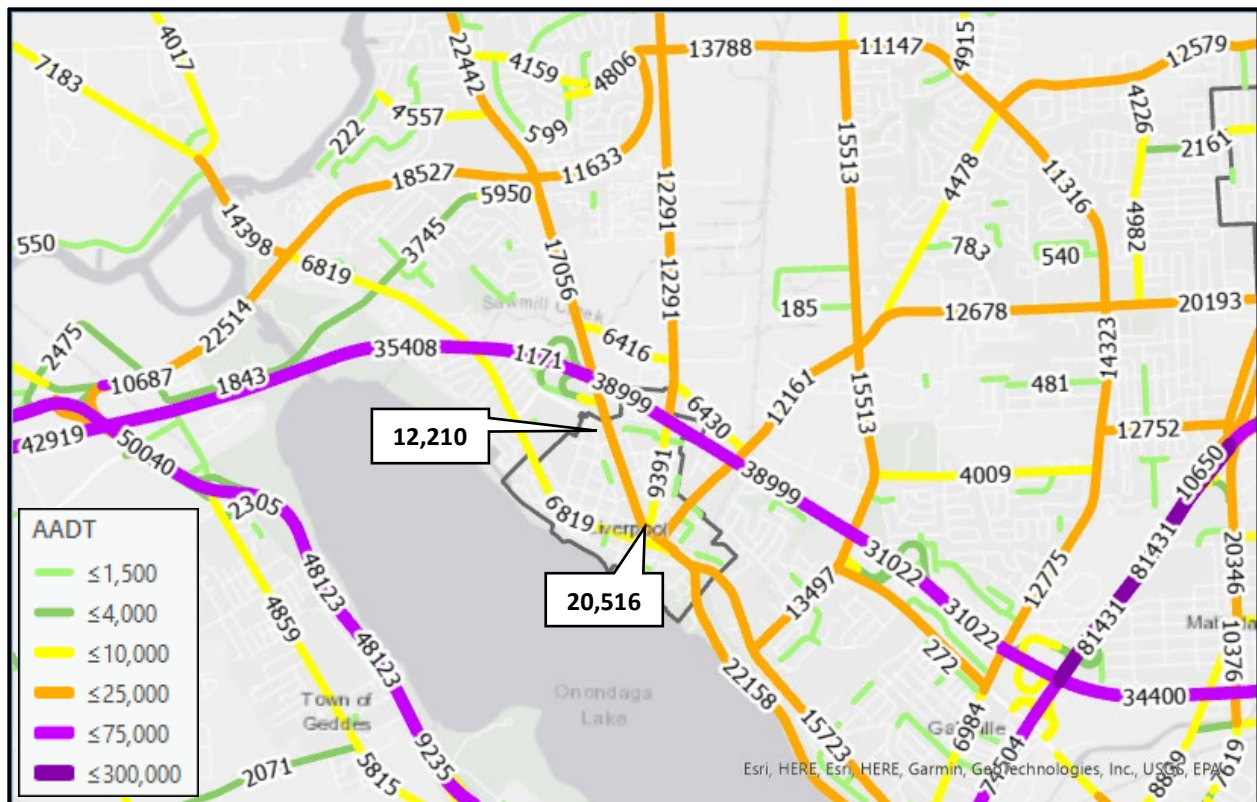
### Traffic Volumes and Trends on Roadways

The graphic below illustrates the most current Annual Average Daily Traffic (AADT) estimates from NYSDOT. The AADTs represented on this map include a combination of estimates as well as actual data for 2023. While there is not a traffic count station located directly on the busiest segment of Oswego Street in the Village, between 1<sup>st</sup> Street and Cypress Street, it can be assumed that the AADT would be approximately 30,000 based on surrounding AADT estimates and average daily entering vehicles at the Oswego St and Route 370 intersection.

There are six major roadways that converge in the section of Oswego Street mentioned above. The AADTs on the four major corridors accessing the Village from the west, north, and east range from just under 7,000 to just over 12,000. There are only two major corridors accessing the Village from the south with AADTs of just over 12,000 and 22,000.

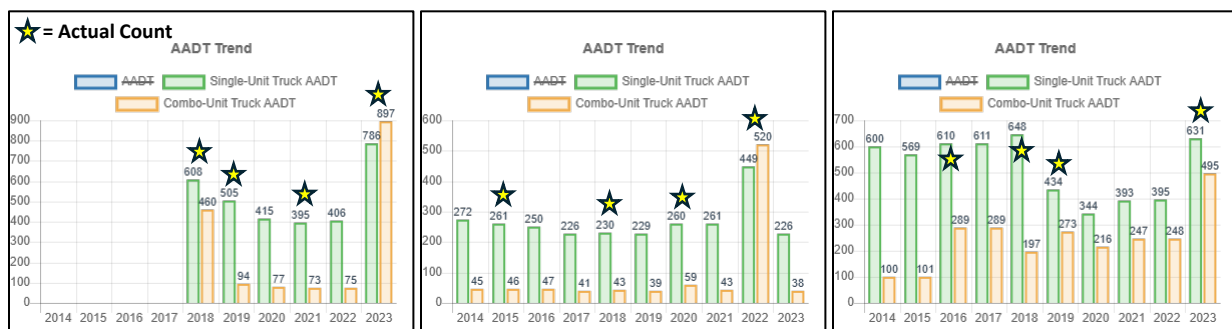
Outside the Village, most of the major roads between Onondaga Lake and I-81 have AADTs of greater than 10,000 with some of the highest being in and near the Village. The NYS Thruway, which passes through the northern tip of the Village, has an AADT of about 39,000 in this area. Based on the 2023 AADT estimates, approximately 5,000 vehicles get on and 4,000 vehicles get off the Thruway at the interchange off Oswego St north of the Village.

The NYSDOT traffic counts are available to the public by visiting: <https://nysdottrafficdata.drakewell.com/>



**Average Annual Daily Traffic (AADT) Estimates** (Source: NYSDOT Roadway Inventory (2023))

As noted in the Greater Liverpool Traffic Study Technical Memorandum (SMTTC, 2025), since 2000, volumes have remained fairly flat or declined slightly for most of the study area locations which include major roadways in the Village of Liverpool, Town of Salina, and the Town of Clay south of Buckley Road. The technical memorandum also examined historical heavy vehicle data. Of interest to the Village of Liverpool would be that while most of the greater Liverpool area's heavy vehicle trend follows the overall AADT trend, holding steady with slight declines, there are a few segments showing increases.



**Route 57 (331265)**

**Liverpool Bypass (332128)**

**Morgan Rd (332019)**

**Truck AADT Trends** (Source: <https://nysdottrafficdata.drakewell.com/>)

The increase of heavy vehicles on these three corridors aligns with the addition of the Amazon facility in 2022 on Morgan Road and the designated route between there and the NYS Thruway. As mentioned in the GLTS Technical Memorandum, due to their physical size and slow starts after stops, heavy vehicles are more noticeable in the traffic stream. It is understandable that the impacts of more heavy vehicles are felt in outsize proportion by travelers.

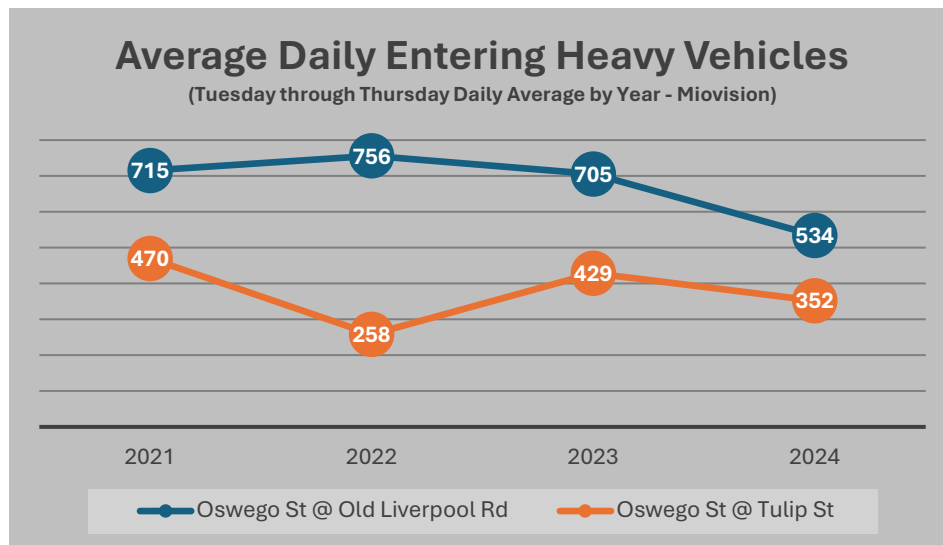
**Traffic Count Summary PDF Included**

### Traffic Volumes and Trends at Intersections

Since 2018, both intersections have seen a decrease in total daily entering volume (DEV) as well as the PM peak hour entering volume, ranging from -12 percent to -32 percent or about a 2 to 6 percent per year decrease. Outside the Village, all but 2 intersections (on Electronics Parkway) experienced a decrease in total DEV. More information about these intersections as well as 23 additional intersections in the Liverpool area can be found in Table 1 and Table 2 of the GLTS Technical Memorandum.

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attributed to the truck ban implemented and enforced by the Village as well as the closure of Exit 24A by the NYSDOT to reduce low bridge strikes on the Parkway. Exit 24A has been closed since April 2023.

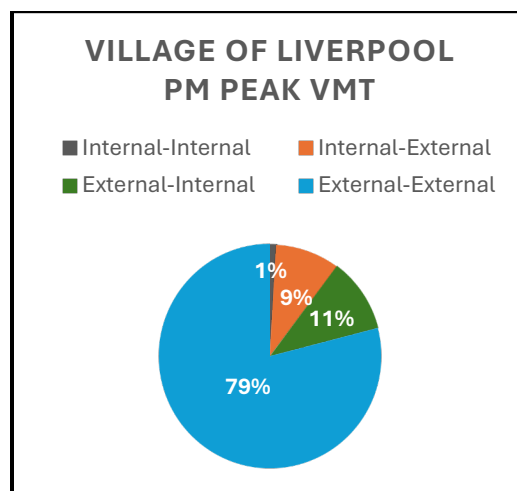


**Average Weekday (Tuesday - Thursday) Entering Heavy Vehicles by Intersection & Year** (Source: Miovision)

#### Vehicle Miles Traveled (VMT)

Vehicle Miles Traveled (VMT) is a distance and volume-based measure of driving on roadways and is useful for understanding travel patterns. According to Replica, which provides data about activity in the built environment, the nearly 80 percent of the total PM peak hour VMT in the Village of Liverpool consists of external-to-external (EE) trips, which both start and end outside of the Village; these trips are also referred to as pass-through trips. Trips with only an origin in the Village (internal-external) and trips with only a destination in the Village (external-internal) each make up about 10 percent of total VMT. Only 1 percent of the total VMT is made up of trips that start and end in the Village.

Understanding the makeup of the VMT in the Village during the PM peak hour can provide insight into how changes in the transportation network, such as the alternatives being modeled for this analysis, might affect travel patterns.

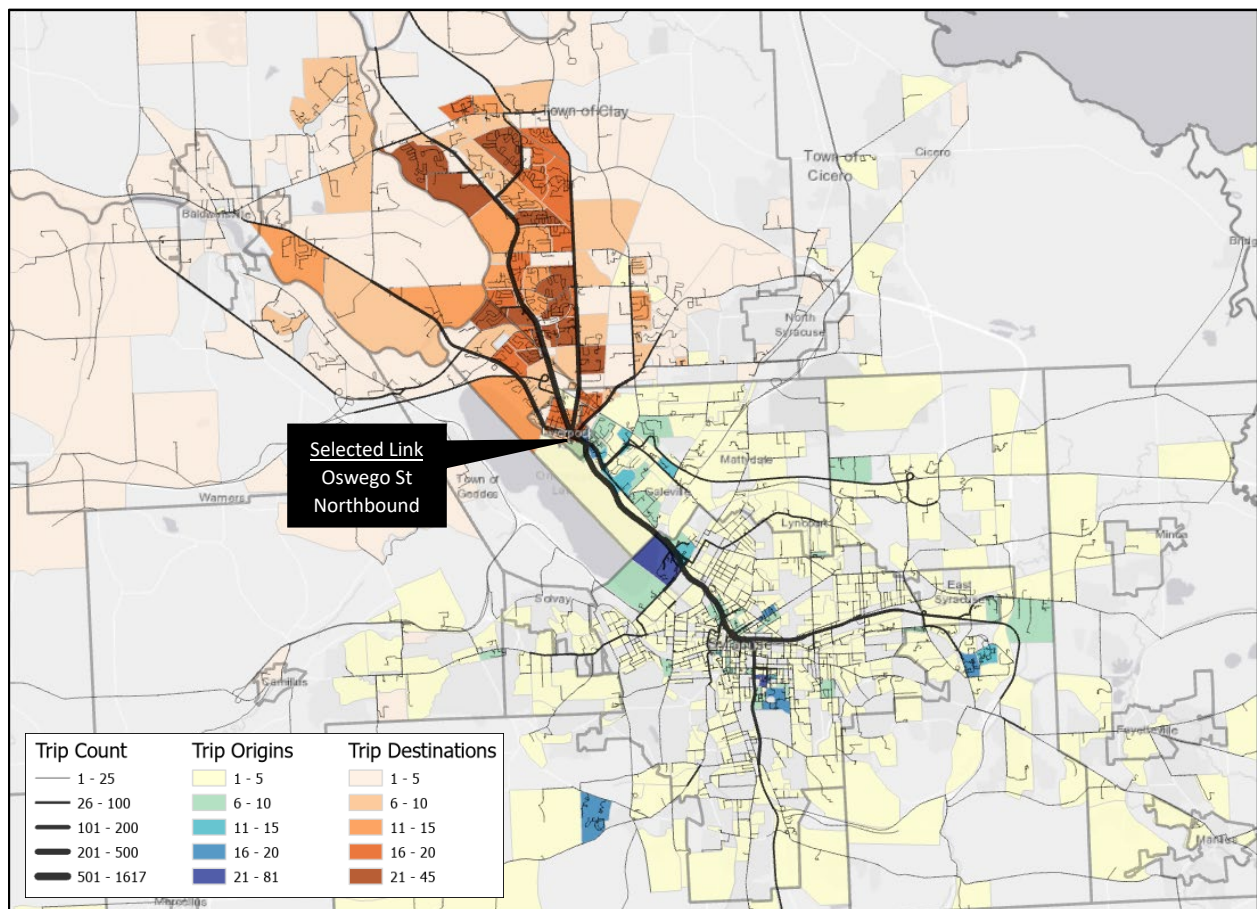


**Village of Liverpool PM Peak Hour Vehicle Miles Traveled** (Source: Replica, Fall 2023)

### Trip Origins and Destinations (O-D)

Similar to VMT, trip origin and destination information can be a valuable tool when evaluating transportation alternatives. Replica was used for a select link analysis on Oswego Street between 1<sup>st</sup> and 2<sup>nd</sup> Street, which carries the highest volume of traffic in the Village. A select link analysis is used to determine the origin and destination for trips that use a specific road or combination of roads. The analysis can also identify the travel routes that those trips use. This analysis focused on the northbound traffic in the PM Peak hour (4pm-5pm). The results are shown in the map below.

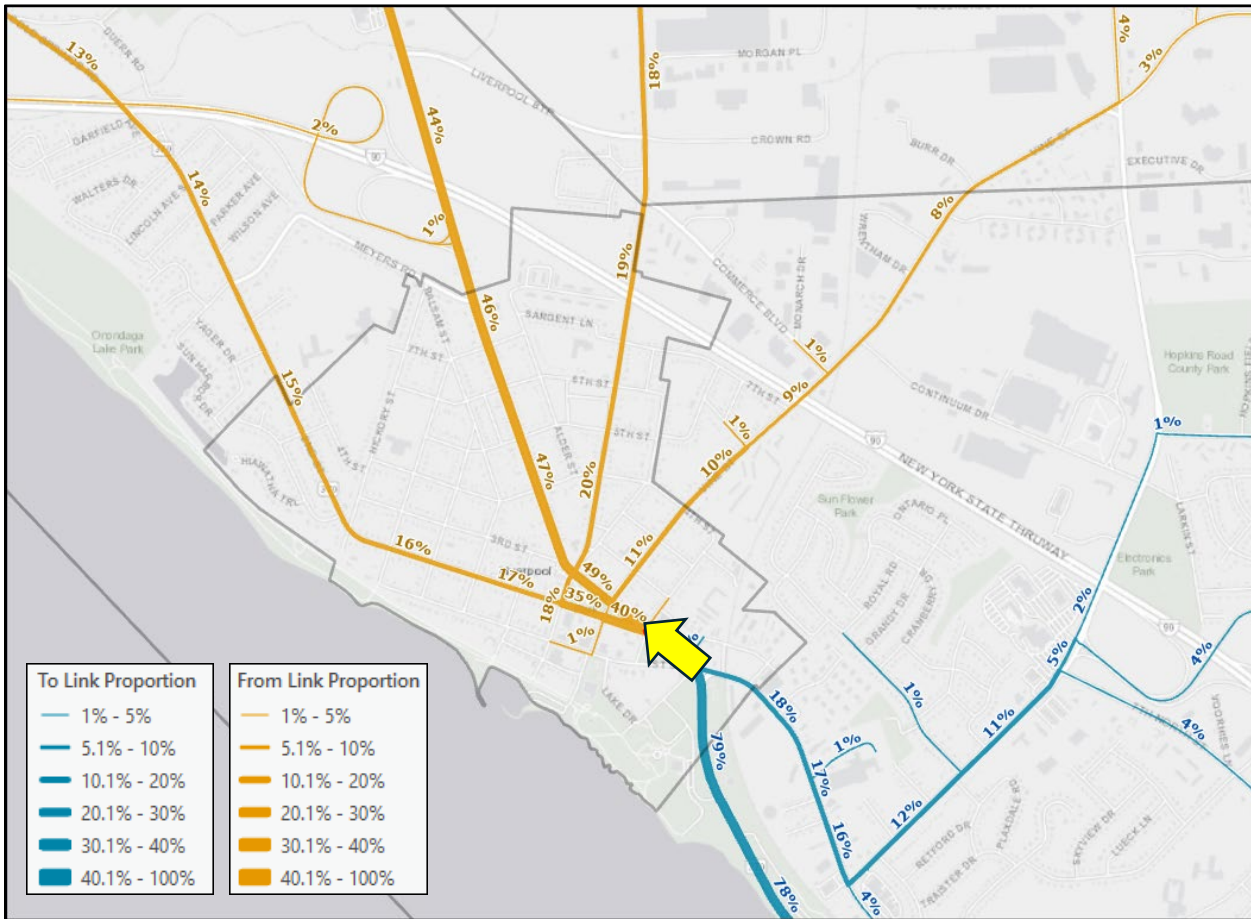
The northbound trips on Oswego St in the PM peak hour have a wide range of origins, most of which are major job centers. Common origin locations for trips that traverse Oswego St northbound in the PM Peak include Destiny USA, Onondaga Community College, Syracuse University, University Hill Hospitals, the DeWitt Town Center/Widewaters area, as well as business and residential areas along Old Liverpool Road. The destinations for trips traversing Oswego St do include some commercial areas along Route 57, (Wegmans and Bayberry Plaza) and Route 31 (COR Center) but are mostly residential neighborhoods along Route 370, Route 57, and Morgan Road starting in the Village and north to the Town of Clay and Lysander including the Baldwinsville and Radisson area.



**Oswego Street Northbound PM Peak Select Link Analysis** (Source: Replica, Spring 2024)

Another important output of a select link analysis is the distribution of trips to and from the selected road. Understanding the proportion of trips that use a certain road can help identify upstream and/or downstream traffic flow and possible locations for mitigation. Using the same Spring 2024 Replica data, we can identify the distribution of traffic going to the selected link and away from the selected link. The

following map highlights the proportion of trips on links during the PM peak hour that traverse Oswego Street northbound between 1<sup>st</sup> and 2<sup>nd</sup> street in the Village. The data show that nearly 80 percent of the PM peak hour traffic on this segment of Oswego St is coming from the Parkway northbound and about 20 percent is coming from Old Liverpool Rd. After that traffic passes through this segment of Oswego St, approximately 15 percent continues northwest beyond the Village on Rt 370, 45 percent continues north on Rt 57, 20 percent heads north on Tulip St/Morgan Rd, and under 10 percent heads northeast on Vine St.



**Local View: Oswego Street Northbound Select Link Trip Distribution - PM Peak Hour**

(Source: Replica, Spring 2024)

## Alternatives Modeling Results Summary

In preparation for this analysis, the SMTC met with Village representatives as well as various other local agencies including the Onondaga County Department of Transportation (OCDOT) and New York State Department of Transportation (NYSDOT) to discuss the possible transportation and land use alternatives to analyze. In general, the consensus was to use the updated model to rerun several of the alternatives that were included in the 2009 analysis, with some modifications.

The following existing conditions, anticipated future, and Liverpool alternative model runs were analyzed in PM peak hour conditions. The SMTC PM peak hour model outputs represent an average fall day from 4pm to 5pm.

The 2050 anticipated future scenario is first compared to the Base Year 2020 Existing Conditions model; this comparison provides insight into how existing traffic patterns would change based on the anticipated future. The 2050 anticipated future scenario was developed using local representatives' input regarding the most likely future land use and transportation changes in the region and includes regionally significant future projects such as the I-81 community grid transportation project and the Micron development project. Each Liverpool alternative is then compared to the 2050 anticipated future to identify regional traffic pattern changes resulting from each alternative.

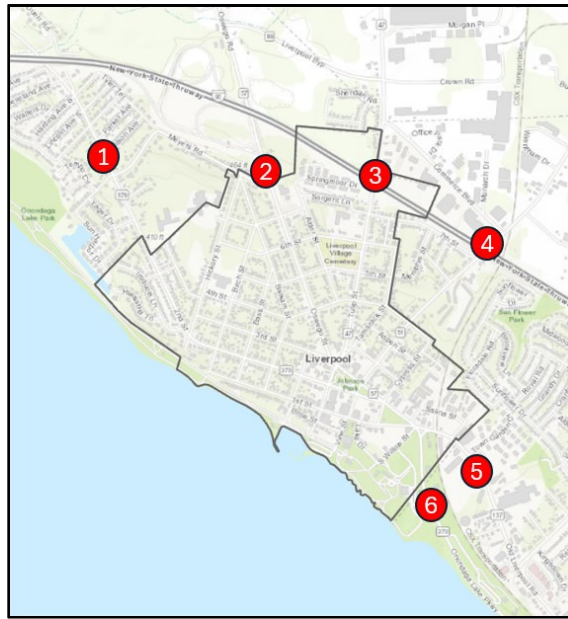
Each of the following alternatives have an A(a) and a B(b) version.

**A Alternatives (a):** The future year 2050 Onondaga Lake Parkway assumption is 1 lane each direction (2 lanes total) with a 45mph speed limit.

**B Alternatives (b):** Same alternatives as noted above but with 2 lanes each direction (4 lanes total) on Onondaga Lake Parkway with a 45mph speed limit.

- **Future Year 2050 (FY2050):** SMTC's anticipated future conditions model
- **Alternative 1:** FY2050 with a lane reduction on Oswego St
- **Alternative 2:** FY2050 with an extended Liverpool Bypass (northern configuration)
- **Alternative 3:** FY2050 with an extended Liverpool Bypass (southern configuration)
- **Alternative 4:** FY2050 with the removal of the Thruway user fees between Exit 36 and Exit 39
- **Alternative 5:** FY2050 with a roundabout at Commerce Blvd and Tulip St
- **Alternative 6:** FY2050 with additional household and jobs growth in the Liverpool area

Please note that the SMTC travel demand model is a four-step gravity model meant for analyzing regional changes in traffic patterns and not specific road or intersection functionality. Any changes identified between alternatives on specific roads, especially lower functional class roads, should be looked at with curiosity as to why that change occurred. While the SMTC model is a regional model, it can be sensitive to very small changes such as rerouting traffic due to a few seconds of travel time savings. Additionally, this type of model doesn't account for complex human decision making for trip routing. For a more holistic view and comparison, a summary of the total change in PM peak hour volumes on major roadways in the Village is provided in the chart below, while a more detailed results summary follows.



**Locations used for comparing change in PM peak hour volumes**

The following chart summarizes the total change in PM peak hour volumes by alternative for six major roadways at their access point to the Village. The map above highlights the locations used for this analysis.

**Change in PM Peak Hour Volumes on Major Roadways at their access point to the Village**

Alternative		Locations						Total
		1 - Rt 370	2 - Rt 57	3 - Tulip St	4 - Vine St	5 - Old Liv Rd	6 - Parkway	
<b>FY2050</b>	<b>a</b>	18%	13%	2%	14%	64%	-15%	8%*
	<b>b</b>	1%	2%	2%	2%	-19%	16%	2%
<b>Alt 1</b>	<b>a</b>	-2%	-4%	-1%	0%	-2%	-5%	-3%
	<b>b</b>	0%	-3%	0%	-1%	-19%	9%	-1%
<b>Alt 2</b>	<b>a</b>	-39%	-20%	6%	-26%	-13%	3%	-13%
	<b>b</b>	-39%	-19%	7%	-20%	-27%	17%	-10%
<b>Alt 3</b>	<b>a</b>	-42%	-12%	-7%	-20%	-24%	-2%	-16%
	<b>b</b>	-40%	-11%	-4%	-20%	-40%	12%	-14%
<b>Alt 4</b>	<b>a</b>	-1%	1%	1%	0%	1%	-3%	-1%
	<b>b</b>	-1%	2%	2%	1%	-21%	14%	1%
<b>Alt 5</b>	<b>a</b>	0%	1%	0%	0%	5%	-4%	0%
	<b>b</b>	1%	3%	-2%	2%	-19%	16%	2%
<b>Alt 6</b>	<b>a</b>	0%	3%	0%	0%	3%	0%	1%
	<b>b</b>	2%	5%	3%	3%	-18%	18%	4%

Source: SMTTC Travel Demand Model

\*Compared to 2020 existing conditions. All other alternatives are compared to 2050A.

### Base Year 2020 (BY2020) Existing Conditions

Description: SMTC's existing conditions model

### Future Year 2050a (FY2050a)

*Description:* SMTC's anticipated future conditions model. Details of the assumptions included in the anticipated future model can be found in the SMTC Travel Model V6 Documentation (September 2024).

