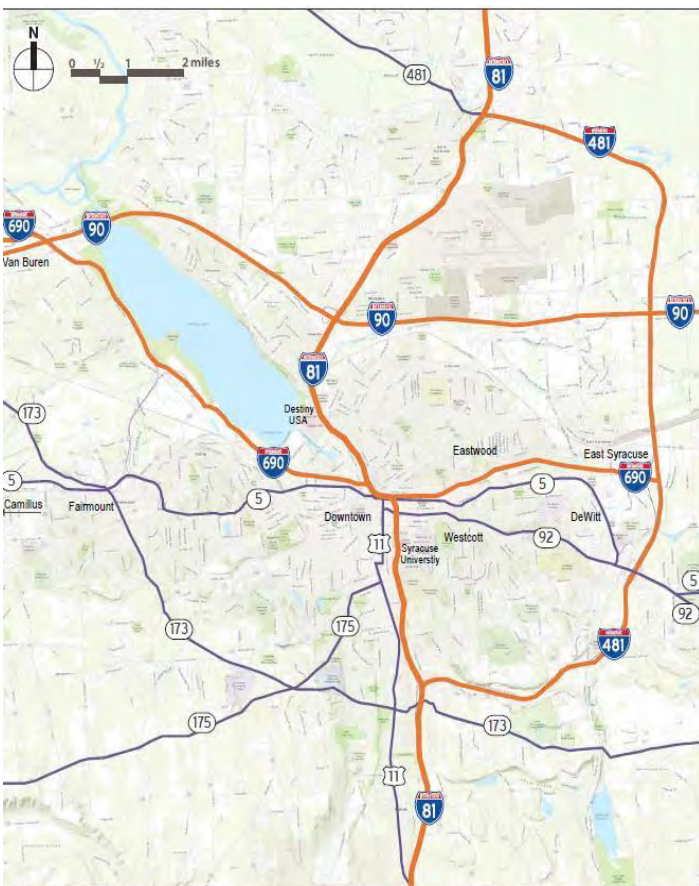


Appendix B-5
Designation/De-Designation Package

Designation and De-Designation Package: Potential National Network Changes under I-81 Community Grid Alternative Onondaga County, Syracuse, New York



Existing



Proposed

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Introduction and Purpose

The I-81 Viaduct Project Draft Design Report/Draft Environmental Impact Statement (DDR/DEIS) includes consideration of a Community Grid Alternative, which would entail the removal and withdrawal of a segment of existing I-81 from the National Network. Pursuant to 23 CFR 658.11, a Notice of Proposed Rule Making (NPRM) is required for the proposed deletion of a Federal-aid interstate from the National Network. Accordingly, NYSDOT has prepared this request for deletion in the event that the Community Grid Alternative is selected as the preferred alternative for the project. The request is subject to FHWA approval. This document summarizes the analysis of the suitability of the removal and the reasons for the proposed deletion, and proposes the addition of a new non-interstate Business Loop 81 (BL 81) to the National Network.

Summary of Changes to the National Network

This section addresses the potential impacts to the National Network and New York's Qualifying and Access Highways should the Community Grid be selected as the preferred alternative for the I-81 Viaduct Project. Like the National Network, access highways are designated for use by commercial motor vehicles and 53' trailers, but unlike the National Network these vehicle combinations may not travel off the access highway network for any distance. Access highways describe the local route to destinations greater than one mile from the National Network (also called "qualifying highways" in NY). New York's National Network/Qualifying Highways and Access Highways are identified in the "Official Description of Designated Qualifying and Access Highways in New York State," a document maintained and updated by the NYSDOT Office of Traffic Safety and Mobility. This document describes routes that can safely accommodate commercial motor vehicles of the dimensions and configurations described in §§ 658.13 and 658.15.

The following sections describe the proposed alterations to each segment of the National Network under the Community Grid Alternative. Some parts of the National Network would continue to serve commercial motor vehicles but require administrative modifications and corrections to the CFR, while others would require deletions from and additions to the National Network. Potential updates to the "Official Description of Designated Qualifying and Access Highways in New York State" are also summarized.

I-481 to be Re-Designated as I-81

The federally designated routes on the National Network consist of the Interstate System and other identified routes. As such, the entirety of I-481 is currently on the National Network. Under the Community Grid Alternative, existing I-481 would be re-designated as I-81, and the I-81/I-481 southern and northern interchanges would be reconstructed to allow the new through-movement of I-81 along the footprint of current I-481. This route would continue to provide access for commercial motor vehicles. Because Interstates are not individually listed or described in the CFR, and because I-481 is already part of the National Network, the re-designation of I-481 to I-81 would not appear to affect the National Network.

The “Official Description of Designated Qualifying and Access Highways in New York State” currently lists I-81 and I-481 as follows:

I-81	New York-Canada border (JEFFERSON) to the New York-Pennsylvania State line (BROOME)
I-481	I 81 (Exit 16A) (ONONDAGA) to I 81 (Exit 29) (ONONDAGA)

The description of I-81 would continue to be applicable after the new designation; however, the I-481 listing would need to be deleted.

I-81, Exit 16A to Exit 29, to become BL 81

The Community Grid Alternative would remove the I-81 viaduct between the New York, Susquehanna and Western Railway (NYS&W) bridge (at Renwick Street) and the I-81/I-690 interchange, and replace it with a signalized roadway (“urban arterial”) at surface. I-481 would be designated as the new I-81 and improved as needed to accommodate traffic demand. The portion of the I-81 Interstate that now travels through Syracuse would be reclassified as Business Loop 81 (BL 81). Business Loop 81 would extend between the existing southern Interstate 481 (I-481) interchange (Exit 16A) and the existing northern I-481 interchange (Exit 29). Under the Community Grid Alternative, Almond Street, which would be part of the business loop, would be reconstructed. In the northbound direction, BL 81 would connect from Almond Street to Erie Boulevard, to Pearl Street, and then to an on-ramp for the freeway section. In the southbound direction, BL 81 would leave the freeway section via an off-ramp to Oswego Boulevard, then connect to Erie Boulevard and on to Almond Street.

In order to continue to serve freight destinations in Syracuse’s Downtown, BL 81 is proposed to be part of the National Network. However, the de-designation of I-81 would require 23 CFR Part 658 Appendix A – National Network – Federally Designated Routes to be amended to include this new Business Loop within old I-81’s footprint. The table below proposes a description for this new National Network segment.

Proposed Addition to 23 CFR Part 658 Appendix A – National Network – Federally Designated Routes

Route	From	To
Business Loop 81 (BL 81)	I-81 Southern Interchange, Syracuse	NY481/I-81 Northern Interchange, Cicero

The “Official Description of Designated Qualifying and Access Highways in New York State” would need to be amended to add Access Highways that would complete the local connections between the Almond

Street/Erie Boulevard interchange, I-690, and BL81. The following are proposed additions to the Qualifying and Access Highways:

BL 81	(Business Loop 81) - I-81 (Exit 82, former Exit 16A) to I-81 (Exit 97, former Exit 29)/NY481 in the City of Syracuse and the Towns of Salina and Cicero (ONONDAGA) [QUALIFYING HIGHWAY]
Crouse Avenue	WB I-690 off-ramp to Erie Boulevard (ONONDAGA)
Erie Boulevard	Almond St to Crouse Avenue (ONONDAGA)
Irving Avenue	EB I-690 off-ramp to Erie Boulevard (ONONDAGA)

Proposed Administrative Updates to Intermodal Connectors - U.S. NHS Connectors List

The creation of BL81 and the redesignation of I-481 as I- 81 will require an administrative update to the description of NHS Intermodal Connectors to reflect identified changes to access provided by the project. This update will occur as the project is completed and open to the public. The table below shows the current Intermodal Connector information and proposed update.

Syracuse Area Intermodal Connectors - Administrative Updates resulting from I-81 project

https://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/all_connectors.cfm

STATE	FACILITY	TYPE	CONNEC-TOR NO.	CONNECTOR DESCRIPTION	CONNEC-TOR	FACILITY ID	ADMINISTATIVE UPDATES
NY	Syracuse AMTRAK Station	AMTRAK Station	1	NY 290 (Entrance to NY 930P [Bridge St], NY 930P (NY 290 to I-690)	0.8	NY78S	Recommend to REMOVE - this station does not exist anymore
NY	Syracuse Intermodal Center	Multi-purpose Passenger Facility	1	Harborside Dr. (Entrance to Park St.), Park St (Harborside to Hiawatha), Hiawatha Blvd (Park to I-81)	0.7	NY79M	Update description to replace I-81 with BL81
NY	Syracuse-Hancock Airport	Airport	1	Airport Blvd. (Entrance to I-81)	1	NY77A	Update description to replace I-81 with BL81
NY	CONRAIL Dewitt Yard	Truck/Rail Facility	1	Central Ave. (Entrance to Freemont), Freemont Rd. (Central to Kirkville), Kirkville Rd. (Freemont to I-481)	1.5	NY80R	Update description to replace I-481 with I-81
NY	CONRAIL Dewitt Yard	Truck/Rail Facility	2	Girden Rd. (Entrance to Kirkville Rd.), Kirkville (Girden to I-481)to	0.5	NY80R	Update description to replace I-481 with I-81

Summary of Proposed Modifications to 23 CFR Part 658 Appendix A – National Network – Federally Designated Routes

Action	Route	From	To
Delete*	I-81	I-481 (Exit 16A)	I-481 (Exit 29)
Re-designate*	Re-designated I-81 (former I-481)	BL 81 Syracuse (Exit 82, former Exit 16A)	NY 481/BL 81 Cicero (Exit 97, former Exit 29)
Add	Business Loop 81 (BL 81)	I-81 Southern Interchange, Syracuse	NY481/I-81 Northern Interchange, Cicero

**Listed for clarity, but no actual change required to Appendix A because Interstates are not individually listed.*

Summary of Proposed Modifications to the “Official Description of Designated Qualifying and Access Highways in New York State”

This table follows the conventions of the original document: Unless a highway description contains the term [QUALIFYING HIGHWAY], it is only an Access Highway.

Action	Route/Road	Description
Delete	I 481	I 81 (Exit 16A) (ONONDAGA) to I 81 (Exit 29) (ONONDAGA) [QUALIFYING HIGHWAY]
Keep	I 81	New York-Canada border (JEFFERSON) to the New York-Pennsylvania State line (BROOME) [QUALIFYING HIGHWAY]
Add	BL 81	(Business Loop 81) - I-81 (Exit 82, former Exit 16A) to I-81 (Exit 97, former Exit 29)/NY481 in the City of Syracuse and the Towns of Salina and Cicero (ONONDAGA) [QUALIFYING HIGHWAY]
Add	Erie Boulevard	Almond Street to Crouse Avenue in the City of Syracuse (ONONDAGA)
Add	Crouse Avenue	WB I-690 off-ramp to Erie Boulevard in the City of Syracuse (ONONDAGA)
Add	Irving Avenue	EB I-690 off-ramp to Erie Boulevard (ONONDAGA)

Upon completion of the I-81 Viaduct project, the NYSDOT will own and maintain the entire Business Loop 81 segment, from the southern interchange (I-81 and BL 81) to the northern interchange (I-81 and BL 81), including the freeway and urban arterial segments. NYSDOT will continue to own and maintain the section of I-481 that is re-designated I-81.

23 CFR 658.11 (d) (2) (i) Analysis of evidence of safety problems supporting the deletion or restriction as identified in 658.11 (c).

(1) Did the route segment prior to designation carry combination vehicles or 102-inch buses?

Yes, the I-81 segment proposed for deletion, from the southern I-481 interchange to the I-690 interchange, carried combination vehicles and 102-inch buses.

(2) Were truck restrictions in effect on the segment on January 6, 1983? If so, what types of restrictions?

Yes, on January 6, 1983 truck restrictions were in effect within the I-81 segment proposed for deletion from the National Network. I-81 north of I-481 (Exit 16A) to south of I-90 (Exit 25A) is not within the 16 ft. vertical clearance network. An alternative 16-foot designated vertical clearance network for the movement of large vehicles, and the transport of people, products, construction equipment, and military equipment for national defense has been established through the Syracuse area. The designated network, also referred to as an Urban Access Corridor, is via I-481 in the north-south direction and via I-90 in the east-west direction. The section of I-81 between the southern and northern I-81/I-481 interchanges is exempted from the 16-foot clearance network and the section of I-690 between the western I-90/I-690 interchange and the eastern I-481/I-690 interchange is exempted from the 16-foot clearance network. The Department utilizes special hauling permits to route over height vehicles to designated routes.

(3) What is the safety record of the segment, including current or anticipated safety problems? Specifically, is the route experiencing above normal accident rates and/or accident severities? Does analysis of the accident problem indicate that the addition of larger trucks have aggravated existing accident problems?

The segment experiences above average crash rates, but analysis does not indicate that larger trucks aggravate the crash problems. The safety record for both I-81 and I-481 segments is discussed in more detail below.

Existing Safety Considerations, Crash History, and Analysis

A crash analysis was performed in accordance with the Highway Design Manual Chapter 5 using police crash reports compiled from NYSDOT for the three-year period, from July 1, 2010 through June 30, 2013. The crash history was analyzed for I-81 from Interchange 16A to Interchange 29, I-690 from Interchange 9 to the I-481 interchange, and I-481 between the southern and northern interchanges with I-81. Since the original crash data is several years old, a more recent set of crash data (September 1, 2014 through August 30, 2017) was reviewed to determine if crash frequencies and patterns identified from the original data set are still valid and appropriate for use in this report. For most locations, the frequency and types of crashes were found to be consistent between the original and newer data sets. Therefore, the discussion that follows is based on the original data, unless otherwise noted.

I-81

Crash records are assigned to Reference Markers, which are signs installed roughly every one-tenth of a mile on highways and used by NYSDOT and police to monitor traffic and identify high-crash locations. A total of 1,306 crashes occurred on I-81 within the project limits from Reference Marker (RM) 81I 3303 2006 to RM 81I 3303 3066 (from approximately one-half mile south of the I-81/I-481 south interchange to approximately one-half mile north of the I-81/I-481 north interchange).

Of the 1,306 documented crashes in the project area, approximately 267 (20 percent) crashes were personal-injury crashes and 1,032 (79 percent) crashes were property damage only crashes. There were five non-reportable crashes and two fatalities. An accident is considered non-reportable, rather than reportable, if there was no personal injury and either no motorist report was filed, no dollar value of vehicular damage was entered on the report, or the amount of vehicular damage did not exceed a specified amount. The predominant crash types within the project limits are rear-end (31 percent), fixed-object (30 percent), and overtaking (24 percent) crashes, which account for 85 percent of the total crashes. Fixed objects are defined as permanent installations, limited in length (e.g. trees, utility poles, and signs), which can be struck by vehicles running off the road.

The 1,306 documented crashes involved a total of 2,383 vehicles, 163 (7 percent) were commercial vehicles, and the remaining 2,220 vehicles (93 percent) involved passenger vehicles only.

