

Interstates and National Highway System

- The NHS consists of interstates and other key roadways that are important to the nation's economy, defense, and mobility as determined by U.S. DOT in cooperation with states, local officials, and MPOs.
- Roads on the NHS are prioritized for receipt of federal transportation funding.
- In the SMTC planning area, 43 roads representing 292 centerline miles are included on the NHS.



Components of the National Highway System

The NHS consists of the following categories of roadways. Some roads may carry more than one classification.

Interstate: The Eisenhower Interstate System of highways retains its separate identity within the NHS.

Other Principal Arterials: These are highways in rural and urban areas which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.

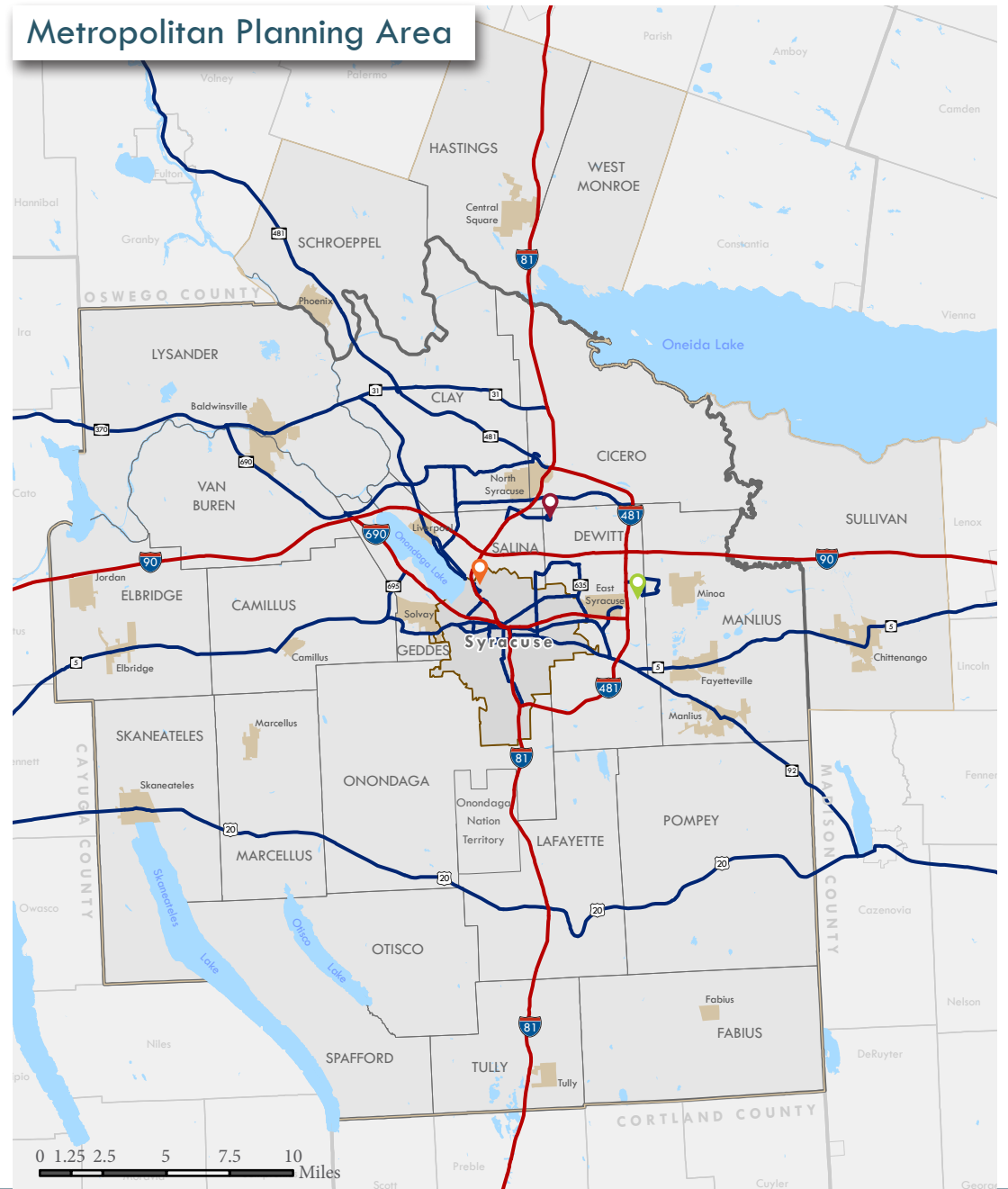
Strategic Highway Network (STRAHNET): This is a network of highways which are important to the United States' strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.

Major Strategic Highway Network Connectors: These are highways which provide access between major military installations and highways which are part of the Strategic Highway Network.

Intermodal Connectors: These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System.



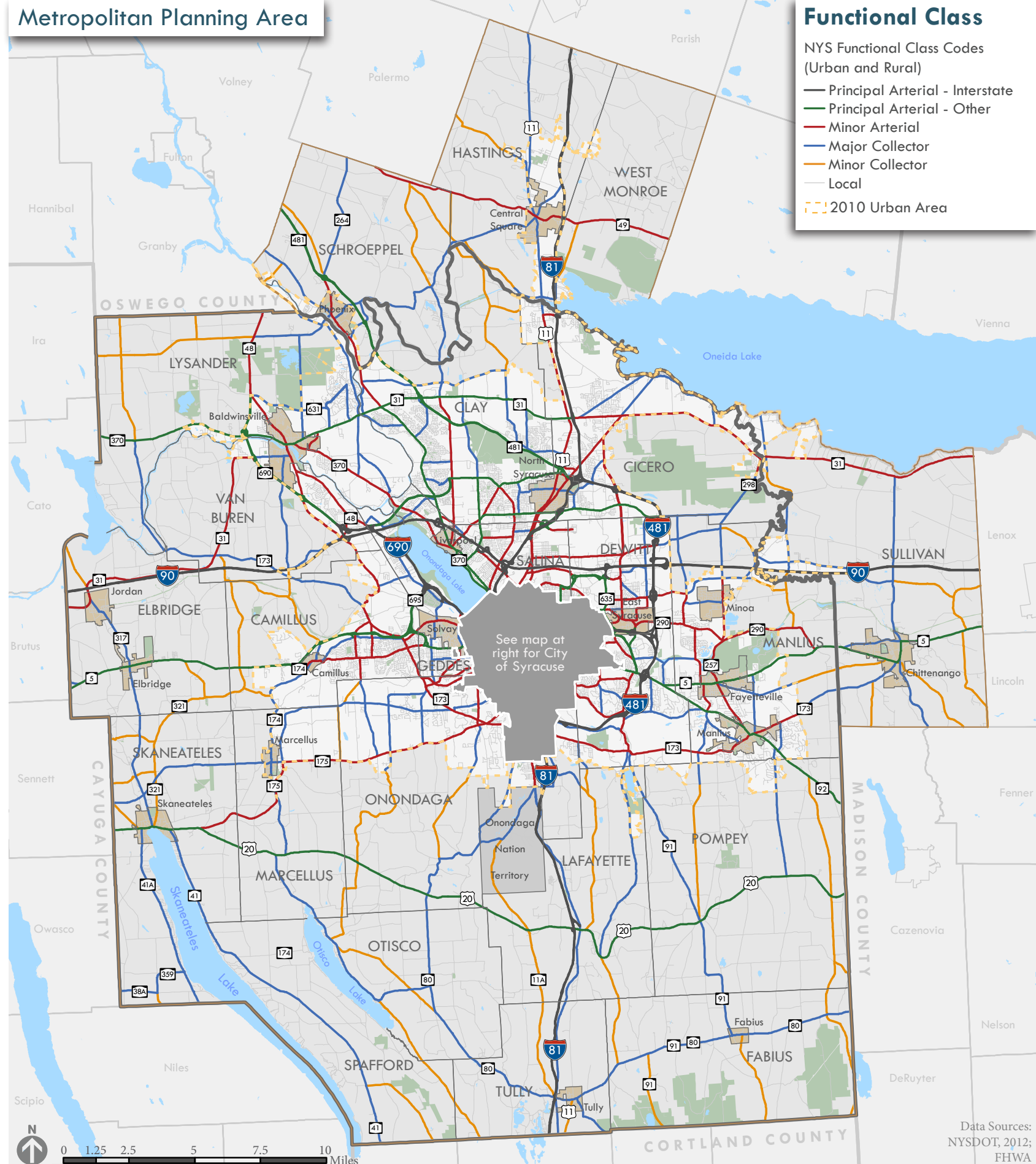
Traffic on Interstate 81 in the Town of Cicero.



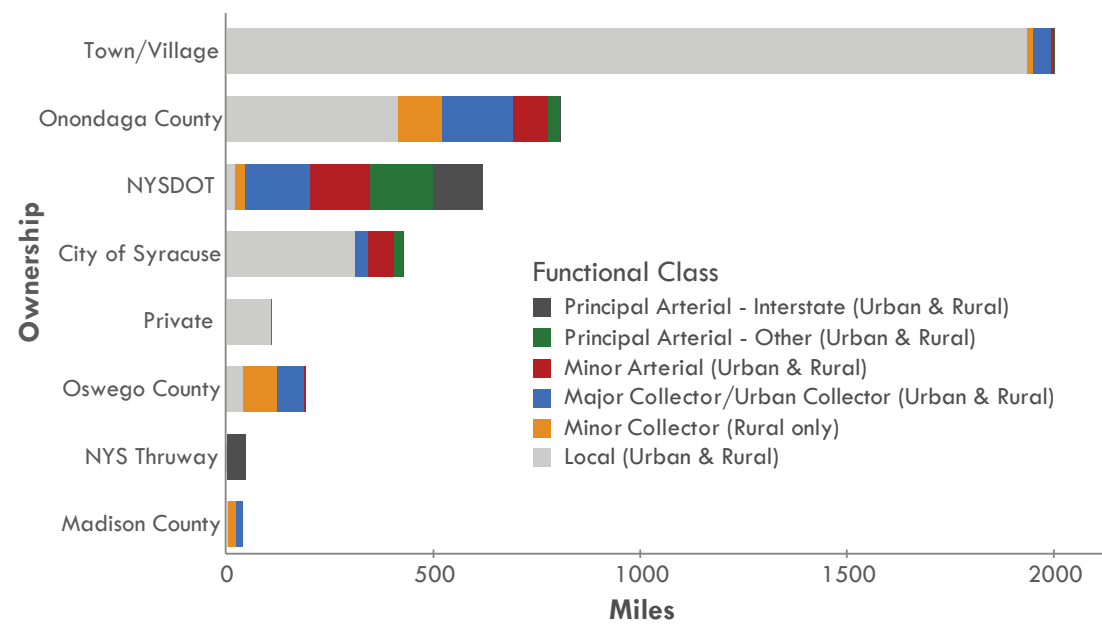
Since Interstates 81 and 90 form the crossroads of Central New York, these primary facilities, along with Interstates 481 and 690 and several other roadways, are essential links to the local, regional and national transportation network known as the National Highway System (NHS). The NHS consists of roadways important to the nation's economy, defense, and mobility and was developed by the US Department of Transportation (DOT) in cooperation with the states, local officials, and MPOs. Given the importance to the local, regional and national economy and mobility, the NHS roadways are prioritized, especially interstates, for receipt of federal transportation funding. The US DOT apportions funding through the National Highway Performance Program specifically for use on the NHS. Per the 2014-2018 Transportation Improvement Program, nearly \$162 million dollars has been programmed to several bridge or highway projects on the NHS inside the Metropolitan Planning Area. At the state level, in 2014, \$900 million dollars was apportioned. Within the SMTC planning area, 43 roads representing 292 centerline miles are included on the NHS.