**Map 1:** Future Year 2050a – Change in PM Peak Volumes Compared to 2020 Base (existing conditions)

*Results:*

- PM peak hour volume increases of 10-20% on many major roads in the greater Liverpool area due to the anticipated development of Micron and its spin-off growth.
- A significant shift in traffic from Onondaga Lake Parkway (-15%) to Old Liverpool Road (+49-68%) due to the Parkway being reduced to 1 lane in each direction.
- Total increase of 8% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2020 existing conditions.

### Alternative 2050b

*Description:* SMTC's anticipated future conditions model with 2 lanes in each direction (4 lanes total) on Onondaga Lake Parkway

**Map 2:** Alternative 2050b – Change in PM Peak Volumes Compared to Future Year 2050a

*Results:*

- As anticipated, changing the Parkway back to a 4-lane facility shifts some volume back to it from Old Liverpool Road.
- Total increase of 2% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 1a

*Description:* F SMTC's anticipated future conditions model with a lane reduction (-1 lane each direction) on Oswego Street between Onondaga Lake Parkway and Tulip Street

**Map 3:** Alternative 1a - Change in PM Peak Volumes Compared to Future Year 2050a

*Results:*

- Reduction in capacity on Oswego Street results in approximately 100 PM peak hour vehicles choosing alternative routes around the Village such as I-690, I-81, and I-90.
- In the Village, some vehicles avoid the reduced capacity Oswego Street and reroute to 1<sup>st</sup> Street. This could be due to a very slight decrease in travel time and may not occur in reality.
- Total decrease of 3% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 1b

*Description:* Lane reduction (-1 lane each direction) on Oswego Street between Onondaga Lake Parkway and Tulip Street with 2 lanes in each direction (4 lanes total) on Onondaga Lake Parkway

#### **Map 4:** Alternative 1b – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- Similar results to Alternative 1a (see above) but with a shift of some volume back to the Parkway from Old Liverpool Road due to the additional travel lanes.
- Total decrease of 1% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 2a

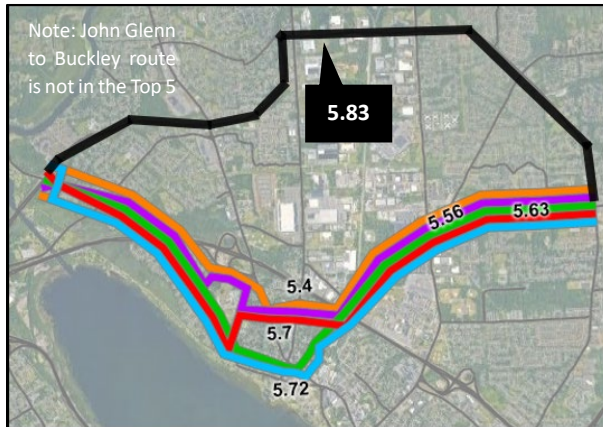
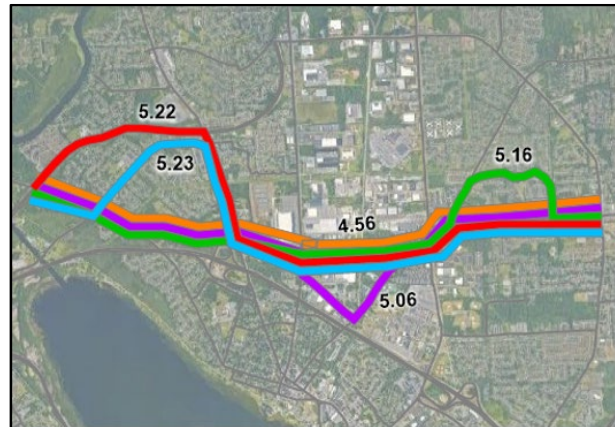
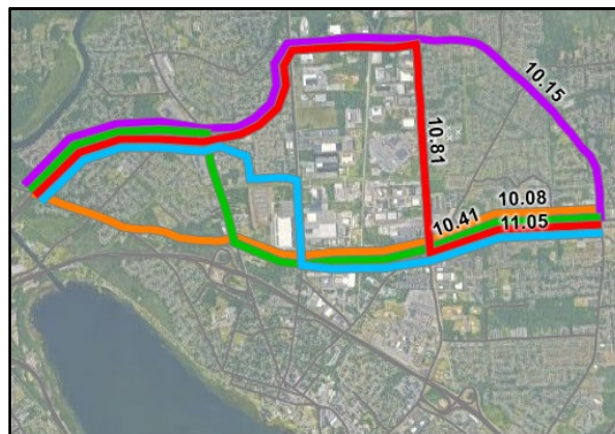
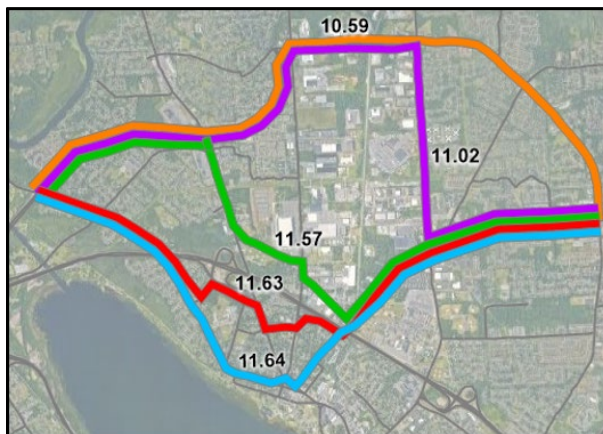
*Description:* SMTTC's anticipated future conditions model with an extended Liverpool Bypass (Northern Configuration). Extend the Bypass west to connect to Rt 370 north of I-90 and east following Crown Rd over to the Vine St & Henry Clay Blvd intersection. The modeled speed limit for the extended Bypass is 45mph.

#### **Map 5:** Alternative 2a – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- The extended Bypass attracts almost 1,000 PM peak hour vehicles on the western addition, over 1,300 on the eastern addition, and more than 700 new vehicles on the central existing section.
- PM peak volumes decrease by 39% on Rt 370 in the west, 26% on Vine St in the east, and 13% on Old Liverpool Road in the south.
- 1-3% decrease of traffic on Oswego St between Old Liverpool Road and Tulip St.
- John Glenn Blvd, the nearest major east-west route north of the Village (other than the NYS Thruway), shows a decrease of 14-16% in westbound PM volumes and 8-13% eastbound.
- Decrease of up to 67% on east-west cut through traffic within the Village between Rt 370 and Vine St.
- Increased traffic on several roadways outside of the Village including an increase of up to 23% on Taft Rd, up to 18% on Bear Rd, up to 50% on Rt 370 north of the extended Bypass, and 45% on Long Branch Rd west of Rt 370.
- Total decrease of 13% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

Based on the results of this model run, an additional analysis was conducted to identify the shortest paths between two common east-west points, both in terms of length and travel time. The purpose of this analysis is to better understand the potential paths a traveler could choose, and which paths the model might assign trips to. For this analysis, the Future Year 2050a (existing east-west routes) and Alternative 2a (extended east-west Bypass) network outputs were compared.

**FY 2050a****Alt 2a****Five Shortest Paths: Length (miles)****Five Shortest Paths: PM Congested Travel Time (minutes)**

Source: SMTC Travel Demand Model

This analysis shows that the shortest distance route may not be the ideal route when PM congested travel times (which accounts for delay) are applied to the network. It also helps explain why certain routes gain/lose traffic volumes under certain alternatives. For example, in Alternative 2a the extended Bypass becomes the fastest east-west route under PM congested conditions and the east-west routes through the Village become less attractive, resulting in a decrease in traffic in the Village.

**Alternative 2b**

*Description:* Extended Liverpool Bypass (Northern Configuration) with 2 lanes in each direction (4 lanes total) on Onondaga Lake Parkway

**Map 6: Alternative 2b – Change in PM Peak Volumes Compared to Future Year 2050a****Results:**

- Similar regional results to Alternative 2a (see above) but with a shift of some volume back to the Parkway from Old Liverpool Road due to the additional travel lanes.
- Increase of 4% on Oswego St between Old Liverpool Rd and Vine St as opposed to a slight decrease in Alternative 2a.

- Increase of up to 16% on Vine St between Oswego St and 7<sup>th</sup> St.
- Total decrease of 10% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 3a

*Description:* SMTTC's anticipated future conditions model with an extended Liverpool Bypass (Southern Configuration). Extend the Bypass west to connect to Rt 370 north of the I-90. East of the existing Bypass it would follow Commerce Blvd to Vine St and then extend east along I-90 from Vine St to Electronics Pkwy with an intersection between I-90 and Hopkins Rd. The modeled speed limit for the extended Bypass is 45mph.

#### **Map 7:** Alternative 3a – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- The extended Bypass attracts over 800 PM peak hour vehicles on the western addition, over 1,100 on the eastern addition, more than 300 new vehicles on the central existing section, and over 500 new vehicles on the Commerce Blvd section.
- PM peak volumes decrease by 42% on Rt 370 in the west, 20% on Vine St in the east, and 24% on Old Liverpool Road in the south.
- 5-7% decrease in traffic on Oswego St between Old Liverpool Road and Tulip St.
- John Glenn Blvd, the nearest major east to west route north of the Village (other than the NYS Thruway), shows a decrease of up to 13% in westbound PM volumes and up to 9% eastbound.
- Results show a significant decrease of 15-78% on east-west cut through traffic within the Village between Rt 370 and Vine St.
- Increased traffic on several roadways outside of the Village including an increase of up to 32% on Hopkins Rd, up to 27% on Electronics Pkwy (between the Bypass and 7<sup>th</sup> North St), up to 10% on 7<sup>th</sup> North St, up to 35% on Rt 370 north of the extended Bypass, and 34% (+146) on Long Branch Rd west of Rt 370.
- When compared to the northern Bypass Alternative (2a), the southern Bypass option shifts east-west PM peak travel demand from Taft Rd and Bear Rd to Hopkins Rd and 7<sup>th</sup> North St.
- Results show a decrease in trips accessing I-90 at Oswego Street Exit 38, -14% (-158), and an increase at Electronics Pkwy Exit 37, +17% (+147), which appear to have an origin or destination east of the interchange.
- Total decrease of 16% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 3b

*Description:* Extended Liverpool Bypass (Southern Configuration) with 2 lanes in each direction (4 lanes total) on Onondaga Lake Parkway

#### **Map 8:** Alternative 3b – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- Similar results to Alternative 3a (see above) but with a shift of some volume back to the Parkway from Old Liverpool Road due to the additional travel lanes. There is an addition of just over 220 vehicles when compared to Alternative 2050a.

- Total decrease of 14% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

#### Alternative 4a

*Description:* SMTC's anticipated future conditions model with the removal of the Thruway user fees between Exit 36 and Exit 39

#### **Map 9:** Alternative 4a – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- Making the Thruway free for travelers between Exits 36 and 39 does attract more vehicles to the Thruway, an increase of up to 8% for both the eastbound and westbound directions which is about 140 and 170 vehicles respectively.
- Minimal volume changes in the Village of Liverpool during the PM peak hour, ranging from -41 on Oswego St to +21 on Vine St.
- Total decrease of 1% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

#### Alternative 4b

*Description:* Removal of the Thruway user fees between Exit 36 and Exit 39 with 2-lanes in each direction (4 lanes total) on Onondaga Lake Parkway

#### **Map 10:** Alternative 4b – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- Similar results to Alternative 4a (see above) but with a shift of some volume back to the Parkway from Old Liverpool Road due to the additional travel lanes. There is an addition of just over 260 vehicles when compared to Alternative 2050a.
- Minor increase of 1-2% PM peak volumes on Oswego St between Old Liverpool Rd and Tulip St.
- Total increase of 1% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

#### Alternative 5a

*Description:* SMTC's anticipated future conditions model with Roundabout at Commerce Blvd and Tulip Street Intersection

#### **Map 11:** Alternative 5a – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- The addition of a slow speed roundabout results in minor reductions in PM peak volumes on Tulip St as well as Oswego St and Onondaga Lake Parkway.
- No significant regional traffic impacts.
- Decrease of < 1% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 5b

*Description:* Roundabout at Commerce Blvd and Tulip Street Intersection with 2 lanes in each direction (4 lanes total) on Onondaga Lake Parkway

#### **Map 12:** Alternative 5b – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- Similar results to Alternative 5a (see above) but with a shift of some volume back to the Parkway from Old Liverpool Road due to the additional travel lanes. There is an addition of just over 280 vehicles when compared to Alternative 2050a.
- Total increase of 2% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 6a

*Description:* SMTc's anticipated future conditions model with additional land use changes in and near the Village as noted below:

- Lake Drive and Basin Block mixed use development
- Mixed use development southeast of the Oswego Rd & Liverpool Bypass intersection
- Single-family home development south of Old Cove Road
- Apartment development on east side of Oswego Rd across from Old Cove Road

#### **Map 13:** Alternative 6a – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- The addition of households and jobs generates more PM peak hour traffic in the vicinity of the developments, including an increase of 1-6% or about 15-90 additional vehicles on sections of Oswego St/Route 57.
- No significant regional traffic impacts.
- Total increase of 1% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

### Alternative 6b

*Description:* Additional land use changes in and near the Village with 2 lanes in each direction (4 lanes total) on Onondaga Lake Parkway

#### **Map 14:** Alternative 6b – Change in PM Peak Volumes Compared to Future Year 2050a

##### *Results:*

- Similar results to Alternative 6a (see above) but with a shift of some volume back to the Parkway from Old Liverpool Road due to the additional travel lanes. There is an addition of just over 330 vehicles when compared to Alternative 2050a.
- The added capacity on the Parkway generally attracts more trips through the Village.
- No significant regional traffic impacts.
- Total increase of 4% in PM peak hour volumes on the segments of the six major roads at their access point into the Village when compared to 2050a.

## Conclusions

### Summary

Historical traffic data shows that traffic in the Village and greater Liverpool area has generally stayed consistent or declined since 2000. However, based on the future Micron development and the growth that is anticipated over the next 30 years, the SMTC regional model shows traffic generally increases across Onondaga County, including within the Village and the greater Liverpool area. It was not included in the scope of this project, but it would be beneficial to compare what the traffic volumes were within the Village when the market retail analysis was completed in 2005 to the traffic volumes that are anticipated in the future.

For this updated modeling analysis, it was assumed that the goal continues to be a reduction in the Village traffic by 15-20% in the PM peak hour. This updated modeling effort looked at a total of 12 different land use and transportation alternatives, six different alternatives paired with two different Parkway assumptions, to see if any alternative could meet that goal. The purpose of modeling the land use only alternatives, Alternatives 6a and 6b, was to assess the potential impacts of adding additional households and jobs in the Liverpool area.

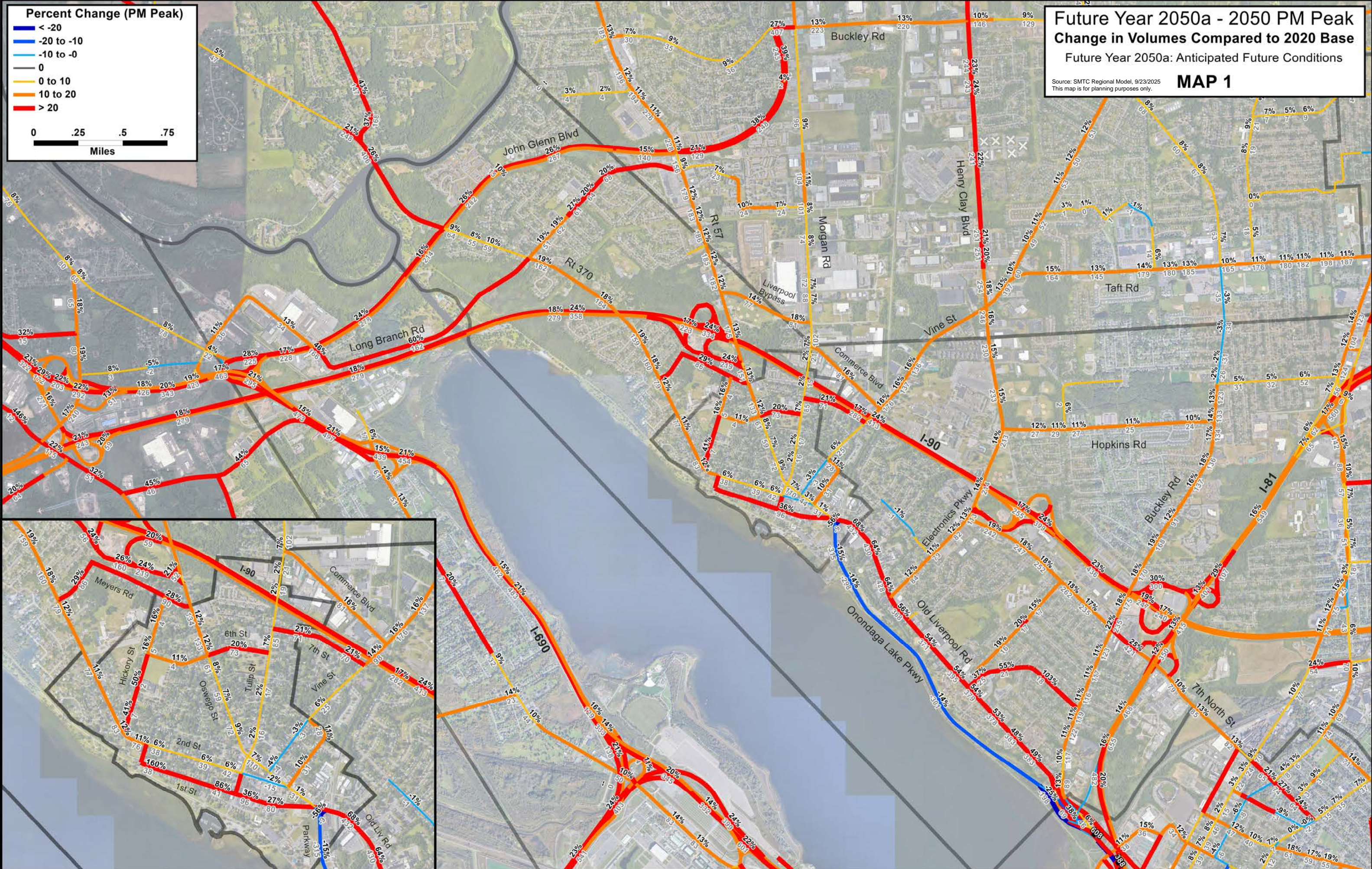
The model results show that the extension of the Liverpool Bypass (Alternatives 2a, 2b, 3a, & 3b) has the most potential to reduce the traffic in the Village by more than 10% in future PM peak hour conditions, but it is the most expensive option. Without consideration of cost, the Bypass extension model results indicate that the greater Liverpool area, from a surface transportation perspective, could benefit from a more direct east-west corridor and could be a good candidate for further study, such as completing a benefit-cost analysis.

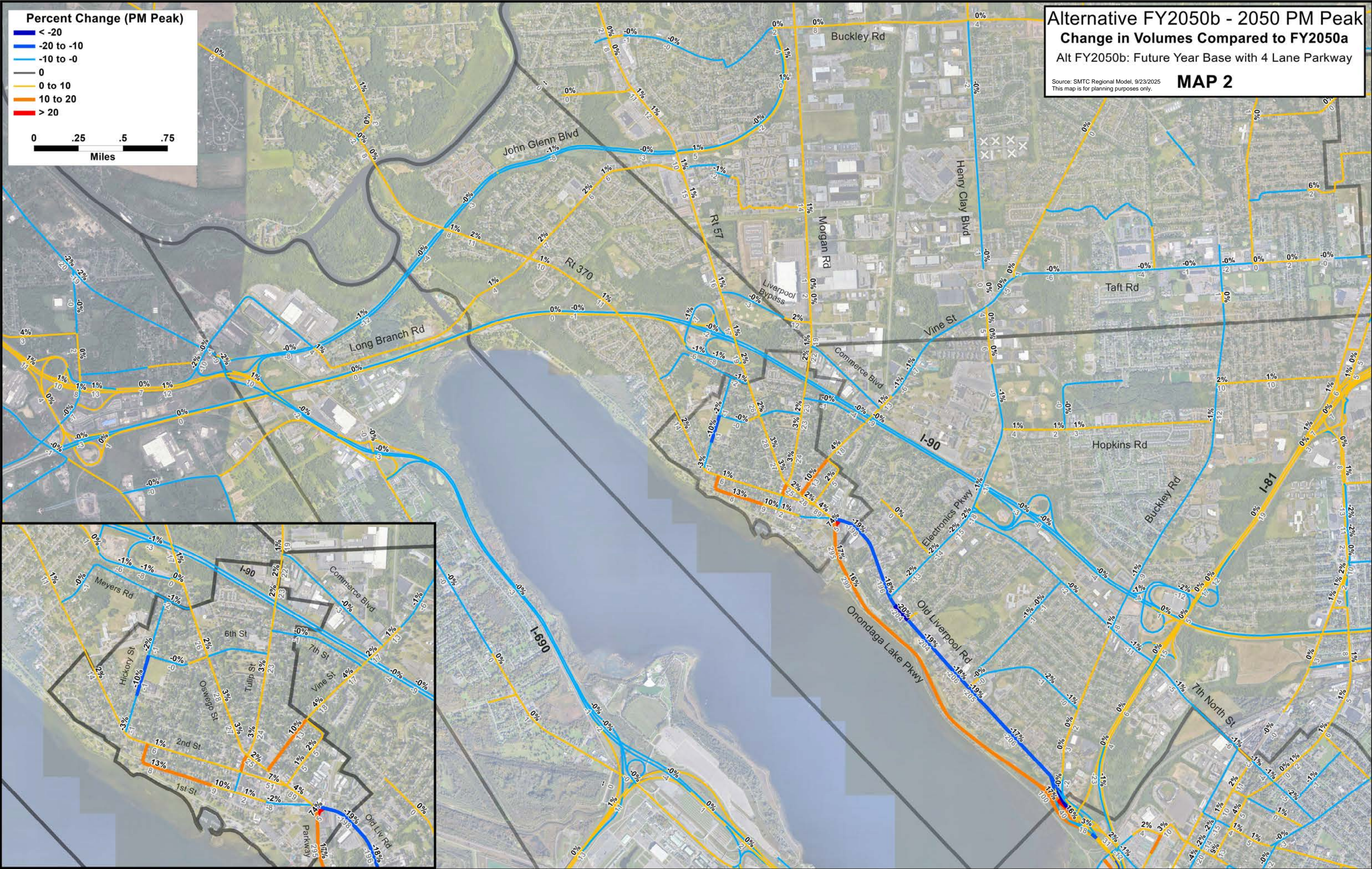
The other transportation alternatives such as the reduction of lanes on Oswego Street (Alternatives 1a & 1b), removing the Thruway user fees (Alternative 4a), and putting a roundabout at the intersection of Tulip St and Commerce Blvd (Alternative 5a) resulted in very little reduction in traffic through the Village. The B Alternatives for Alternatives 4 and 5 resulted in an overall slight increase in traffic. The Village could consider requesting additional regional model runs that consist of new alternatives such as various traffic calming techniques within the Village or alternatives that combine one or more of the more favorable (reduction of Village traffic) alternatives, which could result in additional traffic reduction.

Regarding the removal of Thruway user fees (Alternative 4), it should be noted that as of the completion of this document legislation was passed in both the NYS Senate and Assembly to allow people to get passes during the most disruptive period of I-81 construction that could allow free use of the thruway within Onondaga County. The thruway provides an alternate east-west route that could divert traffic from construction zones. If signed into law by the Governor, it would sunset in 2030 once the most intensive construction is completed.

### Next Steps

As highlighted in this tech memo, there are many new tools and data that are now available that were not available in 2009 for the previous analysis. These data provide valuable insights that can help inform the planning and decision-making process. The transportation modeling and analysis summarized in this technical memorandum serves as a precursor to possible future planning efforts. If a member agency or municipality wants to pursue a related project further, it should be submitted to the SMTC for consideration.