Major factors contributing to the crashes on I-81 are poor driver judgment/behavior and aggressive driving. Unsafe speed (342 crashes), following too closely (358 crashes), unsafe lane changing (200 crashes), and driver inattention (187 crashes) were identified in a large number of the crashes as the primary contributing factors. In addition, slippery pavement (276 crashes) was also an important contributing factor for the crashes and many ramps in the Project Area have non-standard acceleration, deceleration, and auxiliary lane lengths, and/or spacing.

I-481

Crash records documented 481 crashes occurring within I-481 limits from RM 481I 3301 1000 to RM 481I 3301 2145 (from just north of the I-81/I-481 south interchange to just south of the I-81/I-481 north interchange). Of the 481 documented crashes in the project area, approximately 91 (19 percent) crashes were personal-injury crashes and 386 (80 percent) crashes were property damage only crashes. There were two non-reportable crashes and two fatalities. The predominant crash types within the project limits are fixed-object (49 percent), rear-end (20 percent), animal-related (14 percent), and overtaking (13 percent) crashes, which account for 96 percent of the total crashes.

The 481 documented crashes involved a total of 737 vehicles, 40 vehicles (5 percent) were commercial vehicles and the remaining 697 vehicles (95 percent) involved passenger vehicles only.

Major contributing factors to the crashes on I-481 are poor driver judgment/behavior and aggressive driving. Unsafe speed (157 crashes), following too closely (88 crashes), unsafe lane changing (41 crashes), and driver inattention (50 crashes) were identified in a large number of the crashes as the primary contributing factors. In addition, slippery pavement (112 crashes) and animal-action (70 crashes) also were important contributing factors for the crashes.

(4) What are the geometric, structural or traffic operations features that might preclude safe, efficient operations? Specifically describe lane widths, sight distance, severity and length of grades, horizontal curvature, shoulder width, narrow bridges, bridge clearance and load limits, traffic volumes and vehicle mix, intersection geometrics and vulnerability of roadside hardware.

A survey of the highway infrastructure in the Project Area identified many non-standard and non-conforming features along the sections of the I-81 corridor. The highest concentration of these include the I-81/I-690 interchange. The I-81/I-690 interchange is a complex intersection composed of two elevated highways with multiple entrance and exit ramps. Within the I-81 viaduct area and I-81/I-690 interchange areas, there are a host of existing non-standard features, including inadequate sight-distances, shoulder widths, lane widths, median widths, and grades. In some areas, shoulders are non-existent and medians are narrow, with only enough space for concrete barriers that separate opposing traffic lanes. In addition, a number of ramps have inadequate acceleration/deceleration length, and ramps are too closely spaced and fail to conform to AASHTO's recommended design standards.

Some examples include:

- The distance between the northbound on-ramp from Harrison Street to northbound I-81 and the I-81 exit ramp to eastbound I-690 is only 725 feet long, but the recommended spacing is 1,600 feet.
- On northbound I-81, the distance between the westbound I-690 entrance ramp and the entrance ramp at Pearl Street is only 45 feet, which is substantially less than the recommended 800 feet. In addition, the acceleration lane for the Pearl Street ramp is only 362 feet long, whereas the minimum recommended length is 910 feet.
- The acceleration lane for the eastbound I-690 to southbound I-81 ramp is only 150 feet long rather than the recommended length of 420 feet.

Summary of Existing Non-Standard and Non-Conforming Features

Highway Segment ¹	Non-Standard Features (Number of Occurrences)					Non-Conforming Features (Number of Occurrences)			Total
	Shoulder Width	Maximum Grade	Horizontal Curve Radius	Stopping Sight ² Distance	Super-elevation (Banking)	Median Width	Ramp Spacing	Accel/Decel Length	
Viaduct	15	0	0	8	4	1	0	0	28
I-81/I-690 Interchange	20	2	9	18	18	0	5	2	74
I-81 Northern Segment	6	0	3	15	2	0	5	2	33
I-481 Segment	8	1	1	1	19	0	3	0	33

Notes:

1. For the purposes of this table, the Highway Segments are generally described as follows:

Viaduct is the highway segment between Dr. Martin Luther King, Jr. Boulevard East and Genesee Street.

I-81/I-690 Interchange includes I-81 between Genesee St. and Butternut St. and I-690 between Franklin St. and Almond St.

I-81 Northern Segment is the highway section between Butternut St. and Hiawatha Blvd.

The I-481 Segment includes the I-481 North, South, and East Study Areas.

2. Stopping sight distance includes horizontal stopping sight distance (HSSD) and vertical stopping sight distance for crest vertical curves.

The lack of adequate shoulders and paved and unpaved medians makes snow removal difficult since space is limited for snow storage. The effects of non-standard and non-conforming features on traffic congestion and safety are amplified in the winter months when heavy snowfall accumulations are not uncommon. Syracuse is subject to heavy yearly snowfall accumulations due to its proximity to Lake Ontario (i.e., the “lake effect” on snowfall) and routinely receives annual snow in excess of 100 inches. The non-standard roadway features in the Project Area also diminish the ability to manage or respond to incidents. For example, disabled vehicles have limited space to avoid impeding travel lanes, and emergency response vehicles have limited access during incidents.

Safety Analysis Related to Non-standard and Non-conforming Features

To understand the impacts of the non-standard and non-conforming features to safety, the following areas with the greatest concentration of design limitations were studied:

- I-81/I-690 S-Curve and Slalom Area
- I-81/I-481 “Southern Interchange”
- I-81/I-481 “Northern Interchange”
- I-81 Southbound Weaving Area between Bear Street and Genant Drive.

I-81 and I-690 S-Curve and Slalom Area

The I-81 and I-690 S-Curve and Slalom Area is the area approaching/through the I-81/I-690 interchange. It includes I-81 from Interchange 17 near Colvin Street (south of downtown) to Interchange 25 at 7th N. Street (north of downtown) and I-690 from Interchange 9 in the vicinity of Hiawatha Boulevard (near the fairgrounds) to west of Interchange 15 near Peat Street (northeast of Syracuse University). The area includes I-81 RM 81I 3303 2029 to RM 81I 3303 3008 in the northbound and southbound directions and I-690 RM 690I 3301 2009 to RM 690I 3301 2046 in the eastbound and westbound directions.

Over the three-year analysis period, 1,354 crashes were found to have actually occurred in the S-curve and slalom area—817 on I-81 between RM 2029 and RM 3008 and 537 on I-690 between RM 2009 and RM 2046. Of these, 1,299 crashes (776 along I-81 and 523 along I-690) could be located, and 55 crashes (41 along I-81 and 14 along I-690) had reference markers unknown. It should be noted that a review of more recent crash data from September 1, 2014 through August 30, 2017 indicated an increase in the number of crashes along I-690 through the western portion of the I-81 interchange. However, some of the increase may be attributable to construction activity at this location.

There are many locations in the S-curve and slalom area with existing non-standard and non-conforming features. Based on a detailed examination of crash reports in the greater I-81 at I-690 interchange area, there were 312 crashes (47 percent) along I-81 between RM 2032 and RM 2166 (from approximately MLK, Jr. East to Hiawatha Boulevard) that were identified to be potentially related to non-standard/non-conforming geometric features. There were also 116 crashes (27 percent) along I-690 between RM 2014 and RM 2042 (from approximately Geddes Street interchange to Teall Avenue interchange) that were identified to be potentially related. `

Crash rates in this area are 1½ to three times the statewide average. A crash rate comparison for key segments in the I-81/I-690 interchange area is presented in the table below.

I-81/I-690 Interchange Area Crash Rate Comparison

Reference Marker	Segment Location	Number of Crashes	Computed Accident Rate	Statewide Accident Rate
			ACC/MVM	ACC/MVM
RM 2043 – RM 2046	Northbound I-81 from Harrison Street on-ramp to westbound I-690 off-ramp	66	3.21	1.09
RM 2047 – RM 2049	Northbound I-81 at Salina Street	43	2.88	1.09
RM 2047 – RM 2049	Southbound I-81 at Salina Street	24	1.67	1.09
RM 2043 – RM 2046	Southbound I-81 from eastbound I-690 on-ramp to Harrison Street off-ramp	44	2.30	1.09
RM 2025 – RM 2028	Eastbound I-690 from Townsend Street to E. Willow Street	42	2.37	1.09

I-81 and I-481 “Southern Interchange”

The I-81/I-481 “Southern Interchange” is the area surrounding and including the I-81 interchange with I-481 south of Downtown Syracuse. It includes I-81 Interchange 16A and I-481 Interchange 1 in the vicinities of E. Seneca Turnpike and Brighton Avenue, respectively. The area comprises RM (RM) 81I 3303 2006 through RM 81I 3303 2018 in the northbound and southbound directions and RM 481I 3301 1000 through RM 481I 3301 2003 in the eastbound and westbound directions.

Over the three-year analysis period, 90 crashes occurred near the interchange; 68 crashes were located on I-81 between RM 2006 and RM 2018, 18 were located on I-481 between RM 1000 and RM 2003, and four crashes had RMs unknown.

The roadway segments within or immediately adjacent to the interchange meet the NYSDOT threshold of 27 crashes (i.e., 9 per year) needed for an urban full-access controlled facility to qualify as a Priority Investigation Location (PIL) in NYSDOT Region 3. The stretch of I-481 in the southern interchange area is below the PIL threshold. The crash rate (all crash types and both travel directions combined) for the two-lane segment of I-81 from RM 2006 to RM 2015, which includes the potential PIL segment, was estimated to be 1.48 crashes per million vehicle miles (ACC/MVM). This is 1.36 times the statewide average of 1.09 ACC/MVM for a similar urban controlled-access facility. The crash rates for the three-lane segment of I-81 from RM 2016 to RM 2018 and for the two-lane segment of I-481 in its entire stretch within the southern interchange area were estimated to be 0.75 and 0.67 ACC/MVM, respectively – both of which are lower than the applicable statewide average of 1.09 ACC/MVM.

It should be noted that fixed-object, wet-road, and nighttime crashes are high throughout the southern interchange area. Preliminary crash analysis for the I-81 segment suggests that speeding, slippery

pavement, and inadequate lighting could be primary and/or contributing factors to crashes throughout the area, including along the non-standard curve.

Although both directions of I-81 were calculated to have higher crash rates than the overall, wet-road, and fixed-object statewide average, only a small portion of I-81 in the northbound direction between RM 2012 and RM 2014 was identified to have a non-standard feature (non-standard curve radius). Based on a detailed examination of police reports, most (60 percent) of the 20 crashes that occurred on northbound I-81 between RM 2012 and RM 2014 were found to be potentially related to the non-standard curve.

I-81 and I-481 “Northern Interchange”

The I-81/I-481 “Northern Interchange” area is the cloverleaf interchange of I-81 with NY 481/I-481 in North Syracuse (i.e., north of Downtown Syracuse and north of the I-81 viaduct S-curve/slalom area). It includes I-81 Interchange 29 and NY 481/I-481 Interchange 9 in the vicinities of Church Street and S. Bay and Thompson Roads. I-81 comprises the north and south legs of the north interchange area, extending from RM (RM) 81I 3303 3047 to RM 81I 3303 3066. The roadway is typically three lanes in each direction. NY 481 and I-481 comprise the west and east legs, respectively, of the north interchange area (i.e., the roadway’s jurisdiction changes from Federal to State within the interchange). The NY 481 segment extends from RM 481 3301 1006 to RM 481 3301 1000 and then continues as the I-481 segment from RM 481I 3301 2145 to RM 481I 3301 2135. Both NY 481 and I-481 are typically two lanes in each direction. Although ramps at the interchange have their own reference markers, all ramp crashes were coded to the nearest mainline reference marker for the purposes of this preliminary analysis.

Over the three-year analysis period, 293 crashes were found to have occurred in the vicinity of the interchange – 151 on I-81, 84 on NY 481, 45 on I-481, and 13 with reference markers unknown.

The roadway segments within or immediately adjacent to the interchange meet the NYSDOT threshold of 27 crashes (i.e., 9 per year) needed for an urban full-access controlled facility to qualify as a PIL in NYSDOT Region 3. The crash rates along all roadway segments in the interchange area are higher than the statewide averages for similar facilities. The crash rate on the I-81 segment (for all crash types and both travel directions combined) was calculated to be 1.24 ACC/MVM, which is 1.14 times the statewide average of 1.09 ACC/MVM; the rate along NY 481 was calculated to be 2.11 ACC/MVM, which is 1.94 times the statewide average; and the rate along I-481 was calculated to be 1.11, which is 1.02 times the statewide average. It should be noted that crash frequency north and east of the interchange drops substantially.

Only 100 (34 percent) of these crashes occurred in areas with non-standard features, and only 11 (4 percent) of the crashes were found to be, or could not be eliminated from being, attributable to non-standard features. Instead, most of the crashes along the area roadways occurred due to a variety of other factors, including speeding, unsafe lane changing, peak-hour congestion, animals in the roadway, debris in the roadway, and inclement weather conditions. Although the types of, severities of, and contributing factors to the 11 crashes that were likely related to non-standard features varied by

location, the primary contributing factors were non-standard sight distance, superelevation, and curve radius.

Southbound I-81 Weaving Area between Bear Street and Genant Drive

The southbound I-81 at Court Street weaving area is a section of I-81 from the Bear Street on-ramp to the Genant Drive off-ramp. Crash records documented 51 crashes occurring on southbound I-81 at Court Street weave from RM 81I 3303 2056 to RM 81I 3303 2060. Of the 51 documented crashes in this area, approximately eight (16 percent) crashes were personal injury crashes and 43 (84 percent) crashes were property damage only crashes. There were no fatalities.

The predominant crash types within the project limits are rear-end (65 percent) Overtaking (16 percent), and fixed-object crashes (10 percent), account for 26 percent of the total crashes. All crashes involved passenger vehicles only.

The contributing factors for the crashes were following too closely (31 crashes), driver inattention (12 crashes), unsafe Speed (11 crashes), pavement slippery (seven crashes), and unsafe lane changing (seven crashes).

Southbound I-481 at Interchange 3 (NY 5/NY 92)

Recent crash records documented 67 crashes occurring on I-481 through the NY 5 / NY 92 interchange from RM 481I 3301 2042 to RM 481I 3301 2049. Of the 67 documented crashes in this area, approximately eleven (16 percent) crashes were personal injury crashes and 56 (84 percent) crashes were property damage only crashes. There were no fatalities. The predominant crash types within the interchange limits are rear-end (67 percent), overtaking (12 percent), and fixed-object crashes (12 percent). Three crashes involved a commercial vehicle. The highest frequency of contributing factors for the crashes was following too closely (35 crashes), followed by driver inattention (16 crashes), unsafe speed (12 crashes), and unsafe lane changing (ten crashes). Both the overall and wet road crash rates (2.89 and 1.11 ACC/MVM) on southbound I-481 at this location are substantially higher than the statewide averages for similar facilities of 1.22 and 0.19 ACC/MVM, respectively. See Appendix C within the DDR/ DEIS for additional crash information.

(5) Is there a reasonable alternate route available?

Yes. See Section 658.11 (d)(2)(iii).

(6) Are there operational restrictions that might be implemented in lieu of deletion?