Functional Class

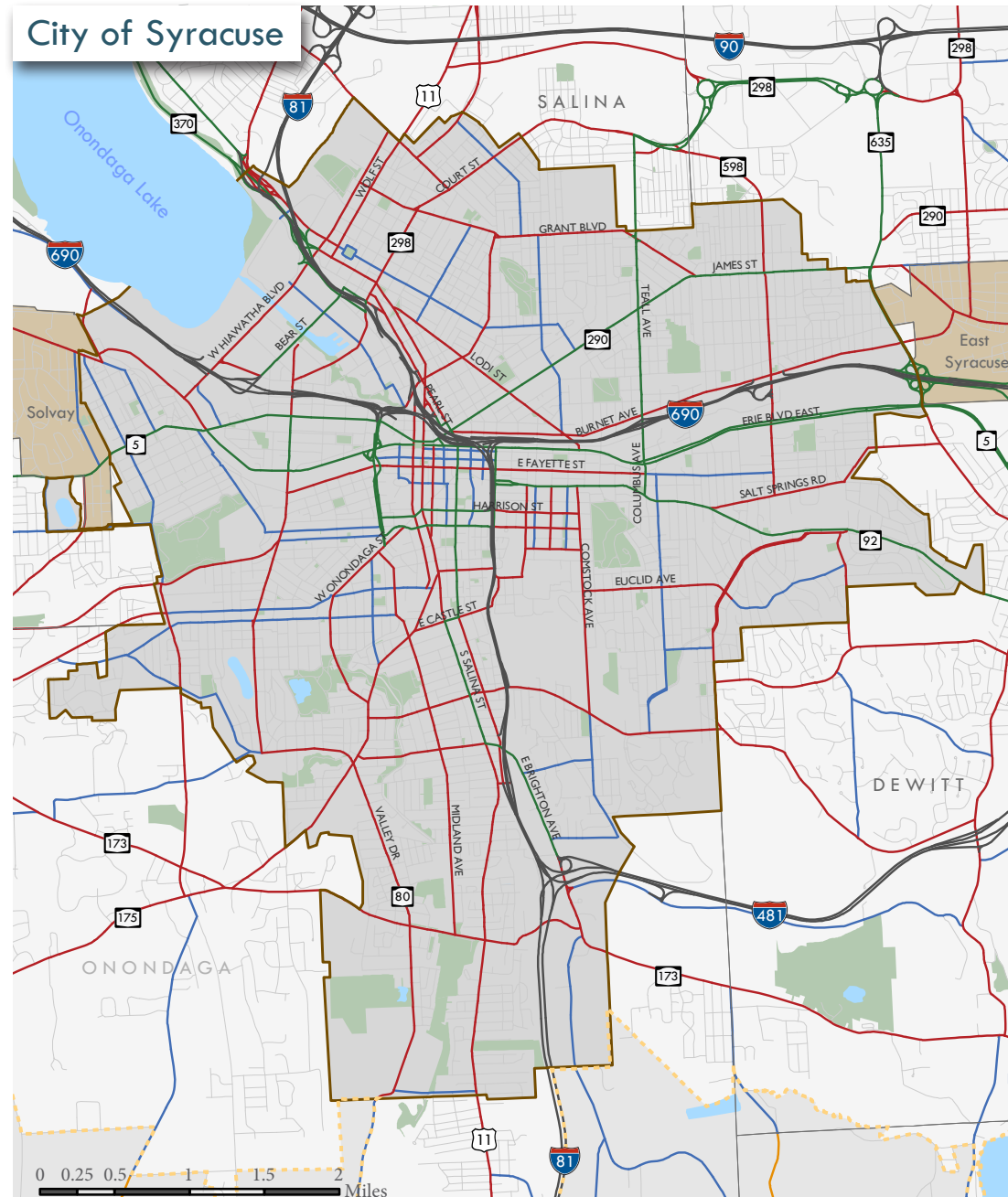
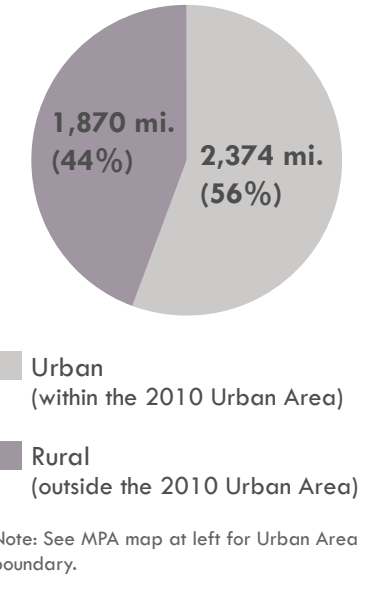
- Functional Classification is the process by which roads are categorized according to the type of service they are meant to provide.
- Functional Class is directly related to federal aid-eligibility, which determines if a road can receive federal transportation funding.



Roadway Mileage in the MPA by Ownership and Functional Class



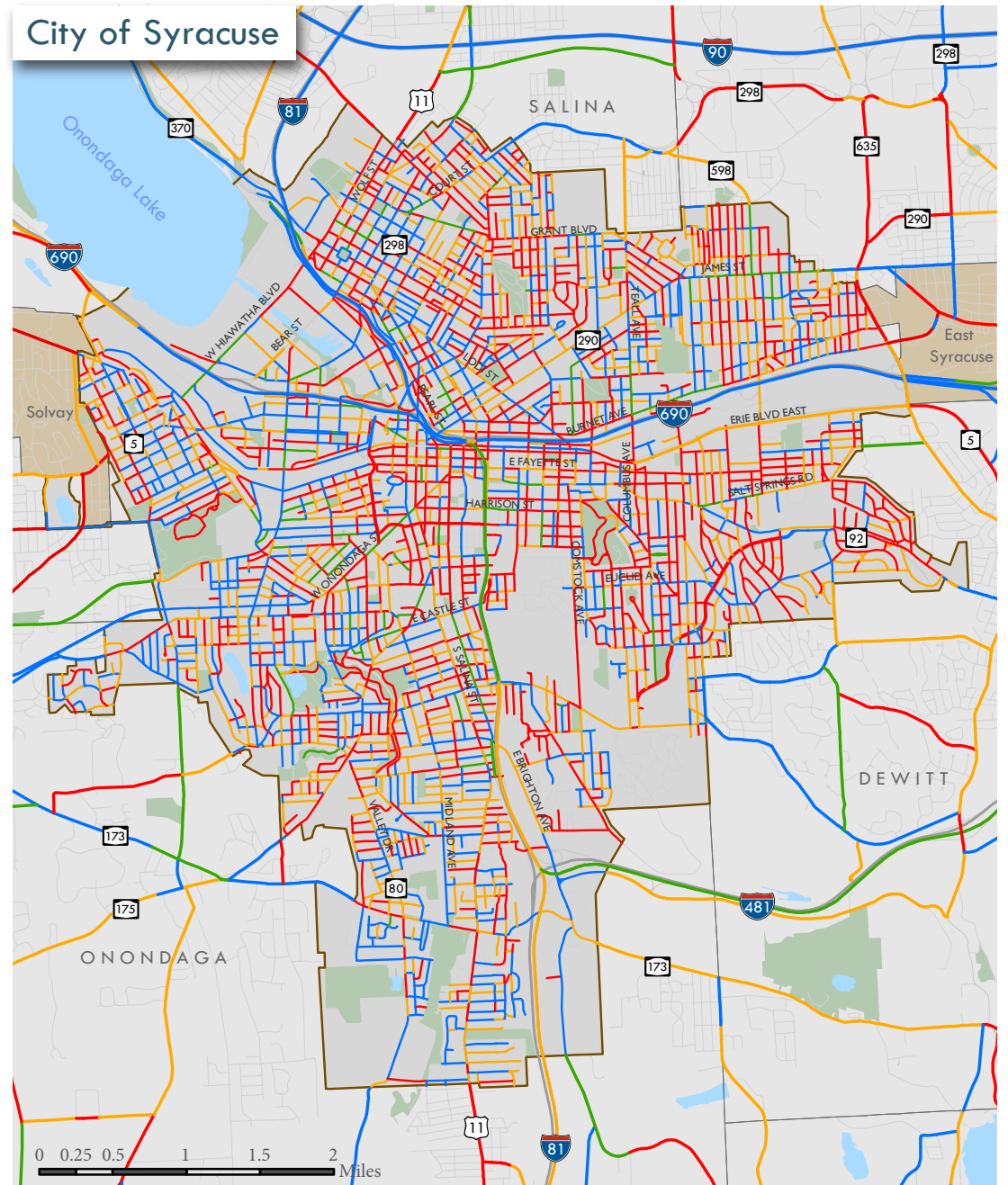
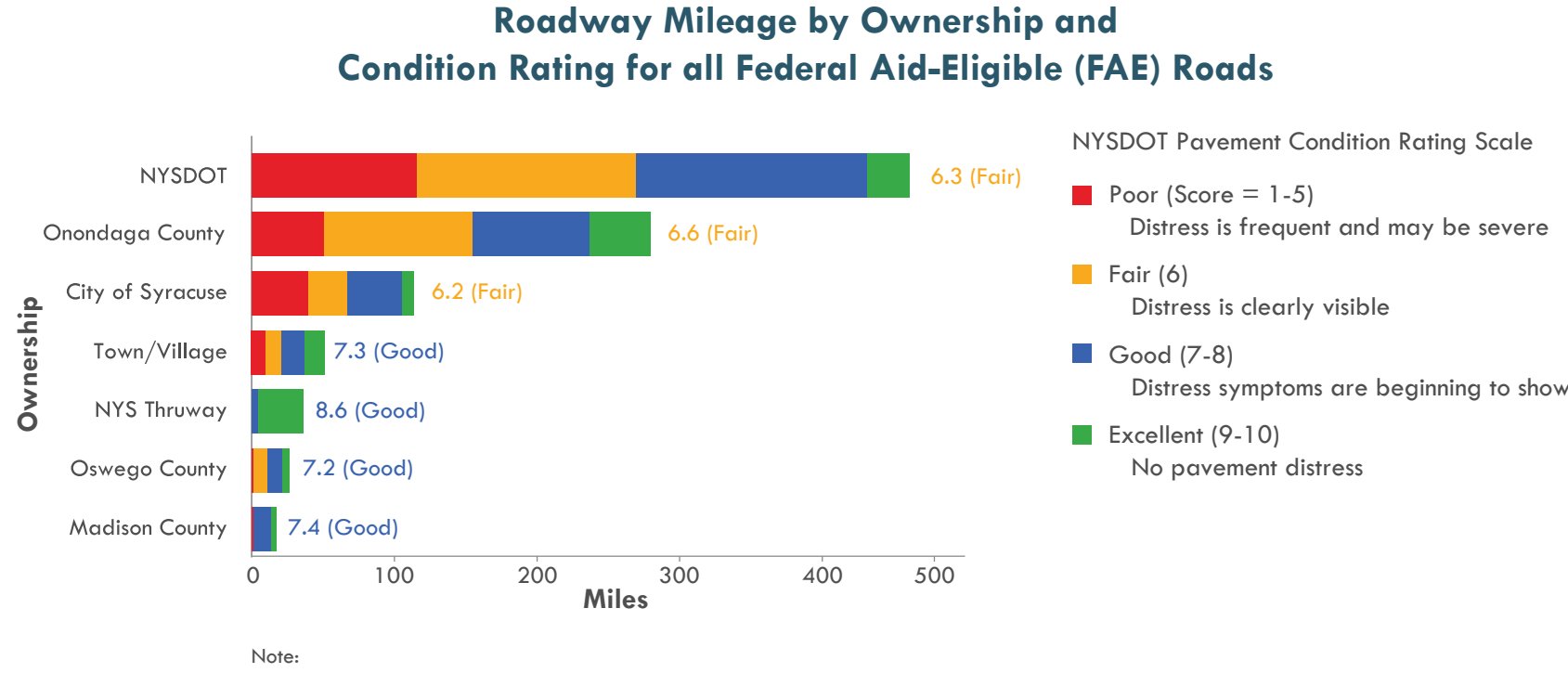
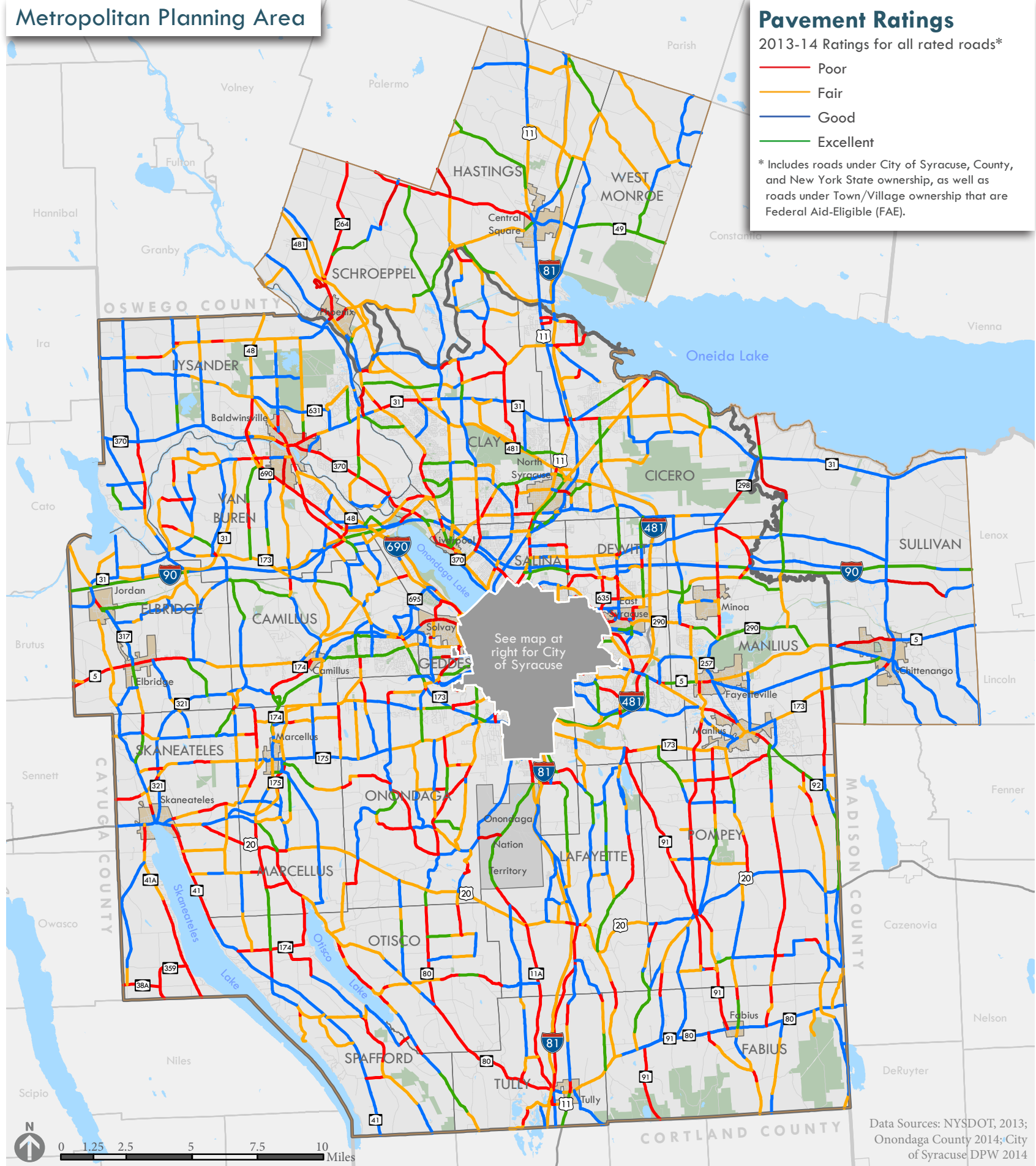
Urban/Rural Roadway Mileage