**Percent Change (PM Peak)**

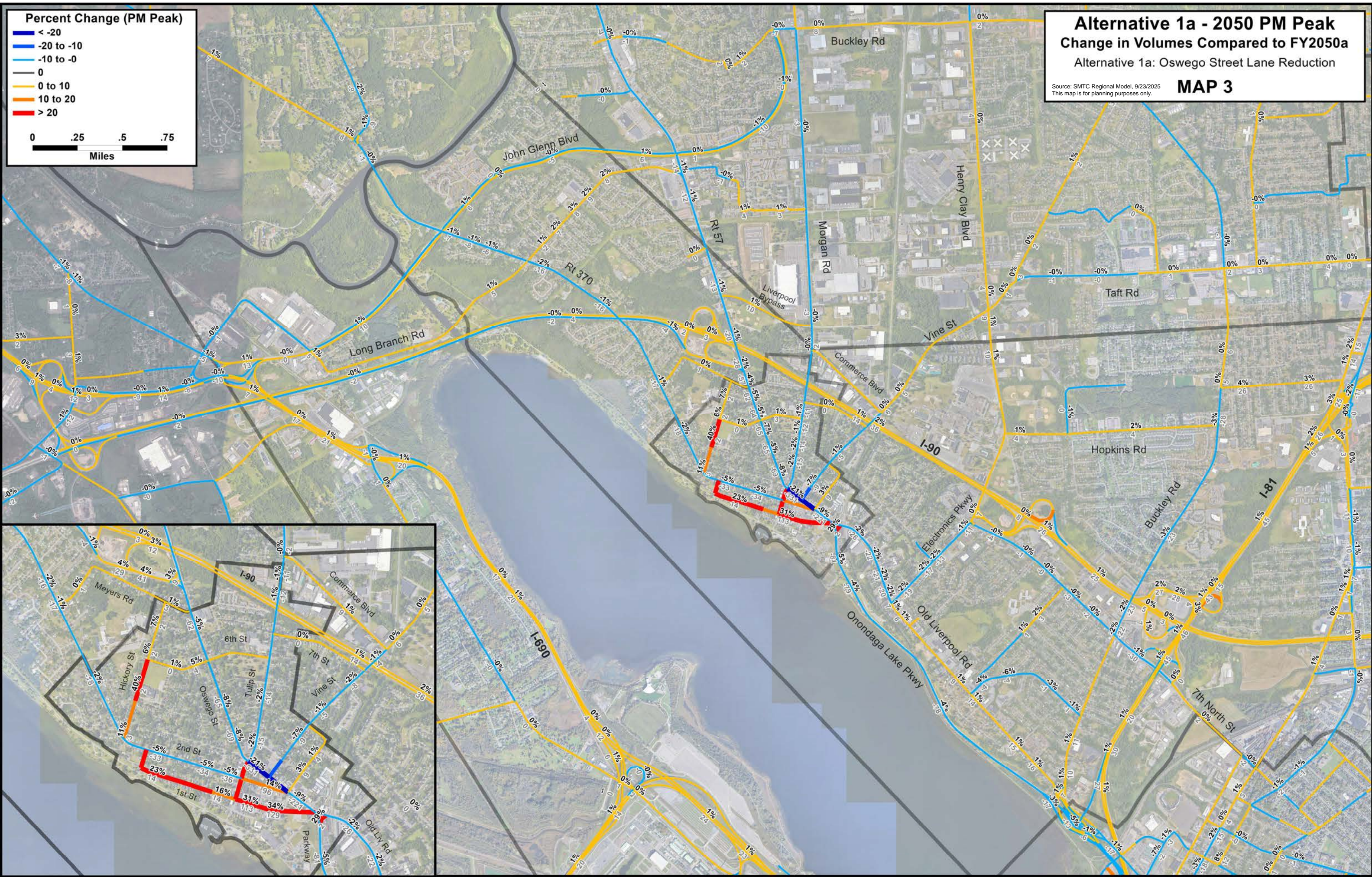
- < -20
- 20 to -10
- 10 to -5
- 0
- 0 to 10
- 10 to 20
- > 20

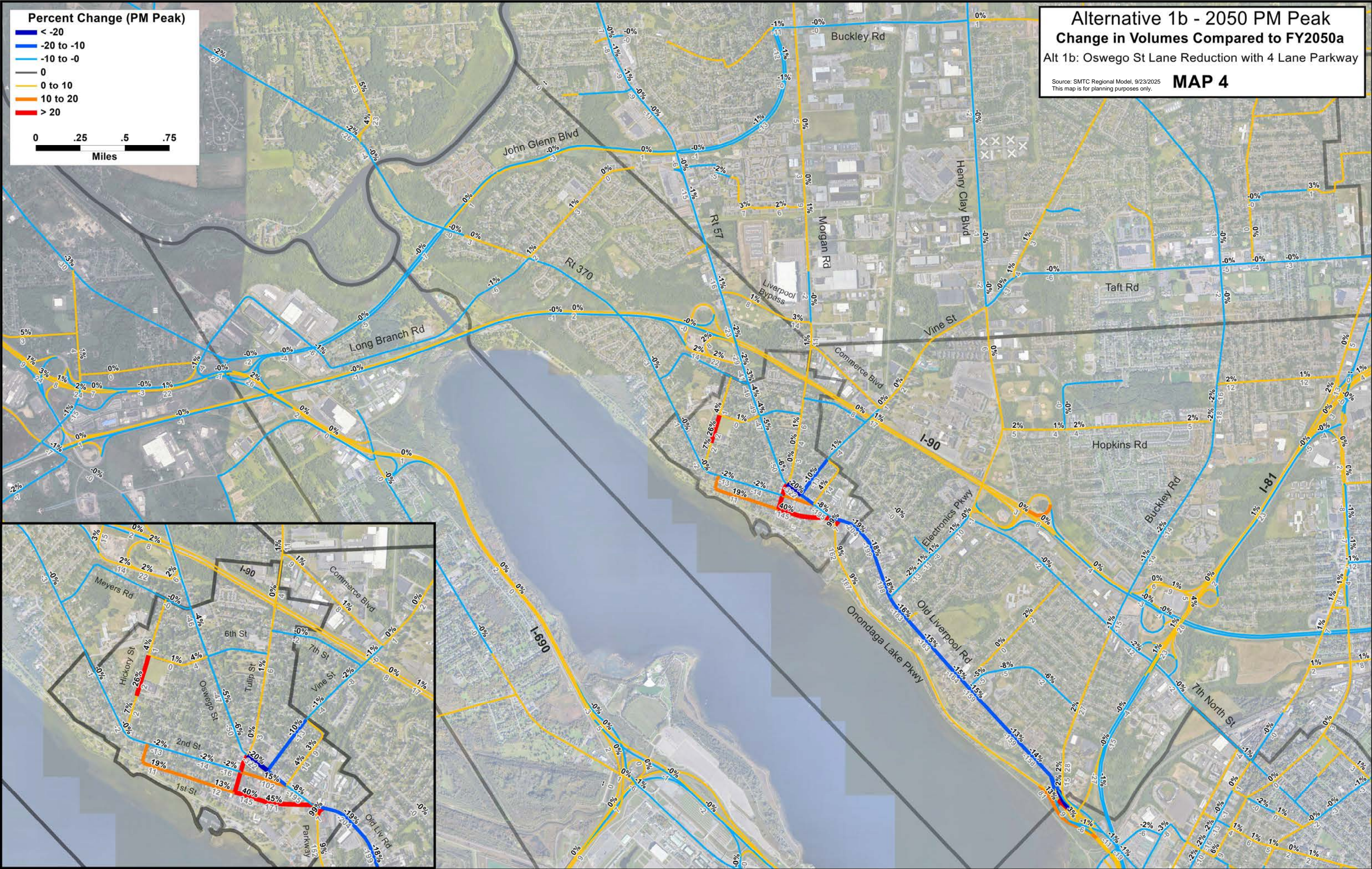
0 .25 .5 .75  
Miles

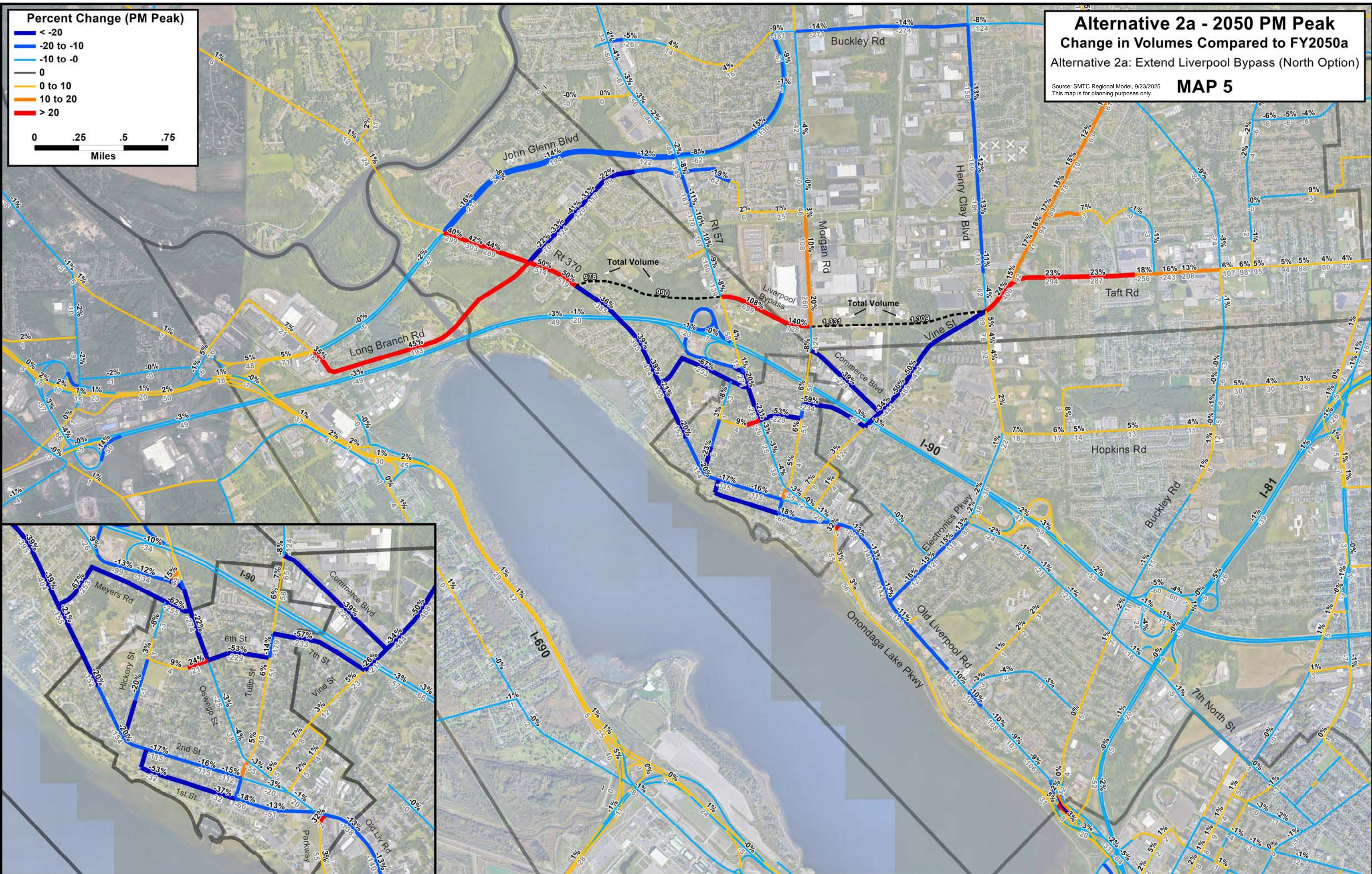
**Alternative FY2050b - 2050 PM Peak**  
**Change in Volumes Compared to FY2050a**  
Alt FY2050b: Future Year Base with 4 Lane Parkway

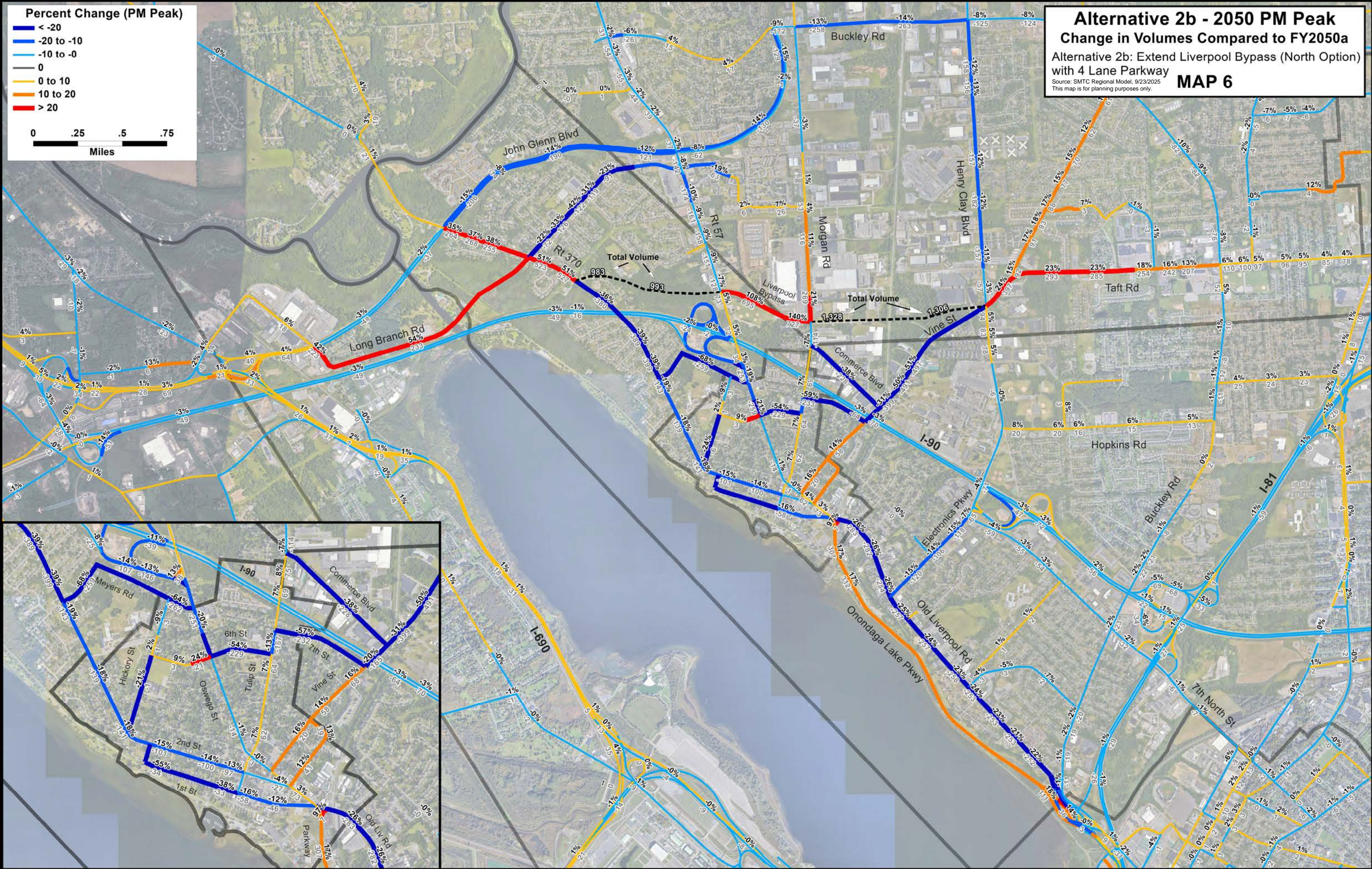
Source: SMTG Regional Model, 9/23/2025  
This map is for planning purposes only.

**MAP 2**







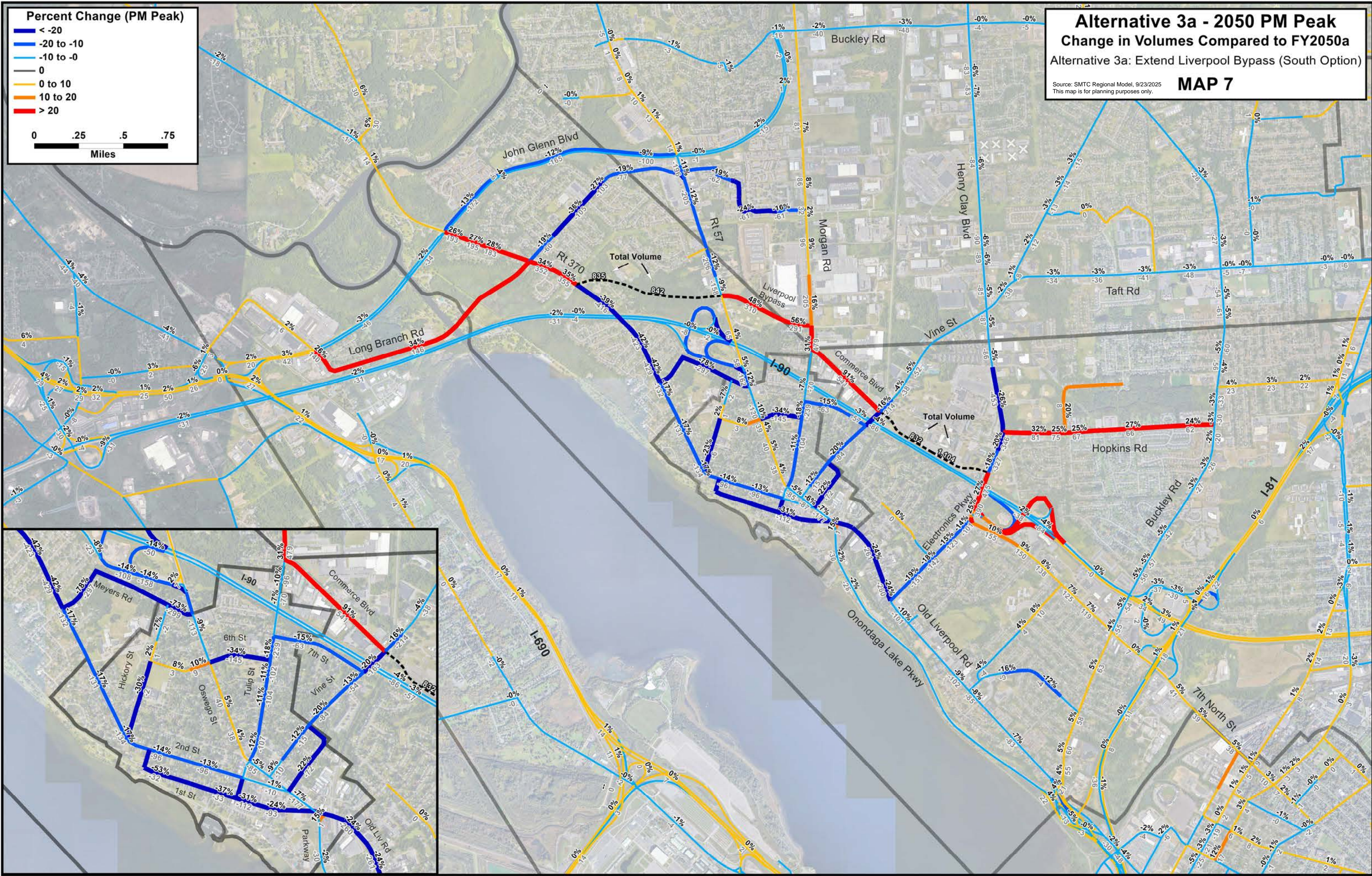


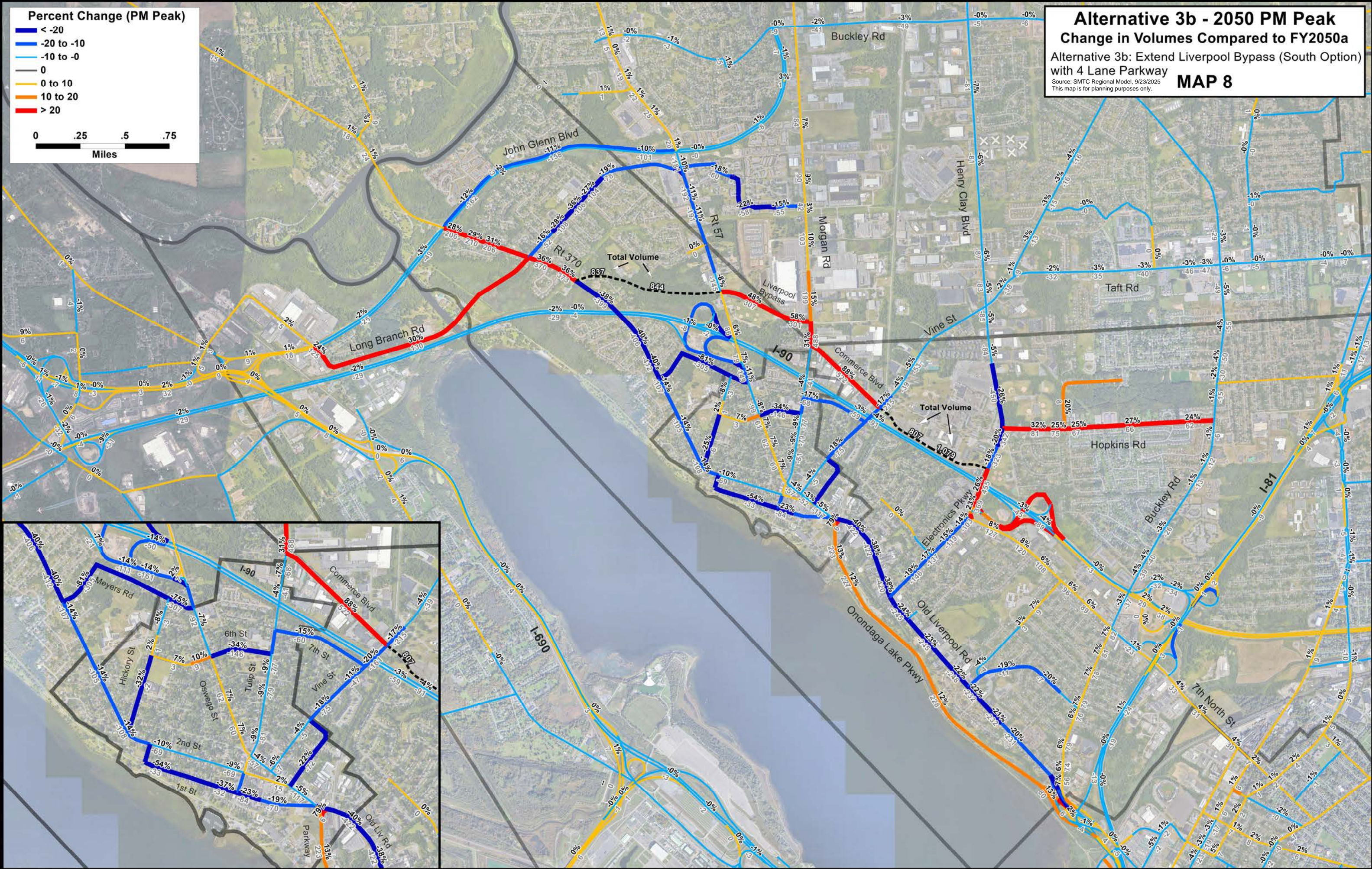
**Percent Change (PM Peak)**

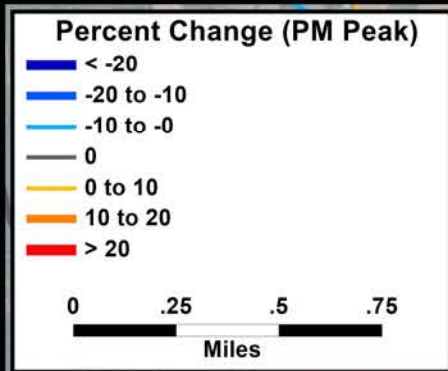
- < -20
- 20 to -10
- 10 to -0
- 0
- 0 to 10
- 10 to 20
- > 20

0 .25 .5 .75  
Miles

**Alternative 2b - 2050 PM Peak**  
**Change in Volumes Compared to FY2050a**  
Alternative 2b: Extend Liverpool Bypass (North Option)  
with 4 Lane Parkway  
Source: SMTG Regional Model, 9/23/2025  
**MAP 6**  
This map is for planning purposes only.