No. The section proposed for deletion includes a long viaduct structure originally constructed in the 1960s which is now nearing the end of its useful life, and would be removed completely under the Community Grid Alternative. Since the I-81 segment proposed for deletion is an integral part of the Community Grid Alternative for the I-81 Viaduct Project, there are no operational restrictions that might be implemented in lieu of deletion.

23 CFR 658.11 (d) (2) (ii) Analysis of the impact on interstate commerce.

I-81 is an approximately 850-mile-long highway in the eastern United States. It begins at Interstate 40 in Dandridge, Tennessee, and terminates at Highway 401 in Ontario, Canada. It is the primary north-south highway through Central New York, serving Binghamton, Cortland, Syracuse, and Watertown, and provides an international crossing into Canada at the Thousand Islands Bridge.

The proposed de-designation of the I-81 segment from the southern I-481 interchange to the I-81/I-690 interchange should not substantively affect interstate travel. Interstate commerce, as defined within the Electronic Code of Federal Regulations (http://www.ecfr.gov/cgi-bin/text-idx?SID=464fe31a4b64a27d2a75a022de771e4a&mc=true&node=pt49.5.390&rgn=div5#se49.5.390_15), means trade, traffic or transportation in the United States -

(1) Between a place in a State and a place outside of such State (including a place outside of the United States);

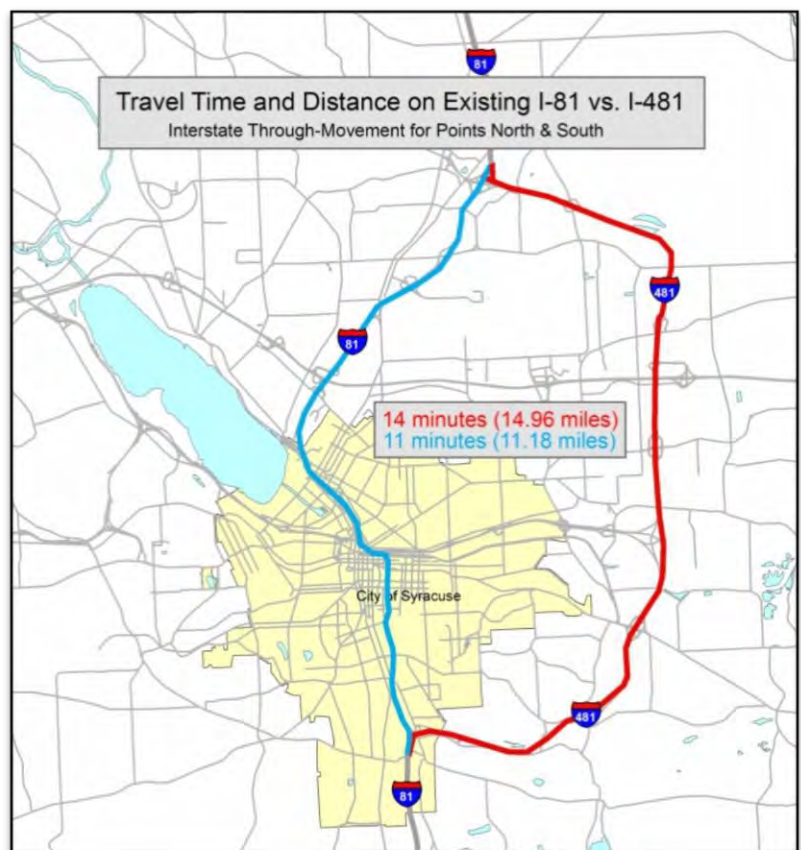
(2) Between two places in a State through another State or a place outside of the United States; or

(3) Between two places in a State as part of trade, traffic, or transportation originating or terminating outside the State or the United States.

For northbound and southbound I-81 through trips, interstate travelers would use current I-481, which would be re-designated I-81 under the Community Grid Alternative. The Community Grid Alternative would establish former I-481 as the quickest path for regional north-south travel through the project area. As a result, traffic would increase on former I-481 both north and south of I-690 and decrease on proposed BL 81.

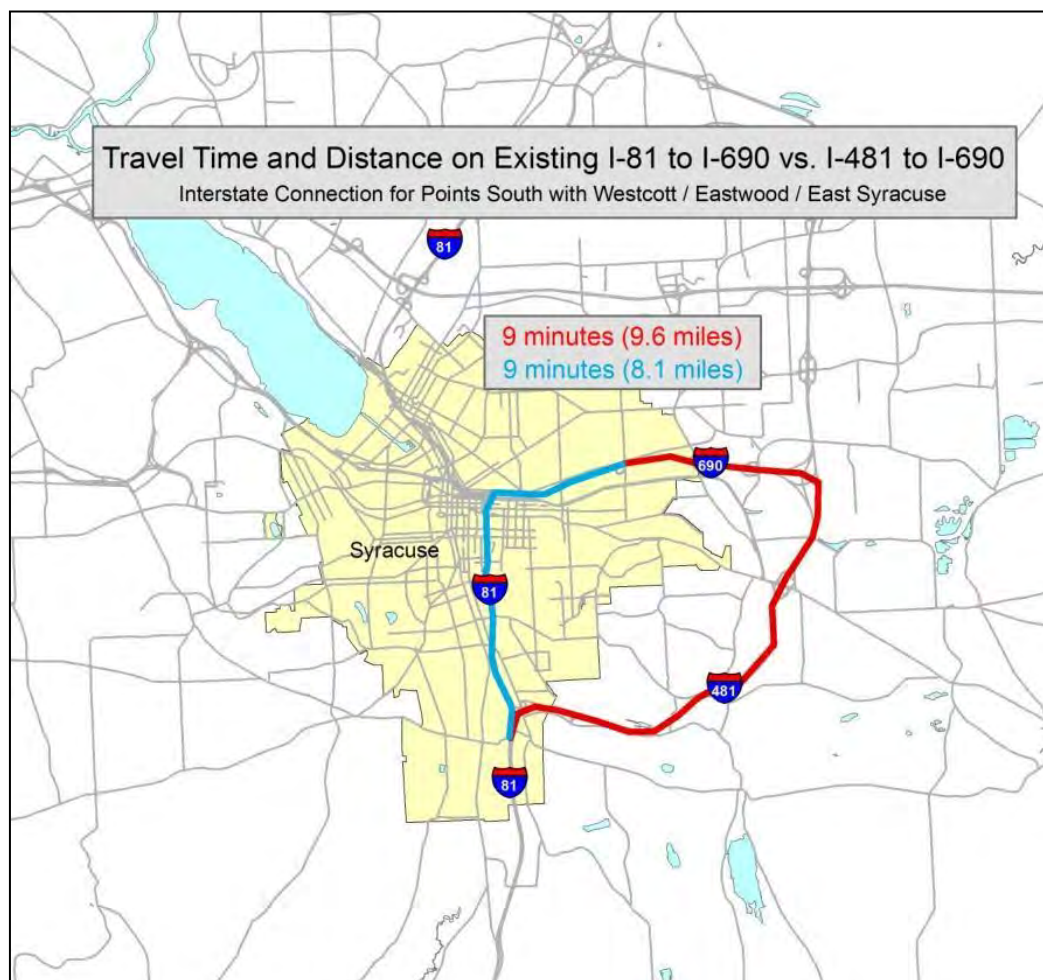
Travel Time and Distance Considerations

I-481 provides a direct connection between the northern and southern I-81/I-481 interchanges, and therefore would be suitable as an alternative route. Under the Community Grid



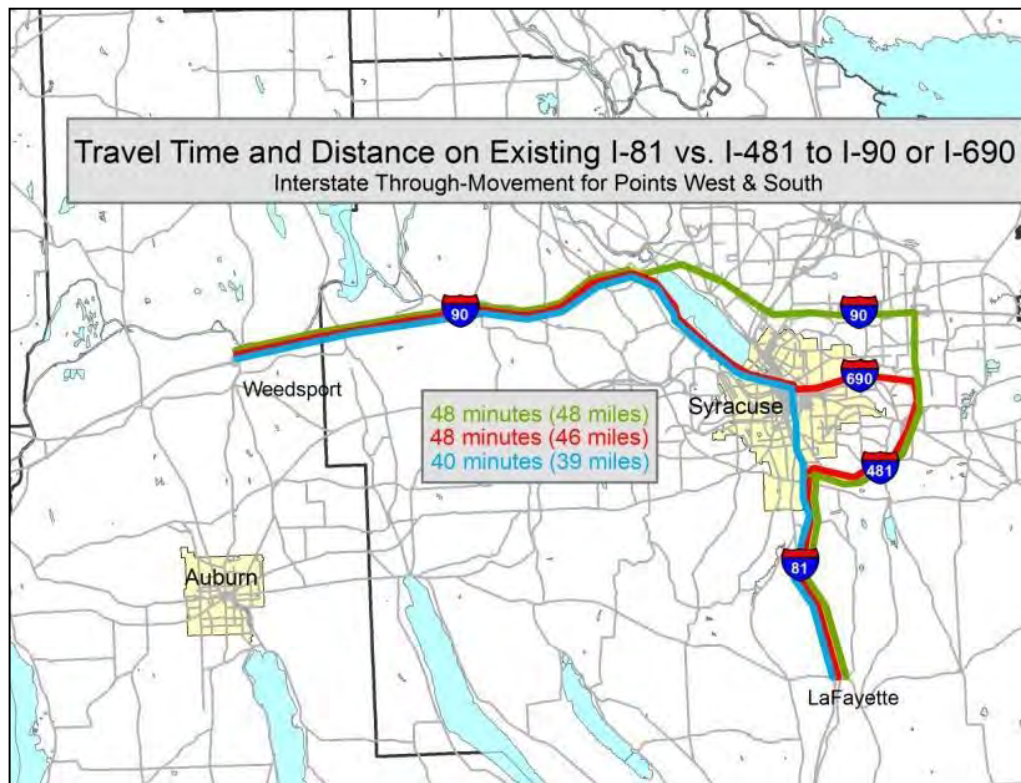
Alternative, these interchanges would be reconfigured to allow for interstate design speeds. As indicated in the map, the distance and travel time on the current I-81 between the northern and southern I-481 interchanges is 11.18 miles and 11 minutes. This through trip on the re-designated I-81 would be approximately 14.96 miles with a travel time of 14 minutes.

I-481, the future re-designated I-81, also is a potential route for vehicles currently using northbound I-81 to eastbound I-690 that are destined for Westcott, Eastwood, and East Syracuse. As shown in the map below, the alternate route of northbound I-481 to westbound I-690 to the eastern points within the City of Syracuse is 9.6 miles in 9 minutes. This is similar to the route along the I-81 segment proposed for deletion, which is 8.1 miles with 9 minutes of travel time.



For pass-through trips currently using northbound I-81 to westbound I-690, there are less-suitable alternative routes on the existing roadway system due to lack of a bypass road around the west side of the city. However, interstate travelers destined for points west of Syracuse may continue on the re-designated I-81, currently I-481, to either I-690 westbound or I-90 westbound, although I-90 is a toll

road. This allows interstate travelers to remain on interstate highways to reach destinations west of Syracuse. The map below compares travel times and miles for each route option for interstate travel.



Overall, the Community Grid Alternative would include improvements to the re-designated I-81 (I-481) to increase capacity and flow. I-481 already carries a minimum of four lanes of through traffic, and sections would be expanded to accommodate an increase in traffic volumes. The improvement of this interstate highway would facilitate the movement of interstate commerce through the Syracuse area.

Vertical Clearance Network

Currently, I-481 is the 16-foot designated vertical clearance network for the north-south movement of large vehicles and the transport of products, construction equipment, and military equipment that require over-height access. The designated network also includes I-90 in the east-west direction. The Department utilizes special hauling permits to route over-height vehicles to designated routes. The same designated routes will continue to be utilized after this project. Therefore, there would be negligible impact to interstate commerce involving over-height vehicles.

23 CFR 658.11 (d) (2) (iii) Analysis and recommendation of any alternative routes that can safely accommodate commercial motor vehicles of the dimensions and configurations described in §§ 658.13 and 658.15 and serve the area in which such segment is located.

Long-distance trip impacts to commercial motor vehicles as they relate to interstate commerce are discussed in the previous section (section ii). This section addresses truck movements currently served by the portion of I-81 between I-481 interchanges (existing Exit 16A and existing Exit 29) for local origins or destinations.

Under the Community Grid alternative, the portion of existing I-81 between its northern and southern intersections with I-481 would be re-designated as a business loop of I-81 (BL 81). BL 81 is proposed to be added to the National Network. According to AASHTO, a business route is “a route principally within the corporate limits of a city which provides the traveling public an opportunity to travel through that city, passing through the business part of the city, while the regular number is used to obviate passing through the congested part of the city.” A “business loop” is a route that leads into a downtown business district and returns to the freeway at the other end. The designation of BL 81 would be subject to review and approval by AASHTO. In addition, interstate changes are subject to approval by FHWA.

The character of the BL 81 would vary from a high-speed facility to a signalized city street. For example, the section of BL 81 between the existing I-81/I-690 interchange and the existing northern I-81/I-481 interchange would continue to function much like an interstate. Likewise, the remaining portion of former I-81 south of MLK, Jr. East to the former I-81/I-481 southern interchange would remain a controlled access freeway and function much like an interstate after it is designated as BL 81. North of MLK, Jr. East on Almond Street, BL 81 would transition from a high-speed facility to a two-way street with signalized intersections (“urban arterial”) and become integrated with the city street system. The BL 81 designation would continue along Almond Street north to Erie Boulevard and along Erie Boulevard from Almond Street to Oswego Boulevard. See DDR/DEIS Appendix A-6 Access Modification Report Signing Plan for speed transitions into and out of Syracuse.

BL 81 would meet the National Network criteria in 23 CFR 658.9:

(1) The route is a geometrically typical component of the Federal-Aid Primary System, serving to link principal cities and densely developed portions of the States.

Almond Street is a Federal-Aid Primary route between East Adams Street and Harrison Street, but not for the entire length of the segment proposed to be BL 81. The I-81 segment between I-690 and I-481 in the north is a Federal-Aid Primary Interstate and would maintain the same footprint and limited access freeway conditions. BL 81 would link densely developed portions of the City of Syracuse.

Reconstructed highway segments and interchanges would meet AASHTO and NYSDOT highway design standards, and thus it is anticipated that most non-standard and non-conforming features of the existing highway would be addressed. Streets incorporated into the Community Grid Alternative would be designed to meet FHWA, NYSDOT, and local design standards consistent with their anticipated function. See Table C-6.3D1, C-6.3I, C-6.3J, and C-6.3C for design criteria based on projected (2050) traffic volumes and truck percentages to be used for the new I-81 (former I-481) and three subsections of BL 81.