Functional classification, or “Functional Class,” categorizes roads according to their character and the role they play in the transportation network. This hierarchy ranges from high-speed Interstates for long-distance trips between cities to low-speed local roads providing access to individual properties. In between are arterials, which provide a high level of mobility for longer trips within the region, and collector roads, which connect traffic traveling between local roads and arterials or Interstates. Roads are also identified as being urban or rural. For example, within Onondaga County, Interstate 81 inside of the SMTC’s urban area boundary is considered an Urban Principal Arterial; outside of the urban area boundary, I-81 is considered a Rural Principal Arterial. Functional classifications are directly related to federal-aid eligibility, which determines whether a road may receive federal transportation funding. Federal-aid eligible status is given to those roads that provide critical connections within or between communities. Minor Collectors and Local roads (both urban and rural) are not federal-aid eligible.

Pavement

- Pavement is rated on a scale from 1 (Poor) to 10 (Excellent).
- In the 2013-2014 rating cycle, the average pavement rating for all rated roads in the MPA was 6.5 (Fair).
- A significant portion of Transportation Improvement Program funds - 41% in the 2014-2018 program - are programmed to pavement projects.

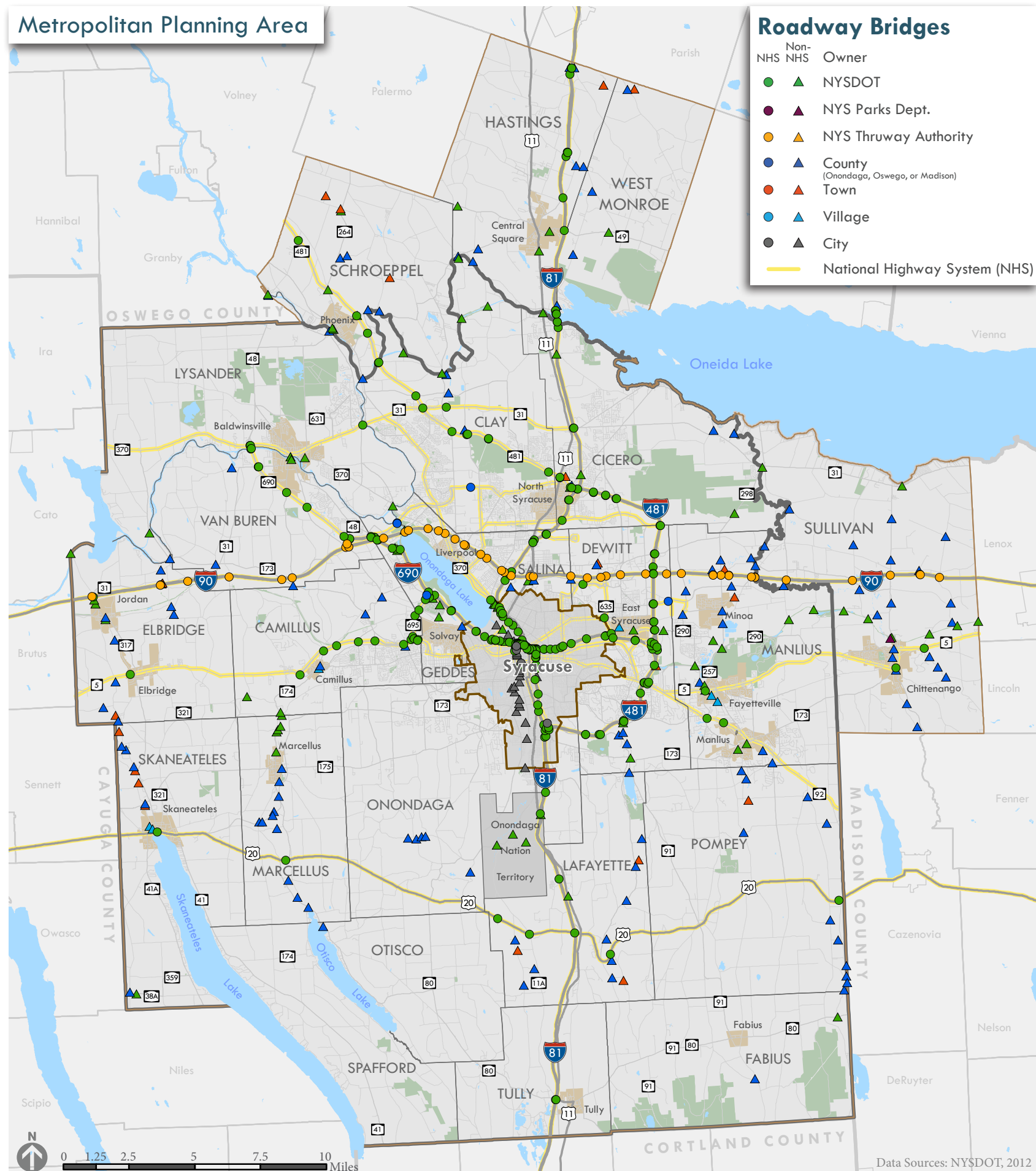


The City of Syracuse, Onondaga County, the NYSDOT, and the New York State Thruway Authority each complete a pavement management system on a yearly basis. The rating scale used for each of these jurisdictions is based on the NYSDOT scale, as described in the above graphic. Towns and villages do not rate their own roads; the NYSDOT rates all of the federal-aid eligible (FAE) roads under town and village ownership in the MPA.

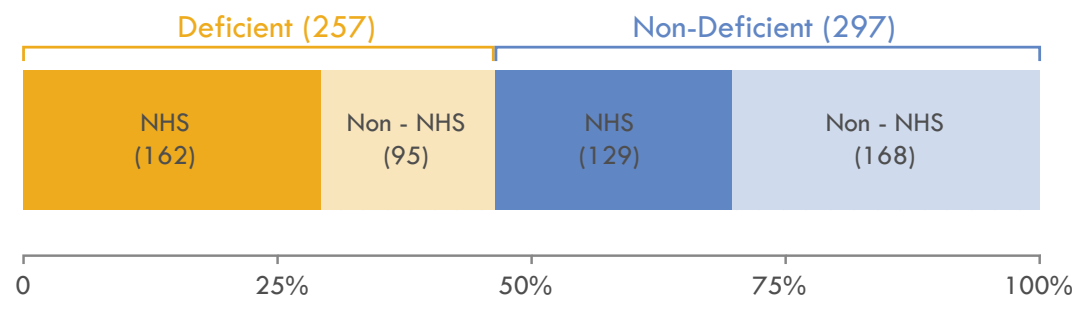
During the 2013-2014 rating cycle, the average pavement rating for all rated roads in the MPA (totaling 1,895 miles) was 6.5, or Fair; the average rating for all Federal Aid-Eligible (FAE) roads (totaling 988 miles) was 6.6, also Fair. From 2009 to 2012, the average pavement rating declined from 7.1 to 6.3, then increased to 6.6 before going back down to 6.5 this year. Pavement maintenance is the category that receives the biggest portion of Transportation Improvement Program (TIP) funds; in the 2014-2018 TIP, 41 percent of funds were programmed to pavement projects.