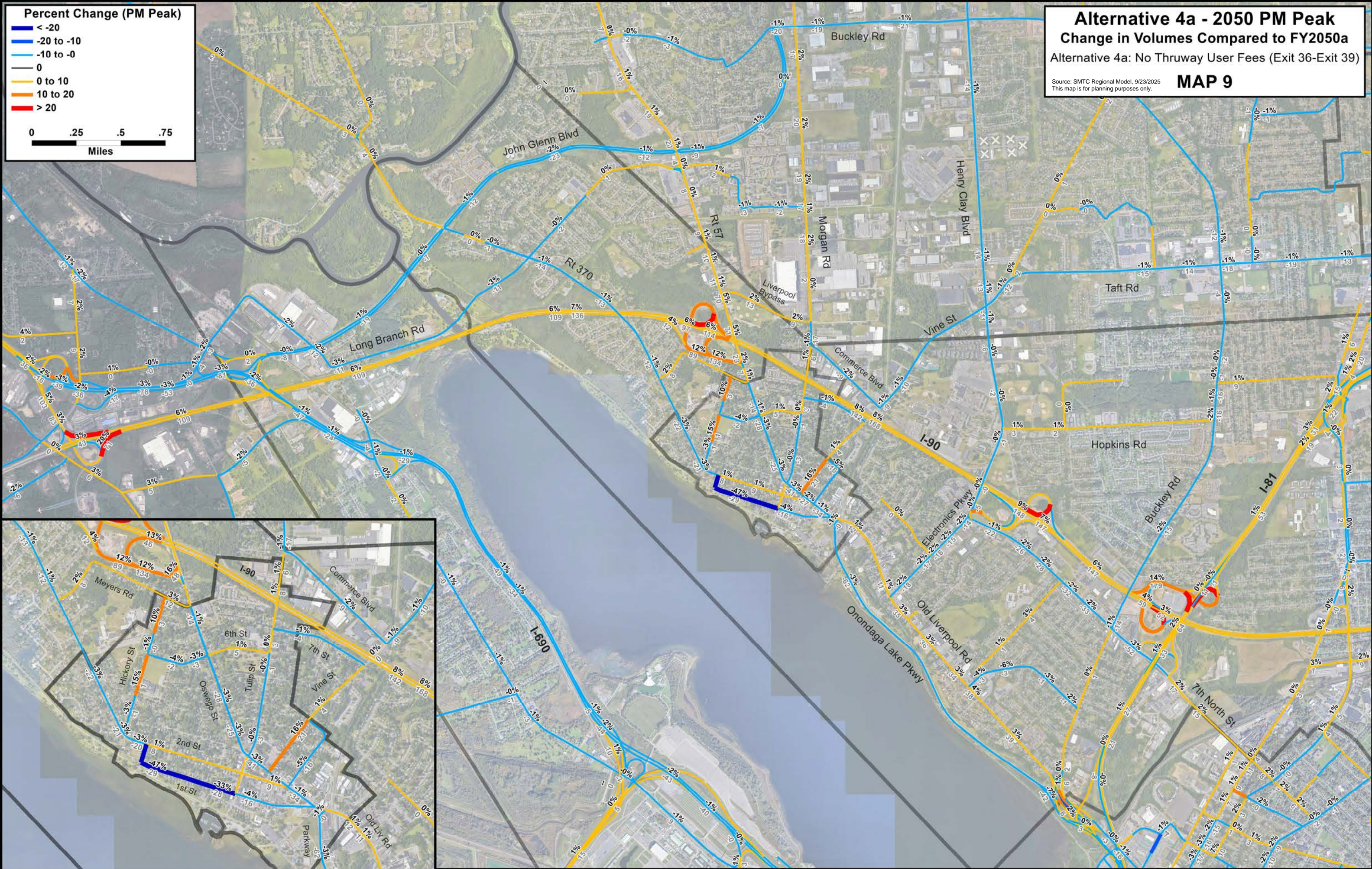


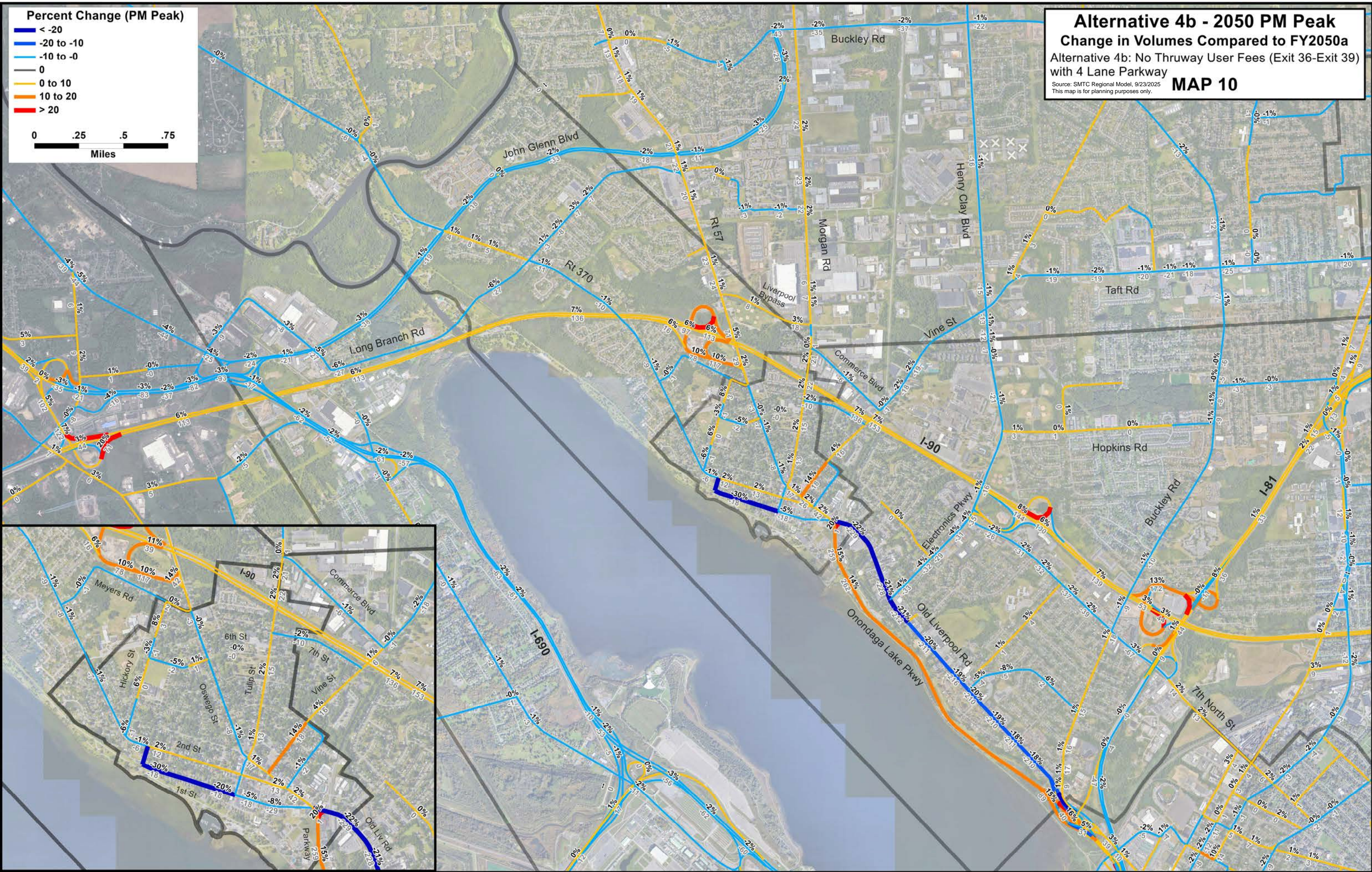


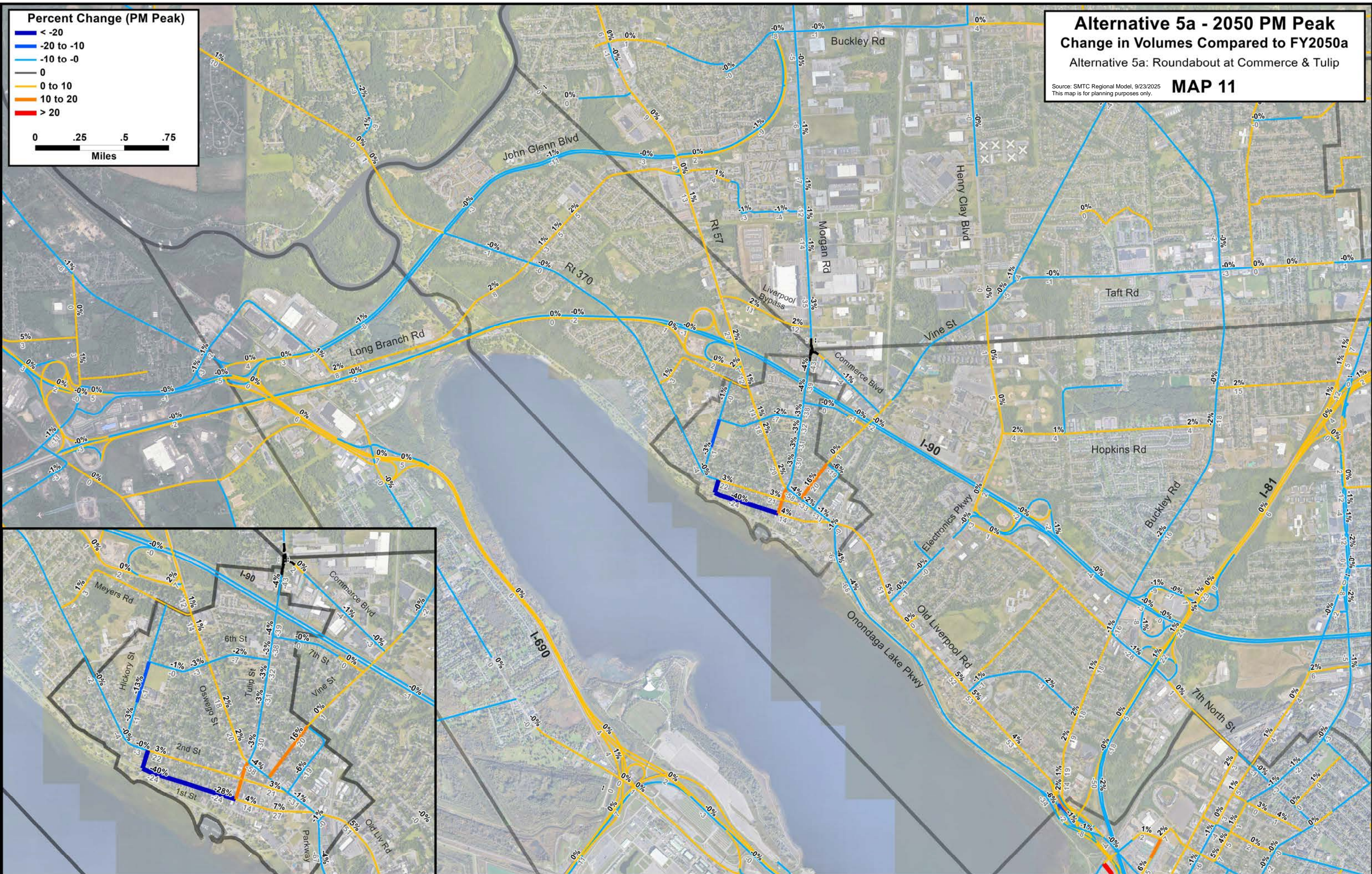
**Alternative 4a - 2050 PM Peak**  
**Change in Volumes Compared to FY2050a**  
Alternative 4a: No Thruway User Fees (Exit 36-Exit 39)

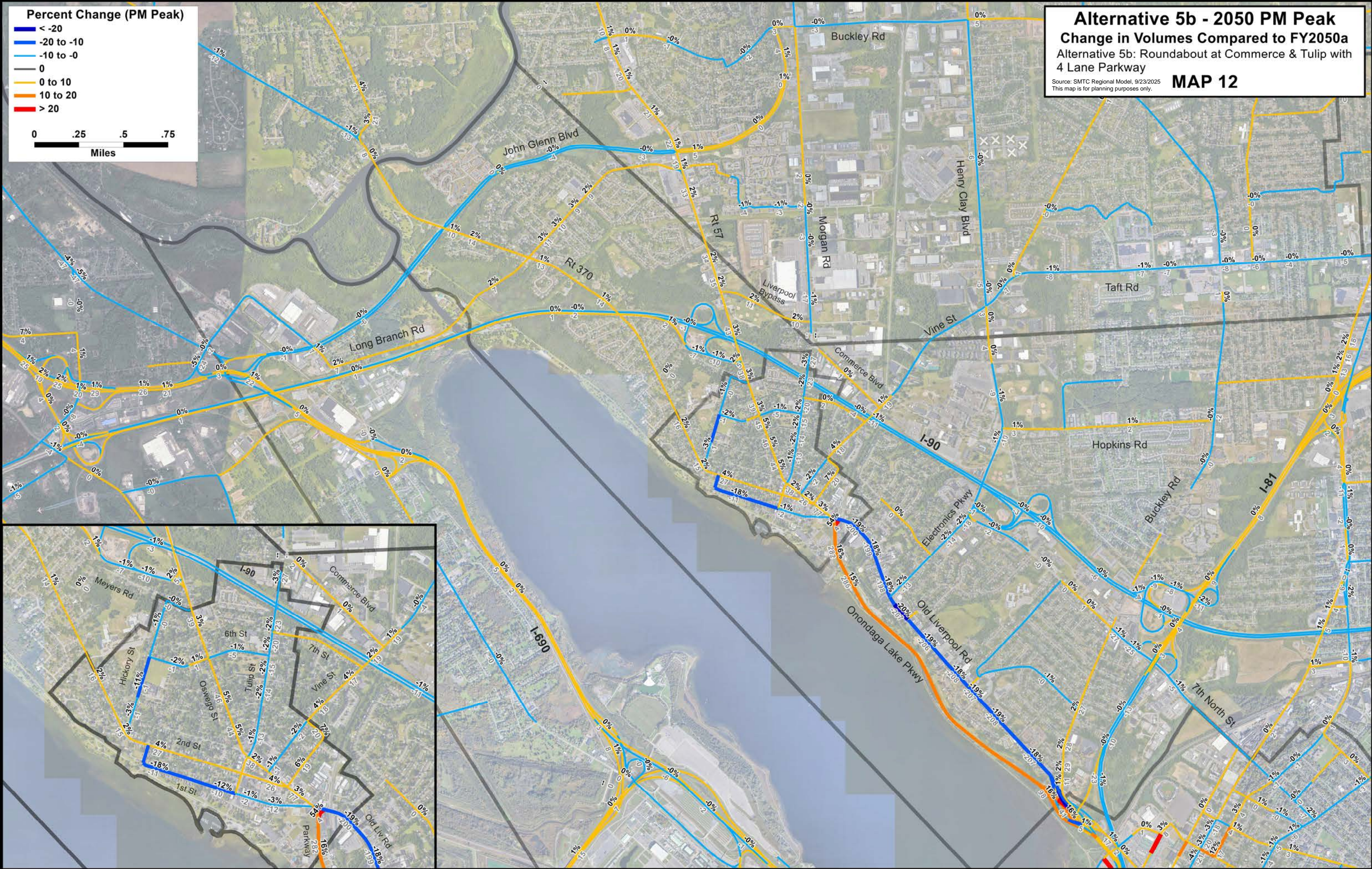
Source: SMTC Regional Model, 9/23/2025  
This map is for planning purposes only.

**MAP 9**



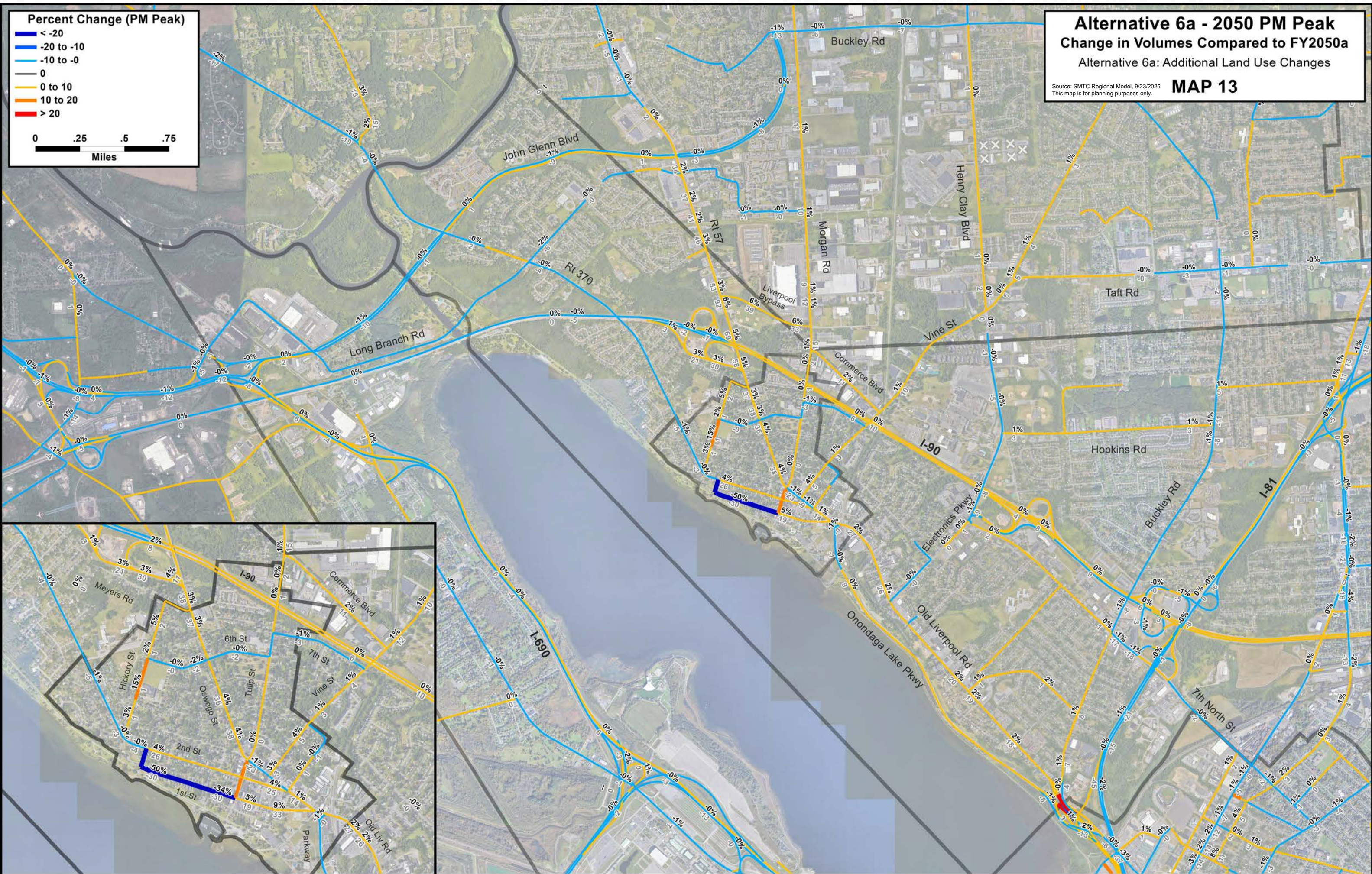


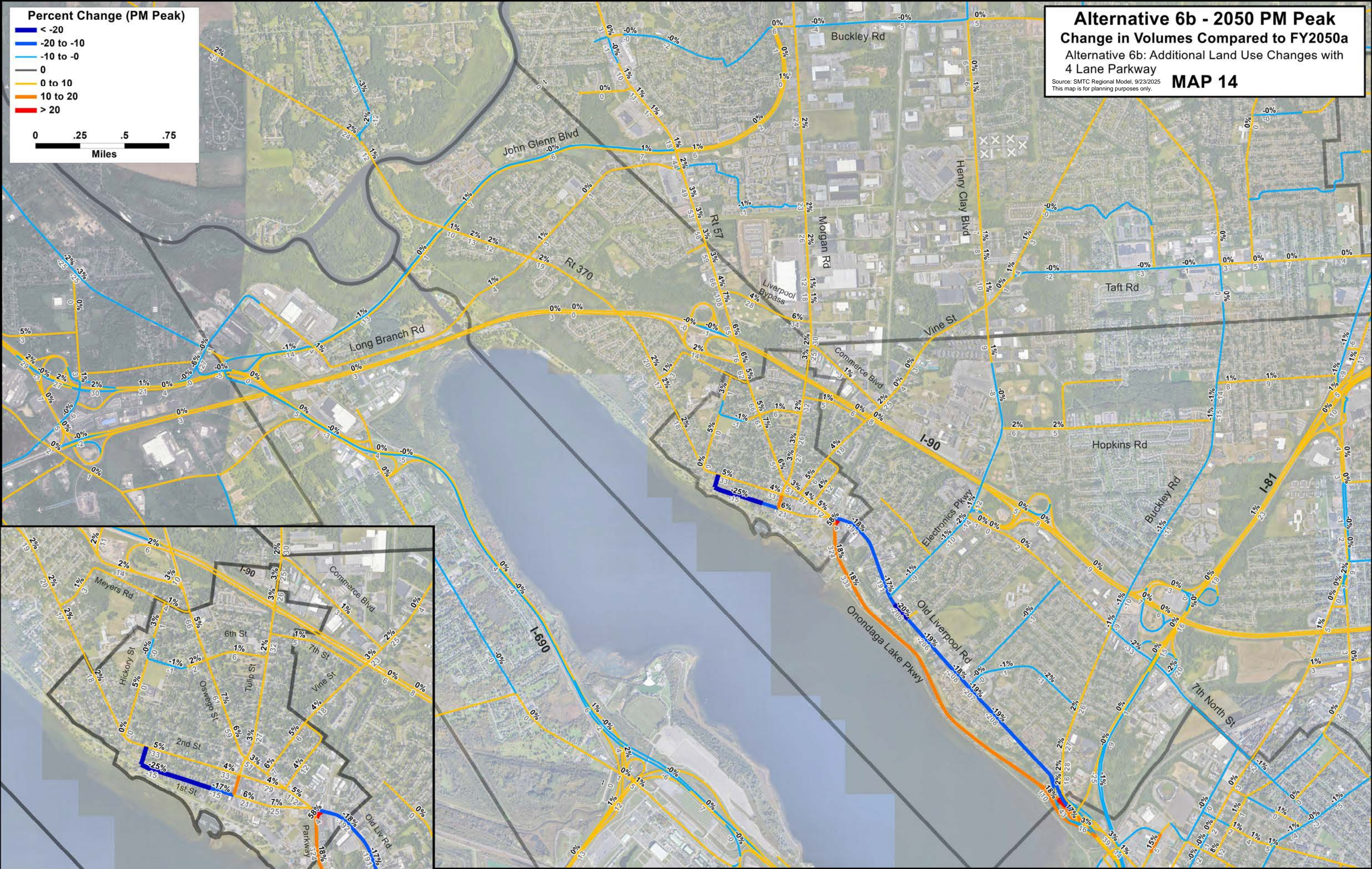




**Alternative 5b - 2050 PM Peak**  
**Change in Volumes Compared to FY2050a**  
Alternative 5b: Roundabout at Commerce & Tulip with 4 Lane Parkway  
Source: SMTC Regional Model, 9/23/2025  
This map is for planning purposes only.

**MAP 12**





# Site 337045000000

**337045** - CR137 OLD LIVERPOOL R from LIVERPOOL VL to NY 370  
**City:** Liverpool **County:** Onondaga  
**LRS section:** 257803011  
**Functional class:** 3U - Principal Arterial - Other (Urban)

**AADT**  
**11,838**  
**N: 6,238**  
**S: 5,600**

**Site Data**  

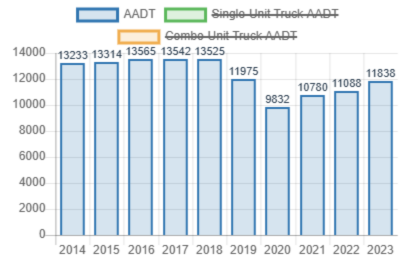

## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Estimated	Actual	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	Estimated
AADT	13,233	13,314	13,565	13,542	13,525	11,975	9,832	10,780	11,088	<b>11,838</b>
Single-Unit Truck AADT	500	509	487	471	462	439	368	403	414	<b>434</b>
Combo-Unit Truck AADT	219	260	212	183	174	81	68	74	77	<b>80</b>
K-Factor	0.084	0.084	0.093	0.093	0.093	0.086	0.086	0.086	0.086	<b>0.090</b>
D-Factor	0.592	0.592	0.614	0.614	0.614	0.571	0.571	0.571	0.571	<b>0.570</b>
Speed 85th Percentile	-	-	-	-	-	34.2	34.2	34.2	34.2	-
DHV	1,112	1,118	1,262	1,259	1,258	1,030	846	927	954	<b>1,065</b>
DDHV	658	662	775	773	772	588	483	529	544	<b>607</b>
Truck AADT	719	769	699	654	636	520	436	477	491	<b>514</b>
Truck %	5%	6%	5%	5%	5%	4%	4%	4%	4%	<b>4%</b>

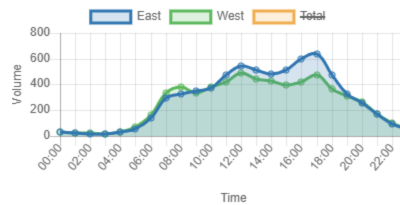
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2019	August	Class	0 hours	94 hours	94 hours
2016	November	Volume	0 hours	71 hours	71 hours
2012	October	Volume	0 hours	93 hours	94 hours

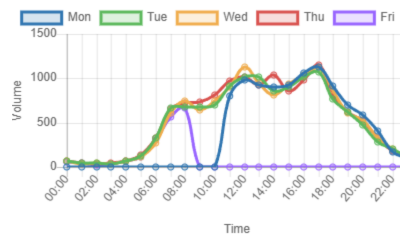
## AADT Trend





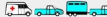










## Average Hourly Volume 2019



## Daily Volume 2019



## Vehicle Classification

<b>1. Motorcycles</b> 2 axes, 2 or 3 wheels.		<b>79</b>	<b>0.79%</b>
<b>2. Passenger cars</b> 2 axes. Can have 1- or 2-axle trailers.		<b>8,391</b>	<b>83.53%</b>
<b>3. Pickups, panels, vans</b> 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		<b>1,122</b>	<b>11.17%</b>
<b>Passenger Vehicles</b>		<b>9,592</b>	<b>95.48%</b>
<b>4. Buses</b> 2- or 3-axle, full length.		<b>75</b>	<b>0.75%</b>
<b>5. Single-unit trucks</b> 2-axle, 6-tire, (dual rear tires), single-unit trucks.		<b>210</b>	<b>2.09%</b>
<b>6. Single-unit trucks</b> 3-axle, single-unit trucks.		<b>86</b>	<b>0.86%</b>
<b>7. Single-unit trucks</b> 4 or more axle, single-unit trucks.		<b>5</b>	<b>0.05%</b>
<b>Medium Weight Trucks</b>		<b>376</b>	<b>3.75%</b>
<b>8. Single-trailer trucks</b> 3- or 4-axle, single-trailer trucks.		<b>31</b>	<b>0.31%</b>
<b>9. Single-trailer trucks</b> 5-axle, single-trailer trucks.		<b>40</b>	<b>0.40%</b>
<b>10. Single-trailer trucks</b> 6 or more axle, single-trailer trucks.		<b>2</b>	<b>0.02%</b>
<b>11. Multi-trailer trucks</b> 5 or less axle, multi-trailer trucks.		<b>0</b>	<b>0.00%</b>
<b>12. Multi-trailer trucks</b> 6-axle, multi-trailer trucks.		<b>0</b>	<b>0%</b>
<b>13. Multi-trailer trucks</b> 7 or more axle, multi-trailer trucks.		<b>4</b>	<b>0.04%</b>
<b>Heavy Weight Trucks</b>		<b>77</b>	<b>0.77%</b>

# Site 330907000000

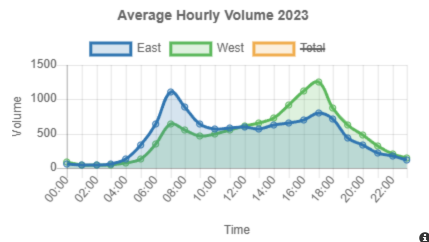
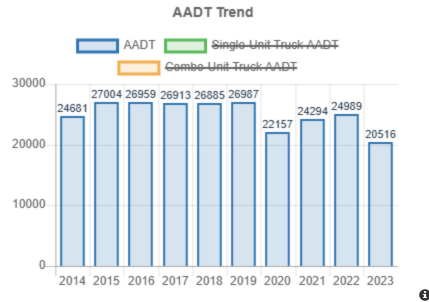
**330907** - 931G from JCT RT 370 to ONONDAGA CO - VILL OF LIVERP  
**City:** Liverpool **County:** Onondaga  
**Route number:** 931G  
**LRS section:** 100655011  
**Functional class:** 3U - Principal Arterial - Other (Urban)

**AADT**  
**20,516**  
E: 10,078  
W: 10,438

**Site Data**  

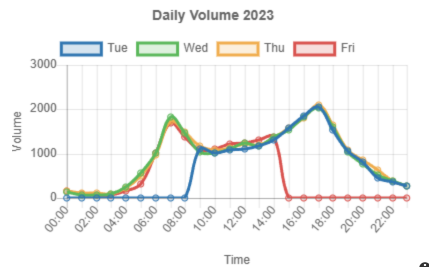

## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Actual	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Actual
AADT	24,681	27,004	26,959	26,913	26,885	26,987	22,157	24,294	24,989	20,516
Single-Unit Truck AADT	932	1,032	968	936	919	927	852	838	873	717
Combo-Unit Truck AADT	409	526	421	364	347	318	363	259	271	222
K-Factor	0.083	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.100
D-Factor	0.677	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.590
DHV	2,049	2,349	2,345	2,341	2,339	2,348	1,928	2,114	2,174	2,052
DDHV	1,387	1,482	1,480	1,477	1,476	1,482	1,216	1,334	1,372	1,210
Truck AADT	1,341	1,558	1,389	1,300	1,266	1,245	1,215	1,097	1,144	939
Truck %	5%	6%	5%	5%	5%	5%	5%	5%	5%	5%




## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	September	Class	0 hours	75 hours	78 hours
2015	April	Volume	0 hours	70 hours	70 hours
2010	September	Volume	48 hours	70 hours	136 hours



## Vehicle Classification

1. Motorbike Motorbikes		59	0.32%
2. Car Passenger cars		16,011	86.23%
3. LT Light Trucks		1,960	10.55%
4. Bus Buses		146	0.79%
5. SUT Single-Unit Trucks		330	1.77%
6. CUT Combination-Unit Trucks		63	0.34%

# Site 331114000000

**331114** - CR91 OSWEGO ST from TULIP ST to LIVERPOOL VL  
**City:** Liverpool **County:** Onondaga  
**LRS section:** 130024011  
**Functional class:** 3U - Principal Arterial - Other (Urban)