APPENDIX C-6 **DESIGN CRITERIA TABLES**

TABLE C-6.3D1 Table Updated

DESIGN CRITERIA – NEW I-81 (FORMER I-481), COMMUNITY GRID ALTERNATIVE					
PIN:		3501.60		NHS (Y/N):	Yes
Route No. & Name:		Re-designated I-81 (Former I-481)		Functional Classification:	Urban Principal Arterial - Other Freeway/Expressway
Project Type:		Reconstruction		Design Classification:	Freeway/Expressway
% Trucks:		6%		Terrain:	Rolling
ADT (2050):		56,800		Truck Access/Qualifying:	Qualifying Highway
DESIGN ELEMENT		STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE
1	Design Speed (Min.)	70 mph (1)	Posted 65 mph (2)	70 mph	HDM § 2.7.1.1.A
2	Travel Lane Width (Min.)	12 ft.	12 ft.	12 ft.	HDM § 2.7.1.1.B
3	Shoulder Width (Min.) Right Left (2-lanes per direction) Left (3-lanes per direction)	10 ft. 4 ft. 10 ft.	2.5 ft.* (3) 2.5 ft.* (3) 5 ft. * (3)	2.5 ft.* (3, 4) 2.5 ft.* (3, 4) 5 ft.* (3, 4, 5)	HDM § 2.7.1.1.C Exhibit 2-2
4	Grade (Max.)	4%	5.0%*	4%	HDM § 2.7.1.1.G Exhibit 2-2,
5	Horizontal Curve Radius (Min. Radius)	1815 ft. @ 8%	1572 ft.*	1912 ft.	HDM § 2.7.1.1.D Exhibit 2-2
6	Superelevation (Max.)	8%	4.1% *	8%	HDM § 2.7.1.1.E
7	Stopping Sight Distance (Min.)	730 ft.	389 ft.*	524 ft. * (6)	HDM § 2.7.1.1.F Exhibit 2-2
8	Vertical Clearance	16 ft. Min. (7) 16.5 ft. Desired	16 ft. (Min.)	16.5 ft. Min. (7)	HDM § 2.7.1.1.I / NYSDOT Brg. Man. § 2.3.1, Table 2-2
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.1.1.H
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	H20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5

* Nonstandard feature

Notes

- The Regional Traffic Engineer has concurred that the use of a Design Speed of 70 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- Posted 55 mph between southern project limit and Rock Cut Road interchange on existing I-481, then posted 65 mph between Rock Cut Road interchange to northern project limit.
- On inside of horizontal curves, the proposed shoulder width varies to 12 feet maximum to meet Horizontal Stopping Sight Distance criteria.
- Proposed Horizontal Stopping Sight Distance is non-standard along two curves in the south interchange area (See Non-Standard Feature Justification Forms). All other locations meet design criteria of 730 feet minimum.
- The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.
- There are no qualifying 3-lane section in the South Study Area or in the East Study Area. The 3-lane sections in the East Study Area are due to auxiliary lanes which are less than 1-mile long. There are qualifying 3-lane segments in the North Study Area and 10-foot median side shoulders are provided in accordance with the design criteria.
- DEIS Figure 5-28, 5-29 and Table 5-51 for traffic diversion patterns under the Community Grid Alternative.

APPENDIX C-6

DESIGN CRITERIA TABLES

TABLE C-6.3I

DESIGN CRITERIA FOR FORMER I-81, COMMUNITY GRID ALTERNATIVE					
PIN:		3501.60		NHS (Y/N):	Yes
Route No. & Name:		Business Loop 81 (Former I-81), south interchange to MLK, Jr., East.		Functional Classification:	Urban Principal Arterial - Other Freeway/Expressway
Project Type:		Reconstruction		Design Classification:	Freeway/Expressway
% Trucks:		5%		Terrain:	Rolling
ADT (2050):		39,300		Truck Access/Qualifying:	Qualifying Highway
DESIGN ELEMENT		STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE
1	Design Speed (Min.)	60 mph (1)	Posted 55 mph	60 mph	HDM § 2.7.1.1.A
2	Travel Lane Width (Min.)	12 ft.	12 ft.	12 ft.	HDM § 2.7.1.1.B
3	Shoulder Width (Min.) Right Left (2-lanes per direction) Left (3-lanes per direction)	10 ft. 4 ft. 10 ft.	2.1 ft.* n/a 2.8 ft. *	10 ft. 4 ft. N/A (4)	HDM § 2.7.1.1.C Exhibit 2-2
4	Grade (Max.)	4%	4%	4%	HDM § 2.7.1.1.G Exhibit 2-2
5	Horizontal Curve Radius (Min. Radius)	1200 ft. @ 8%	1400 ft.	>1333 ft.	HDM § 2.7.1.1.D Exhibit 2-2
6	Superelevation	8%	7.8%	8%	HDM § 2.7.1.1.E
7	Stopping Sight Distance (Min.)	570 ft.	>570	>570 ft.	HDM § 2.7.1.1.F Exhibit 2-2
8	Vertical Clearance	14 ft. Min. (2, 3) 14.5 ft. Desired	14 ft. Min.	14.5 ft. Min. (2, 3))	HDM § 2.7.1.1.I / NYSDOT Brg. Man. § 2.3.1, Table 2-2
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.1.1.H
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	HS-20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5

* Nonstandard feature

Notes

- The Regional Traffic Engineer has concurred that the use of a Design Speed of 60 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- 16-ft clearance exemption. New I-81 is the designated 16-ft route.
- The minimum vertical clearance for sign structures and pedestrian bridges shall be 1ft greater.
- The only location with 3 or more lanes is at the southern tie in point, approximately 1300 ft. south of MLK, Jr. East and is less than 800 feet long. This is considered a transitional area where the 30 mph, 2 lane urban section is transitioning to the existing higher speed 3 lane freeway section, therefore the 10 ft. left side shoulder criteria does not apply to this section.

APPENDIX C-6

DESIGN CRITERIA TABLES

TABLE C-6.3J

DESIGN CRITERIA, URBAN PRINCIPAL ARTERIAL OTHER, COMMUNITY GRID ALTERNATIVE					
PIN:		3501.60		NHS (Y/N):	Yes (1, 2)
Route No. & Name:		Business Loop 81 (city street segments), including: Almond Street, Erie Boulevard East (between Oswego Boulevard and Almond Street), Oswego Boulevard, Pearl Street (between Erie Boulevard and on-ramps to BL-81) See Note 1, 2		Functional Classification:	Urban Principal Arterial - Other
Project Type:		Reconstruction		Design Classification:	Urban Arterial
% Trucks:		3%		Terrain:	Rolling
ADT (2050):		Varies		Truck Access/Qualifying:	Qualifying Highway
DESIGN ELEMENT		STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE
1	Design Speed (Min.)	35 mph (3)	Posted 30 mph	35 mph	HDM § 2.7.2.4.A
2	Outside Lane Width Inside Lane Width Shared Lane Width Turn Lane Width Parking Lane Width	12 ft. 12 ft. 13 ft. 12 ft. 8 ft.	11 ft. and varies	12 ft. (4) 12 ft. (4) 12 ft. (5) * 12 ft. 8 ft.	HDM § 2.7.2.4.B Exhibit 2-4a
3	Shoulder Width (Min.)	0-4 ft. (6)	1 ft. Curb Offset	0 ft. (6)	HDM § 2.7.2.4.C Exhibit 2-4a
4	Grade (Max.)	8.0%	8%	8.0%	HDM § 2.7.2.4.G Exhibit 2-4a
5	Horizontal Curve Radius (Min. Radius)	371 ft.	>371 ft.	>371 ft.	HDM § 2.7.2.4.D Exhibit 2-4a
6	Superelevation	4.0%	4.0%	4.0%	HDM § 2.7.2.4.E
7	Stopping Sight Distance (Min.)	250 ft.	>250 ft.	>250 ft.	HDM § 2.7.2.4.F Exhibit 2-4a
8	Vertical Clearance	Varies 14 Min. (7, 8, 9) Varies 14.5 Desired	Varies 14 - 16 ft. Min.	Varies 14.5 ft. min. to 16.5 ft. min. (7, 8, 9)	HDM § 2.7.2.4.I / NYSDOT Brg. Man. § 2.3.1
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	2.0%	1.5% min, 2.5% max	HDM § 2.7.2.4.H
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	HS-20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5
11	Americans with Disabilities (ADA Compliance)	Comply with PROWAG and HDM Chapter 18	Varies	Complies with PROWAG and HDM Chapter 18	HDM § 2.7.2.4.K

* Nonstandard feature

Notes

1. See **Appendix C-6, Table C-6.5** for more detailed description of street segment limits where NHS and Functional Class limits apply and **Table 5-49** for proposed changes associated with the Community Grid Alternative.
2. Some street segment Classifications are based on anticipated changes proposed by SMTc as well as changes that would result as part of the Community Grid Alternative.
3. The Regional Traffic Engineer has concurred that the use of a Design Speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. The posted speed limit is anticipated to be 30 mph consistent with other city streets in downtown Syracuse.
4. 12 ft. lane required on Qualifying Highway segments, which also meets lane criteria on Almond Street since it contains a separated bicycle facility.
5. Shared travel lanes not provided on Erie Boulevard, Oswego Boulevard and Pearl Street. There are adjacent streets which have designated bicycle facilities. Refer to Non-Standard Justification forms in **Appendix A-3** for more information.
6. A 0-4 ft. shoulder may be used in locations where a separate bicycle facility is provided or where the lane width is a minimum of 13 feet (refer to note 5).
7. 14.5 ft. minimum except on BL 81, between the BL 81/I-81 south interchange and Burt Street where a minimum of 16.5 ft. is required
8. 16-ft clearance exemption. New I-81 is the designated 16-ft route.
9. The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.

APPENDIX C-6 **DESIGN CRITERIA TABLES**

TABLE C.6.3C

DESIGN CRITERIA FOR FORMER I-81 NORTHERN SEGMENT, COMMUNITY GRID ALTERNATIVE					
PIN:		3501.60		NHS (Y/N):	Yes
Route No. & Name:		Business Loop 81 (Former I-81) Northern Segment, Butternut St. to Hiawatha Boulevard		Functional Classification:	Urban Principal Arterial – Other Freeway/Expressway
Project Type:		Reconstruction		Design Classification:	Freeway/Expressway
% Trucks:		9%		Terrain:	Rolling
ADT (2050):		114,300		Truck Access/Qualifying:	Qualifying Highway
DESIGN ELEMENT		STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE
1	Design Speed (Min.)	60 mph (1)	Posted 45 and 55 mph (2)	60 mph	HDM § 2.7.1.1.A
2	Travel Lane Width (Min.)	12 ft.	11-12 ft.*	12 ft.	HDM § 2.7.1.1.B
3	Shoulder Width (Min.) Right Left (2-lanes per direction) Left (3-lanes per direction)	10 ft. 4 ft. 10 ft.	6 ft.* 4 ft. 4 ft. *	7 ft. (3, 6) * 4 ft. (3) 7 ft. (6) *	HDM § 2.7.1.1.C Exhibit 2-2
4	Grade (Max.)	4%	4%	4%	HDM § 2.7.1.1.G Exhibit 2-2
5	Horizontal Curve Radius (Min. Radius)	1200 ft. @ 8%	1167 ft.*	1333 ft.	HDM § 2.7.1.1.D Exhibit 2-2
6	Superelevation (Max.)	8%	7.8%	8%	HDM § 2.7.1.1.E
7	Stopping Sight Distance (Min.)	570 ft.	311 ft.*	570 ft.	HDM § 2.7.1.1.F Exhibit 2-2
8	Vertical Clearance	14 ft. Min. (4, 5) 14.5 ft. Desired	14 ft. (Min.)	14.5 ft. Min. (4, 5)	HDM § 2.7.1.1.I / NYSDOT Brg. Man. § 2.3.1 Table 2-2
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.1.1.H
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	HS20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5

* Nonstandard feature

Notes

- The Regional Traffic Engineer has concurred that the use of a Design Speed of 60 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- Existing I-81 is posted 45 mph between I-690 and Butternut Street, then 55 mph between Butternut Street and Hiawatha Boulevard.
- On inside of horizontal curves, the proposed shoulder width varies to 12 feet maximum to meet Horizontal Stopping Sight Distance criteria.
- 16-ft clearance exemption. New I-81 is the designated 16-ft route.
- The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.
- A 10-ft. left side shoulder and 10-ft. right side shoulder is to be provided in sections with 3 or more lanes, except at two locations between Butternut Street and Spencer Street. See Non-Standard Justification form in Appendix A-3 for more information.

(2) The route is a high volume route utilized extensively by large vehicles for interstate commerce.

Currently Almond Street carries 10,000-15,000 AADT and only 3 percent trucks. Interstate system traffic counts have total AADTs near a hundred thousand and up to 9 percent trucks. After reconstruction, large vehicles with origins or destinations in the City of Syracuse would need to be accommodated on the local street grid. BL 81 would function as a Principal Arterial and connect major activity centers and Downtown business districts.

It is also anticipated that long-haul vehicles wishing to travel from the south to the west would likely choose not to bypass Syracuse via former I-481, and instead utilize BL 81 to connect to I-90 via Adams Street to West Street to I-690, or via Erie Boulevard to I-690. Vehicles traveling from the west to the south would likely take I-690 to West Street or Crouse/Irving Avenues and use the Community Grid to funnel back to Almond Street and BL 81 to I-81 south. Other interstate commerce connections in the Syracuse region would be unchanged.

(3) The route does not have any restrictions precluding use by conventional combination vehicles.

The proposed route does not have any restrictions precluding use by conventional combination vehicles.

(4) The route has adequate geometrics to support safe operations, considering sight distance, severity and length of grades, pavement width, horizontal curvature, shoulder width, bridge clearances and load limits, traffic volumes and vehicle mix, and intersection geometry.

I-81 has a 16 foot vertical clearance network restriction due to some downtown bridges, and BL 81 would have similar restrictions. I-481/new I-81 is and would remain the designated route for trucks requiring up to 16 feet clearance. Other features not meeting design criteria would be corrected during project implementation. See Table C-6.3D1, C-6.3I, C-6.3J, and C-6.3C for design criteria to be used for the new I-81 (former I-481) and three subsections of BL 81. Non-standard features are identified and described in Appendix A-3 of the DDR/DEIS.

(5) The route consists of lanes designed to be a width of 12 feet or more or is otherwise consistent with highway safety.

BL 81 would be designed to have lane widths of 12 feet. Other non-standard and non-conforming features that would be inconsistent with highway safety will be corrected. See Table C-6.3D1, C-6.3I, C-6.3J, and C-6.3C for design criteria to be used for the new I-81 (former I-481) and three subsections of BL 81. Non-standard features to be retained under the Community Grid Alternative are listed in Table A.3.3 (DDR/DEIS Appendix A-3) with any non-standard feature justifications provided for the feature listed beginning with Exhibit A-3-3-01.

(6) The route does not have any unusual characteristics causing current or anticipated safety problems.

Many known safety problems in the existing National Network corridor on I-81, especially near the I-690 interchange, would be corrected by implementing the Community Grid Alternative. BL 81 would be reconstructed or modified to current design standards, eliminating most non-standard and non-conforming features.

New speed transitions would be implemented under the Community Grid between the high speed freeway section and the downtown slower speed arterial section. See Appendix A-6 Access Modification Report Signing Plan for speed transitions into and out of Syracuse.