Bridges

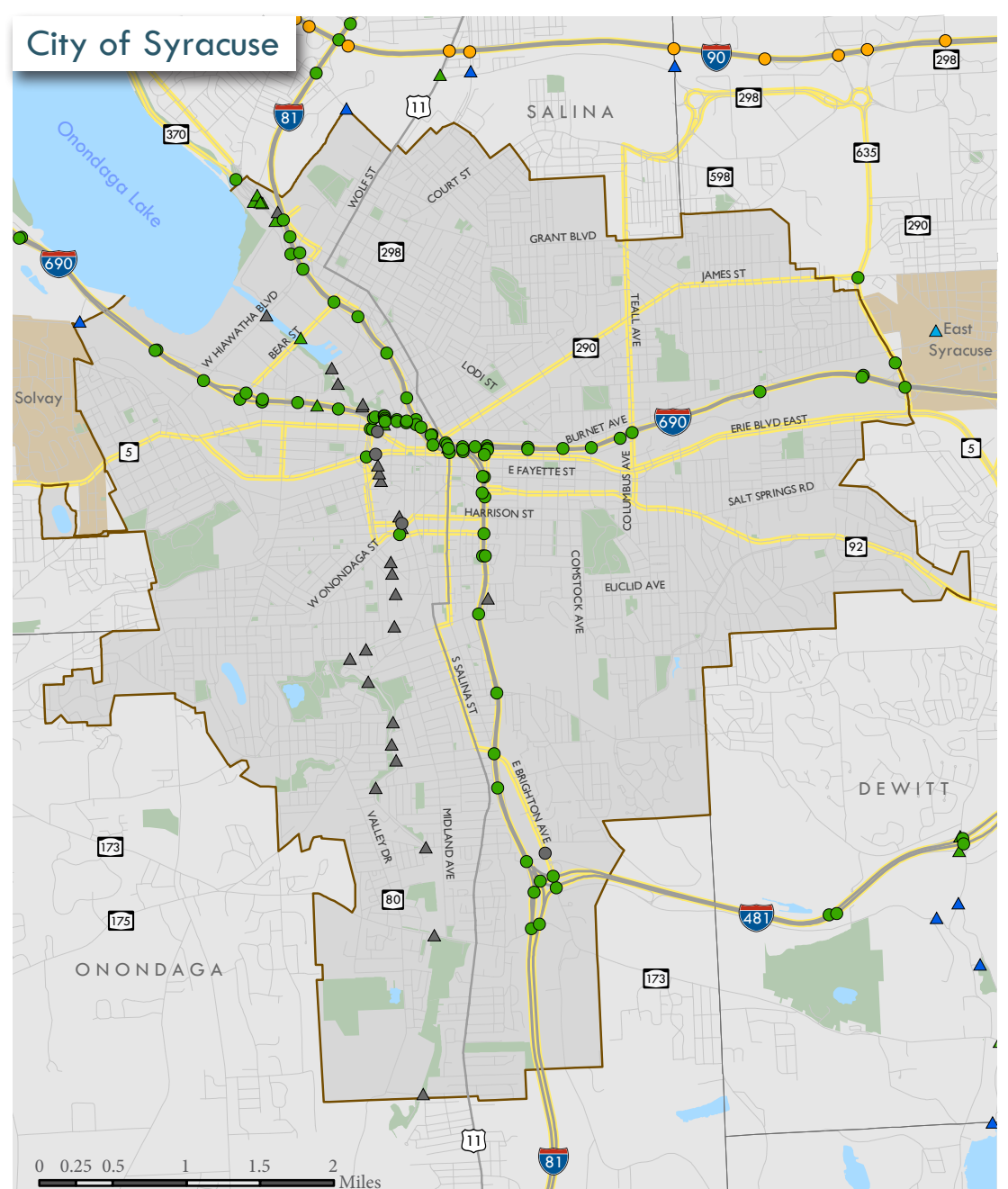
- Bridges are rated by the NYSDOT at least once every two years.
- The MPA has 554 bridges, 46% of which are considered deficient.
- A significant portion of Transportation Improvement Program (TIP) funds - nearly 40% in the 2014-2018 TIP - are programmed to bridge projects.



Deficient and Non-Deficient Bridges in the MPA (554 total bridges)



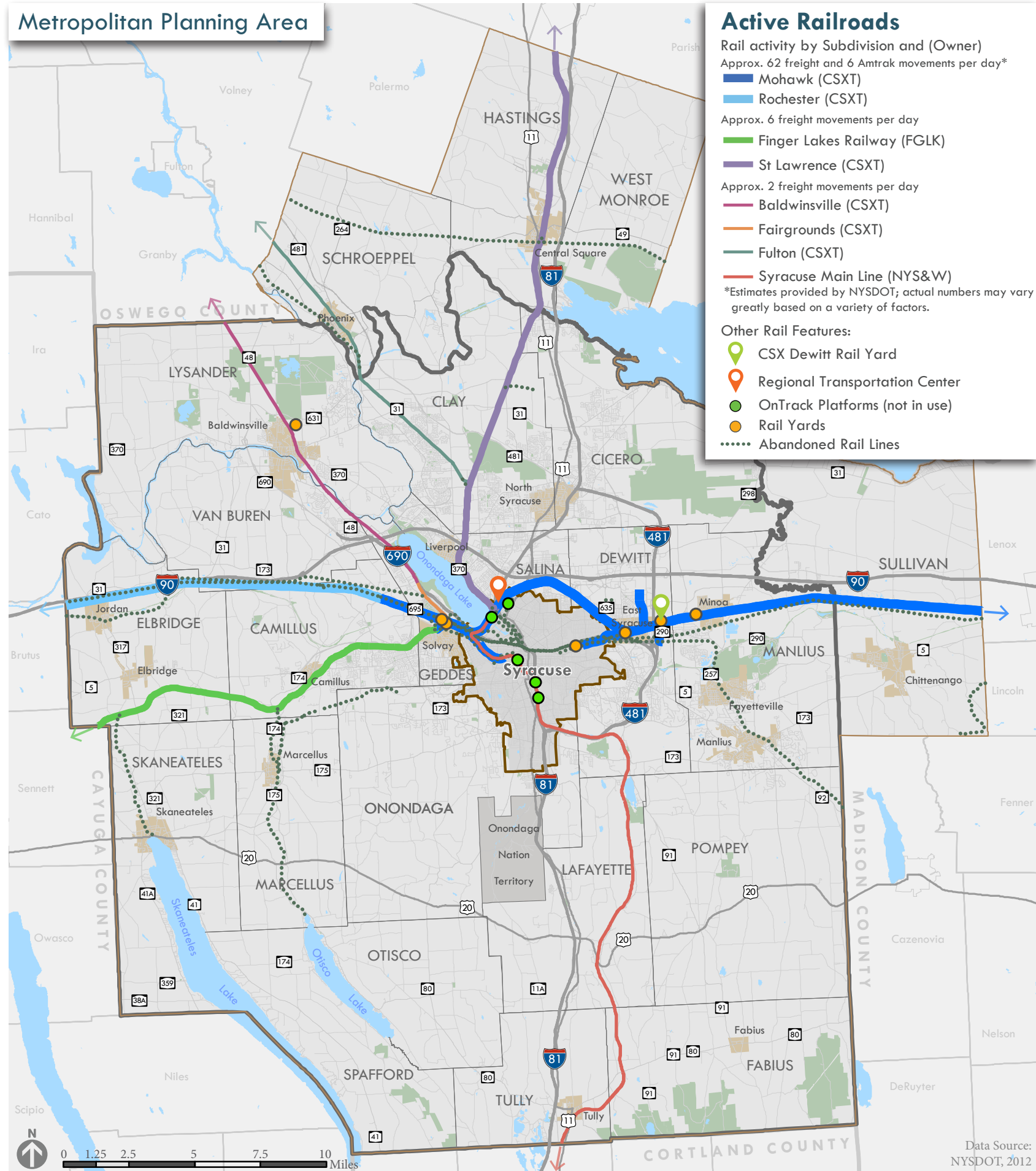
Notes:
 1. NHS = National Highway System
 2. Deficient bridges are those that have a condition rating less than 5.0, and are candidates for rehabilitation work, replacement, or perhaps closure.



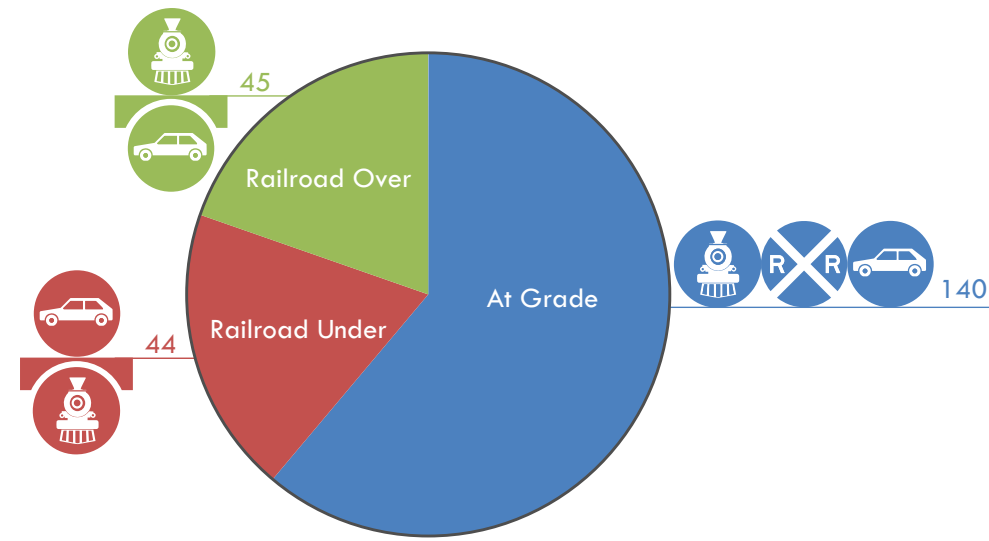
The New York State Department of Transportation (NYSDOT) defines a bridge as a structure that is erected over a depression or an obstruction (such as water), and that has a track or passageway for carrying public traffic. As of the 2011-2012 rating cycle, the MPA has a total of 554 bridges that are owned by a variety of local, county, and state jurisdictions. According to NYSDOT, each element of every bridge span in the state is inspected at least once every two years on a scale from 1.0 to 7.0. A bridge's condition rating is the weighted average of the scores given to its components during inspection. Bridges with a condition rating between 5.0 and 7.0 are considered non-deficient, which means that no bridge distress has been identified. Bridges with a condition rating less than 5.0 are considered deficient, and are candidates for rehabilitation work, replacement, or perhaps closure. The average rating for bridges in the MPA was 5.17 in 2011-2012, and the median condition rating was 5.09. SMTC has been tracking the percentage of deficient bridges for several years, and it has generally been increasing. During the 2005-2006 rating cycle, the percentage of deficient bridges was 36 percent, compared to 46 percent in 2011-2012 (note that since the MPA has expanded during this time, the comparison is not one-to-one). A significant portion of Transportation Improvement Program (TIP) funds are devoted to maintaining bridges in our region; for the most recent TIP (2014-2018), 39 percent of funds have been programmed to bridge projects. Bridges on the National Highway System (NHS) are prioritized for federal funding.