**AADT**  
**12,210**  
N: 6,124  
S: 6,086

**Site Data**  

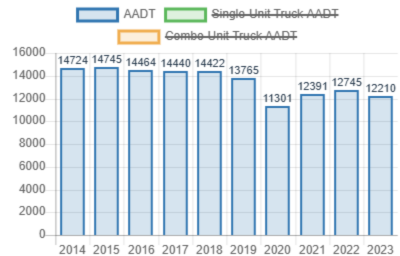

## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Estimated	Actual	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	Actual
AADT	14,724	14,745	14,464	14,440	14,422	13,765	11,301	12,391	12,745	12,210
Single-Unit Truck AADT	302	302	250	251	251	287	237	260	267	353
Combo-Unit Truck AADT	99	99	20	20	20	15	12	13	14	16
K-Factor	0.081	0.081	0.085	0.085	0.085	0.088	0.088	0.088	0.088	0.090
D-Factor	0.608	0.608	0.637	0.637	0.637	0.655	0.655	0.655	0.655	0.620
Speed 85th Percentile	-	-	34.5	34.5	34.5	34.8	34.8	34.8	34.8	36.3
DHV	1,193	1,194	1,229	1,227	1,226	1,211	994	1,090	1,122	1,099
DDHV	725	726	783	782	781	793	651	714	735	681
Truck AADT	401	401	270	271	271	302	249	273	281	369
Truck %	3%	3%	2%	2%	2%	2%	2%	2%	2%	3%

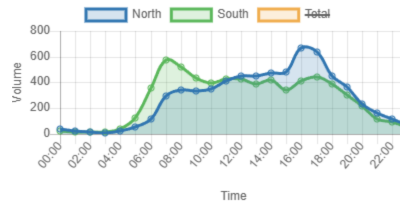
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	October	Class	0 hours	72 hours	72 hours
2019	September	Class	0 hours	64 hours	64 hours
2016	October	Class	0 hours	71 hours	71 hours
2013	July	Volume	0 hours	70 hours	71 hours
2010	May	Volume	48 hours	69 hours	135 hours

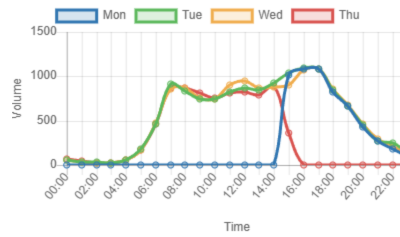
## AADT Trend
















## Average Hourly Volume 2023



## Daily Volume 2023



## Vehicle Classification

<b>1. Motorcycles</b> 2 axes, 2 or 3 wheels.		39	0.39%
<b>2. Passenger cars</b> 2 axes. Can have 1- or 2-axle trailers.		8,101	80.65%
<b>3. Pickups, panels, vans</b> 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		1,594	15.87%
<b>Passenger Vehicles</b>		9,733	96.91%
<b>4. Buses</b> 2- or 3-axle, full length.		94	0.93%
<b>5. Single-unit trucks</b> 2-axle, 6-tire, (dual rear tires), single-unit trucks.		167	1.66%
<b>6. Single-unit trucks</b> 3-axle, single-unit trucks.		24	0.24%
<b>7. Single-unit trucks</b> 4 or more axle, single-unit trucks.		6	0.05%
<b>Medium Weight Trucks</b>		290	2.89%
<b>8. Single-trailer trucks</b> 3- or 4-axle, single-trailer trucks.		1	0.01%
<b>9. Single-trailer trucks</b> 5-axle, single-trailer trucks.		10	0.10%
<b>10. Single-trailer trucks</b> 6 or more axle, single-trailer trucks.		1	0.01%
<b>11. Multi-trailer trucks</b> 5 or less axle, multi-trailer trucks.		0	0%
<b>12. Multi-trailer trucks</b> 6-axle, multi-trailer trucks.		0	0%
<b>13. Multi-trailer trucks</b> 7 or more axle, multi-trailer trucks.		1	0.00%
<b>Heavy Weight Trucks</b>		13	0.13%

# Site 331264000000

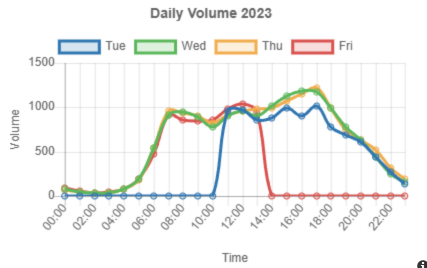
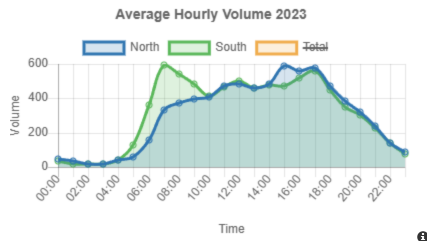
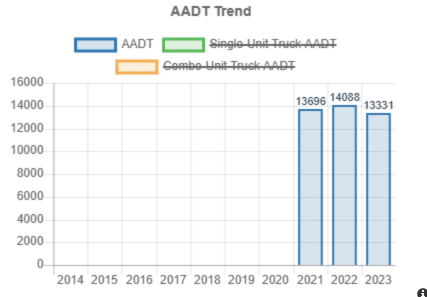
**331264** - CR91 OLD RT 57 from LIVERPOOL VL to I-90 ON RAMP  
 City: Salina County: Onondaga  
 LRS section: 130024011  
 Functional class: 3U - Principal Arterial - Other (Urban)

AADT  
**13,331**  
 N: 6,434  
 S: 6,897

Site Data  


## Annual Statistics














Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	-	-	-	-	-	-	-	Actual	Estimated	Actual
AADT	-	-	-	-	-	-	-	13,696	14,088	13,331
Single-Unit Truck AADT	-	-	-	-	-	-	-	333	343	377
Combo-Unit Truck AADT	-	-	-	-	-	-	-	30	31	20
K-Factor	-	-	-	-	-	-	-	0.086	0.086	0.090
D-Factor	-	-	-	-	-	-	-	0.561	0.561	0.500
Speed 85th Percentile	-	-	-	-	-	-	-	37.7	37.7	37.7
DHV	-	-	-	-	-	-	-	1,178	1,212	1,200
DDHV	-	-	-	-	-	-	-	661	680	600
Truck AADT	-	-	-	-	-	-	-	363	374	397
Truck %	-	-	-	-	-	-	-	3%	3%	3%



## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	June	Class	0 hours	73 hours	74 hours
2021	July	Class	0 hours	89 hours	89 hours

## Vehicle Classification

<b>1. Motorcycles</b> 2 axes, 2 or 3 wheels.		67	0.57%
<b>2. Passenger cars</b> 2 axes. Can have 1- or 2-axle trailers.		9,927	84.07%
<b>3. Pickups, panels, vans</b> 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		1,450	12.28%
<b>Passenger Vehicles</b>		11,444	96.92%
<b>4. Buses</b> 2- or 3-axle, full length.		92	0.78%
<b>5. Single-unit trucks</b> 2-axle, 6-tire, (dual rear tires), single-unit trucks.		202	1.71%
<b>6. Single-unit trucks</b> 3-axle, single-unit trucks.		27	0.23%
<b>7. Single-unit trucks</b> 4 or more axle, single-unit trucks.		13	0.11%
<b>Medium Weight Trucks</b>		335	2.84%
<b>8. Single-trailer trucks</b> 3- or 4-axle, single-trailer trucks.		2	0.01%
<b>9. Single-trailer trucks</b> 5-axle, single-trailer trucks.		12	0.10%
<b>10. Single-trailer trucks</b> 6 or more axle, single-trailer trucks.		2	0.02%
<b>11. Multi-trailer trucks</b> 5 or less axle, multi-trailer trucks.		0	0%
<b>12. Multi-trailer trucks</b> 6-axle, multi-trailer trucks.		0	0%
<b>13. Multi-trailer trucks</b> 7 or more axle, multi-trailer trucks.		2	0.01%
<b>Heavy Weight Trucks</b>		18	0.15%

# Site 331265000000

331265

- CR91 OLD RT 57 from I-90 ON RAMP to JOHN GLENN BLVD  
City: Salina County: Onondaga  
LRS section: 130024011  
Functional class: 3U - Principal Arterial - Other (Urban)

AADT

17,056

S: 8,650

N: 8,406

Site Data



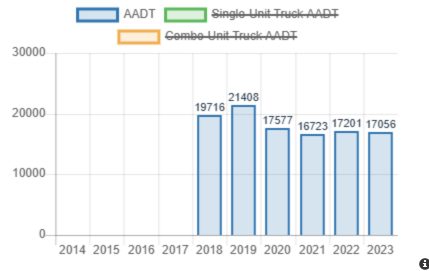
## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	-	-	-	-	Actual	Actual	Estimated	Actual	Estimated	Actual
AADT	-	-	-	-	19,716	21,408	17,577	16,723	17,201	17,056
Single-Unit Truck AADT	-	-	-	-	608	505	415	395	406	786
Combo-Unit Truck AADT	-	-	-	-	460	94	77	73	75	897
K-Factor	-	-	-	-	0.091	0.087	0.087	0.089	0.089	0.100
D-Factor	-	-	-	-	0.627	0.633	0.633	0.597	0.597	0.610
Speed 85th Percentile	-	-	-	-	49.0	48.5	48.5	48.5	48.5	-
DHV	-	-	-	-	1,794	1,862	1,529	1,488	1,531	1,706
DDHV	-	-	-	-	1,125	1,179	968	889	914	1,040
Truck AADT	-	-	-	-	1,068	599	492	468	481	1,683
Truck %	-	-	-	-	5%	3%	3%	3%	3%	10%

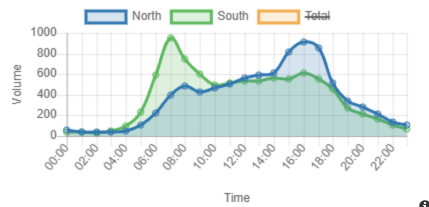
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	November	Class	0 hours	72 hours	72 hours
2021	October	Volume	0 hours	60 hours	60 hours
2019	September	Class	0 hours	68 hours	68 hours
2018	October	Class	0 hours	81 hours	81 hours

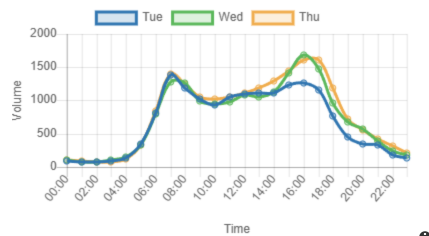
## AADT Trend



## Average Hourly Volume 2023



## Daily Volume 2023



## Vehicle Classification

1. Motorcycles 2 axes, 2 or 3 wheels.		1	0.00%
2. Passenger cars 2 axes. Can have 1- or 2-axle trailers.		13,703	77.00%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		2,336	13.13%
<b>Passenger Vehicles</b>		<b>16,039</b>	<b>90.13%</b>
4. Buses 2- or 3-axle, full length.		228	1.28%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		286	1.61%
6. Single-unit trucks 3-axle, single-unit trucks.		302	1.70%
7. Single-unit trucks 4 or more axle, single-unit trucks.		4	0.02%
<b>Medium Weight Trucks</b>		<b>820</b>	<b>4.61%</b>
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.		71	0.40%
9. Single-trailer trucks 5-axle, single-trailer trucks.		837	4.71%
10. Single-trailer trucks 6 or more axle, single-trailer trucks.		26	0.15%
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.		2	0.01%
12. Multi-trailer trucks 6-axle, multi-trailer trucks.		0	0%
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.		0	0%
<b>Heavy Weight Trucks</b>		<b>936</b>	<b>5.26%</b>

# Site 336194000000

**336194** - CR47 TULIP ST from OLD RT57 to I 90  
**City:** Liverpool **County:** Onondaga  
**LRS section:** 129982011  
**Functional class:** 4U - Minor Arterial (Urban)

**AADT**  
**9,391**  
 N: 4,823  
 S: 4,567

**Site Data**  

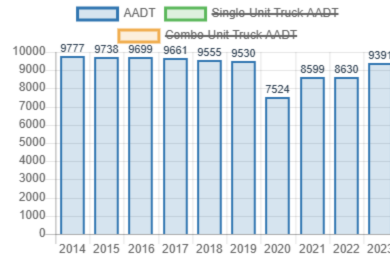

## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Actual	Estimated	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	Estimated	Estimated
AADT	9,777	9,738	9,699	9,661	9,555	9,530	7,524	8,599	8,630	<b>9,391</b>
Single-Unit Truck AADT	275	271	270	269	266	265	210	239	240	<b>261</b>
Combo-Unit Truck AADT	86	85	84	84	83	83	65	75	75	<b>82</b>
K-Factor	0.089	0.089	0.089	0.089	0.097	0.097	0.097	0.097	0.097	<b>0.100</b>
D-Factor	0.646	0.646	0.646	0.646	0.635	0.635	0.635	0.635	0.635	<b>0.640</b>
Speed 85th Percentile	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	-
DHV	870	867	863	860	927	924	730	834	837	<b>939</b>
DDHV	562	560	558	555	589	587	463	530	532	<b>601</b>
Truck AADT	361	356	354	353	349	348	275	314	315	<b>343</b>
Truck %	4%	4%	4%	4%	4%	4%	4%	4%	4%	<b>4%</b>

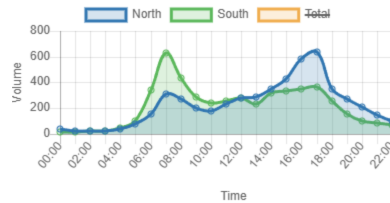
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2018	October	Volume	0 hours	81 hours	81 hours
2014	June	Class	48 hours	78 hours	144 hours

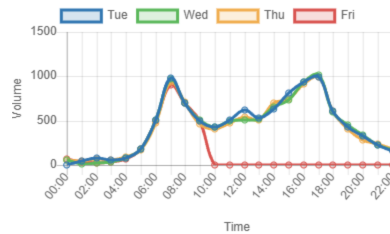
## AADT Trend
















## Average Hourly Volume 2018



## Daily Volume 2018



## Vehicle Classification

<b>1. Motorcycles</b> 2 axes, 2 or 3 wheels.		<b>55</b>	<b>0.65%</b>
<b>2. Passenger cars</b> 2 axes. Can have 1- or 2-axle trailers.		<b>7,415</b>	<b>88.07%</b>
<b>3. Pickups, panels, vans</b> 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		<b>679</b>	<b>8.06%</b>
<b>Passenger Vehicles</b>		<b>8,148</b>	<b>96.78%</b>
<b>4. Buses</b> 2- or 3-axle, full length.		<b>37</b>	<b>0.44%</b>
<b>5. Single-unit trucks</b> 2-axle, 6-tire, (dual rear tires), single-unit trucks.		<b>108</b>	<b>1.28%</b>
<b>6. Single-unit trucks</b> 3-axle, single-unit trucks.		<b>42</b>	<b>0.50%</b>
<b>7. Single-unit trucks</b> 4 or more axle, single-unit trucks.		<b>2</b>	<b>0.02%</b>
<b>Medium Weight Trucks</b>		<b>189</b>	<b>2.25%</b>
<b>8. Single-trailer trucks</b> 3- or 4-axle, single-trailer trucks.		<b>13</b>	<b>0.16%</b>
<b>9. Single-trailer trucks</b> 5-axle, single-trailer trucks.		<b>46</b>	<b>0.55%</b>
<b>10. Single-trailer trucks</b> 6 or more axle, single-trailer trucks.		<b>1</b>	<b>0.01%</b>
<b>11. Multi-trailer trucks</b> 5 or less axle, multi-trailer trucks.		<b>1</b>	<b>0.01%</b>
<b>12. Multi-trailer trucks</b> 6-axle, multi-trailer trucks.		<b>0</b>	<b>0%</b>
<b>13. Multi-trailer trucks</b> 7 or more axle, multi-trailer trucks.		<b>1</b>	<b>0.01%</b>
<b>Heavy Weight Trucks</b>		<b>62</b>	<b>0.73%</b>

# Site 332019000000

332019

- CR47 MORGAN RD from I 90 to BUCKLEY RD  
City: Clay County: Onondaga  
LRS section: 129982011  
Functional class: 4U - Minor Arterial (Urban)

AADT

12,291  
N: 6,239  
S: 6,052

Site Data



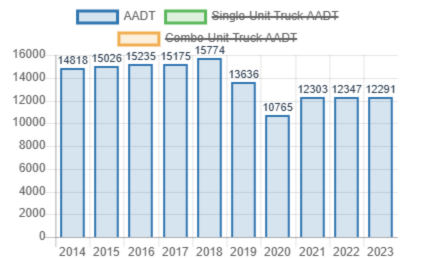
## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Estimated	Actual	Estimated	Actual	Actual	Estimated	Estimated	Estimated	Actual
AADT	14,818	15,026	15,235	15,175	15,774	13,636	10,765	12,303	12,347	12,291
Single-Unit Truck AADT	600	569	610	611	648	434	344	393	395	631
Combo-Unit Truck AADT	100	101	289	289	197	273	216	247	248	495
K-Factor	0.090	0.090	0.098	0.098	0.094	0.096	0.096	0.096	0.096	0.120
D-Factor	0.656	0.656	0.655	0.655	0.612	0.687	0.687	0.687	0.687	0.690
Speed 85th Percentile	-	-	53.4	53.4	39.4	53.3	53.3	53.3	53.3	-
DHV	1,334	1,352	1,493	1,487	1,483	1,309	1,033	1,181	1,185	1,475
DDHV	875	887	978	974	907	899	710	811	814	1,018
Truck AADT	700	670	899	900	845	707	560	640	643	1,126
Truck %	5%	4%	6%	6%	5%	5%	5%	5%	5%	9%

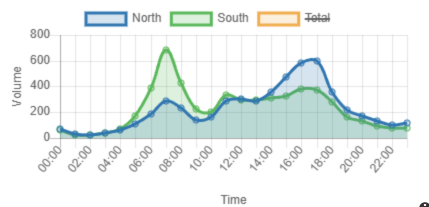
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	October	Class	0 hours	84 hours	96 hours
2019	August	Class	0 hours	51 hours	51 hours
2018	November	Class	0 hours	94 hours	94 hours
2016	October	Class	0 hours	71 hours	71 hours
2013	June	Volume	0 hours	71 hours	71 hours
2010	May	Volume	48 hours	123 hours	189 hours

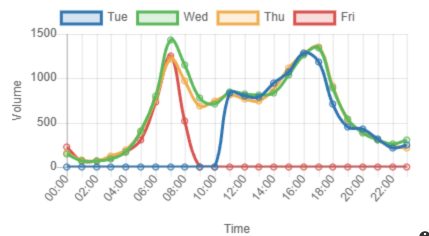
## AADT Trend



## Average Hourly Volume 2023



## Daily Volume 2023



## Vehicle Classification

1. Motorcycles 2 axes, 2 or 3 wheels.		1	0.01%
2. Passenger cars 2 axes. Can have 1- or 2-axle trailers.		8,491	78.76%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		1,278	11.85%
<b>Passenger Vehicles</b>		<b>9,770</b>	<b>90.63%</b>
4. Buses 2- or 3-axle, full length.		111	1.03%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		242	2.24%
6. Single-unit trucks 3-axle, single-unit trucks.		204	1.89%
7. Single-unit trucks 4 or more axle, single-unit trucks.		12	0.11%
<b>Medium Weight Trucks</b>		<b>569</b>	<b>5.28%</b>
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.		35	0.32%
9. Single-trailer trucks 5-axle, single-trailer trucks.		399	3.70%
10. Single-trailer trucks 6 or more axle, single-trailer trucks.		6	0.05%
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.		1	0.01%
12. Multi-trailer trucks 6-axle, multi-trailer trucks.		0	0%
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.		1	0.00%
<b>Heavy Weight Trucks</b>		<b>442</b>	<b>4.10%</b>

# Site 332128000000

332128

- CR88 LIVERPOOL BYPAS from OLD RT57 to CR47  
City: Salina County: Onondaga  
LRS section: 130023011  
Functional class: 4U - Minor Arterial (Urban)

AADT

6,416  
E: 3,209  
W: 3,206

Site Data



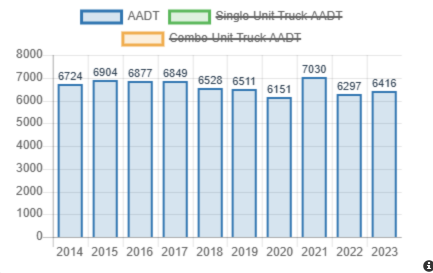
## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Actual	Estimated	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated
AADT	6,724	6,904	6,877	6,849	6,528	6,511	6,151	7,030	6,297	6,416
Single-Unit Truck AADT	272	261	250	226	230	229	260	261	449	226
Combo-Unit Truck AADT	45	46	47	41	43	39	59	43	520	38
K-Factor	0.077	0.076	0.076	0.076	0.080	0.080	0.081	0.081	0.083	0.080
D-Factor	0.608	0.568	0.568	0.568	0.648	0.648	0.637	0.637	0.618	0.650
Speed 85th Percentile	-	-	-	-	-	-	-	-	48.9	-
DHV	518	525	523	521	522	521	498	569	523	513
DDHV	315	298	297	296	338	338	317	363	323	334
Truck AADT	317	307	297	267	273	268	319	304	969	264
Truck %	5%	4%	4%	4%	4%	4%	5%	4%	15%	4%

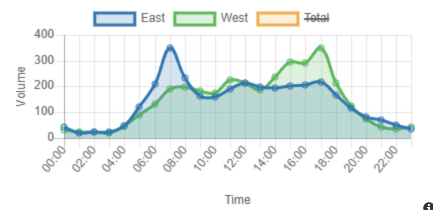
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	September	Class	0 hours	88 hours	93 hours
2020	September	Volume	0 hours	127 hours	145 hours
2018	October	Volume	0 hours	82 hours	82 hours
2015	April	Volume	0 hours	71 hours	71 hours
2013	May	Volume	0 hours	71 hours	71 hours

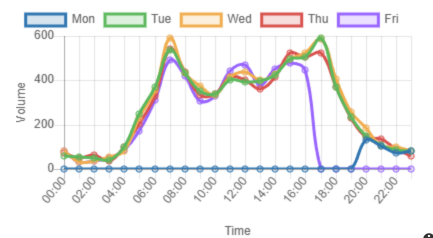
## AADT Trend



## Average Hourly Volume 2022



## Daily Volume 2022



## Vehicle Classification

1. Motorcycles 2 axes, 2 or 3 wheels.		22	0.43%
2. Passenger cars 2 axes. Can have 1- or 2-axle trailers.		3,619	69.96%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		706	13.64%
<b>Passenger Vehicles</b>		<b>4,347</b>	<b>84.02%</b>
4. Buses 2- or 3-axle, full length.		107	2.07%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		191	3.69%
6. Single-unit trucks 3-axle, single-unit trucks.		83	1.60%
7. Single-unit trucks 4 or more axle, single-unit trucks.		3	0.05%
<b>Medium Weight Trucks</b>		<b>383</b>	<b>7.41%</b>
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.		47	0.91%
9. Single-trailer trucks 5-axle, single-trailer trucks.		378	7.30%
10. Single-trailer trucks 6 or more axle, single-trailer trucks.		13	0.26%
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.		0	0%
12. Multi-trailer trucks 6-axle, multi-trailer trucks.		0	0%
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.		5	0.10%
<b>Heavy Weight Trucks</b>		<b>443</b>	<b>8.57%</b>

# Site 332095000000

332095

- COMMERCE BLVD from MORGAN RD to VINE ST  
City: Salina County: Onondaga  
LRS section: 133348011  
Functional class: 5U - Major Collector (Urban)

AADT

6,430  
S: 3,320  
N: 3,109

Site Data



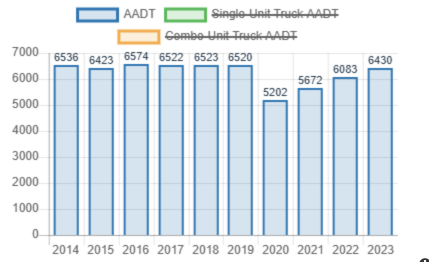
## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	Actual	Estimated	Actual	Estimated
AADT	6,536	6,423	6,574	6,522	6,523	6,520	5,202	5,672	6,083	6,430
Single-Unit Truck AADT	228	224	394	393	393	393	358	391	419	388
Combo-Unit Truck AADT	24	24	113	113	113	112	115	126	135	110
K-Factor	0.082	0.082	0.085	0.085	0.085	0.085	0.087	0.087	0.087	0.080
D-Factor	0.623	0.623	0.602	0.602	0.602	0.602	0.618	0.618	0.596	0.600
Speed 85th Percentile	-	-	43.8	43.8	43.8	43.8	44.3	44.3	44.3	-
DHV	536	527	559	554	554	554	453	493	529	514
DDHV	334	328	336	334	334	334	280	305	315	309
Truck AADT	252	248	507	506	506	505	473	517	554	498
Truck %	4%	4%	8%	8%	8%	8%	9%	9%	9%	8%

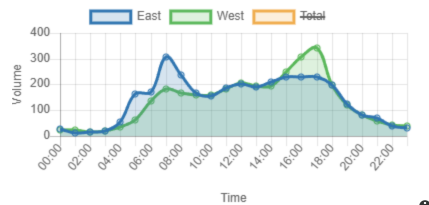
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	September	Volume	0 hours	88 hours	92 hours
2020	September	Class	48 hours	124 hours	190 hours
2016	June	Volume	0 hours	67 hours	67 hours
2013	July	Volume	0 hours	71 hours	71 hours
2010	May	Volume	48 hours	78 hours	144 hours

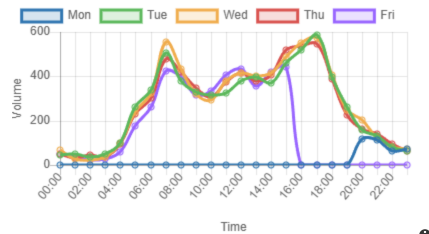
## AADT Trend



## Average Hourly Volume 2022



## Daily Volume 2022



## Vehicle Classification

1. Motorcycles 2 axes, 2 or 3 wheels.		47	1.03%
2. Passenger cars 2 axes. Can have 1- or 2-axle trailers.		3,386	74.47%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		731	16.07%
Passenger Vehicles		4,164	91.57%
4. Buses 2- or 3-axle, full length.		80	1.76%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		159	3.50%
6. Single-unit trucks 3-axle, single-unit trucks.		46	1.00%
7. Single-unit trucks 4 or more axle, single-unit trucks.		3	0.06%
Medium Weight Trucks		288	6.33%
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.		40	0.88%
9. Single-trailer trucks 5-axle, single-trailer trucks.		52	1.13%
10. Single-trailer trucks 6 or more axle, single-trailer trucks.		3	0.08%
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.		0	0%
12. Multi-trailer trucks 6-axle, multi-trailer trucks.		0	0%
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.		1	0.02%
Heavy Weight Trucks		96	2.10%