Existing Syracuse Freight Roadway Network

The existing truck route system within the project area can be classified into through and local truck routes. Through truck routes are the key regional transportation facilities that include I-81, I-90, I-481, I-690, and State Routes 481 and 690. Local truck routes include most principal and minor arterials in the City of Syracuse and its adjacent communities. To estimate truck traffic volumes on designated truck routes, INRIX GPS data was used to develop truck origin-destination (O-D) trip tables through the Origin-Destination Matrix Estimation (ODME) procedure in TransCAD (Note: INRIX provides detailed GPS data about the trips people take, including where they begin and end their journeys and all the waypoints in between). The resulting truck O-D tables were combined with the Syracuse Metropolitan Transportation Council (SMTCC) regional highway network so that TransCAD's Multi-Modal Multi-Class Assignment (MMA Assignment) could be performed to obtain the estimated link truck volumes. Note that due to their potentially greater environmental impacts on communities, only heavy and medium trucks were included in the truck O-D tables. They are defined as follows:

- Medium trucks – include two-axle/six-tire or three-axle single unit trucks
- Heavy trucks – include all tractor-trailer trucks with four or more axles

Based on the MMA assignment results, (medium/heavy) truck volumes during the AM and PM peak hours range from eight to ten percent of total traffic volumes on various sections along I-81, six to nine percent along I-481, and four to six percent along I-690. Compared to the study area freeways, peak-hour truck volumes on the local truck routes are relatively lower. The local routes most frequently used by trucks within the project area include:

- West Street
- Clinton Street
- Salina Street
- State Street
- Genesee Street
- James Street
- Erie Boulevard
- Harrison Street
- Adams Street
- Irving Avenue
- Crouse Avenue
- Teall Avenue
- Bear Street

Truck traffic volumes on these local routes range from a low of approximately five trucks per hour to a high of approximately 45 trucks per hour. Most of the city's truck route corridors experience relatively free-flow traffic movement.

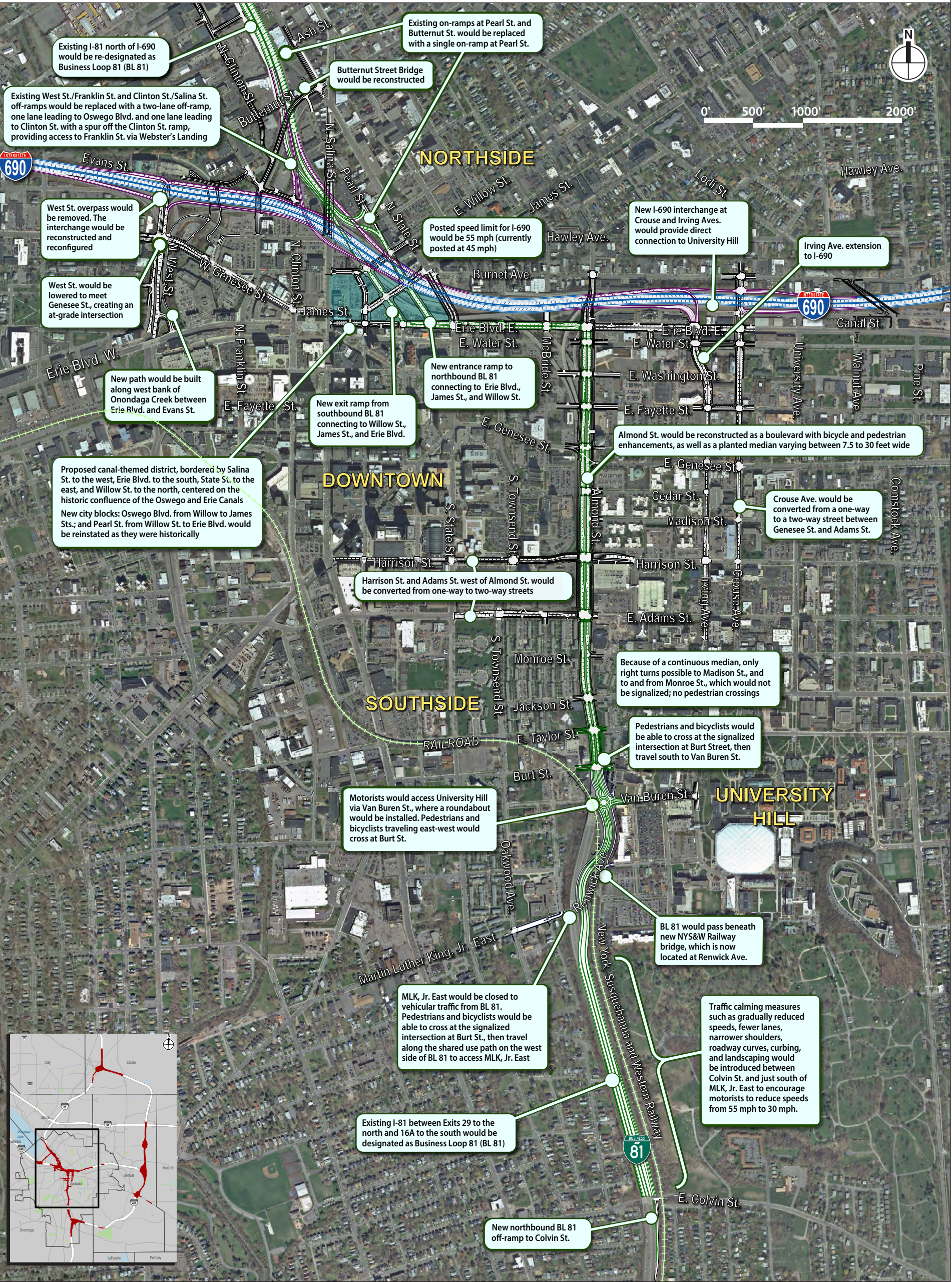
Description of the Syracuse Freight Roadway Network under the Community Grid Alternative

The Community Grid Alternative would disperse traffic throughout the city grid by promoting broader use of the existing street network. Access points to and from I-690 and BL 81 would be available at West Street, and Crouse and Irving Avenues (to and from I-690), as well as at Clinton Street, Oswego Boulevard, and Pearl Street (to and from northern BL 81), and numerous at grade intersections along Almond Street between Van Buren and Erie Boulevard (to and from southern BL 81). North-south vehicular traffic would be channeled through Almond Street and along parallel corridors, such as Crouse Avenue, Irving Avenue, State Street, and Townsend Street. North of I-690, North Clinton Street would be reconstructed and extended to serve as an alternative north-south route to Downtown, with new on- and off-ramps connecting to southbound BL 81 located just south of Bear Street. East-west traffic routes would include Erie Boulevard, Harrison Street, and Adams Street.

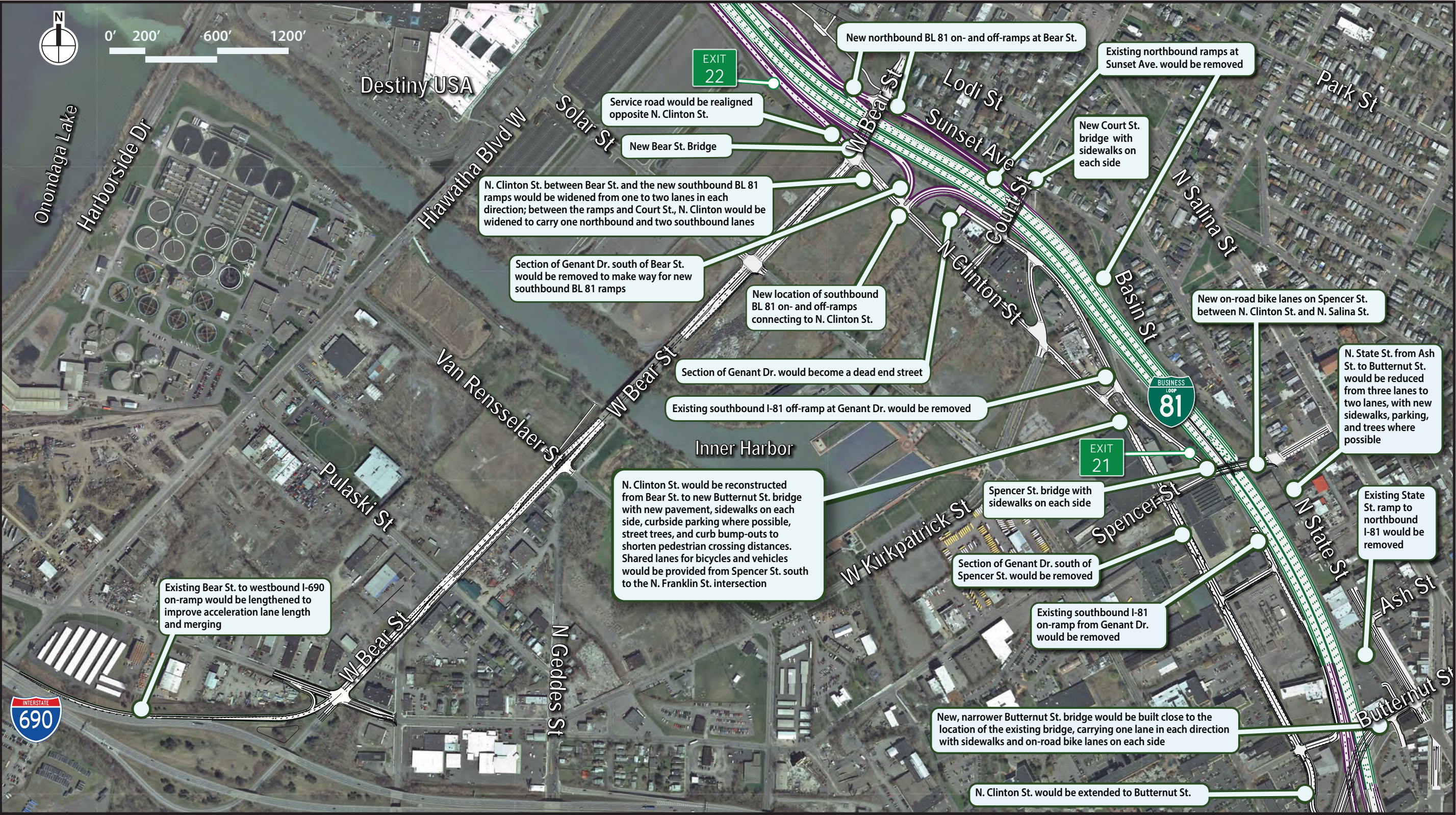
The southern section of BL 81 would transition from an elevated limited-access highway to a street-level arterial, touching down at its first intersection at Van Buren. It would continue as a City street until near the intersection of the current I-81/I-690 interchange. In this area, new on- and off-ramps would access the high speed limited access northern segment of BL 81. See Figures 3-25, 3-26, 3-27, 3-30, 3-34, 3-35, 3-36, 3-37, and 3-40 for an overview of the changes in each segment.

Highway segments and interchanges that are reconstructed would meet FHWA and NYSDOT highway design standards, and thus it is anticipated that most non-standard and non-conforming features of the existing highway within the Central Study Area would be addressed. By removing the viaduct and reconstructing or rehabilitating remaining highway segments within the Central Study Area, the Community Grid Alternative also would eliminate the existing structural deficiencies.

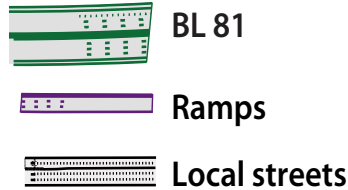
See Figure 3-26 for Butternut to Bear Streets