Rail Facilities

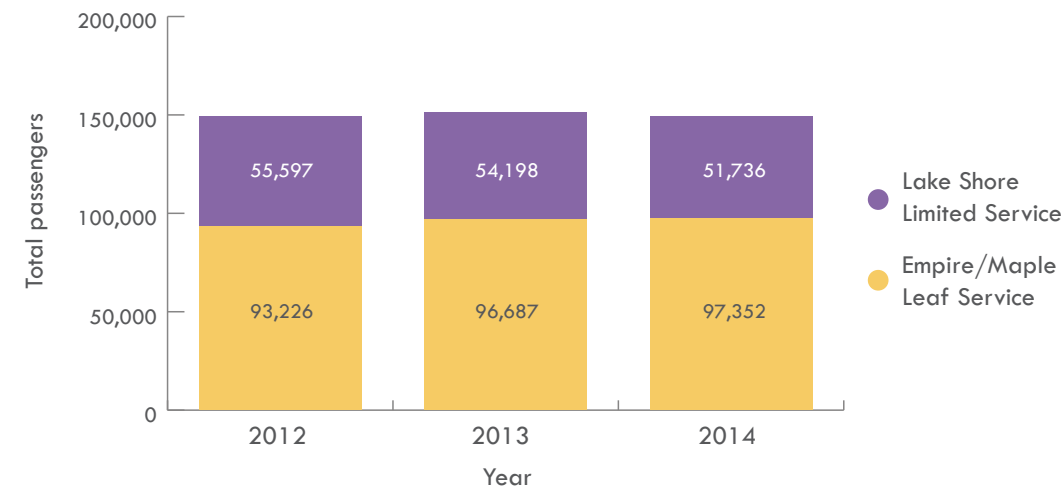
- CSX (Class I) operates 82% of the total mileage of active rail lines that run within the MPA.
- The CSX intermodal terminal at the DeWitt Rail Yard is a major facility that serves the Northeast and is the only facility of its type between New York City and Buffalo.
- Passenger rail service is provided by Amtrak at the Regional Transportation Center on the CSX mainline.



Types of Rail Crossings in the MPA



Total Amtrak Activity (boarding & detrainning passengers) at Syracuse Station



Note: The Lake Shore Limited provides daily service from Boston/New York City to Chicago. Multiple trains per day provide the Empire Service from New York City to Niagara Falls, NY, and the Maple Leaf Service extends to Toronto, Canada.
 Source: National Association of Railroad Passengers, 2015



Cargo containers stacked on rail cars at CSX's DeWitt Rail Yard. Looking east from Fremont Road bridge (a.k.a. Ratmour Bridge).

There are 305 miles of active rail lines within the MPA with 251 miles categorized as Class I, 31 miles classified as Class II, 23 miles as Class III, and about a mile of terminal lines. There are approximately 70 railroad bridges. Of these, road owners own 34 and railroad owners own 36. Additionally, there are 140 at-grade crossings.

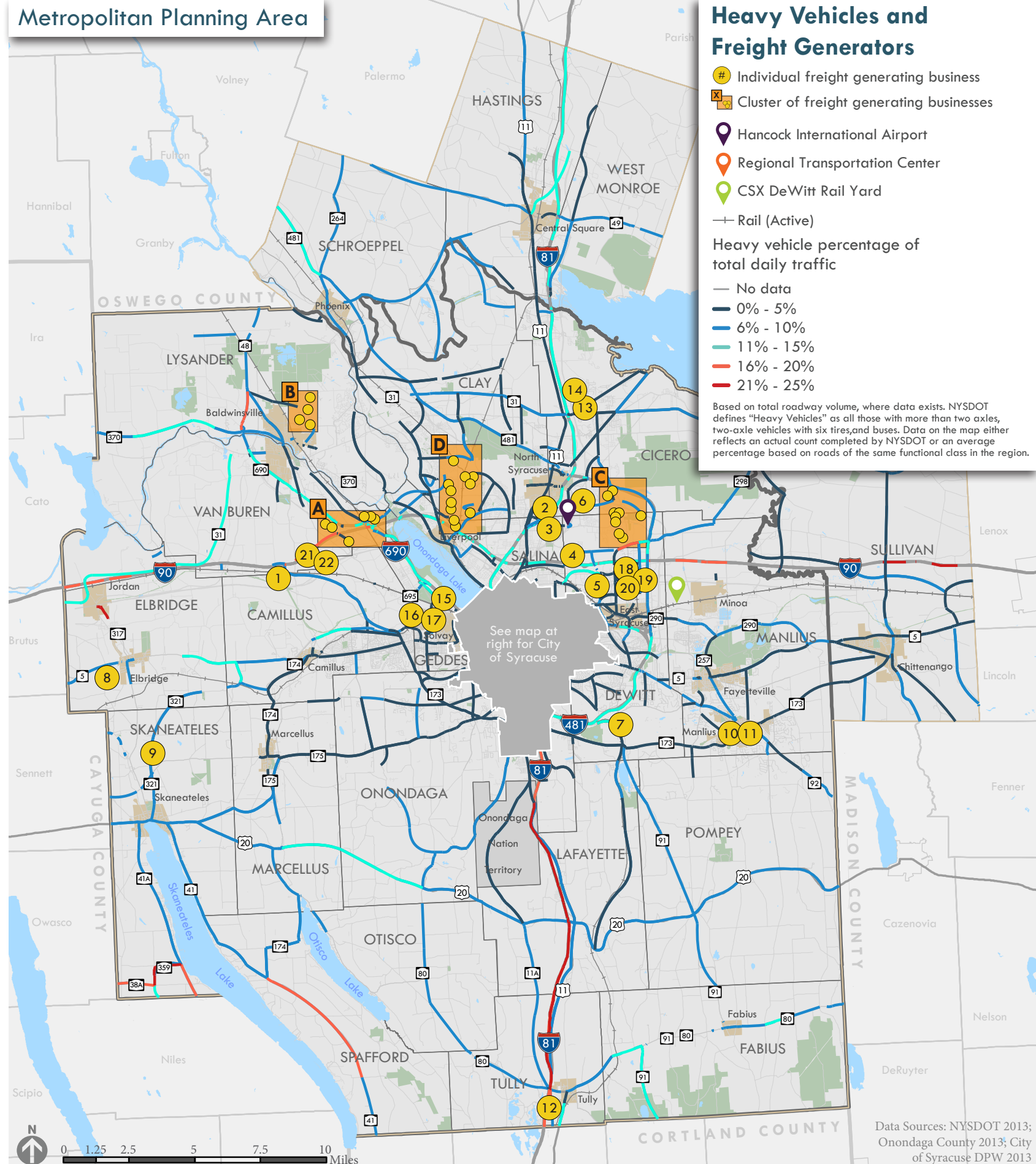
Rail passenger service is provided by Amtrak at the William F. Walsh Regional Transportation Center (RTC). Amtrak provides intercity service on three routes: Lake Shore Limited, Empire Service, and Maple Leaf. OnTrack operated passenger shuttles from 1994 to 2007 to and from Downtown, Destiny USA, and Syracuse University. OnTrack service has since been discontinued, but the infrastructure, which includes 6 railroad stations, is still in place.

For freight, there is one major (Class I) carrier, CSX Transportation; one regional (Class II) carrier, New York, Susquehanna & Western Railway (NYS&W); and one shortline (Class III) railroad, Finger Lakes Railway. CSX operates the Chicago Main line that links Central New York with New York City, New England, and the Midwest. The Baldwinsville, Fulton, and St. Lawrence Subdivision lines north of Syracuse are operated by CSX as well, with the St. Lawrence Subdivision being the gateway to Montreal and Canada. The NYS&W interchanges with CSX in Syracuse and with Norfolk Southern Railway and the Canadian Pacific Railway in Binghamton. The Finger Lakes Railway operates between Solvay and Geneva. It has an interchange with CSX in Solvay and an interchange with the Norfolk Southern in Geneva.

CSX also operates the intermodal terminal at the DeWitt Rail Yard, which is a major intermodal facility that handles international containers to/from Chicago, domestic containers, and "trailer on flat car;" it is the only terminal of its type between New York City and Buffalo. The DeWitt Yard is also one of three major classification yards operated by CSX in New York State.

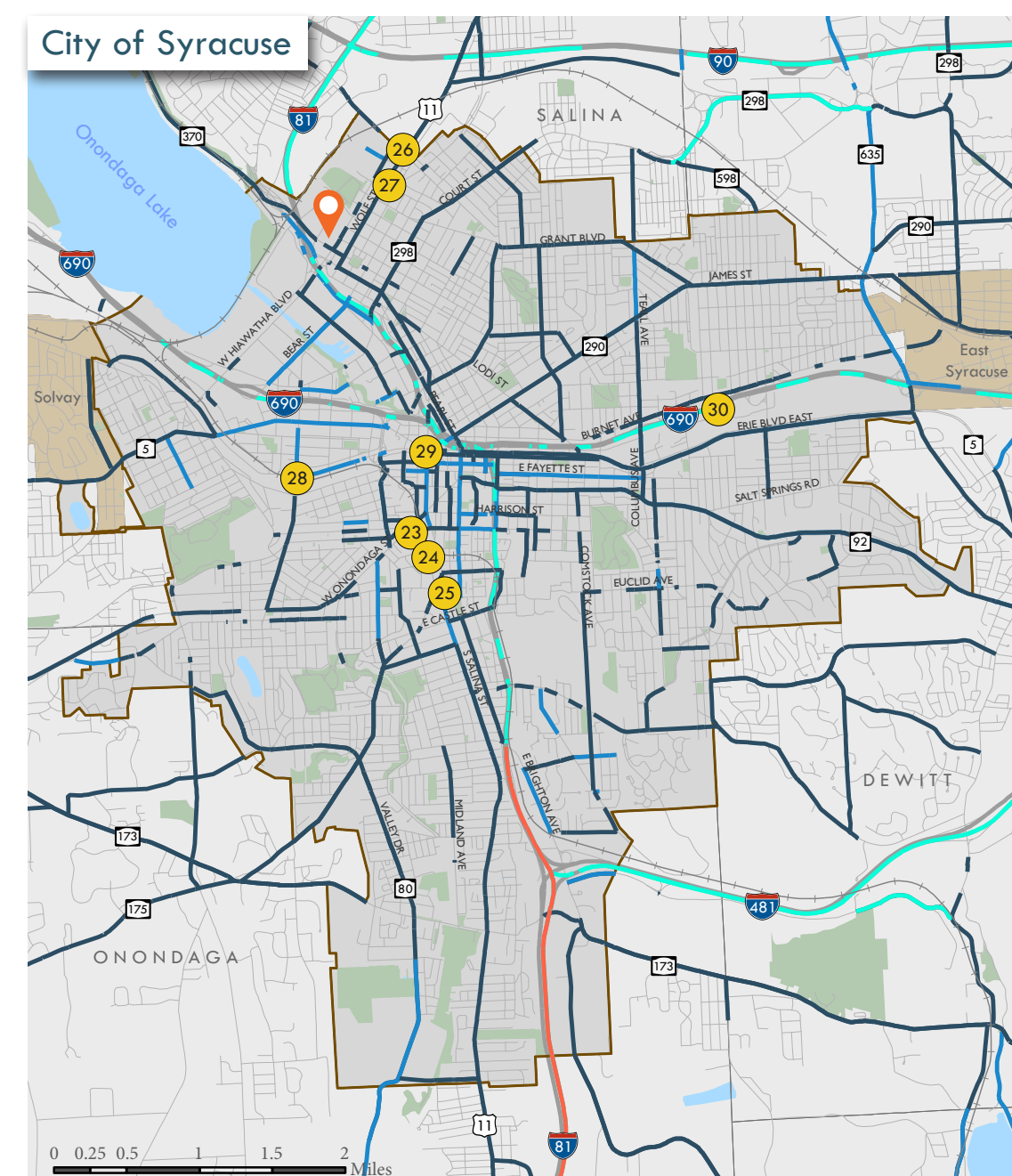
Freight

- Many businesses that ship goods by truck are located in the northern half of Onondaga County.
- Heavy vehicles make up 10% or less of the total traffic volume on most roads in the MPA.
- Most of the local interstate system experiences 11% to 15% heavy vehicles. However, some sections, such as I-81 south of the City of Syracuse, experience higher percentages.