# Site 337047000000

**337047** - CR51 VINE ST from OSWEGO ST to HENRY CLAY  
 City: Salina County: Onondaga  
 LRS section: 129986011  
 Functional class: 4U - Minor Arterial (Urban)

AADT  
**12,161**  
 N: 5,967  
 S: 6,193

Site Data  

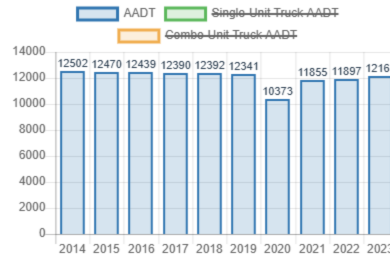

## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	Actual	Estimated	Estimated	Estimated
AADT	12,502	12,470	12,439	12,390	12,392	12,341	10,373	11,855	11,897	<b>12,161</b>
Single-Unit Truck AADT	559	558	386	386	386	385	491	562	564	<b>379</b>
Combo-Unit Truck AADT	136	136	51	51	51	51	113	129	130	<b>50</b>
K-Factor	0.085	0.085	0.093	0.093	0.093	0.093	0.089	0.089	0.089	<b>0.090</b>
D-Factor	0.578	0.578	0.615	0.615	0.615	0.615	0.552	0.552	0.552	<b>0.620</b>
Speed 85th Percentile	34.8	34.8	33.9	33.9	33.9	33.9	37.2	37.2	37.2	-
DHV	1,063	1,060	1,157	1,152	1,152	1,148	923	1,055	1,059	<b>1,094</b>
DDHV	614	613	711	709	709	706	510	582	584	<b>679</b>
Truck AADT	695	694	437	437	437	436	604	691	694	<b>429</b>
Truck %	6%	6%	4%	4%	4%	4%	6%	6%	6%	<b>4%</b>

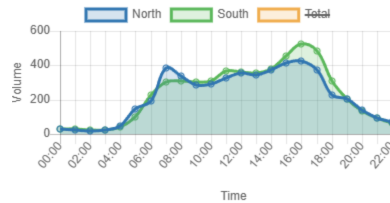
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2020	November	Class	0 hours	92 hours	92 hours
2016	June	Class	0 hours	69 hours	69 hours
2013	July	Volume	0 hours	71 hours	71 hours
2010	May	Class	48 hours	77 hours	143 hours

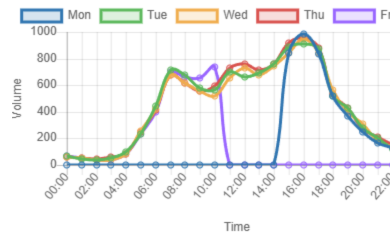
## AADT Trend
















## Average Hourly Volume 2020



## Daily Volume 2020



## Vehicle Classification

<b>1. Motorcycles</b> 2 axes, 2 or 3 wheels.		<b>46</b>	<b>0.58%</b>
<b>2. Passenger cars</b> 2 axes. Can have 1- or 2-axle trailers.		<b>6,238</b>	<b>78.61%</b>
<b>3. Pickups, panels, vans</b> 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		<b>1,179</b>	<b>14.86%</b>
<b>Passenger Vehicles</b>		<b>7,464</b>	<b>94.06%</b>
<b>4. Buses</b> 2- or 3-axle, full length.		<b>85</b>	<b>1.07%</b>
<b>5. Single-unit trucks</b> 2-axle, 6-tire, (dual rear tires), single-unit trucks.		<b>215</b>	<b>2.70%</b>
<b>6. Single-unit trucks</b> 3-axle, single-unit trucks.		<b>71</b>	<b>0.90%</b>
<b>7. Single-unit trucks</b> 4 or more axle, single-unit trucks.		<b>8</b>	<b>0.10%</b>
<b>Medium Weight Trucks</b>		<b>378</b>	<b>4.77%</b>
<b>8. Single-trailer trucks</b> 3- or 4-axle, single-trailer trucks.		<b>39</b>	<b>0.49%</b>
<b>9. Single-trailer trucks</b> 5-axle, single-trailer trucks.		<b>48</b>	<b>0.61%</b>
<b>10. Single-trailer trucks</b> 6 or more axle, single-trailer trucks.		<b>4</b>	<b>0.05%</b>
<b>11. Multi-trailer trucks</b> 5 or less axle, multi-trailer trucks.		<b>0</b>	<b>0%</b>
<b>12. Multi-trailer trucks</b> 6-axle, multi-trailer trucks.		<b>0</b>	<b>0%</b>
<b>13. Multi-trailer trucks</b> 7 or more axle, multi-trailer trucks.		<b>3</b>	<b>0.03%</b>
<b>Heavy Weight Trucks</b>		<b>93</b>	<b>1.18%</b>

# Site 330034000000

**330034** - NY370 from JOHN GLENN BLVD to OSWEGO ST - Ref  
Rt 931G  
City: Salina County: Onondaga  
Route number: 370  
Functional class: 4U - Minor Arterial (Urban)

AADT  
**6,819**  
E: 3,239  
W: 3,580



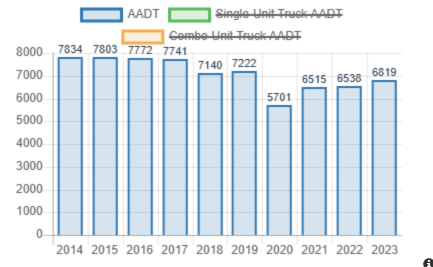
## Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Actual	Estimated	Estimated	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	Actual
AADT	7,834	7,803	7,772	7,741	7,140	7,222	5,701	6,515	6,538	<b>6,819</b>
Single-Unit Truck AADT	201	201	200	199	183	220	175	200	201	<b>272</b>
Combo-Unit Truck AADT	23	23	23	23	21	11	9	10	10	<b>8</b>
K-Factor	0.096	0.096	0.096	0.096	0.096	0.097	0.097	0.097	0.097	<b>0.100</b>
D-Factor	0.619	0.619	0.619	0.619	0.619	0.638	0.638	0.638	0.638	<b>0.600</b>
Speed 85th Percentile	44.6	44.6	44.6	44.6	44.6	45.1	45.1	45.1	45.1	<b>46.4</b>
DHV	752	749	746	743	685	701	553	632	634	<b>682</b>
DDHV	466	464	462	460	424	447	353	403	405	<b>409</b>
Truck AADT	224	224	223	222	204	231	184	210	211	<b>280</b>
Truck %	3%	3%	3%	3%	3%	3%	3%	3%	3%	<b>4%</b>

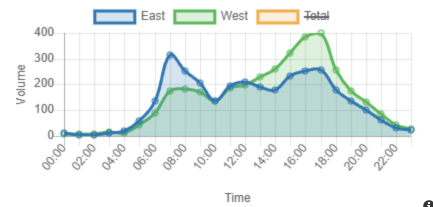
## Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	March	Class	0 hours	89 hours	89 hours
2019	April	Class	0 hours	69 hours	69 hours
2014	May	Class	48 hours	77 hours	143 hours
2010	May	Class	48 hours	78 hours	144 hours

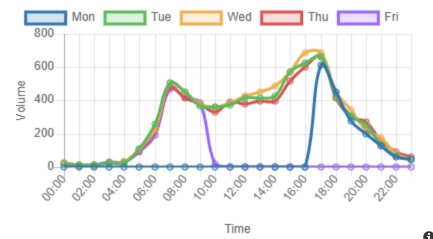
## AADT Trend



## Average Hourly Volume 2023



## Daily Volume 2023



## Vehicle Classification

<b>1. Motorcycles</b> 2 axes, 2 or 3 wheels.		5	0.10%
<b>2. Passenger cars</b> 2 axes. Can have 1- or 2-axle trailers.		3,811	78.97%
<b>3. Pickups, panels, vans</b> 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		795	16.47%
<b>Passenger Vehicles</b>		4,610	95.54%
<b>4. Buses</b> 2- or 3-axle, full length.		42	0.86%
<b>5. Single-unit trucks</b> 2-axle, 6-tire, (dual rear tires), single-unit trucks.		111	2.29%
<b>6. Single-unit trucks</b> 3-axle, single-unit trucks.		27	0.56%
<b>7. Single-unit trucks</b> 4 or more axle, single-unit trucks.		11	0.22%
<b>Medium Weight Trucks</b>		190	3.93%
<b>8. Single-trailer trucks</b> 3- or 4-axle, single-trailer trucks.		0	0.01%
<b>9. Single-trailer trucks</b> 5-axle, single-trailer trucks.		5	0.10%
<b>10. Single-trailer trucks</b> 6 or more axle, single-trailer trucks.		0	0%
<b>11. Multi-trailer trucks</b> 5 or less axle, multi-trailer trucks.		0	0%
<b>12. Multi-trailer trucks</b> 6-axle, multi-trailer trucks.		0	0%
<b>13. Multi-trailer trucks</b> 7 or more axle, multi-trailer trucks.		0	0.01%
<b>Heavy Weight Trucks</b>		5	0.11%

Site 330302000000

330302

- I-90 from INTER 38 - LIVERPOOL RAMPS O to INTER 37 -  
ELECTRONICS PKWY  
City: Salina County: Onondaga  
Route number: 90  
Source: NYS Department of Transportation (DOT)

AADT

38,999

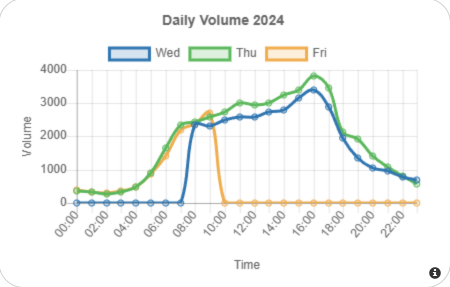
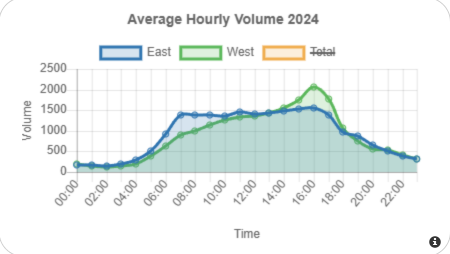
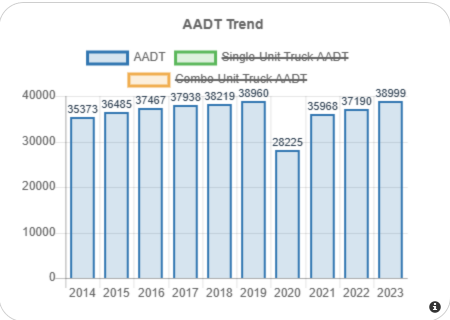
Site Data

Annual Statistics

Data Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statistics type	Actual	Actual	Actual	Estimated	Estimated	Estimated	Actual	Estimated	Estimated	Estimated
AADT	35,373	36,485	37,467	37,938	38,219	38,960	28,225	35,968	37,190	38,999
Single-Unit Truck AADT	1,963	1,846	1,896	1,349	1,200	1,286	1,398	1,782	1,842	1,287
Combo-Unit Truck AADT	2,874	2,460	2,526	2,095	2,021	2,387	5,789	7,380	7,631	2,389
K-Factor	-	-	-	-	-	-	0.079	0.079	0.079	-
D-Factor	-	-	-	-	-	-	0.582	0.582	0.582	-
DHV	-	-	-	-	-	-	2,230	2,841	2,938	-
DDHV	-	-	-	-	-	-	1,298	1,654	1,710	-
Truck AADT	4,837	4,306	4,422	3,444	3,221	3,673	7,187	9,162	9,473	3,676
Truck %	14%	12%	12%	9%	8%	9%	25%	25%	25%	9%

Count History

Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2024	July	Class	0 hours	50 hours	50 hours
2020	August	Class	0 hours	48 hours	48 hours



Vehicle Classification

1. Motorbike		77	0.25%
2. Car		18,240	60.22%
3. LT		5,016	16.56%
4. Bus		70	0.23%
5. SUT		1,491	4.92%
6. CUT		5,397	17.82%

# Syracuse Metropolitan Transportation Council

2024-2025 Unified Planning Work Program

## GREATER LIVERPOOL TRAFFIC STUDY

### TECHNICAL MEMORANDUM

June 13, 2025

#### Introduction

As part of the 2024-2025 Unified Planning Work Program, the SMTC agreed to complete this technical analysis for the Onondaga County Department of Transportation (OCDOT).

Over the last five years, much commercial development has occurred within the greater Liverpool area, most notably the opening of the Amazon warehouse on Morgan Road in the Town of Clay in spring 2022. During this same timeframe, community members have expressed frustration to the OCDOT about perceived increases in vehicular traffic – including increased truck traffic – in the southern part of the Town of Clay and in the Village of Liverpool.

The Village of Liverpool responded to the concerns about truck traffic by attempting to ban trucks. In July 2023, the village passed a local law banning tractor trailers and other trucks weighing 5 tons or more from all Liverpool streets unless making local deliveries.<sup>1</sup> The law took effect – with significant fines imposed on violators – in January 2024 after the village posted signage; however, the village found that they lacked the necessary truck scales to determine weight and enforce the fines, so a revised version of the law was passed in April 2024 with reduced fines that are not dependent on weight.<sup>2</sup> The latest iteration of the law bans semi-trailer trucks (18-wheelers) from passing through the village.<sup>3</sup>

In response to these changes, the OCDOT asked the SMTC to compile relevant current and historical traffic data – including heavy vehicle data – for County-owned road segments and intersections near the Village of Liverpool and to conduct a capacity analysis for the signalized intersections.

As a technical analysis, no public engagement was completed for this task. SMTC staff consulted with OCDOT staff during the study process.

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<sup>1</sup> <https://www.syracuse.com/politics/cny/2023/07/liverpool-declares-war-on-big-trucks-sending-rigs-from-amazon-and-others-around-crowded-village.html>

<sup>2</sup> <https://www.syracuse.com/news/2024/01/liverpool-to-begin-imposing-hefty-fines-to-enforce-big-truck-ban.html>

<sup>3</sup> <https://www.syracuse.com/news/2024/08/why-liverpool-tapped-the-brakes-on-hefty-fines-aimed-at-truckers-driving-through-the-village.html>

## Study area

The general study area is bounded by John Glenn Boulevard and Buckley Road to the north, Henry Clay Boulevard to the east, 2<sup>nd</sup> Street to the south, and Route 57 to the west. This includes a total of 25 signalized intersections along Route 57, Morgan Road, Henry Clay Boulevard, Buckley Road, and 2<sup>nd</sup> Street.

There are 18 traffic signals owned by OCDOT within the study area and one privately-owned (permit) signal. Additionally, six signals within the Village of Liverpool that are owned by the New York State Department of Transportation were included in portions of this analysis.

Fifteen of the County-owned signals and two of the State-owned signals currently have Miovision cameras, which can provide continuous turning movement count data. See the map on page 3 for the location of the study area intersections, ownership, and presence of Miovision cameras.

## Intersection traffic count comparison: Pre-Covid to current condition

“Pre-Covid” (prior to March 2020) traffic count data was available at all but six of the study area intersections. Intersection turning movement counts were used for most of the locations, with the actual count years varying from 2010 to 2019. There were four locations that had Miovision cameras functioning in early 2020, so that data was used for those locations. SMTC reviewed the available counts and determined the PM peak hour entering volume at each location. (NYSDOT historical monthly adjustment factors were applied to the manual counts.) The total daily entering volume at each location with a manual count was estimated based on the current percentage of total traffic occurring during the PM peak hour (9.12 percent). For Miovision data, the average of Tuesday-Wednesday-Thursday counts was used.

Current PM peak hour and daily entering volumes were obtained from the Miovision data for 15 County and two State locations with cameras. Daily averages for Tuesday-Wednesday-Thursday for all of 2023 were used for this historical comparison. Manual turning movement counts were conducted in September 2024 at the four County locations without cameras.







Table 1 summarizes the pre-Covid and current PM peak hour and daily entering traffic volume data. There are a total of 15 intersections (County and State) where pre-Covid and current count data can be compared.

- At the County locations, the change in PM peak hour entering traffic varies from a decline of 4.55 percent per year to an increase of 2.90 percent per year, with only three locations showing growth in traffic volume.
- Looking at total daily entering volumes, only two locations experienced growth; total daily entering volume changes ranged from a decline of 4.95 percent per year to an increase of 1.83 percent per year.
- The two State locations experienced declines in both PM peak hour and total daily entering traffic, ranging from about 2 to 6 percent per year decline.

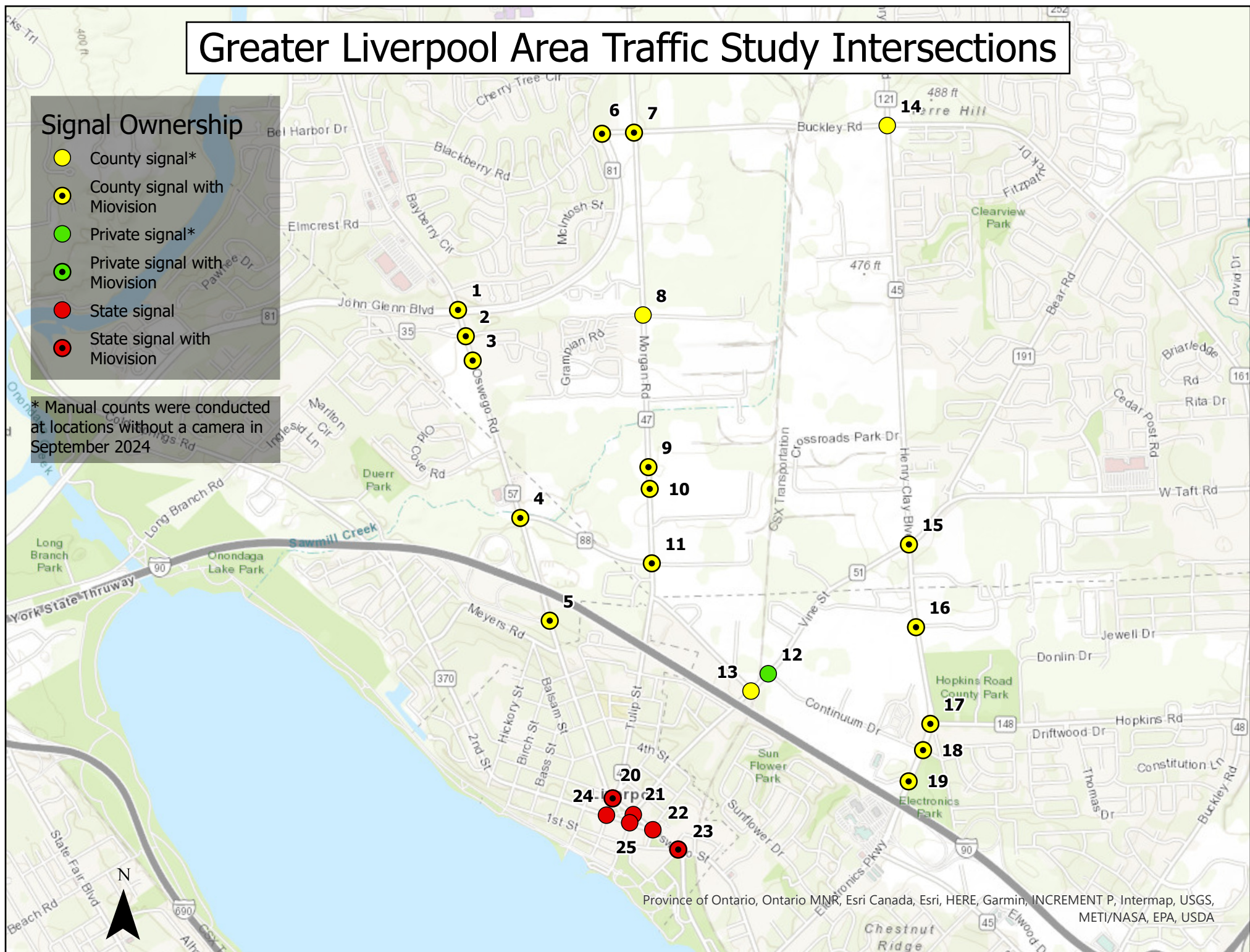
Overall, the intersections in the study area experienced an average decline in traffic (PM peak and daily) of about 2 percent per year over the past 5 to fourteen years.

## Greater Liverpool Area Traffic Study Intersections

# Signal Ownership

-  County signal\*
-  County signal with Miovision
-  Private signal\*
-  Private signal with Miovision
-  State signal
-  State signal with Miovision

\* Manual counts were conducted at locations without a camera in September 2024



**Table 1: PM peak hour and total daily entering volumes at study area intersections, pre-COVID (2010-2020) and current conditions (2024)**

Location #	Street 1	Street 2	Owner	Miovision	Coordinated/ isolated	Pre-Covid count year	PM peak hour entering volume					Total daily entering volume				
							Pre-Covid	Current	Δ	% Δ	% Δ / yr	Pre-Covid	Current	Δ	% Δ	% Δ / yr
1	Oswego Road (Rt 57)	John Glenn Boulevard	County	yes	coord (Old Rt. 57)	2015	4,103	3,911	-192	-5%	-0.59%	44,987	41,492	-3,495	-8%	-0.97%
2	Oswego Road (Rt 57)	Belmont Drive/Long Branch Road	County	yes	coord (Old Rt. 57)	---		2,235	2,235	---	---	---	24,556	---	---	---
3	Oswego Road (Rt 57)	Plaza driveway	County	yes	coord (Old Rt. 57)	---		1,439	1,439	---	---	---	16,948	---	---	---
4	Oswego Road (Rt 57)	Liverpool Bypass	County	yes	coord (Old Rt. 57)	---		2,103	2,103	---	---	---	23,106	---	---	---
5	Oswego Road (Rt 57)	Thruway Exit	County	yes	coord (Old Rt. 57)	2016	2,113	1,456	-657	-31%	-4.44%	23,166	15,719	-7,446	-32%	-4.59%
6	John Glenn Boulevard	Blueberry Road/Buckley Road	County	yes	coord (Buckley)	2010	1,694	1,000	-694	-41%	-3.15%	18,568	14,915	-3,654	-20%	-1.51%
7	Morgan Road	Buckley Road	County	yes	coord (Buckley)	2020 (Mio)	2,703	2,699	-4	0%	-0.05%	31,823	28,382	-3,441	-11%	-3.60%
8	Morgan Road	Grampian Rd / Steelway Blvd N	County	no	isolated	---		1,534	1,534	---	---	---	16,822	---	---	---
9	Morgan Road	Amazon Warehouse (north)	County	yes	n/a	---		1,193	1,193	---	---	---	12,744	---	---	---
10	Morgan Road	Amazon Warehouse (south)	County	yes	n/a	---		1,166	1,166	---	---	---	11,919	---	---	---
11	Morgan Road	Liverpool Bypass / Crown Rd	County	yes	isolated	2016	1,890	1,470	-420	-22%	-3.17%	20,719	16,147	-4,572	-22%	-3.15%
12	Vine Street	Continuum Drive	Private	no	isolated	2013	1,195	1,179	-16	-1%	-0.12%	13,099	12,927	-172	-1%	-0.12%
13	Vine Street	Commerce Blvd	County	no	isolated	2010	1,285	1,221	-64	-5%	-0.36%	14,087	13,382	-705	-5%	-0.36%
14	Henry Clay Boulevard	Buckley Road	County	no	isolated	2019	2,443	2,575	131	5%	1.08%	26,788	28,230	1,441	5%	1.08%
15	Henry Clay Boulevard	Vine Street	County	yes	coord (Electronics/ Henry Clay)	2019	2,932	2,399	-533	-18%	-4.55%	32,150	25,778	-6,372	-20%	-4.95%
16	Henry Clay Boulevard	Metropolitan Park Drive	County	yes	coord (Electronics/ Henry Clay)	2010	2,138	1,681	-457	-21%	-1.64%	23,438	17,540	-5,898	-25%	-1.94%
17	Electronics Parkway / Henry Clay Boulevard	Hopkins Road	County	yes	coord (Electronics/ Henry Clay)	2020 (Mio)	1,855	1,739	-116	-6%	-2.09%	20,189	17,383	-2,806	-14%	-4.63%
18	Electronics Parkway	Limestone Drive	County	yes	coord (Electronics/ Henry Clay)	2020 (Mio)	1,719	1,868	149	9%	2.90%	21,279	18,714	-2,565	-12%	-4.02%
19	Electronics Parkway	Transistor Parkway	County	yes	coord (Electronics/ Henry Clay)	2020 (Mio)	1,778	1,783	5	0%	0.10%	17,240	18,189	949	6%	1.83%
20	Oswego Street (Rt 57)	Tulip Street	State	yes		2018	2,148	1,462	-686	-32%	-6.39%	26,213	19,509	-6,704	-26%	-5.12%
21	Oswego Street (Rt 57)	Vine Street	State	no		2012	1,156	---	---	---	---	13,649	---	---	---	---
22	Oswego Street (Rt 57)	Cypress Street	State	no		2018	2,836	---	---	---	---	33,548	---	---	---	---
23	Oswego Street (Rt 57)	Rt 370/ Willow Street/Old Liverpool Rd	State	yes		2018	3,071	2,699	-372	-12%	-2.42%	36,333	30,024	-6,309	-17%	-3.47%
24	Second Street (Rt 370)	Tulip Street	State	no		2012	1,110	---	---	---	---	13,101	---	---	---	---
25	Second Street (Rt 370)	Vine Street	State	no		2012	1,156	---	---	---	---	13,649	---	---	---	---

All locations are signalized.

Pre-Covid counts are manual turning movement counts, except where noted (Mio). These are all for PM peak hour. NYSDOT seasonal factors were applied.

Daily volumes were calculated as PM PH vol / 0.0912 for locations with turning movement counts.

Current counts are for 2023 for intersections with Miovision cameras, and for 2024 for locations without cameras (manual counts conducted September 2024)

All Miovision data are for Tues/Wed/Thurs average. For most locations, data for all of 2023 was used. Some locations had limited data due to camera installation date.

At locations 2, 4, and 11, only the total daily traffic was available from Miovision, so PM peak hour volumes were calculated based on average study area percentage of daily volume in PM peak hour (9.12%).