Community Grid Alternative:
Colvin Street to Butternut Street
Figure 3-25

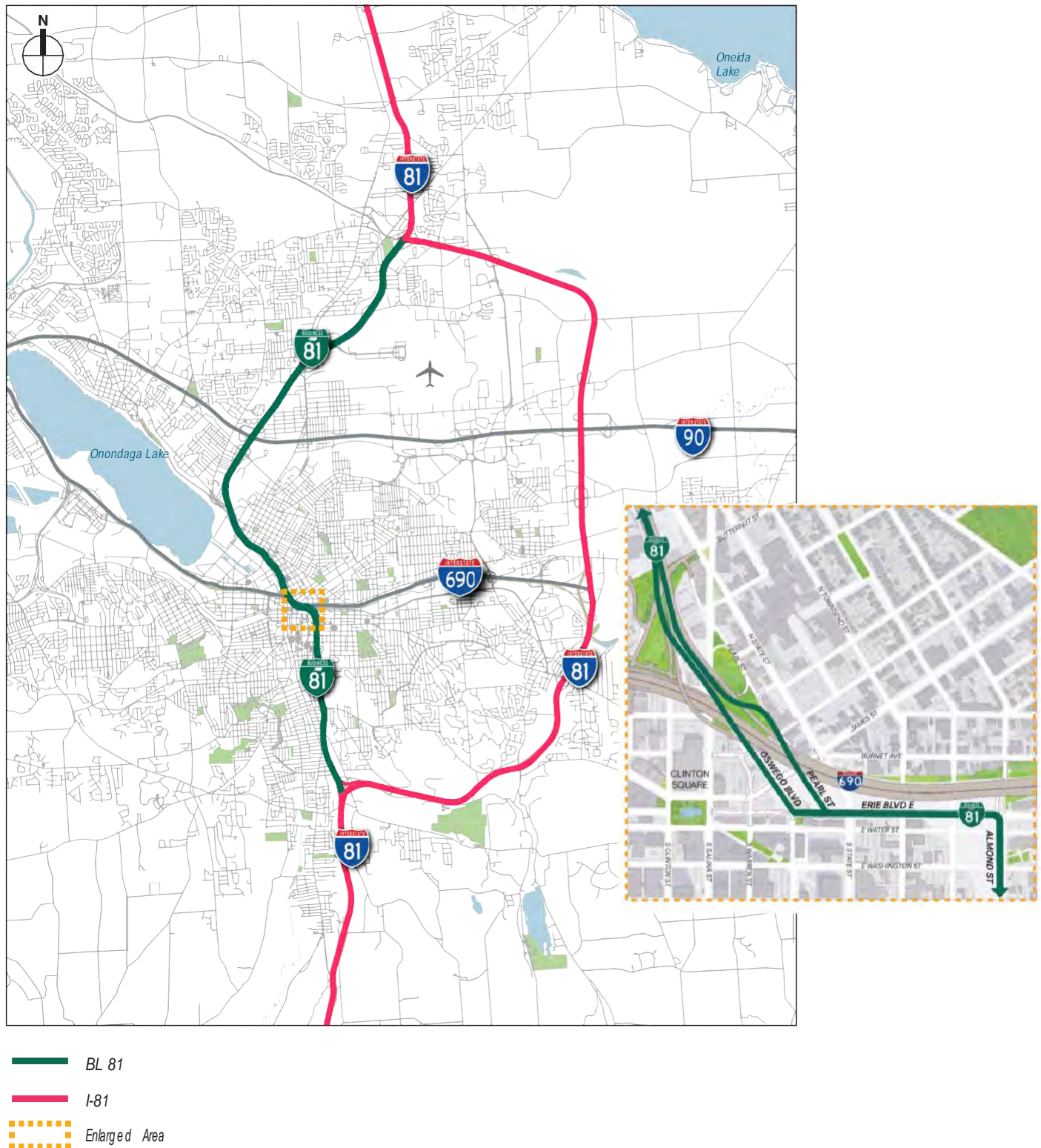


Community Grid Alternative: Butternut Street to Bear Street

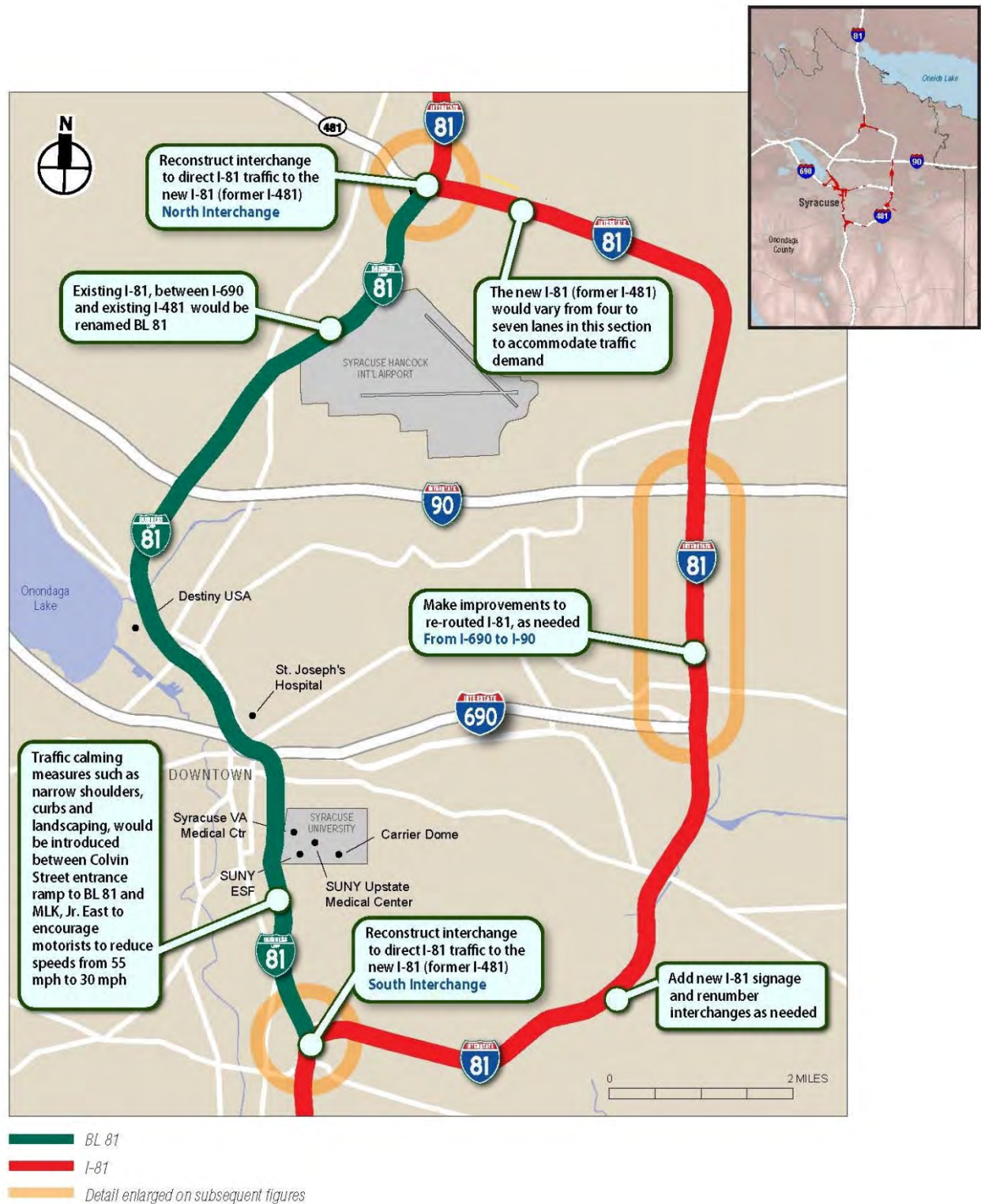


See Figure 3-26 for Butternut to Bear Streets

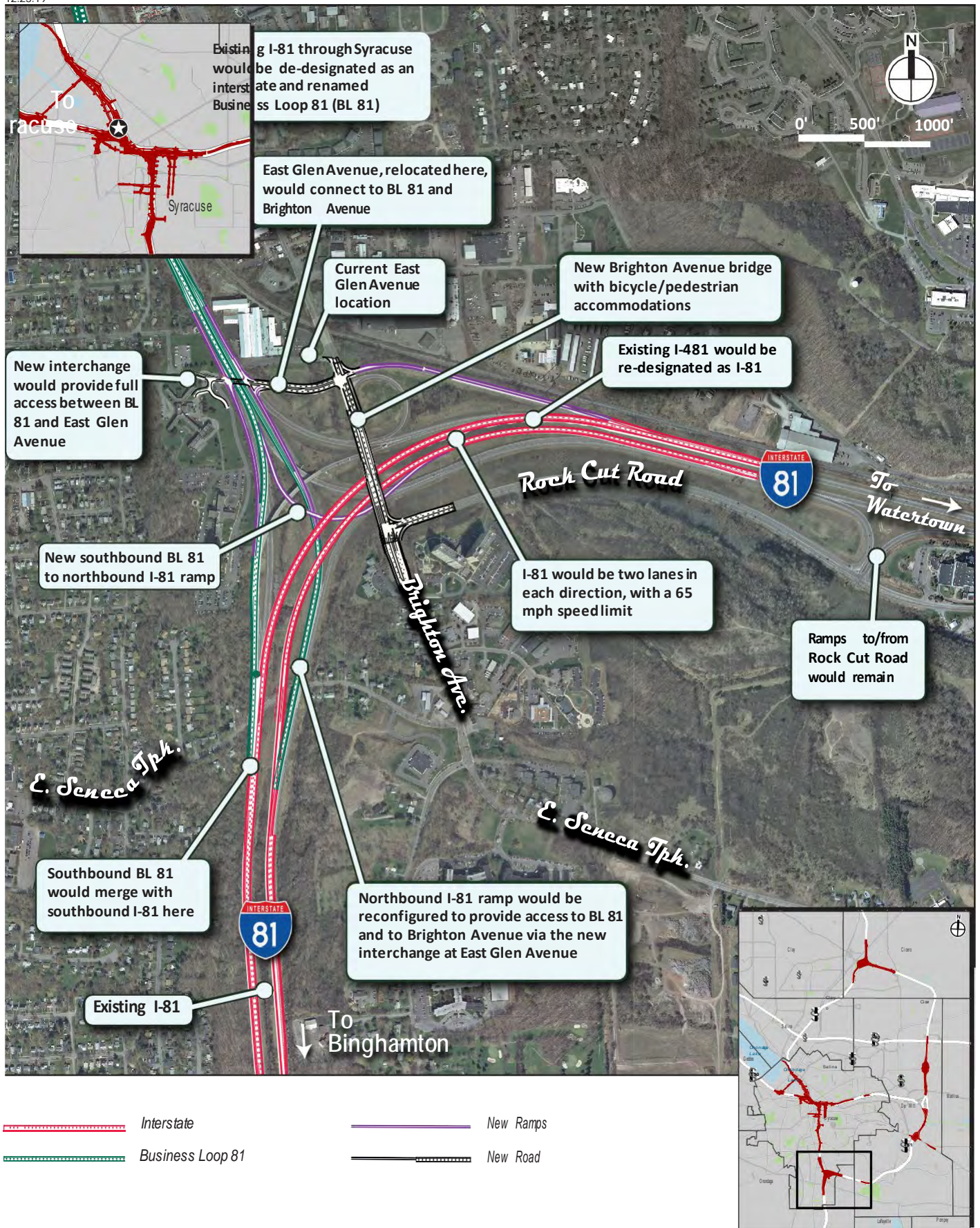
Community Grid Alternative Overview:
Bear Street to Hiawatha Boulevard
Figure 3-27



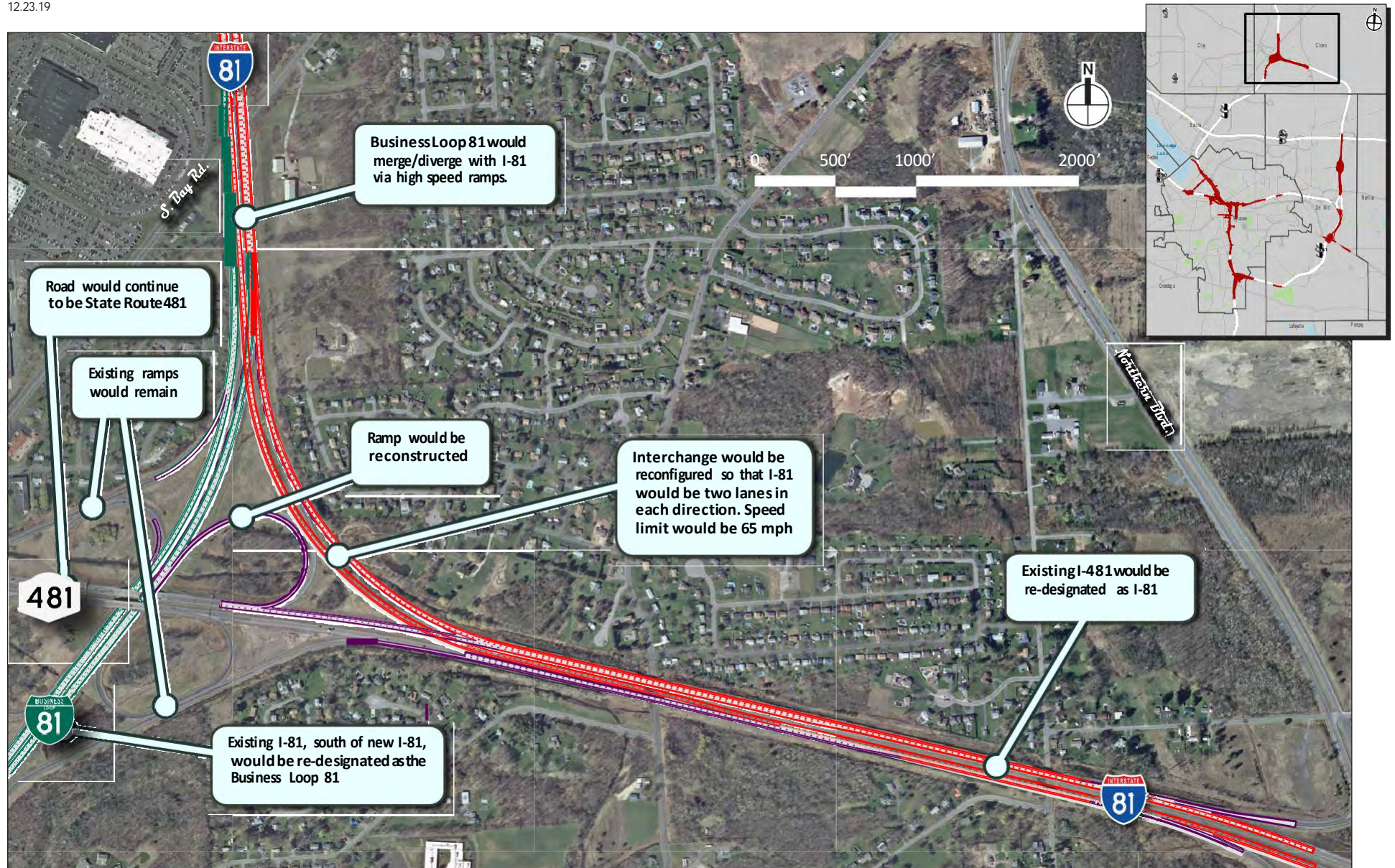
Community Grid Alternative:
Business Loop 81
Figure 3-30



Community Grid Alternative:
Re-designation of I-481 to I-81



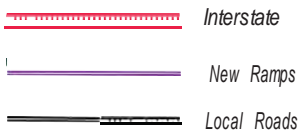
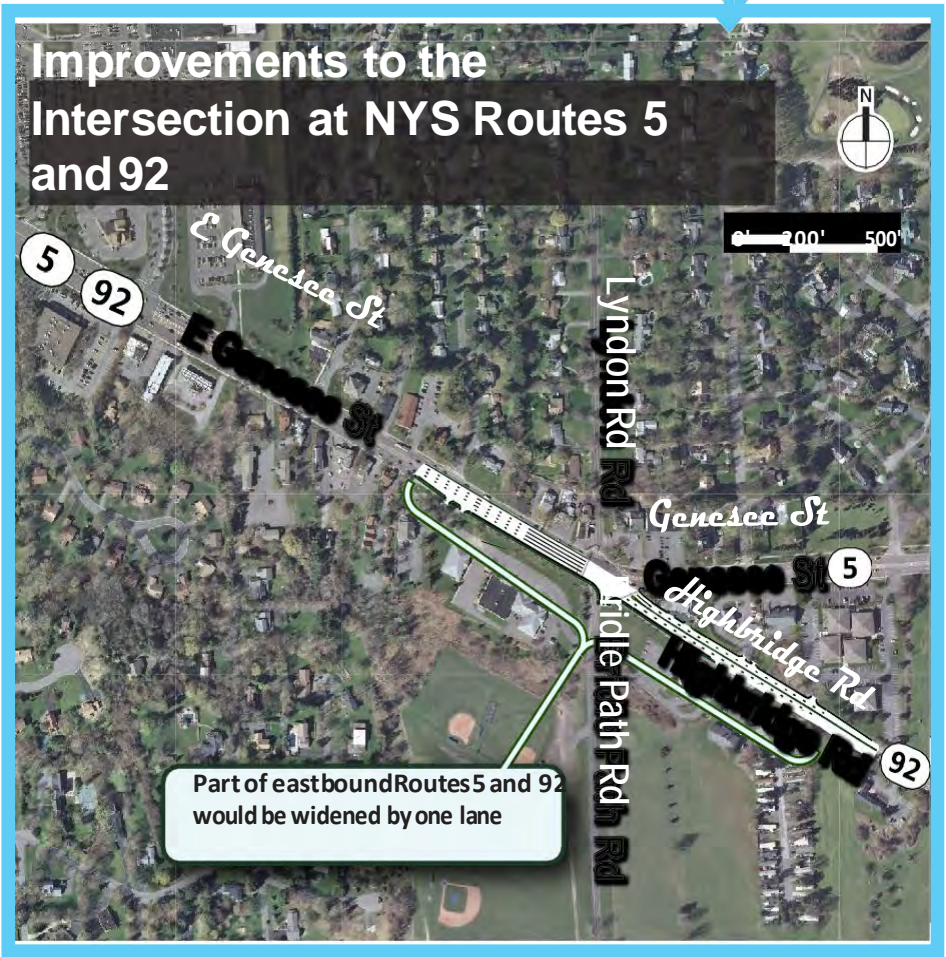
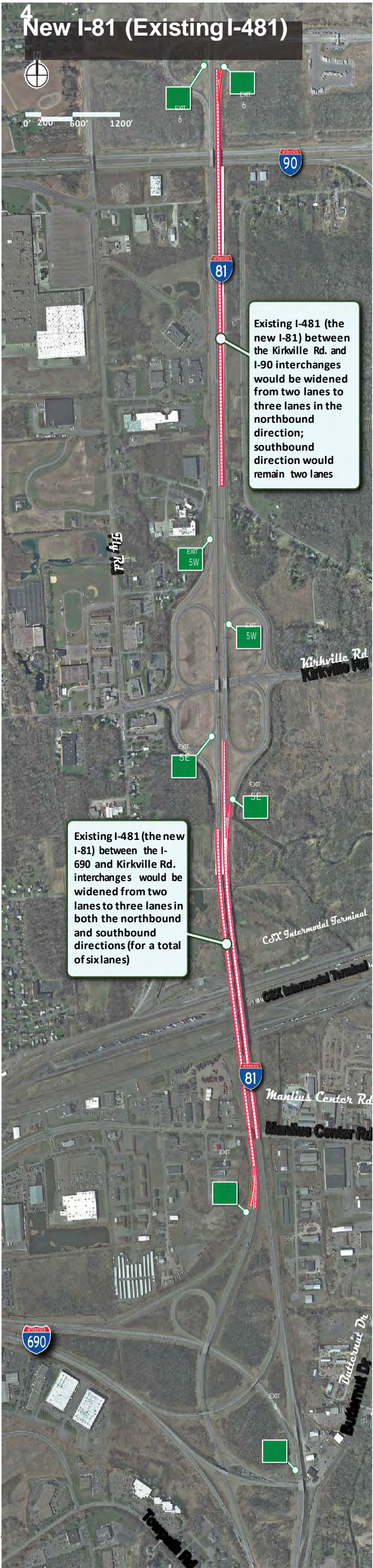
Community Grid Alternative:
South Interchange of the New I-81 (formerly I-481)
Figure 3-35