- ### # Freight generating businesses
- | | | |
|------------------------------|----------------------------------|-------------------------------------|
| 1 Sysco Food Services | 11 L & JG Stickley | 21 Mobil Oil Corp. |
| 2 US Postal Service | 12 Aldi | 22 Sunoco, Inc. |
| 3 Mohawk Global Logistics | 13 Clinton's Ditch Co-Op | 23 Byrne Dairy |
| 4 Bossong's Delivery | 14 Paul deLima (Factory Store) | 24 Hanford Pharmaceuticals |
| 5 Singer Transport | 15 Crucible Materials | 25 Coyne Textile Services |
| 6 Riccelli Enterprises | 16 Frazer & Jones Co. | 26 Crouse-Hinds, Cooper Industries |
| 7 Hanson Aggregates | 17 RockTenn Corrugated Pkg. | 27 Syracuse Packaging International |
| 8 Tessa Plastics | 18 Spirit & Sanzone Distributors | 28 Amerada Hess Corp. |
| 9 Welch Allyn | 19 INFICON | 29 C. H. Robinson Worldwide |
| 10 FM Sales and Distribution | 20 Anaren Microwave | 30 Kilian Manufacturing |

- ### Clusters of freight generating businesses
- | | | |
|--|---|--|
| A Thruway/I-690 Interchange
Americold Logistics
Coca Cola Bottling Co.
FedEx Ground
Gypsum Wholesalers
JB Hunt
Terpening Trucking | C Northern Blvd Industrial Area
ABF Freight System
BBX
Con-Way Freight
Federal Express
Ince Motor Freight
New England Motor Freight
New Penn Motor Express
Swift Transportation Co.
UPS | D Woodard Industrial Park
Barrett Paving Materials
Dot Foods
Eagle Comtronics
Onondaga Beverage
Packing Corp. of America
Pioneer Warehousing and Distribution
Raymour & Flanigan Furniture
RiteAid
Rotondo Warehouse
TJ Sheehan Distributing
Paul deLima (Corporate Address) |
| B Radisson Corporate Park
Ainsley Superior
Anheuser-Busch
Gypsum Express
McLane Northeast | | |



The SMTC, with input from NYSDOT and CenterState CEO, identified 60 large businesses within the MPA that generate multiple daily truck shipments. These "freight generating businesses" include establishments such as goods manufacturers, food processors, and warehouses. Retail establishments, shopping malls, restaurants, and similar establishments within our region that may send or receive a daily shipment or two of goods were not included in this inventory.

Most of the freight-generating businesses in our planning area are distributed throughout the northern half of Onondaga County, with a few businesses at the southern and western fringes of the county. Four clusters of freight-generating businesses are apparent: near the NYS Thruway/I-690 interchange at John Glenn Boulevard; the Radisson Corporate Park in Lysander; along Northern Boulevard in Cicero; and the Woodard Industrial Park along Morgan Road in Clay.

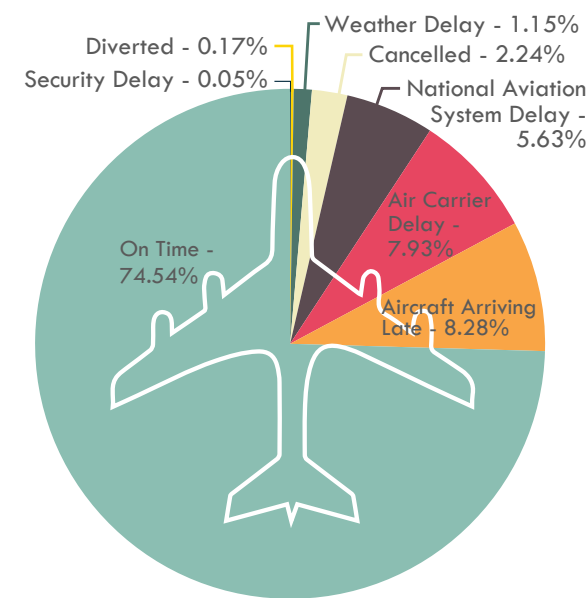
The maps show heavy vehicle volumes as a percentage of total daily roadway traffic. The majority of highlighted roadways (those with data available) experience heavy vehicle volumes of 5 percent or less. This includes many roadways within the City of Syracuse. The majority of the local interstate system experiences 11 percent to 15 percent heavy vehicles; however, Interstate 81 south of the City of Syracuse experiences heavy vehicle volumes in excess of 20 percent of total traffic, and portions of the NYS Thruway exceed 15 percent heavy vehicle traffic. Rural areas in the southern half of Onondaga County and in rural portions of Oswego County tend to have heavy vehicle volumes between 6 percent and 10 percent, but occasionally have higher percentages of heavy vehicles.

Air Travel

- The top three air cargo destinations from Syracuse are Memphis, Louisville, and Buffalo.
- The top three single airport destinations for passenger flights from Syracuse are Chicago (O'Hare), Atlanta, and New York (JFK).
- Approximately three out of four flights into Syracuse arrive on time.



On-Time Arrival Performance, 2013



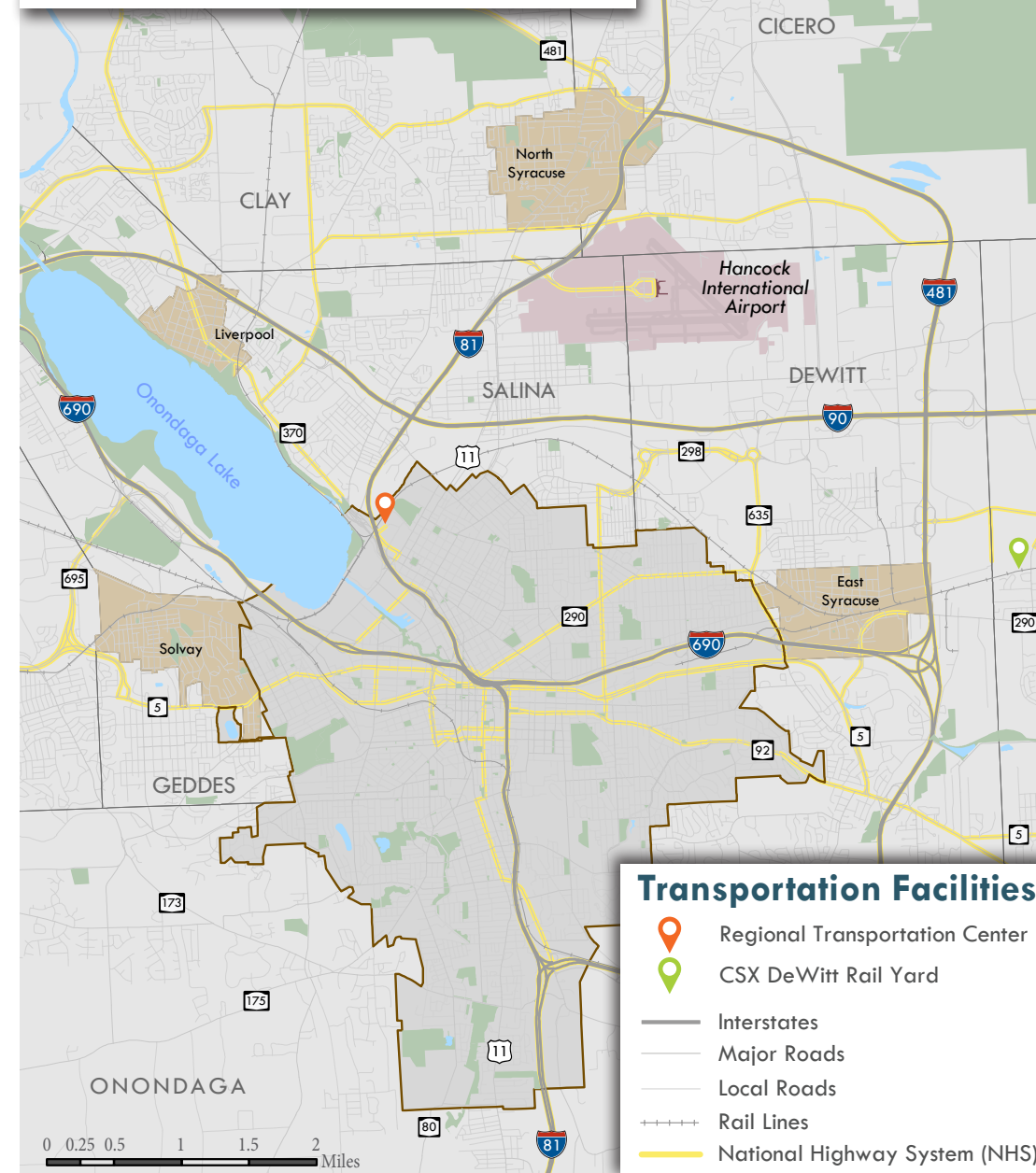
A flight is considered delayed when it arrives 15 or more minutes later than scheduled. When multiple causes are assigned to one delayed flight, each cause is prorated based on delayed minutes it is responsible for. The displayed numbers are rounded and may not add up to the total.

SOURCE: Bureau of Transportation Statistics, Airline Service Quality Performance

Planes Landing in SYR, by Year

Year	Number of Landings
2005	28,651
2006	23,490
2007	21,815
2008	21,231
2009	19,340
2010	19,341
2011	17,741
2012	21,858
2013	21,060
2014	20,276

City of Syracuse and Airport Vicinity



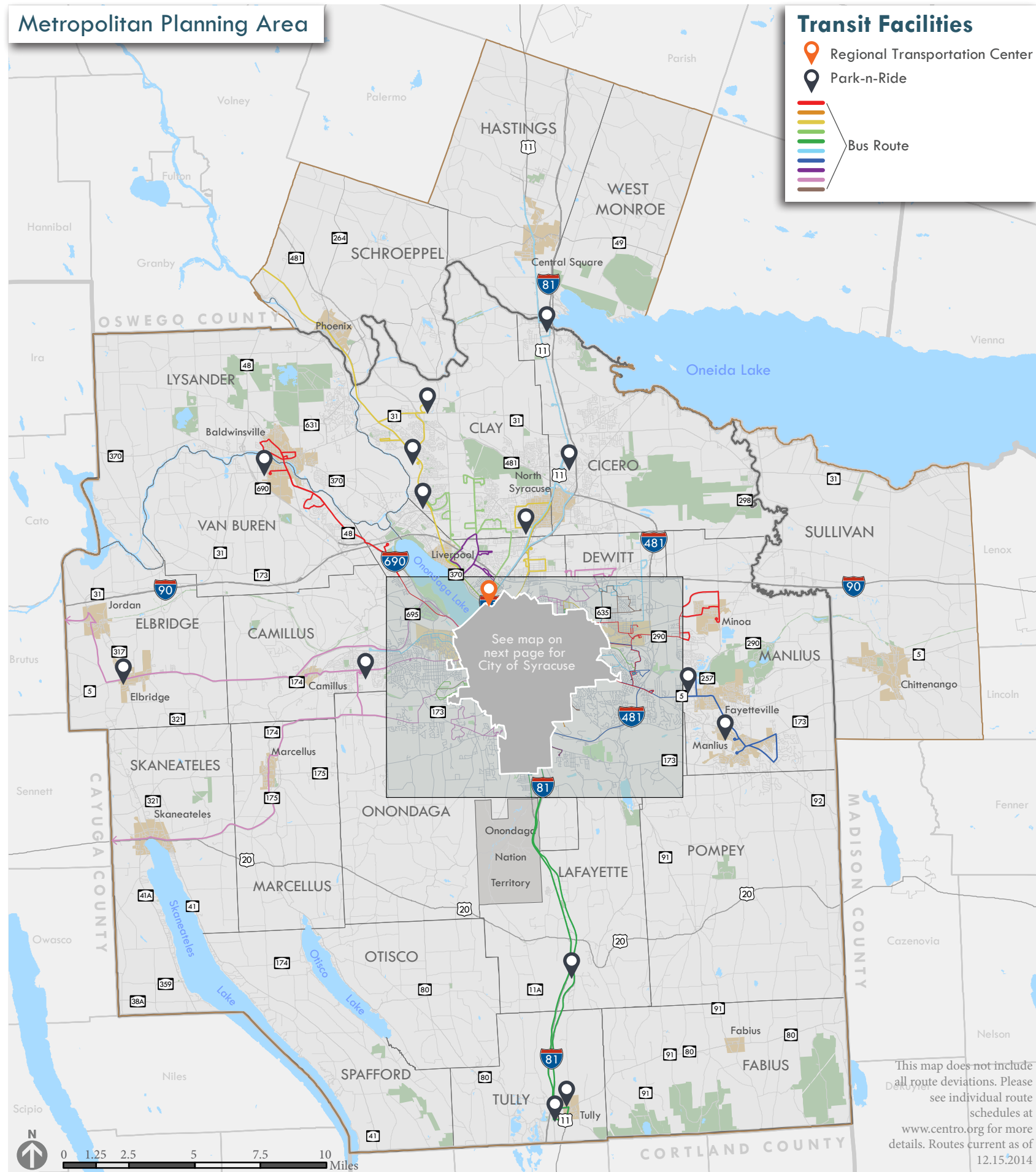
The Syracuse Hancock International Airport (Hancock) provides service to several passenger and air cargo destinations across the northeast. The airport has two usable runways, measuring 9,003 ft. and 7,500 ft. in length (each 150 ft. wide). A third runway has been permanently closed. With nearly one million passenger enplanements in 2013, the Federal Aviation Administration classifies Hancock as a medium hub. The top three single airport destinations from Syracuse, by total passengers (including those reaching their final destination and those making a connection), are Chicago O'Hare, Atlanta, and JFK airport in New York. However, New York City is the most common destination when the other two airports in the region (Newark and LaGuardia) are considered; nearly 230,000 passengers flew from Syracuse to one of the three New York City airports in 2013.