### **Heavy vehicle percentages at intersections: current conditions**

Table 2 shows the existing heavy vehicle percentage for intersections in the study area with Miovision cameras overall, by approach, and by movement. Data for September and October 2024, Tuesday through Thursday daily average, were used for this analysis. The following conclusions are noted:

- Overall, heavy vehicles make up an average of 4.74 percent of total daily traffic entering these 17 intersections.
- Heavy vehicle percentages are slightly higher than the study area average on the northbound and southbound approaches (and primarily on the through movement) along Henry Clay Boulevard and Electronics Parkway.
- Heavy vehicles make up an even greater share of the traffic – more than 1.5 times the average (above 8 percent) – at the Amazon driveway intersections on Morgan Road, the intersections at both ends of the Liverpool Bypass, and the Thruway exit on Route 57.
- Some individual approaches and/or movements at these intersections have 20-40 percent heavy vehicles, though this is mostly movements to or from the Amazon warehouse or other industrial driveways.
- Overall, the highest heavy vehicle movements appear to be confined to Route 57 between the Thruway and Liverpool Bypass, the bypass itself, and Morgan Road between the bypass and the Amazon driveways.
- At the two intersections within the Village of Liverpool with Miovision cameras, heavy vehicles generally constitute less than two percent of the total entering traffic, well below the overall study area average. Similarly, locations farther north on Route 57 and on Morgan Road generally have heavy vehicle percentages below 3 percent.

Table 2: Heavy vehicles percentages at study area intersections (2024, Miovision locations only)

Location #	Street 1	Street 2	Owner	% Heavy Vehicles																
				Overall Intersection	By Approach				Southbound			Westbound			Northbound			Eastbound		
					SB	WB	NB	EB	L	T	R	L	T	R	L	T	R	L	T	R
1	Oswego Road (Rt 57)	John Glenn Boulevard	County	2.55%	1.62%	2.81%	2.70%	3.36%	0.40%	2.17%	0.27%	3.89%	2.76%	1.48%	3.84%	2.65%	1.46%	1.44%	5.42%	3.58%
2	Oswego Road (Rt 57)	Belmont Drive/Long Branch Road	County	2.82%	2.16%	1.46%	2.63%	5.64%	1.15%	2.27%		0.34%	5.35%	0.67%	6.43%	2.46%	0.39%	6.49%	3.26%	4.62%
3	Oswego Road (Rt 57)	Plaza driveway	County	2.49%	2.63%		2.74%	0.07%		2.79%						2.96%				0.17%
4	Oswego Road (Rt 57)	Liverpool Bypass	County	6.29%	2.22%	16.69%	6.87%		4.02%	1.69%		35.79%		4.89%		1.98%	35.93%			
5	Oswego Road (Rt 57)	Thruway Exit	County	4.61%	1.46%		1.78%	18.97%		1.46%					1.12%	1.85%		18.97%		
6	John Glenn Boulevard	Blueberry Road/Buckley Road	County	2.72%		3.23%	3.02%	0.55%				4.43%	1.26%		0.85%		3.15%		0.54%	0.68%
7	Morgan Road	Buckley Road	County	3.23%	3.03%	3.42%	3.75%	2.84%	4.06%	3.05%	2.33%	4.89%	2.79%	4.69%	5.25%	2.56%	5.93%	2.44%	2.33%	5.20%
9	Morgan Road	Amazon Warehouse (north)	County	8.52%	8.03%	31.76%	9.42%			8.61%	0.45%	31.76%			6.67%	9.21%	28.40%			
10	Morgan Road	Amazon Warehouse (south)	County	8.95%	9.31%		9.94%	1.32%		9.81%						10.84%		1.64%		1.14%
11	Morgan Road	Liverpool Bypass / Crown Rd	County	8.07%	7.44%	22.30%	3.51%	18.62%	7.07%	3.03%	27.92%	8.06%	39.00%	10.62%	4.39%	3.24%	5.26%	35.27%	43.25%	4.71%
15	Henry Clay Boulevard	Vine Street	County	4.01%	5.40%	1.87%	5.52%	2.26%	2.88%	6.71%	3.94%	1.38%	2.28%	1.62%	9.86%	6.19%	2.16%	4.23%	2.11%	0.38%
16	Henry Clay Boulevard	Metropolitan Park Drive	County	6.20%	6.39%	4.20%	6.24%		5.58%	6.43%		5.08%		3.14%		6.33%	4.17%			
17	Electronics Parkway / Henry Clay Boulevard	Hopkins Road	County	5.57%	5.35%	2.79%	6.49%	66.67%	1.96%	5.91%	2.70%	2.08%		3.33%		6.87%	0.39%			
18	Electronics Parkway	Limestone Drive	County	5.87%	6.83%	1.22%	6.41%	1.31%	1.10%	7.19%		1.81%		0.72%	1.25%	7.31%		0.53%	9.09%	1.54%
19	Electronics Parkway	Transistor Parkway	County	6.05%	6.19%		6.22%	2.19%		6.48%	2.51%				5.17%	6.29%		2.58%		1.02%
20	Oswego Street (Rt 57)	Tulip Street	State	1.26%	1.09%	1.32%	0.19%	1.52%	1.16%		3.37%		1.72%			0.21%	0.95%		1.62%	0.41%
23	Oswego Street (Rt 57)	Rt 370/ Willow Street/Old Liverpool Rd	State	1.35%	1.33%	2.41%	0.73%	0.42%	1.37%				2.04%	2.53%		0.75%			0.43%	

Data source: Miovision data for September-October 2024, Tuesday/Wednesday/Thursday daily average. (Locations without Miovision cameras are not included.)

Above study area average

Over 1.5x study area average

More than 20%

## **Traffic volumes on segments: overall AADT and heavy vehicles**

### *Historical Average Annual Daily Traffic (AADT)*

In addition to the intersection data, SMTTC staff also examined AADT data for road segments within the study area. Since 2000, volumes have remained fairly flat or declined slightly for most of the study area locations. A few locations show a very slight uptick in traffic over the past few years but that is after a drop in 2020. Overall, it appears that the traffic volumes in and around the Greater Liverpool area are holding steady even with additional development in the area.

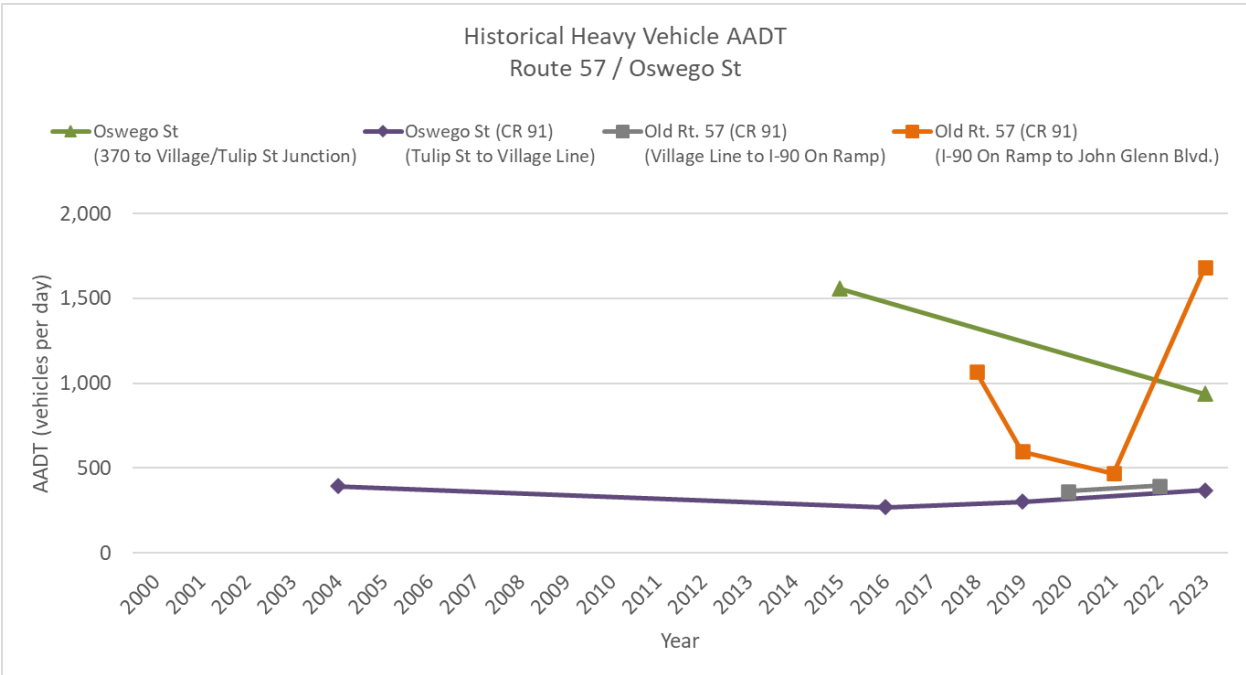
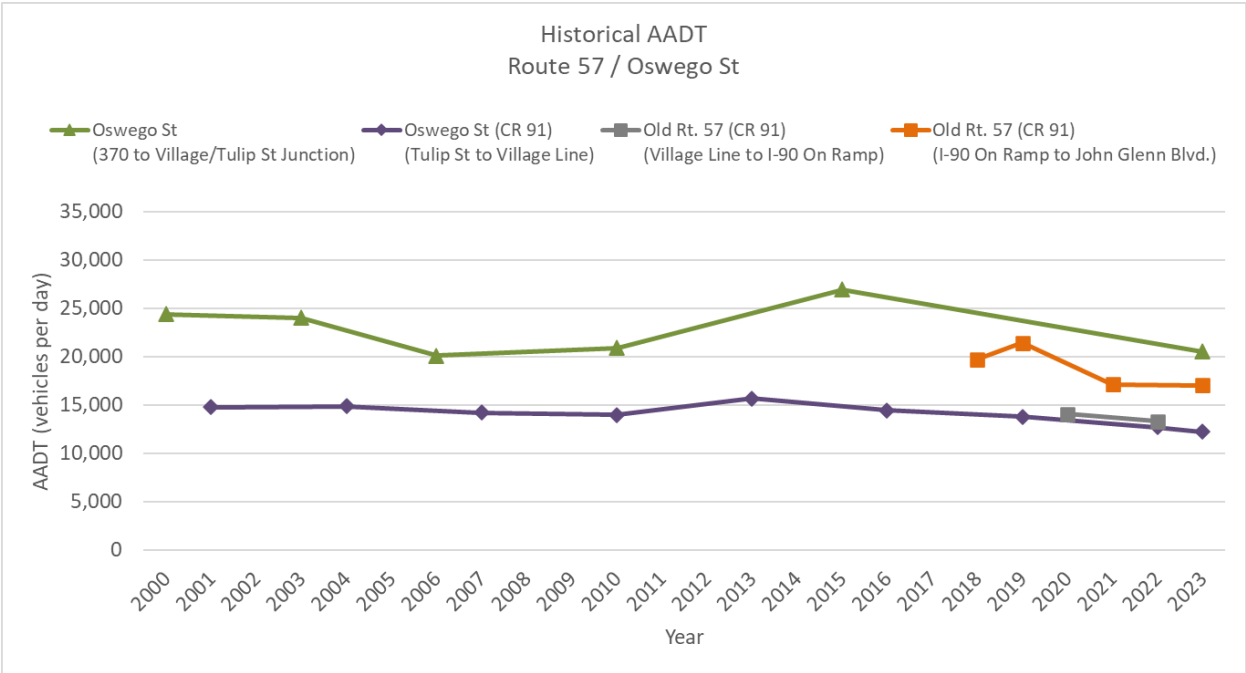
### *Heavy vehicle AADT*

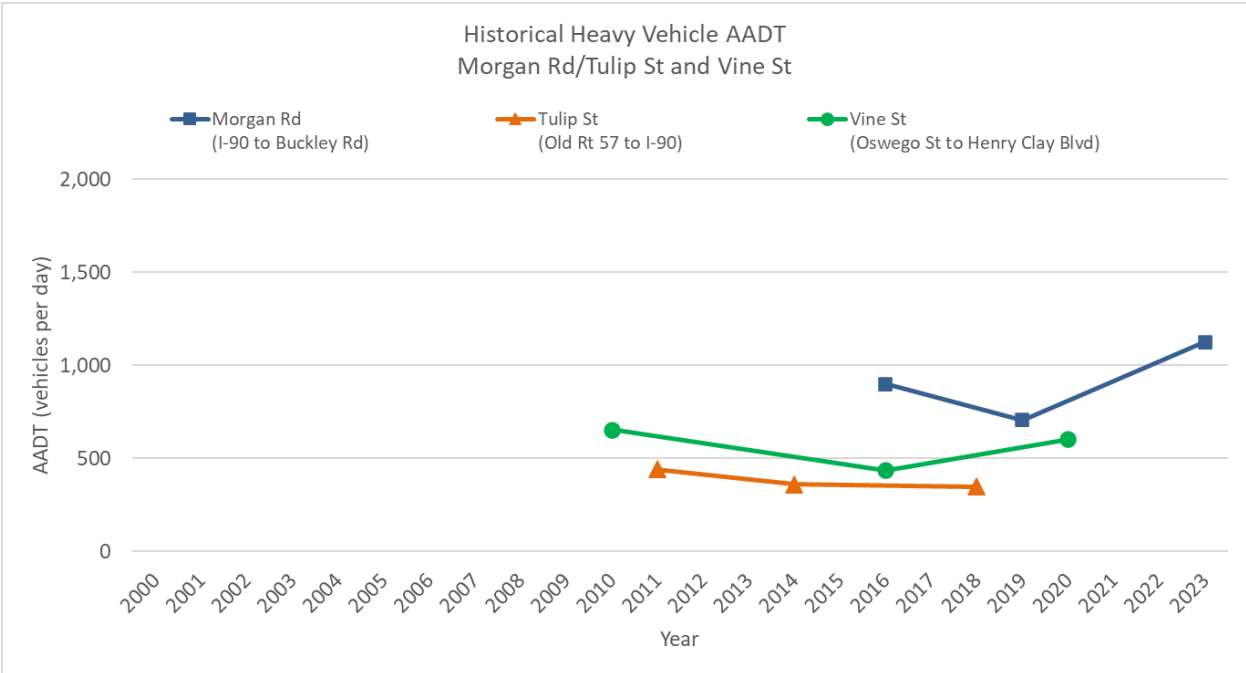
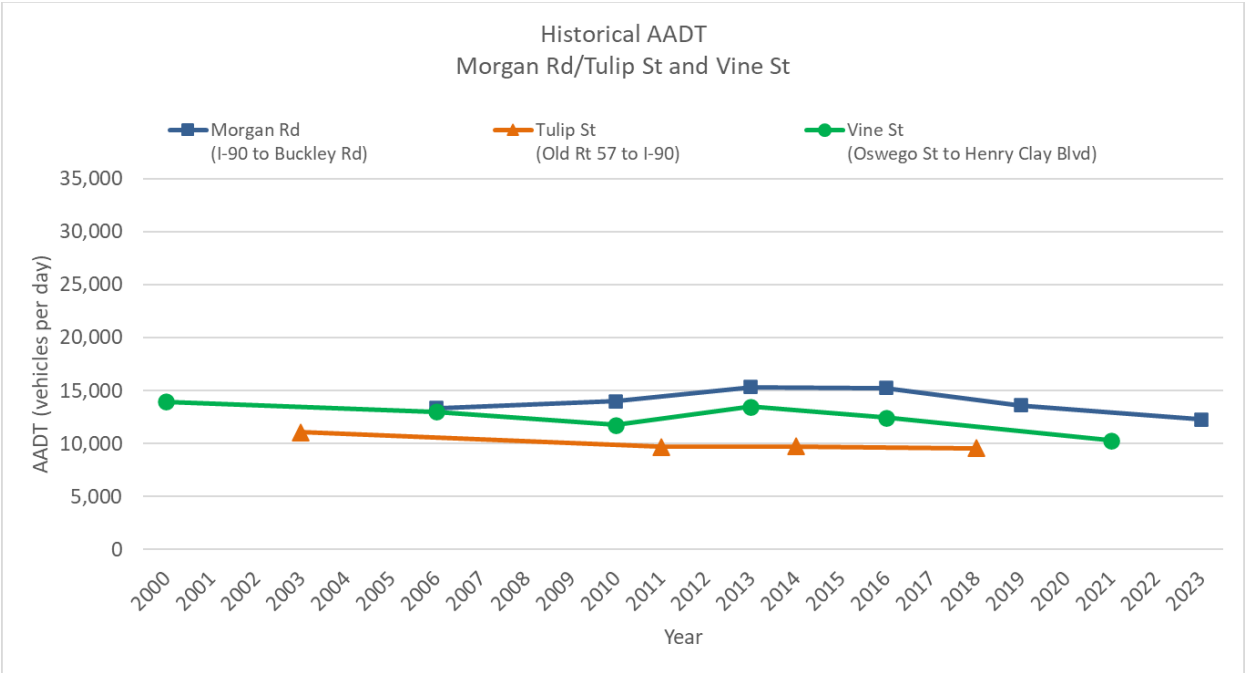
Historical heavy vehicle data were also examined. For most of the study area segments, the heavy vehicle trend follows the overall AADT trend, generally holding steady or with slight declines. However, there are a few segments that are notable for not following this trend:

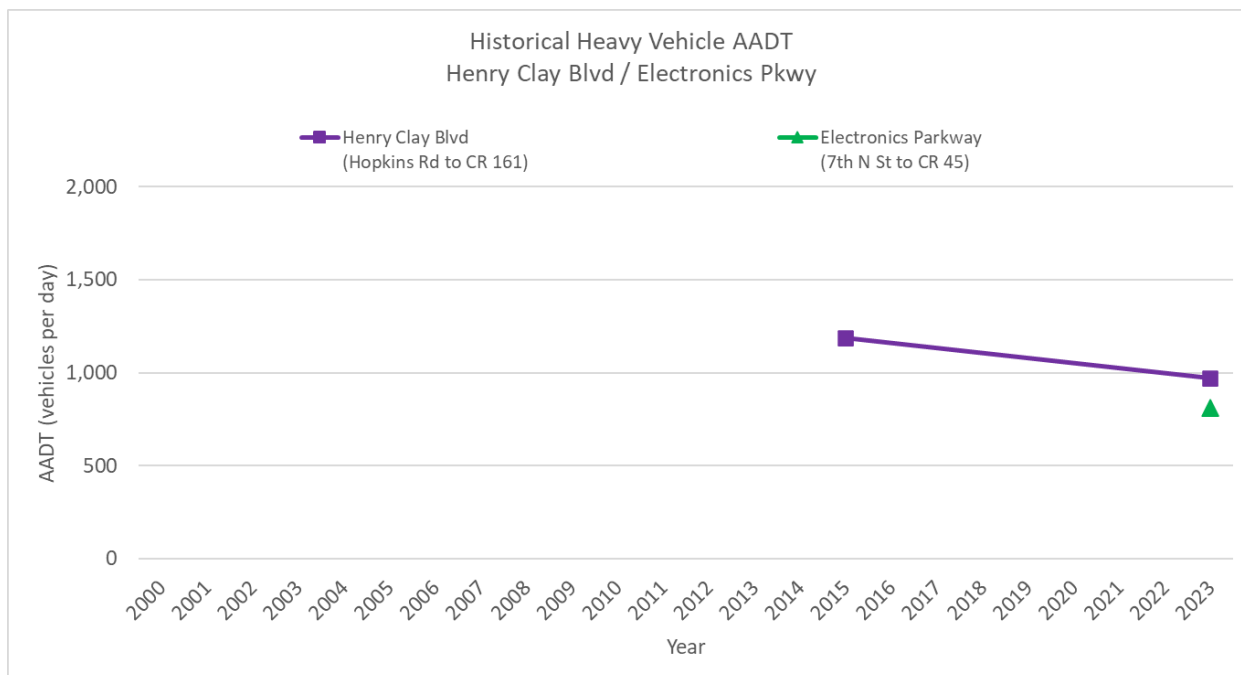
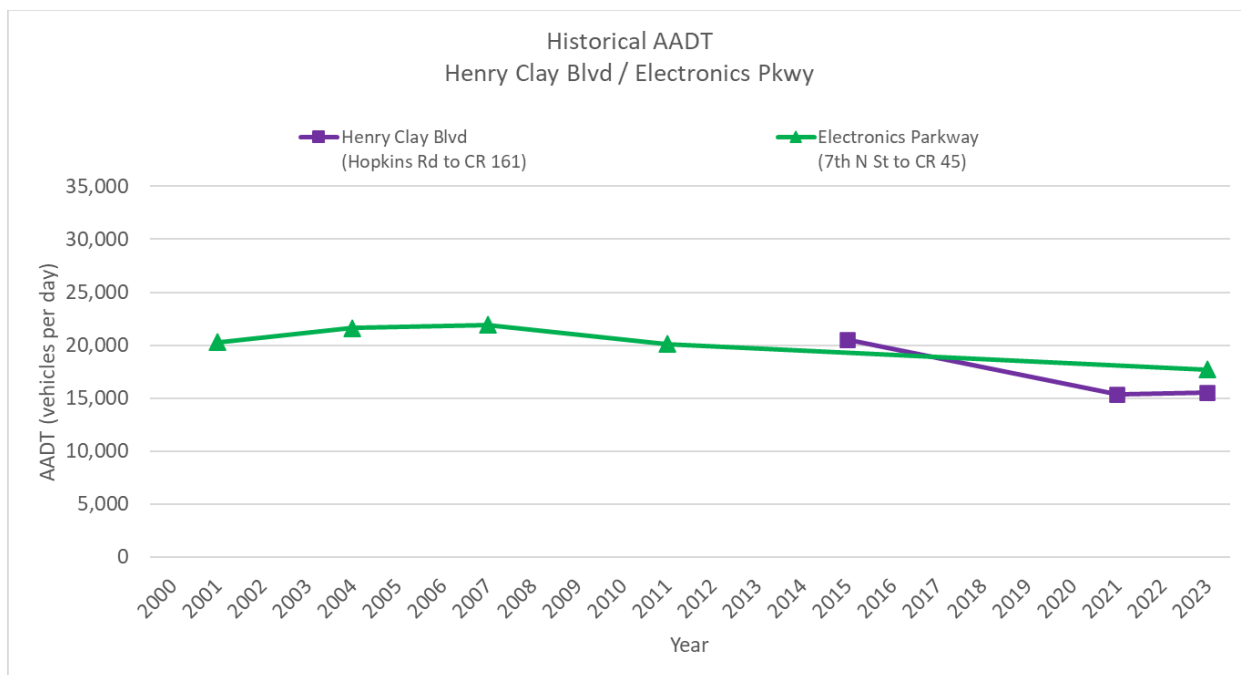
- Route 57 between I-90 and John Glenn Boulevard: heavy vehicles increased from 468 per day to 1,215 per day between 2021 and 2023, an increase of well over 200 percent in just two years.
- Morgan Road between I-90 and Buckley Road: heavy vehicles increased from 707 per day to 1,126 per day between 2019 and 2023, an increase of about 12 percent per year.
- Liverpool Bypass: heavy vehicles increased from 319 per day to 969 per day between 2020 and 2022, an increase of about 200 percent in two years.

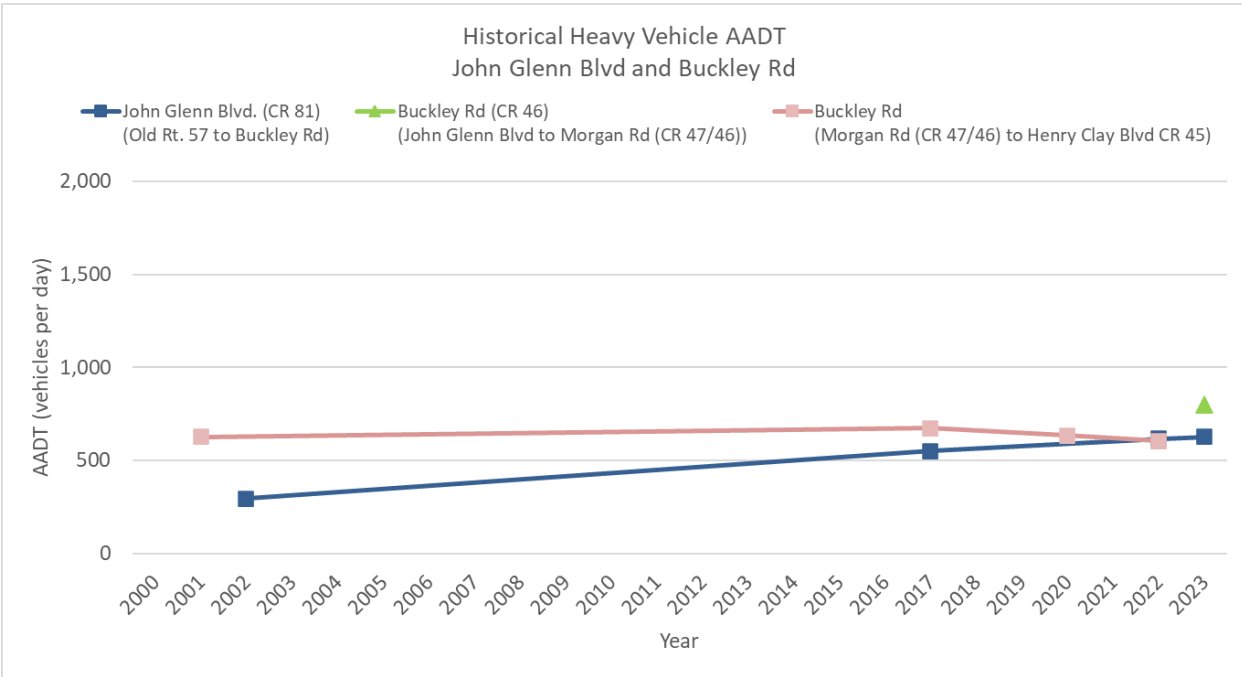
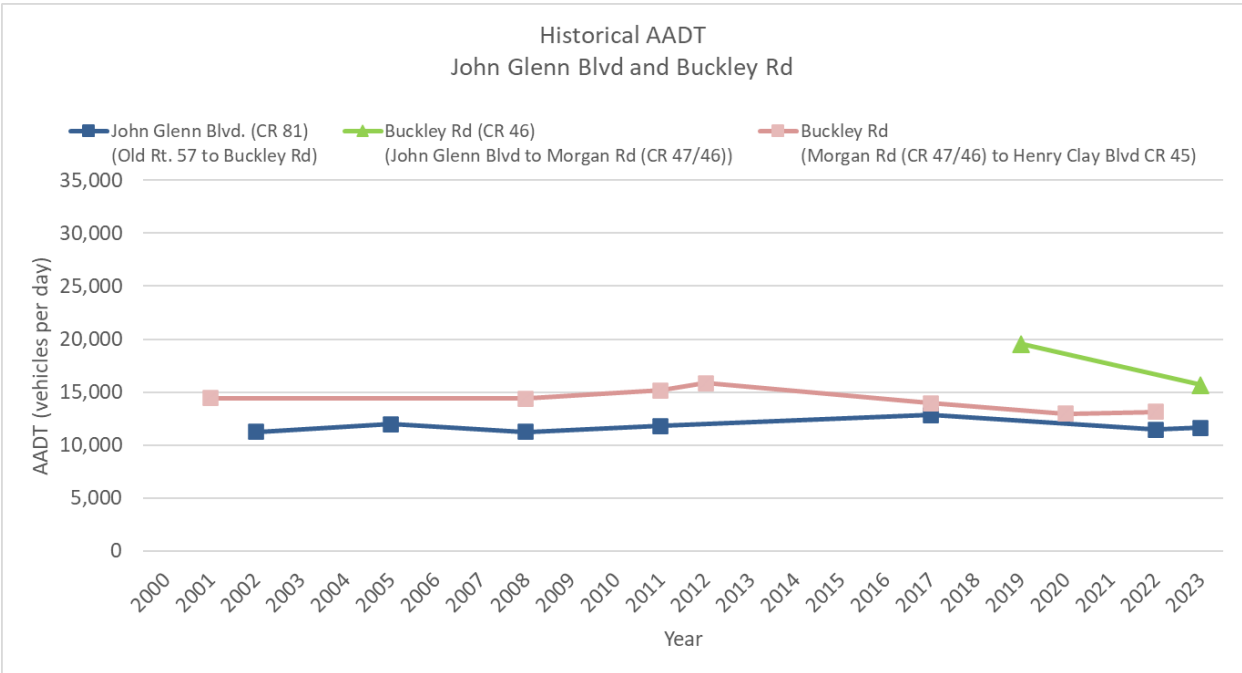
This aligns with the findings that the intersections along the southern part of Morgan Road and Route 57 currently experience much higher heavy vehicle percentages than other intersections in the study area. Since heavy vehicles are so noticeable within the traffic stream – they occupy more physical space and are slower to start moving than typical passenger vehicles – it is understandable that the impacts of more heavy vehicles, even if confined to a relatively small area, are felt in outsize proportion by the traveling public.