I-81 Viaduct Project

Community Grid Alternative:
North Interchange of the New I-81 (formerly I-481)

Figure 3-36



Community Grid Alternative: Modifications to Existing I-481 from Exit 3 to I-90



Analysis of Traffic Impacts under Community Grid Alternative

This section discusses the potential impacts on both north-south and east-west movements and on local and highway traffic operations. Extensive traffic modeling was done for the I-81 Viaduct Project DEIS to produce speed and travel time estimates, traffic volumes, and intersection level of service (LOS). Selected material from the DDR/DEIS is included to demonstrate suitability of the routes for the National Network.

Speeds and Delay

Speed and Travel Time Estimates

Travel time and travel speed projections for the 2026 and 2056 Community Grid Alternative conditions were performed using the VISSIM models developed for the project. **Tables 5-47 and 5-48** present the estimated travel times, delay and speeds for each of 11 travel routes by direction during the AM and PM peak hours.

Under the Community Grid Alternative, BL 81 would be a combination of limited-access highway and urban arterial. Therefore, speeds would be reduced along sections of this route compared to No Build conditions, due to intersection and traffic signal delay. The average speeds along the entire length of the route would range from approximately 36 to 41 miles per hour during peak hours, with the lower speeds occurring in 2056. Speeds along the other freeways in the project area for the AM peak hour would range from 56 to 65 mph and from 54 to 64 mph in 2026 and 2056, respectively. For the PM peak hour, freeway speeds would range from 50 to 65 mph and from 52 to 63 mph in 2026 and 2056, respectively.

2026 and 2056 Community Grid travel speeds on the former I-481 routes would be similar to their corresponding No Build travel speeds. This is because that under the Community Grid Alternative, a new auxiliary lane would be added to I-481 in each direction between Interchange 5 (Kirkville Road) and Interchange 4 (I-690), as well as to northbound I-481 between Interchange 5 (Kirkville Road) and Interchange 6 (I-90) to compensate for additional traffic on the former I-481.

Travel speeds on the former I-81 route (south of I-690) would be slower than No Build speeds because under the Community Grid Alternative, the section between the I-690 interchange and MLK, Jr. East would be replaced by an urban arterial and the section between MLK, Jr. East and the southern I-81/I-481 interchange would operate as a controlled access freeway. In the northbound direction, the southern section of BL 81 would have a transitional posted speed to bring traffic speeds down from an expressway to a city street system.

Arterial speeds throughout the project area for the AM peak hour would range from 7 to 22 mph and from 6 to 20 mph in 2026 and 2056, respectively. For the PM peak hour, arterial travel speeds would range from 6 to 29 mph and from 7 to 25 mph in 2026 and 2056, respectively. Similar to the existing and No Build conditions, a vast majority of arterial routes under the 2026 and 2056 Community Grid traffic conditions could be characterized as low-speed routes because their travel speeds are less than 20 mph during one or more peak hours.

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Table 5-47

2026 No Build and Community Grid Alternative Travel Time, Delay and Speeds

ID	Route	Direction	Travel Time (min)				Travel Delay (min)				Travel Speed (mph)				Speed Limit	
			NB		CG		NB		CG		NB		CG		NB	CG
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	(mph)	(mph)
1*	BL 81/former I-81 from Exit 17 to Exit 29N	NB	13	14	18	19	2	2	7	8	56	53	41	39	45-65	30-65
		SB	17	13	20	17	6	2	9	6	41	53	36	41	45-65	30-65
2	New I-81/former I-481 from Exit 2 to Exit 8	NB	13	13	14	13	0	0	1	0	63	63	62	63	65	65
		SB	13	13	13	13	0	0	0	0	63	63	65	65	65	65
3	I-690 from Exit 8 to Exit 17	EB	9	9	8	9	0	0	0	0	52	53	57	56	45-55	45-55
		WB	9	10	9	10	0	1	0	1	55	51	56	50	45-55	45-55
4	Irving Avenue from Raynor Avenue to Fayette Street	NB	6	6	4	3	3	4	1	1	13	13	22	24	30	30
		SB	7	7	3	3	4	5	1	0	11	11	22	29	30	30
5	Almond Street from Van Buren Street to Burnet Avenue	NB	8	9	4	4	5	6	1	2	11	10	21	20	30	30
		SB	8	8	6	6	5	5	3	3	11	11	14	15	30	30
6	State Street from Adams Street to Butternut Street	NB	5	8	5	7	3	5	3	5	12	9	13	9	30	30
7	Clinton Street from Websters Landing to Adams Street	SB	3	5	3	5	2	3	2	3	15	11	15	11	30	30
8	West Street from Adams Street to Genesee Street	NB	2	2	3	3	1	1	1	1	20	21	18	17	35	35
		SB	3	2	3	2	2	1	1	1	13	20	16	20	35	35
9	Fayette Street from Walnut Avenue to West Street	EB	4	4	6	8	2	2	5	7	14	13	8	6	30	30
		WB	4	7	6	8	2	5	4	6	13	7	9	6	30	30
10	Harrison Street from Comstock Avenue to West Street	WB	5	5	8	8	3	3	6	6	12	11	7	8	30	30
11	Adams Street from West Street to Comstock Avenue	EB	6	6	8	8	4	4	6	6	10	10	7	8	30	30

Notes: *Via Almond Street under Community Grid; NB = No Build, CG = Community Grid

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Table 5-48

2056 No Build and Community Grid Alternative Travel Time, Delay and Speeds

ID	Route	Direction	Travel Time (min)				Travel Delay (min)				Travel Speed (mph)				Speed Limit	
			NB		CG		NB		CG		NB		CG		NB	CG
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	(mph)	(mph)
1*	BL 81/former I-81 from Exit 17 to Exit 29N	NB	14	13	19	19	3	2	8	7	52	54	39	39	45-65	30-65
		SB	17	13	19	19	6	2	9	8	42	53	36	37	45-65	30-65
2	New I-81/former I-481 from Exit 2 to Exit 8	NB	13	14	13	13	0	1	0	0	64	62	63	63	65	65
		SB	13	15	13	13	0	2	0	0	63	55	64	63	65	65
3	I-690 from Exit 8 to Exit 17	EB	10	10	9	9	1	1	0	0	48	49	55	57	45-55	45-55
		WB	9	10	9	9	0	1	0	0	56	51	56	52	45-55	45-55
4	Irving Avenue from Raynor Avenue to Fayette Street	NB	4	6	4	5	2	3	1	2	18	14	20	18	30	30
		SB	4	6	5	3	2	3	3	1	19	13	15	23	30	30
5	Almond Street from Van Buren Street to Burnet Avenue	NB	4	9	4	5	1	6	1	2	20	9	20	19	30	30
		SB	8	6	6	6	5	3	3	3	11	14	14	14	30	30
6	State Street from Adams Street to Butternut Street	NB	6	6	7	8	3	4	5	6	12	10	9	8	30	30
7	Clinton Street from Websters Landing to Adams Street	SB	3	4	3	4	2	2	2	2	15	13	15	12	30	30
8	West Street from Adams Street to Genesee Street	NB	2	2	4	2	1	0	3	1	21	27	12	19	35	35
		SB	2	2	2	2	1	0	1	1	19	28	20	25	35	35
9	Fayette Street from Walnut Avenue to West Street	EB	7	6	6	7	5	4	5	5	8	9	8	7	30	30
		WB	7	7	8	6	6	5	7	4	7	7	6	9	30	30
10	Harrison Street from Comstock Avenue to West Street	WB	7	8	7	9	5	6	5	7	9	7	9	7	30	30
11	Adams Street from West Street to Comstock Avenue	EB	7	8	7	8	5	6	5	6	8	8	8	8	30	30

Notes: *Via Almond Street under Community Grid; NB = No Build, CG = Community Grid

Traffic Volumes

Future Build Year Traffic Volumes

A future Build year condition represents a future-year growth scenario, including all planned/committed transportation projects that are included in the No Build, as well as the I-81 Viaduct Project alternatives. Two future Build years were analyzed - the ETC year 2026 and design year 2056. The primary tool used for estimating future Build year traffic volumes is the SMTC regional travel demand model developed by the Syracuse Metropolitan Transportation Council (SMTC). The SMTC model predicts traffic volumes as a result of the anticipated changes in land use, population, economic activity, and transportation system. AM and PM peak hour traffic volumes were forecasted separately for the 2026 and 2056 Build years.

Projected future Build traffic volumes under the Community Grid Alternative for the 2026 and 2056 analysis years and for the AM and PM peak hours are located in Appendix C-3 of the I-81 DDR/DEIS for all interstate segments, ramp connections, and intersection turning movements. **Table 5-50** shows the weekday AM and PM peak hour traffic volumes for key segments on freeways and several local roadways in the project area.

Generally, traffic volume increases under the Community Grid Alternative would be fairly uniform and modest when comparing Build year 2056 to 2026, and the evening peak would exceed the morning peak in terms of overall traffic in both years.

The Community Grid Alternative would establish former I-481 as the quickest path for regional north-south travel through the project area. As a result, traffic would increase on former I-481 both north and south of I-690 and decrease on former I-81.

Under the Community Grid Alternative, the southbound former I-81 exit to Butternut Street and the slip-ramp to Salina Street would not be provided. Traffic exiting southbound former I-81 towards downtown is consolidated onto Clinton Street and traffic would increase along the arterial. Traffic would decrease on westbound Harrison Street and eastbound Adams Street, due removal of the elevated former I-81 and associated ramps in their vicinity. Traffic would increase on sections of Almond Street north of former Harrison/Adams Street interchange because Almond Street would accommodate some through traffic, which would be on the elevated former I-81 in the No Build condition. Traffic would increase on eastbound Harrison Street (east of Almond Street) because the portion of Harrison Street (west of Almond Street) would be converted to two-way operation under the Community Grid Alternative, allowing eastbound travel further west and improving network connectivity to the eastbound lanes on Harrison Street. Traffic would increase on Crouse and Irving Avenues, as these routes would be established as direct routes between University Hill and the new I-690 interchange at Crouse and Irving Avenues.

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Table 5-50 (cont'd)

2026 and 2056 Community Grid Alternative Traffic Volumes at Key Locations

Location	Direction	2026				2056			
		AM		PM		AM		PM	
		No Build	CG	No Build	CG	No Build	CG	No Build	CG
I-81 Just North of Colvin Street Interchange (Former I-81 for Community Grid)	NB	3,032	1,287	2,957	917	3,412	1,530	3,101	1,058
	SB	2,357	606	3,519	1,733	2,480	667	3,815	2,027
I-81 Just South of Court/ Spencer Street Interchange (Former I-81 for Community Grid)	NB	2,484	1,969	5,945	5,127	2,688	2,166	6,322	5,511
	SB	5,254	3,440	3,529	2,177	5,681	3,786	3,820	2,402
I-481 Just South of I-690 Interchange (New I-81 for Community Grid)	NB	3,492	4,359	2,784	3,771	3,722	4,647	2,958	4,053
	SB	2,030	2,987	3,565	4,617	2,203	3,233	3,814	4,916
I-481 Just North of I-690 Interchange (New I-81 for Community Grid)	NB	2,304	2,634	3,025	3,438	2,551	2,917	3,267	3,680
	SB	2,740	3,275	2,459	3,067	3,083	3,617	2,797	3,473
I-690 Just West of West Street Interchange	EB	4,512	4,445	2,545	2,662	4,893	4,840	2,801	2,901
	WB	1,974	1,906	4,024	3,708	2,178	2,143	4,386	4,067
I-690 Just East of Teall Avenue Interchange	EB	3,560	3,470	4,795	4,613	3,711	3,609	4,965	4,825
	WB	3,977	4,260	3,937	4,334	4,271	4,548	4,061	4,497
West Street Just South of Fayette Street	NB	495	554	833	966	438	561	782	1,034
	SB	1,022	1,022	655	613	1,082	1,105	698	646
Clinton Street Just North of Onondaga Street	NB					196		265	
	SB	546	751	483	654	424	802	327	697
Salina Street Just North of Onondaga Street	NB	318	393	419	489	282	404	437	520
	SB	362	560	283	406	440	552	370	427
State Street Just North of Harrison Street	NB	167	361	235	535	153	279	278	475
	SB	375	463	323	374	429	523	329	403
Almond Street Just North of Harrison Street	NB	713	976	519	1,378	747	1,060	517	1,452
	SB	1,528	986	1,004	740	1,584	960	1,159	828
Irving Avenue Just North of Harrison Street	NB	120	166	275	498	140	226	318	589
	SB	554	777	358	366	633	906	391	452
Crouse Avenue Just North of Harrison Street	NB	178	272	383	664	174	319	371	755
	SB		288		157		312		167
Erie Boulevard Just East of Almond Street	EB	363	556	357	983	417	582	399	971
	WB	273	781	395	592	313	780	447	593
Fayette Street Just East of Almond Street	EB	276	229	157	258	285	229	185	282
	WB	152	224	294	304	157	256	297	316
Genesee Street Just East of Almond Street	EB	357	341	461	524	370	339	478	585
	WB	369	296	372	222	386	302	436	230
Harrison Street Just East of Almond Street	EB	49	313	54	242	113	344	79	307
	WB	838	521	1,651	1,093	913	564	1,867	1,146
Adams Street Just East of Almond Street	EB	1,742	749	817	563	1,876	858	963	595

Traffic Redistribution due to Removal of the I-81 Viaduct

Under the Community Grid Alternative, the existing I-81 viaduct between the New York, Susquehanna and Western Railway bridge near Renwick Avenue and the I-81/I-690 interchange would be demolished. Therefore, I-81 traffic would be diverted to other freeways or local roads, depending on the trip types or destinations.