In 2013, Hancock ranked 87 out of the 559 commercial service airports in the U.S. for passenger enplanements. (For comparison, Rochester and Albany, ranked 81 and 82, respectively.) A total of 162,500 tons of air cargo landed at Hancock in 2013, which was a 2.76 percent increase from 2012. Of the 129 cargo service airports in the U.S., Hancock ranked 68 based on weight of air cargo landings, while Rochester and Albany ranked 73 and 99 respectively.

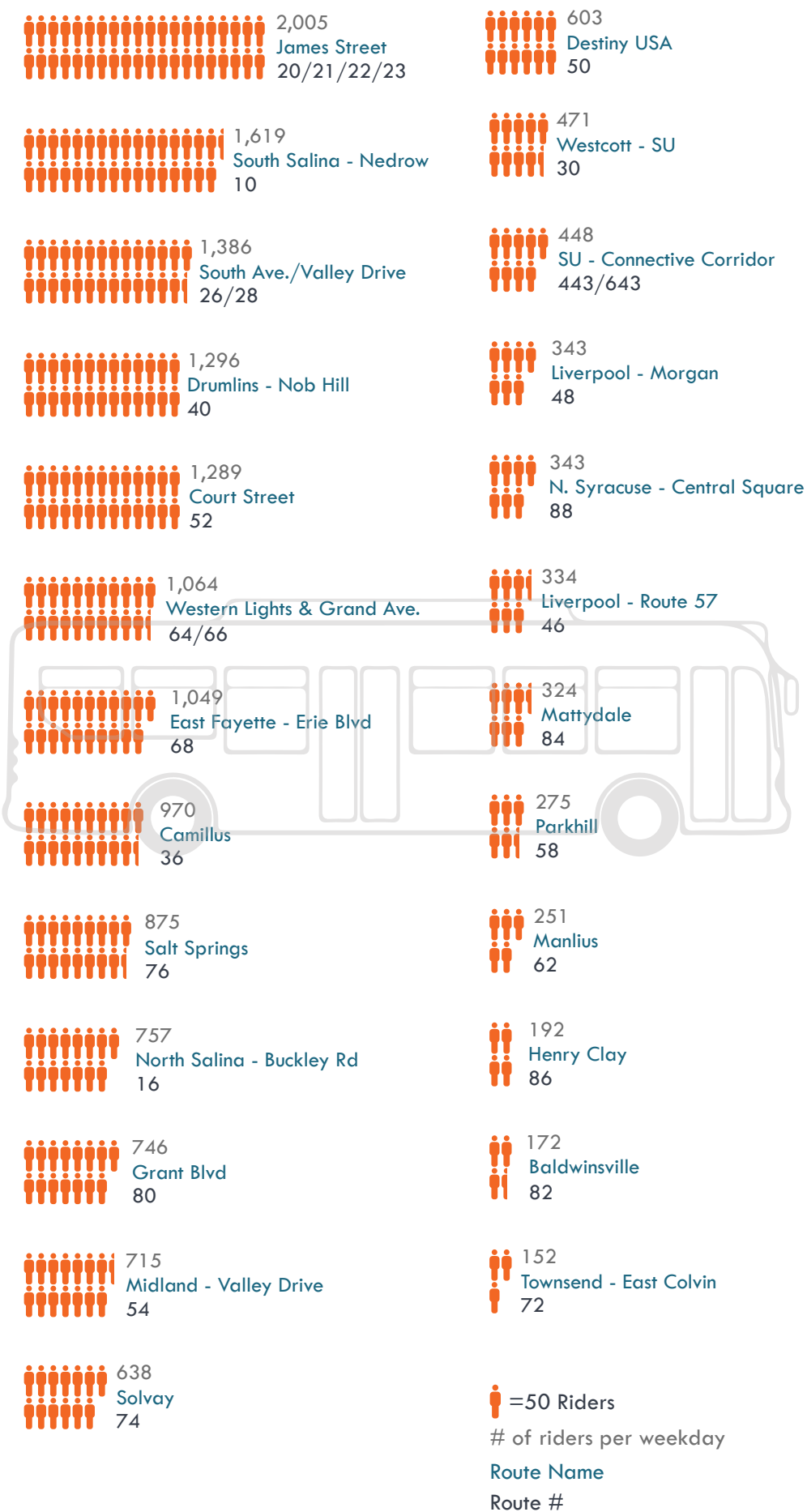
During the past decade, the number of planes landing at Hancock fluctuated widely from a 2005 high of 28,651 landings to a 2011 low of 17,741. Three-quarters of all flights arrive on-time. Aircraft arriving late, air carrier delays, and national aviation system delays result in more than 21 percent of the late arrivals, with weather delays accounting for only one percent of late arrivals.

Hancock is located approximately 7 miles north of downtown Syracuse. Hancock's main entryway, Colonel Eileen Collins Boulevard, connects directly to Interstate 81 approximately three miles north of the I-81 interchange with the New York State Thruway (I-90).

- Over 18,000 people ride the primary Centro bus routes on an average weekday in the Syracuse area.
- All Centro routes in the region run to and from the Centro Transit Hub in Downtown Syracuse.
- Weekday bus ridership is highest on the routes that serve City of Syracuse neighborhoods and adjacent suburbs; the James Street corridor has the highest daily bus ridership.



Average Weekday Ridership by Centro Route (2013)



Source: Centro
Note: This figure does not include ridership on special routes for the New York State Fair, the Syracuse City School District, Syracuse University and hospital shuttles, or paratransit.

The Central New York Regional Transportation Authority (Centro) provides public transit service in Onondaga, Oswego, Cayuga, and Oneida Counties. Centro's Transit Hub in Downtown Syracuse opened in 2012; all of Centro's bus routes in the Syracuse area originate at and return to the Hub.

Bus routes run along all of the major transportation corridors in the City of Syracuse, including Genesee Street, Erie Boulevard, Salina Street, Midland Avenue, South Avenue, James Street, Court Street and Wolf Street. In some cases, numerous Centro bus routes run along a corridor.

Destinations served in and around the city include the William F. Walsh Regional Transportation Center, LeMoyne College, Onondaga Community College (OCC), Bryant and Stratton College, DestinyUSA, Shoppingtown Mall, and Great Northern Mall. Centro also has multiple bus routes that serve the Syracuse University area, including a free bus route developed in partnership with the university known as the "Connective Corridor." Buses on the Connective Corridor run between Syracuse University and Downtown Syracuse every 30 minutes during weekdays and every 40 minutes on weekends.

Over 18,000 people ride the Centro bus routes shown here on an average weekday in Onondaga County. Total annual ridership is nearly 10 million passengers, including all the routes shown as well as service for the New York State Fair (approximately 500,000 passengers), the Syracuse City School District (approximately 1.2 million passengers), Syracuse University and hospital shuttles (nearly 2 million), and other special services such as paratransit. The most heavily used bus routes in the region are those that provide service in the City of Syracuse and adjacent suburbs. The James Street routes have the highest total ridership in the region with 2,000 riders daily; buses on James Street serve the Sedgwick, Lincoln Hill, and Eastwood