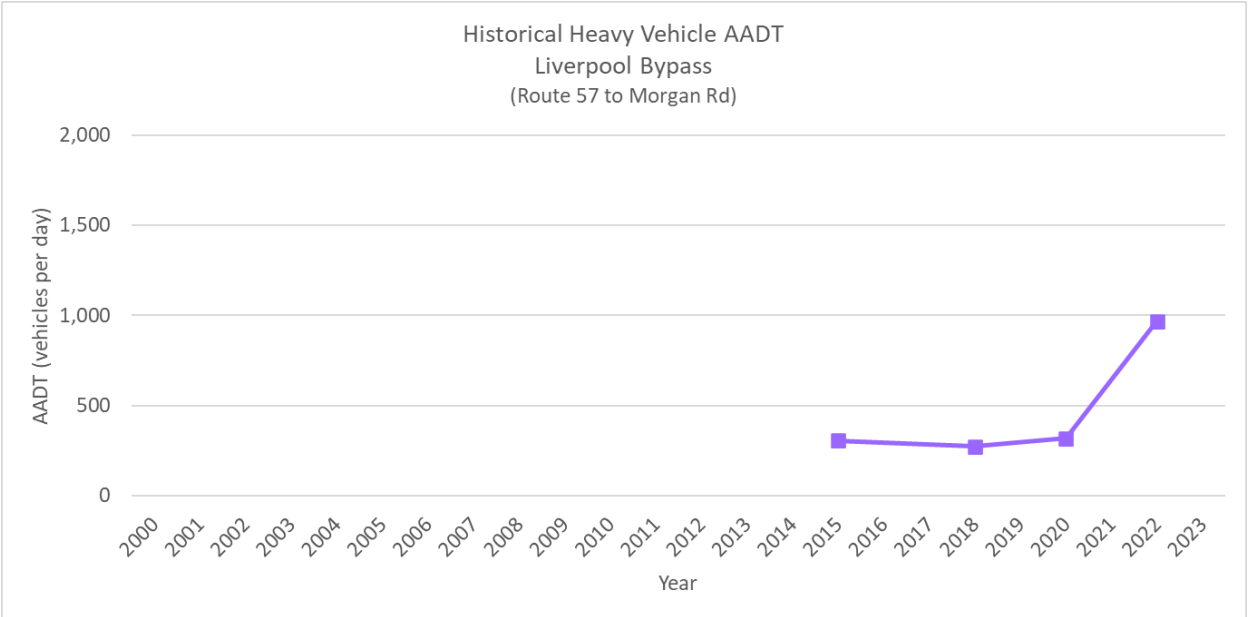
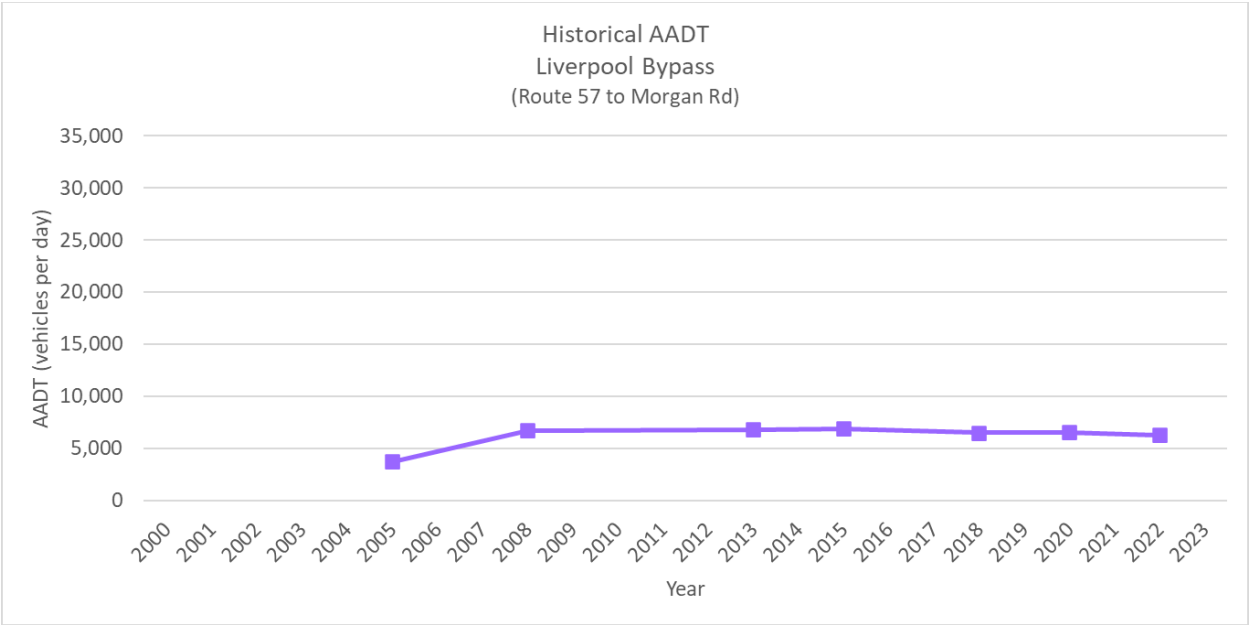
The following figures summarize the historical AADT data – overall and heavy vehicles – on road segments in the study area.

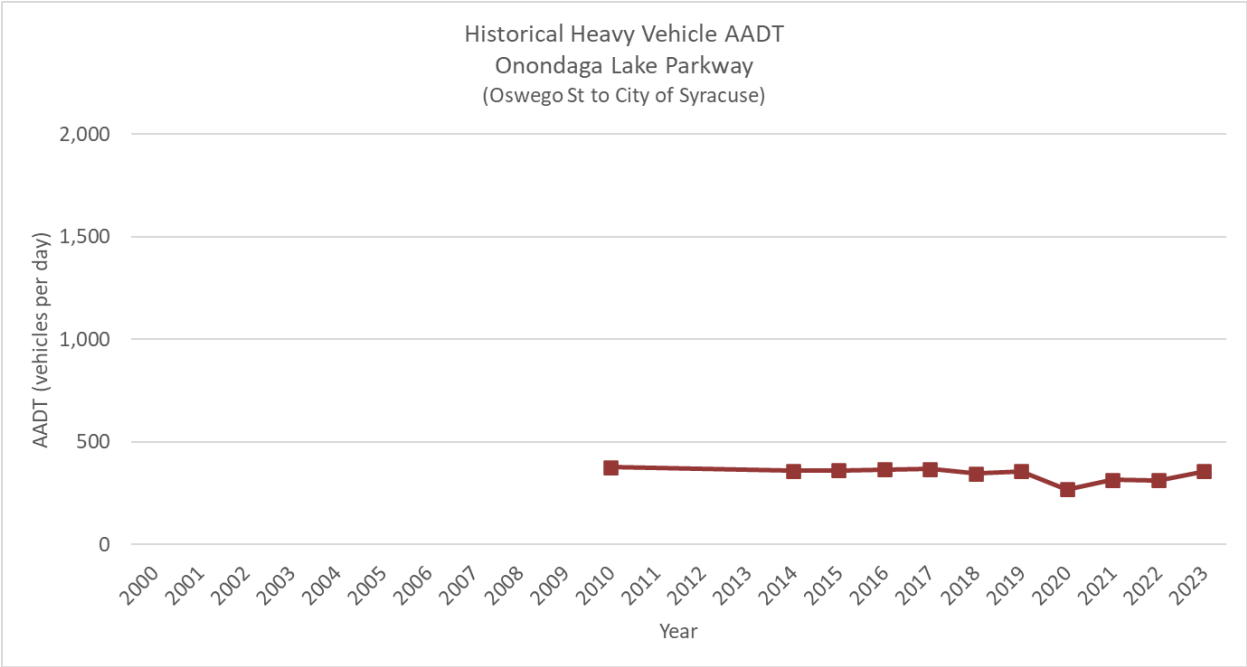
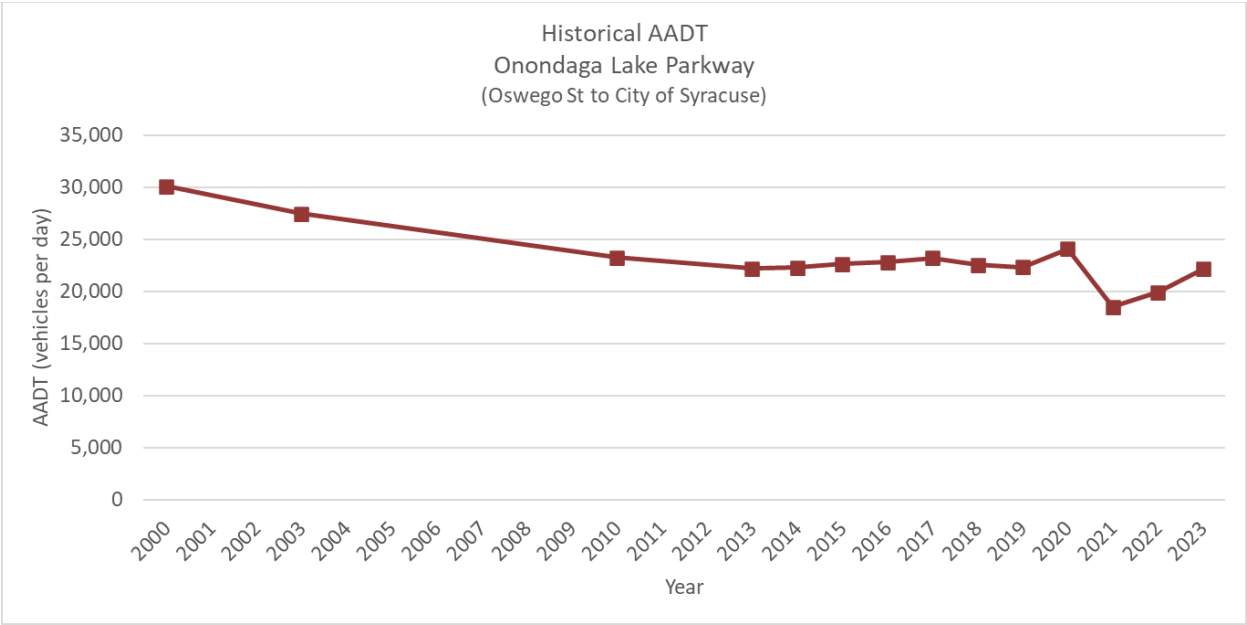












## Capacity analysis

SMTC staff assessed current operating conditions at the study area intersections using Synchro analysis software. The capacity analysis was conducted for the current PM peak hour conditions using the Miovision volume data from September and October 2024, Tuesday through Thursday daily average, or the 2024 manual turning movement count data for locations without Miovision cameras. Signal timing information was obtained from various sources including some Synchro files provided by OCDOT plus previous files created by SMTC staff for previous studies (2018 Route 57 build-out impact analysis, 2019 Congestion Management process) and/or consultants for the Onondaga County Traffic Signal Optimization Projects, Phases 1-3 (completed in 2010, 2012, and 2014).

Level of service and average vehicle delay results are summarized in Table 3.

SMTC staff utilized the “optimize splits” feature in Synchro to determine if any improvement to LOS could be realized under the current cycle length. Additionally, SMTC examined a scenario with a Synchro-optimized cycle length, plus another scenario using the cycle lengths previously recommended by the Signal Optimization Projects. For most of the intersections, the current cycle length showed the best overall operations (i.e. overall lowest average delay), so no additional “optimized cycle length” results are shown. If one of the alternative cycle length options showed improved operations, that cycle length and the resulting LOS and delay are shown in the summary table.

Overall, intersections in the study area operate very well during the PM peak hour. Only three County-owned intersections currently operate at overall LOS D: Route 57/John Glenn Blvd, Morgan Rd/Buckley Rd, and Henry Clay Blvd/Vine St. There are also some individual movements at these three intersections that currently operate at LOS E or F (mostly left-turn movements). All other intersections in the study area currently operate at an overall LOS C or better (with many at overall LOS A or B).

The Signal Optimization project previously recommended a 110 second cycle length for the three coordinated Route 57 intersections at John Glenn Boulevard, Longbranch Rd, and Glenn Crossing Plaza. The current analysis shows a slight improvement in operations at these intersections by moving from the current 130 second (65 second at the plaza) cycle length to a consistent 110 second cycle. Two other intersections – Route 57/Liverpool bypass and Henry Clay Blvd/Vine St – also show slight improvements with cycle length adjustment recommended by the Signal Optimization project. Similarly minor decreases in overall delay were shown by the Synchro-optimized cycle length at five other intersections, as shown in Table 3.

**Table 3: Level of Service and delay at study area intersections, PM peak hour**

	Intersection	Approach	Movement	Existing	Optimized splits	Opt cycle length <sup>4</sup>	
1	CR 57/ John Glenn Blvd	Eastbound	Left	F(85)	F(85)	E(75)	
			Through/right	D(49)	D(49)	D(47)	
		Westbound	Left	E(71)	E(70)	E(61)	
			Through/right	E(57)	E(57)	E(60)	
		Northbound	Left	F(90)	F(87)	F(82)	
			Through	C(34)	C(34)	C(22)	
			Right	A(10)	A(9)	A(6)	
		Southbound	Left	E(68)	E(68)	E(65)	
			Through	D(45)	D(44)	D(38)	
			Right	C(23)	C(23)	B(19)	
		OVERALL			D(49)	D(49)	D(43)
		Cycle length			130	130	110
2	CR 57/ Longbranch Rd/ Belmont Dr	Eastbound	Left	D(49)	D(45)	D(39)	
			Through/right	B(17)	B(15)	B(12)	
		Westbound	Left	C(32)	C(31)	C(26)	
			Through/right	D(48)	D(51)	D(38)	
		Northbound	Left	E(75)	E(70)	E(63)	
			Through/right	C(32)	C(30)	C(28)	
		Southbound	Left	E(74)	E(74)	E(64)	
			Through	B(16)	B(18)	B(16)	
			Right	A(0)	A(0)	A(0)	
		OVERALL			C(34)	C(32)	C(29)
		Cycle length			130	130	110
		3	CR 57/ Glenn Crossing Plaza	Eastbound	Left/through	D(37)	D(36)
	Right			A(5)	A(5)	A(9)	
Westbound	Left/through/right			B(14)	B(14)	C(23)	
Northbound	Left			A(4)	A(4)	A(4)	
	Through/right			A(5)	A(5)	A(4)	
Southbound	Left/through/right			B(10)	A(7)	A(2)	
OVERALL				A(8)	A(7)	A(7)	
Cycle length				65	65	110	

<sup>4</sup> Where an alternative cycle length is shown, that cycle length was previously recommended by the Signal Optimization studies, except where noted by an asterisk. The asterisk denotes that the current Synchro-optimized cycle length is shown because the current analysis indicated improved operations with that cycle length as compared to the previous Signal Optimization study recommendation. Where no alternative cycle length results are shown, it is because the analysis indicated that the current cycle length is optimal.

	Intersection	Approach	Movement	Existing	Optimized splits	Opt cycle length <sup>4</sup>
4	CR 57/ Liverpool Bypass	Eastbound	Left/through/right	C(22)	C(22)	B(15)
		Westbound	Left/through	D(41)	D(41)	C(29)
			Right	B(19)	B(19)	B(12)
		Northbound	Left	B(13)	B(13)	B(13)
			Through/right	B(16)	B(16)	B(18)
		Southbound	Left	A(8)	A(8)	A(7)
			Through/right	A(5)	A(5)	A(5)
		<b>OVERALL</b>		<b>B(14)</b>	<b>B(14)</b>	<b>B(14)</b>
		Cycle length		95	95	60
5	CR 57/ Thruway exit 38	Eastbound	Left	C(32)	C(34)	C(21)
			Right	A(0)	A(0)	A(0)
		Northbound	Left	A(5)	A(5)	A(5)
			Through	A(6)	A(5)	A(6)
		Southbound	Through	B(13)	B(12)	B(15)
			Right	A(0)	A(0)	A(0)
		<b>OVERALL</b>		<b>B(14)</b>	<b>B(14)</b>	<b>B(12)</b>
		Cycle length		90	90	60*
6	John Glenn Blvd/ Buckley Rd/ Blueberry Rd	Eastbound	Through	D(50)	D(49)	---
			Right	C(21)	C(21)	---
		Westbound	Left	B(17)	A(3)	---
			Through	A(2)	A(1)	---
		Northbound	Left	D(47)	D(47)	---
			Right	A(5)	A(5)	---
		<b>OVERALL</b>		<b>B(15)</b>	<b>A(10)</b>	---
		Cycle length		90	90	---
7	Morgan Rd/ Buckley Rd	Eastbound	Left	E(67)	E(58)	---
			Through/right	C(33)	B(19)	---
		Westbound	Left	D(48)	D(50)	---
			Through/right	F(82)	D(50)	---
		Northbound	Left	D(45)	E(60)	---
			Through/right	C(29)	D(36)	---
		Southbound	Left	E(68)	E(68)	---
			Through	C(32)	C(33)	---
			Right	A(3)	A(7)	---
		<b>OVERALL</b>		<b>D(46)</b>	<b>D(39)</b>	---
		Cycle length		90	90	---

	Intersection	Approach	Movement	Existing	Optimized splits	Opt cycle length <sup>4</sup>
8	Morgan Rd/ Grampian Rd/ Steelway Blvd N	Eastbound	Left	C(26)	C(25)	---
			Through/right	A(10)	A(10)	---
		Westbound	Left/through/right	B(16)	B(16)	---
		Northbound	Left	A(4)	A(4)	---
			Through/right	A(4)	A(4)	---
		Southbound	Left	A(4)	A(4)	---
			Through	A(3)	A(3)	---
		<b>OVERALL</b>		<b>A(6)</b>	<b>A(6)</b>	---
		Cycle length		76	76	---
9	Morgan Rd/ Amazon Warehouse (north)	Eastbound	Left/through	B(14)	B(14)	---
			Right	A(3)	A(3)	---
		Westbound	Left/through/right	B(14)	B(14)	---
		Northbound	Left	A(4)	A(4)	---
			Through/right	A(3)	A(3)	---
		Southbound	Left	*	*	---
			Through/right	A(3)	A(3)	---
		<b>OVERALL</b>		<b>A(3)</b>	<b>A(3)</b>	---
		Cycle length		60	60	---
10	Morgan Rd/ Amazon Warehouse (south)	Eastbound	Left/through	B(11)	B(11)	---
			Right	A(4)	A(4)	---
		Westbound	Left/through	B(13)	B(13)	---
			Right	A(5)	A(5)	---
		Northbound	Left	A(6)	A(6)	---
			Through/right	A(6)	A(6)	---
		Southbound	Left	*	*	---
			Through/right	A(6)	A(6)	---
		<b>OVERALL</b>		<b>A(6)</b>	<b>A(6)</b>	---
11	Morgan Rd/Liverpool Bypass/ Crown Rd	Eastbound	Left/through	C(33)	C(33)	C(21)
			Right	B(14)	B(14)	B(11)
		Westbound	Left/through/right	C(21)	C(21)	B(16)
		Northbound	Left	A(7)	A(6)	A(8)
			Through/right	A(4)	A(5)	A(6)
		Southbound	Left	B(12)	A(4)	A(4)
			Through/right	B(16)	B(16)	B(12)
		<b>OVERALL</b>		<b>B(11)</b>	<b>B(12)</b>	<b>A(10)</b>
		Cycle length		105	105	60*
12	Vine St / Continuum Dr	Eastbound	Left/right	B(13)	B(14)	B(17)
		Northbound	Through/right	A(8)	A(8)	A(7)
		Southbound	Left/through	B(12)	B(11)	A(9)
		<b>OVERALL</b>		<b>B(10)</b>	<b>A(10)</b>	<b>A(9)</b>
		Cycle length		40	40	45*

	Intersection	Approach	Movement	Existing	Optimized splits	Opt cycle length <sup>4</sup>
13	Vine St / Commerce Blvd	Westbound	Left/right	E(77)	D(50)	---
		Northbound	Left/through	A(8)	B(12)	---
		Southbound	Through/right	C(24)	C(34)	---
		<b>OVERALL</b>		<b>C(35)</b>	<b>C(34)</b>	---
		Cycle length		90	90	---
14	Henry Clay Blvd/ Buckley Rd	Eastbound	Left	D(38)	D(40)	D(41)
			Through	C(24)	C(24)	C(22)
			Right	A(3)	A(3)	A(3)
		Westbound	Left	D(38)	D(38)	C(32)
			Through/right	C(33)	C(32)	C(34)
		Northbound	Left	D(38)	D(37)	C(32)
			Through/right	C(32)	C(32)	C(21)
		Southbound	Left	D(39)	D(39)	D(40)
			Through/right	C(30)	C(31)	C(23)
		<b>OVERALL</b>		<b>C(30)</b>	<b>C(30)</b>	<b>C(26)</b>
15	Henry Clay Blvd/ Vine St	Eastbound	Left	D(52)	D(52)	D(43)
			Through	D(54)	D(54)	D(47)
			Right	A(1)	A(1)	A(1)
		Westbound	Left	D(45)	D(45)	D(50)
			Through	C(27)	C(27)	C(24)
		Northbound	Left	E(55)	D(53)	E(58)
			Through	D(41)	D(43)	D(37)
			Right	A(7)	A(7)	A(6)
		Southbound	Left	E(56)	D(54)	D(54)
			Through/right	C(33)	C(34)	C(28)
		<b>OVERALL</b>		<b>D(37)</b>	<b>D(37)</b>	<b>C(34)</b>
16	Henry Clay Blvd/ Metropolitan Park Dr	Cycle length		100	100	80
		Westbound	Left/right	B(11)	B(10)	B(11)
		Northbound	Through/right	B(16)	B(12)	B(12)
		Southbound	Left/through	A(10)	B(12)	B(11)
		<b>OVERALL</b>		<b>B(13)</b>	<b>B(12)</b>	<b>B(12)</b>
17	Henry Clay Blvd/ Electronics Pkwy/ Hopkins Rd	Cycle length		35	35	40*
		Eastbound	Left/through/right	*	*	---
		Westbound	Left	C(31)	C(31)	---
			Through/right	B(11)	A(9)	---
		Northbound	Left	*	*	---
			Through/right	C(26)	A(8)	---
		Southbound	Left	D(38)	C(33)	---
			Through/right	A(7)	A(3)	---
		<b>OVERALL</b>		<b>B(19)</b>	<b>A(8)</b>	---
		Cycle length		70	70	---

	Intersection	Approach	Movement	Existing	Optimized splits	Opt cycle length <sup>4</sup>
18	<b>Electronics Pkwy/ Continuum Dr/ Limestone Dr</b>	Eastbound	Left	C(31)	C(32)	---
			Through/right	B(14)	B(13)	---
		Westbound	Left	C(34)	C(34)	---
			Through/right	A(0)	A(0)	---
		Northbound	Left	D(44)	D(40)	---
			Through/right	A(5)	A(4)	---
		Southbound	Left	C(26)	C(32)	---
			Through/right	C(18)	A(8)	---
		<b>OVERALL</b>		<b>B(14)</b>	<b>A(9)</b>	---
		Cycle length		70	70	---
19	<b>Electronic Pkwy/ Transistor Pkwy</b>	Eastbound	Left/right	C(23)	C(23)	---
		Northbound	Left	D(46)	D(36)	---
			Through	A(1)	A(1)	---
		Southbound	Through/right	A(6)	A(8)	---
		<b>OVERALL</b>		<b>A(5)</b>	<b>A(6)</b>	---
		Cycle length		70	70	---

### Summary of findings

SMTC analyzed current and historical traffic volume data for the study area intersections, including 18 locations with County-owned traffic signals. Most of the study area intersections have Miovision cameras, from which current traffic volume data was obtained. Staff also examined current and historical AADT data and heavy vehicle data in the study area. Overall, the intersections in the study area experienced an average decline in traffic (PM peak and daily) of about 2 percent per year over the past 5 to fourteen years and segment-based historical traffic volume data is generally holding steady even with additional development in the study area. The highest heavy vehicle movements (and the most substantial recent increases in heavy vehicle percentages) appear to be confined to Route 57 between the Thruway and Liverpool Bypass, the bypass itself, and Morgan Road between the bypass and the Amazon driveways.

Intersections in the study area are generally operating very well during the PM peak hour. Only three County-owned intersections currently operate at overall LOS D: Route 57/John Glenn Blvd, Morgan Rd/Buckley Rd, and Henry Clay Blvd/Vine St. There are also some individual movements at these three intersections that currently operate at LOS E or F (mostly left-turn movements). All other County-owned intersections in the study area currently operate at an overall LOS C or better (with many at overall LOS A or B). SMTC staff also analyzed scenarios with modified cycle lengths – both recommended from the previous Signal Optimization Projects and using Synchro optimization tools – and found little to no improvement in operations at most of the intersections. Where improvements were observed, the anticipated decreases in delay were relatively minor.