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Transit

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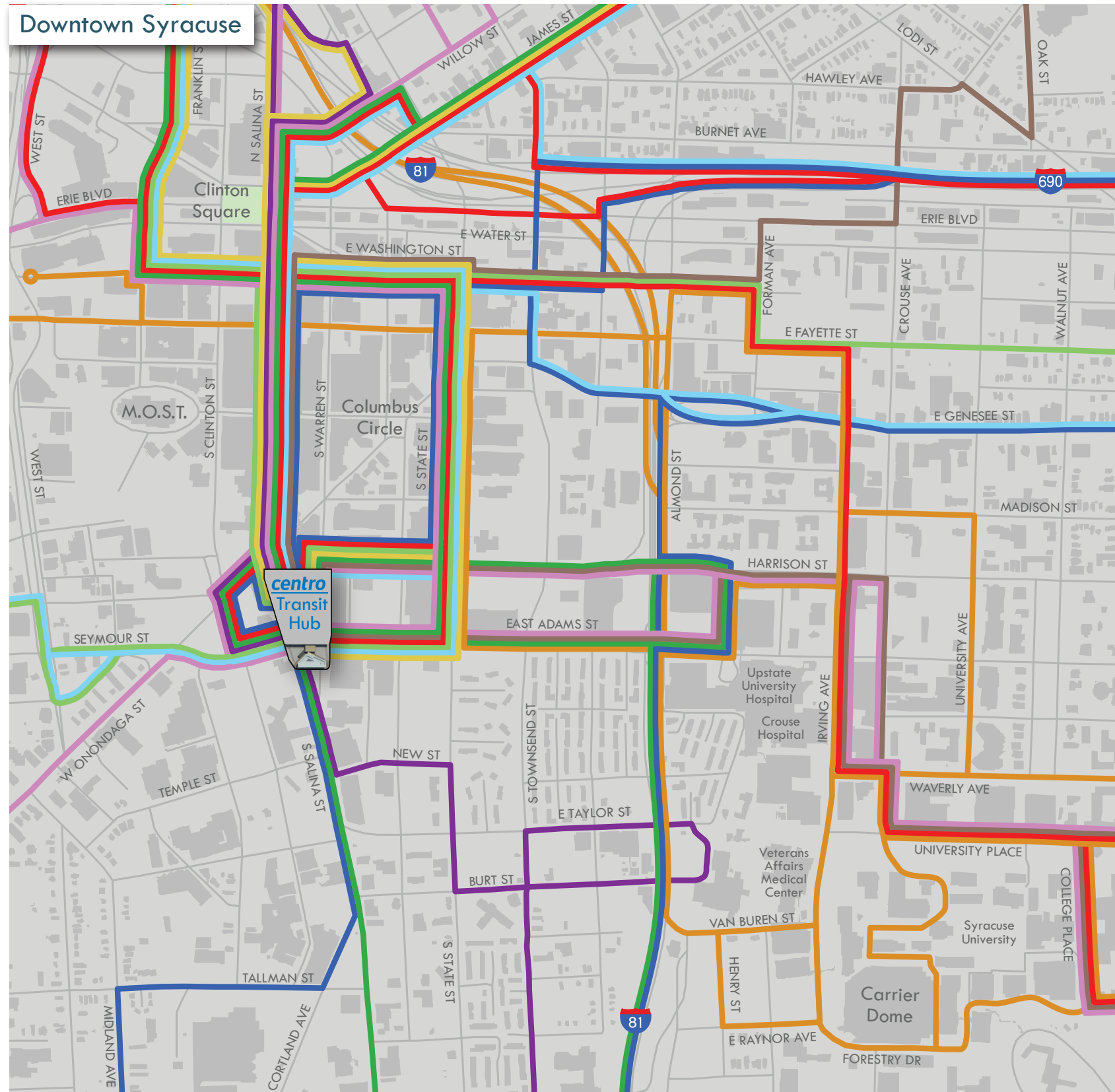
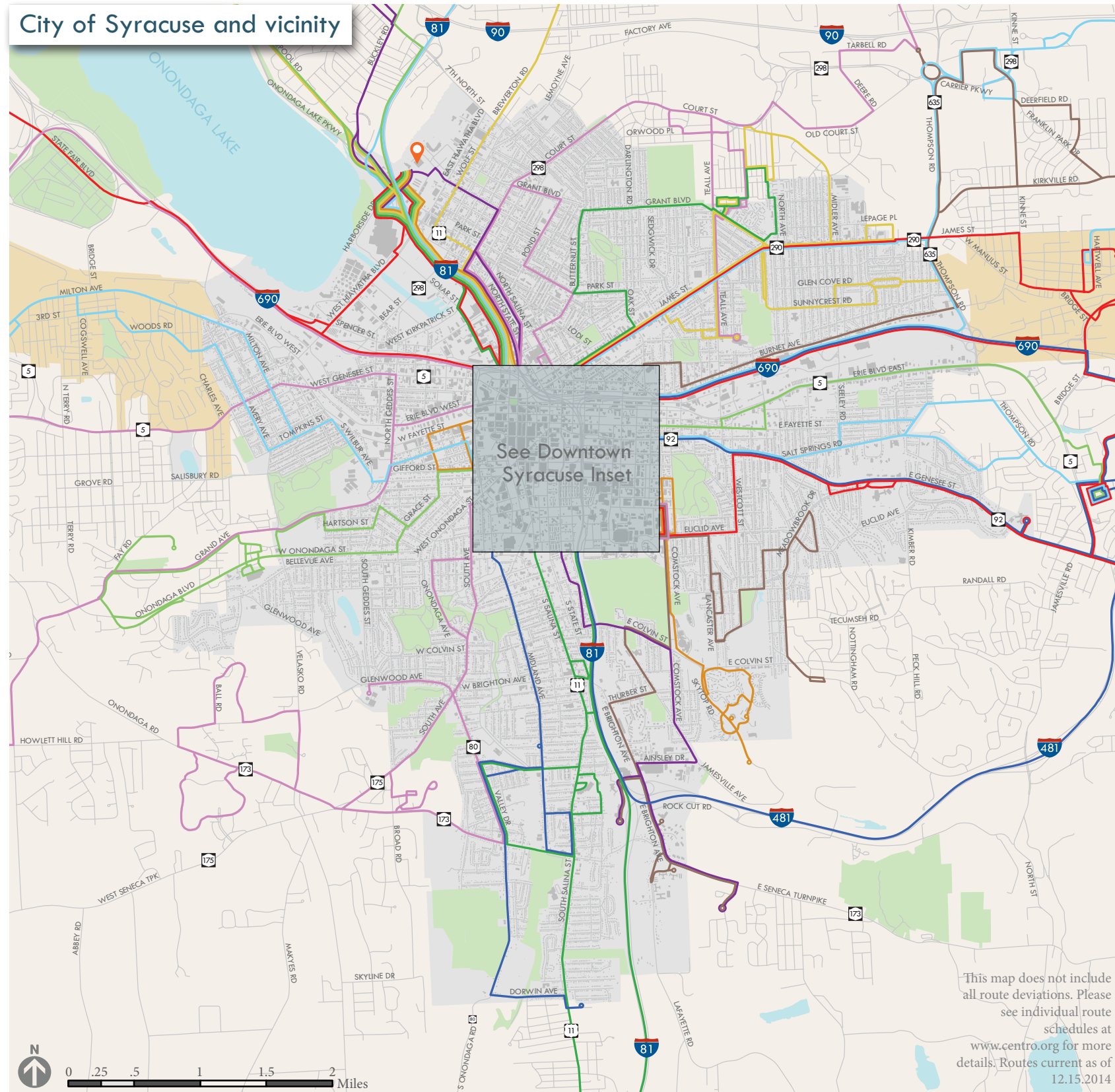
neighborhoods, and selected James Street routes connect to the villages of East Syracuse and Minoa. Other heavily used corridors include the South Salina Street routes (which also serve Nedrow) and the South Avenue routes, which run to OCC. Bus service extends to most of the area's villages and population centers; buses on the Liverpool/Phoenix routes also run to the City of

Oswego. Two bus routes extend west to the City of Auburn. (Centro also operates in Oneida County, but no bus routes currently connect Syracuse to communities east of Onondaga County.) While multiple routes serve the communities to the north, west, and east of the city within Onondaga County, only one route – serving the Village of Tully – goes to the south. No fixed-route bus service is available in

the sparsely populated southeastern and southwestern parts of the region. Ridership on the routes that primarily serve suburban communities tends to be substantially lower than ridership on the routes that serve city neighborhoods. The routes to Baldwinsville, the Parkhill/Carrier Circle area, and Manlius carry fewer than 300 riders a day.

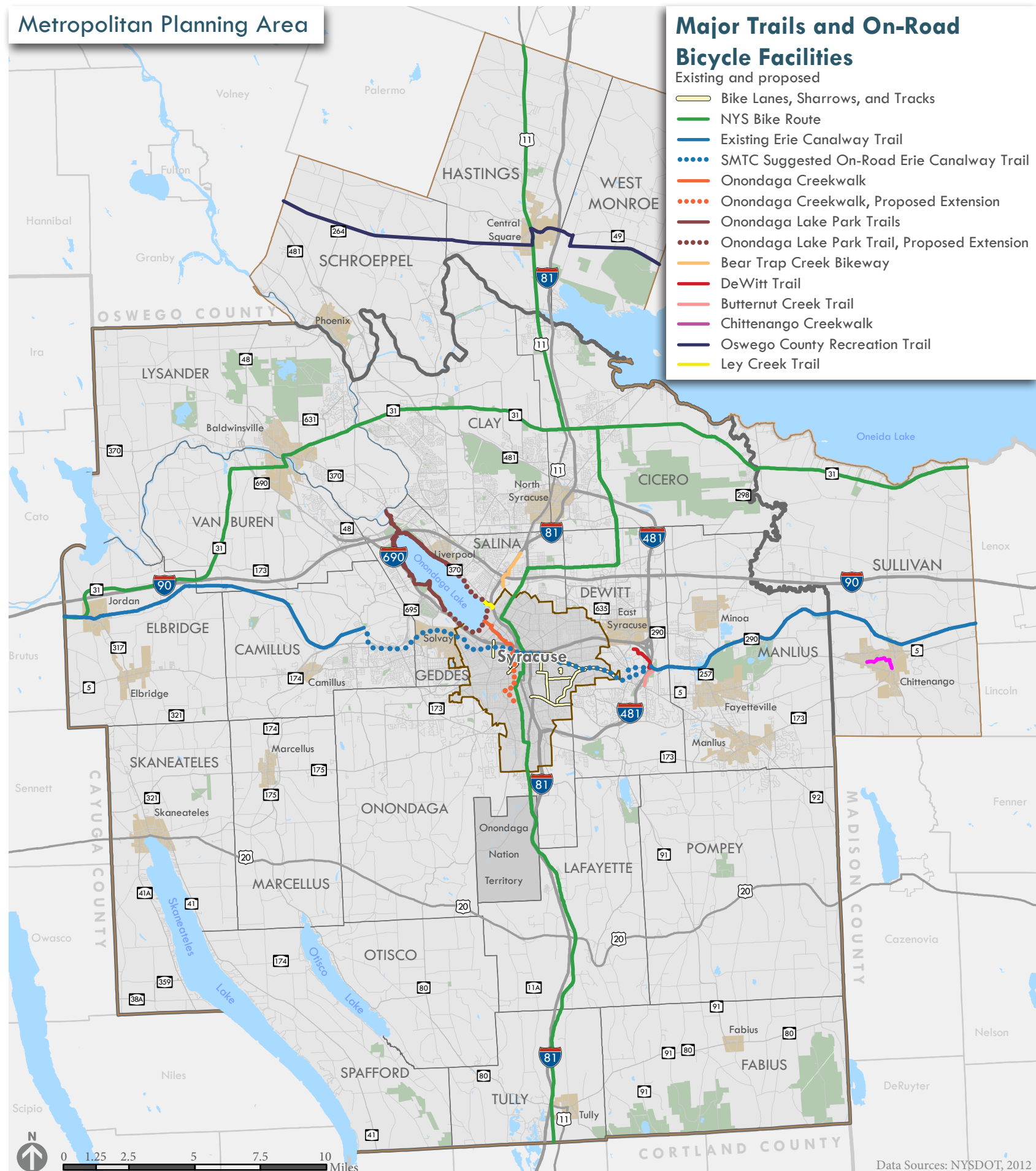


The Centro Transit Hub at Salina St. and Adams St. in downtown Syracuse opened in 2012.



Trails and Bicycle Facilities

- Bicycle and pedestrian projects have received around 6% of federal transportation funds in recent years.
- Bicycle facilities within the MPA are primarily found within the City of Syracuse in the form of bike lanes, shared lane markings, and cycle tracks; and in various towns, in the form of shared roads and wide shoulders.



The MPA has three prominent existing trails. The Onondaga Lake Trail, or “Loop the Lake Trail,” was recently expanded with the opening of the West Shore Extension in May 2014; the next phase of this trail will connect to the Onondaga Creekwalk. The Creekwalk currently runs from Onondaga Lake to Armory Square, and extensions are envisioned to Kirk Park and eventually to the southern border of the city at Dorwin Avenue. The New York State Erie Canalway Trail passes through the Syracuse area, but the gap in the off-road route between Camillus and DeWitt is one of the largest gaps in the state. To address this, the SMTC recently developed a short-term on-road connection (see map), and is working with the municipalities along the route to get this

route signed, while continuing to develop a permanent route for the trail that is off-road to the extent possible. The City of Syracuse has been expanding its bicycle infrastructure over the past few years as well, with the Connective Corridor project and the addition of shared lane markings (sharrows) and bike lanes to a handful of streets. New York State Bicycle Routes 5 and 11 are signed through the SMTC area, and continue throughout the state. The route markings primarily serve as way-finding signs, as there is little dedicated bike infrastructure along these routes. Beginning in the early 1990s, federal legislation required more consideration of bicycle and pedestrian travel and increased the funding available for related infrastructure. Under the current

transportation legislation – Moving Ahead for Progress in the 21st Century (MAP-21), passed in 2012 – multiple bicycle and pedestrian related funding programs that previously existed were consolidated into a single program, called Transportation Alternatives (TA). Funding for the TA program is much lower than the dedicated funding levels under previous legislation, and states have the authority to transfer up to half of the TA money to other unrelated projects. In the SMTC MPA, only 6 percent of capital funding within each of the last three funding cycles has been programmed for bicycle and pedestrian projects.