Potential diversion routes for northbound BL 81 traffic would include:

Destinations West of Syracuse: Traffic would use northbound Almond Street to Erie Boulevard and access westbound I-690 at West Street.

Destinations East of Syracuse: Traffic would use Almond Street to Erie Boulevard and re-enter eastbound I-690 at Crouse Avenue. Alternatively, traffic would use the new northbound I-81 (former I-481) and I-690 to locations east of Syracuse.

Destinations North of Syracuse: Traffic would use Almond Street, then travel westbound on Erie Boulevard, and access northbound BL 81 at the Pearl Street on-ramp. Alternatively, longer distance traffic would use new northbound I-81.

Since there is no existing direct connection from southbound I-81 to westbound I-690, only two potential diversion routes for southbound I-81 traffic were identified:

Destinations East of Syracuse: Traffic would use the southbound BL 81 to the eastbound I-690 ramp, much as it does today.

Destinations South of Syracuse: Traffic would use the southbound BL 81 (former I-81) exit to Oswego Boulevard, travel east on Erie Boulevard to southbound Almond Street, then re-enter the highway near MLK, Jr. East. Alternatively, longer distance traffic would use new southbound I-81.

Most I-81 traffic is destined for Downtown and University Hill, the two major regional employment centers. These vehicles would disperse among the many southern roadways parallel to existing I-81 and Almond Street that would provide more direct routes to their various destinations. To identify which roadways (or areas) would be used by local traffic diverted from I-81, screenlines--delineations that extend across a series of roadway links to use in the evaluation of travel movements--were established within the Project's traffic model. The model then estimated the volumes of northbound and southbound traffic traveling on numerous roadways through the study area under the Community Grid and No Build Alternatives to identify where traffic displaced from the viaduct would travel (see **Figures 5-28 and 5-29**).

Screenline A, established between MLK, Jr. East and East Colvin Street, comprises four sections, with each section representing a specific area:

- Area 1 – Between Onondaga Road and West Street
- Area 2 – Between West Street and Teall Avenue
- Area 3 – Between Teall Avenue and new I-81 (former I-481)
- Area 4 – New I-81 (former I-481)

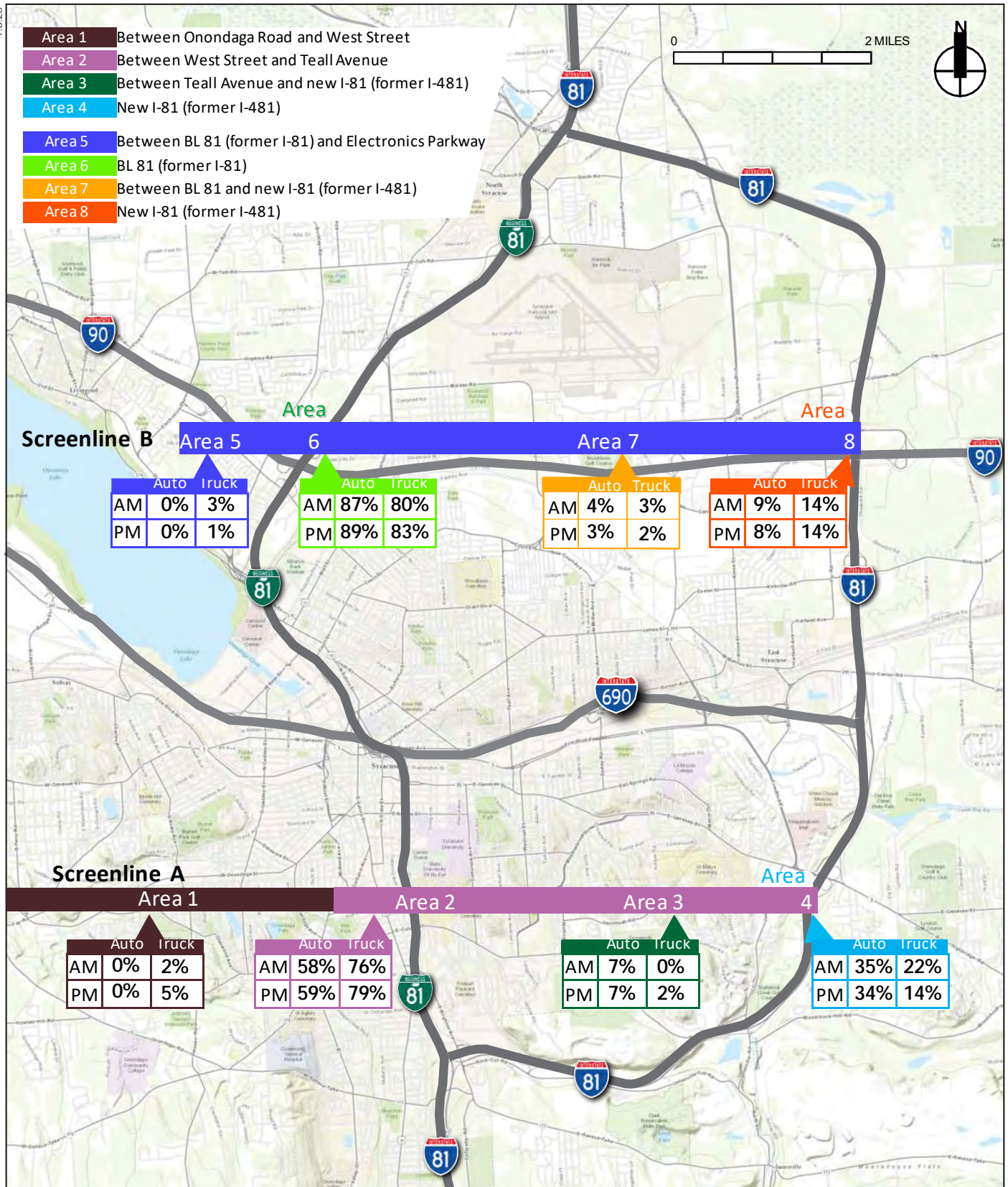
It is anticipated that traffic on northern I-81 (north of I-690) would be less likely to divert than traffic on southern I-81 (south of I-690) traffic because (1) north of I-690, BL 81 would be a high-speed, limited-access facility, (2) there are fewer northern roadways parallel to I-81/Genant Drive to bring traffic directly to Downtown and University Hill, and (3) southbound BL-81 would provide exits to Clinton Street and eastbound I-690.

Screenline B was established to identify roadways (or areas) that would accommodate local traffic diverted from I-81 north of I-690. Screenline B, between Hancock International Airport and I-90, consists of four sections, each representing a specific area:

- Area 5 – Between BL-81 and Electronics Parkway
- Area 6 – BL-81
- Area 7 – Between BL-81 and new I-81 (former I-481)
- Area 8 – New I-81 (former I-481)

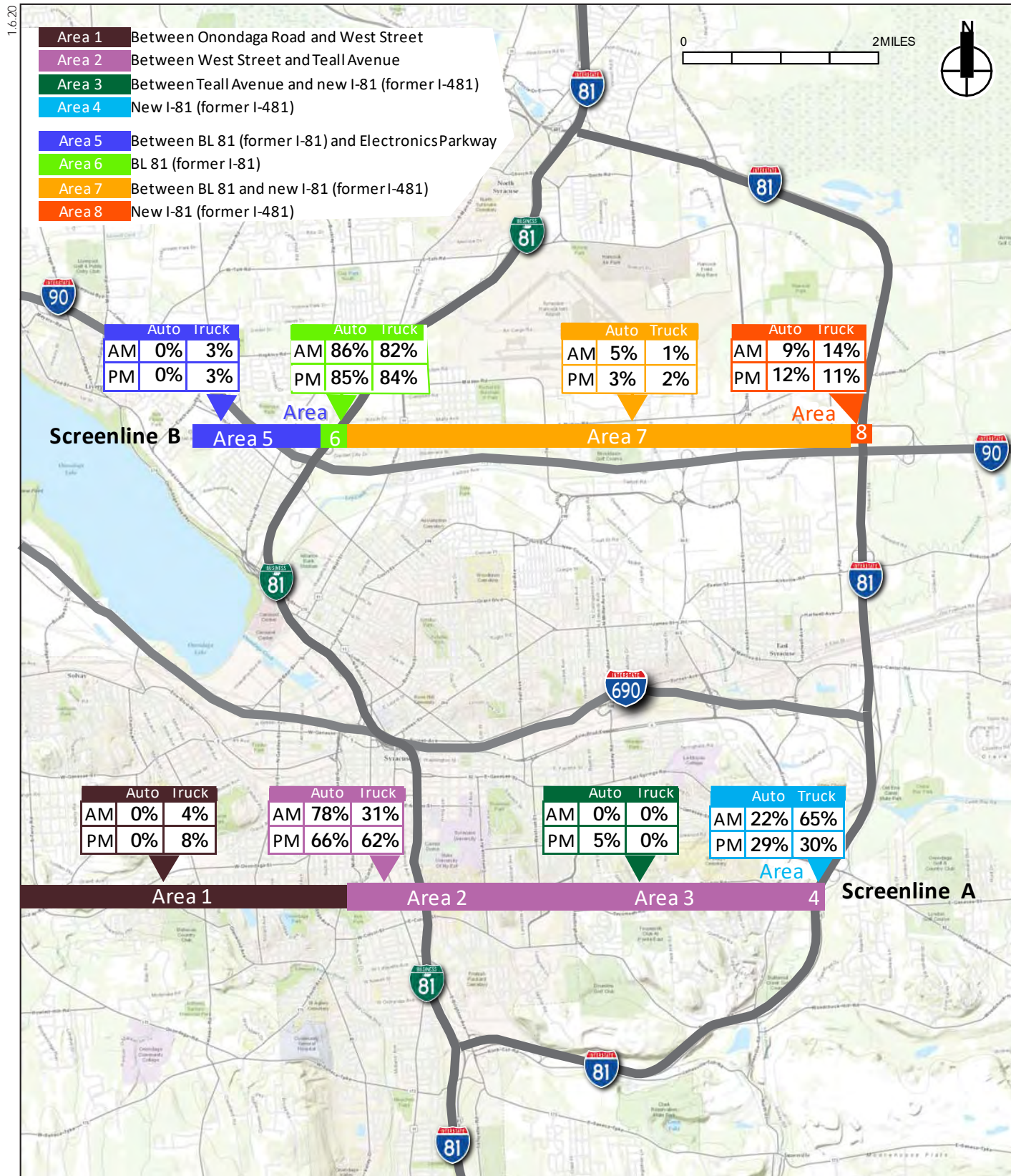
Tables 5-51 and **5-52** show I-81 traffic diversion patterns at Screenlines A and B, respectively. These tables show the percentage of No Build traffic on I-81 at Screenlines A and B that would use other roadways under the Community Grid Alternative. For example, during the AM peak hour, **Table 5-51** (Screenline A) shows that 0 percent of northbound I-81 automobile traffic would be diverted to roadways within Area 1, 58 percent within Area 2, 7 percent within Area 3, and 35 percent within Area 4.

As shown in **Table 5-51** (Screenline A), during the AM and PM peak hours, approximately 59 percent of northbound I-81 auto traffic would be diverted to roadways within Area 2, and 35 percent would use the new I-81 in Area 4. Similarly, during the AM and PM peak hours respectively, 78 and 66 percent of southbound I-81 auto traffic would be diverted to roadways within Area 2, and 22 and 29 percent of southbound I-81 auto traffic would use the new I-81 in Area 4. Higher percentages of northbound and southbound I-81 auto traffic would use roadways within Area 2 because this area contains many roadways parallel to I-81 which provide access to and from the region's major activities centers including Downtown and University Hill. Traffic volumes on the new I-81 would increase and include additional pass-through trips that currently use northbound or southbound I-81, as well as trips to and from Westcott, Eastwood, and East Syracuse that currently use northbound I-81 to eastbound I-690 (or westbound I-690 to southbound I-81). Higher percentages of northbound and southbound I-81 trucks would use roadways within Areas 2 and 4. During the AM and PM peak hours respectively, 76 and 79 percent of northbound I-81 trucks would be diverted to roadways within Area 2, and 22 and 14 percent of northbound I-81 trucks would use the new I-81 in Area 4. Thirty-one and 62 percent of southbound I-81 trucks would divert to roadways within Area 2 during the AM and PM peak hours, respectively. In addition, 65 and 30 percent of trucks would use the new I-81 during the AM and PM peak hours, respectively. During the AM peak hour, more southbound I-81 trucks pass through the Syracuse region and fewer have destinations in within the city.



Community Grid Alternative —
I-81 Northbound Traffic Diversion by Zone

Figure 5-28



Community Grid Alternative
I-81 Southbound Traffic Diversion by Area
Figure 5-29

**Table 5-51 I-81 Traffic Diversion
Patterns on Screenline A**

Mode	Peak Hour	I-81 Northbound Traffic Diversion Areas				I-81 Southbound Traffic Diversion Areas			
		Area 1	Area 2	Area 3	Area 4	Area 1	Area 2	Area 3	Area 4
Auto	AM	0%	58%	7%	35%	0%	78%	0%	22%
	PM	0%	59%	7%	34%	0%	66%	5%	29%
Truck	AM	2%	76%	0%	22%	4%	31%	0%	65%
	PM	5%	79%	2%	14%	8%	62%	0%	30%

As shown in **Table 5-52**, the majority of northbound and southbound I-81 auto traffic would use BL-81 in Area 6 near Screenline B. This is because there are fewer northern roadways parallel to I-81/Genant Drive to bring traffic directly to Downtown and University Hill. Whereas 87 percent of northbound and 86 percent of southbound I-81 auto traffic would use BL-81 during the AM peak hour, 89 percent of northbound and 85 percent of southbound I-81 auto traffic would use BL-81 during the PM peak hour. Approximately 9 percent of northbound or southbound I-81 auto traffic would use the new I-81 in Area 8 during both AM and PM peak hours. This 9 percent of I-81 directional traffic mainly consists of pass-through trips currently using I-81 to travel from the I-81/I-481 southern interchange (Exit 6) to the I-81/I-481 northern interchange (Exit 29) or vice versa. Similar to I-81 auto diversion patterns, higher percentages of northbound and southbound I-81 truck traffic would use roadways within Areas 6 and 8. During the AM and PM peak hours respectively, 80 and 83 percent of northbound I-81 truck traffic would use BL-81 in Area 6. Similarly, 82 and 84 percent of southbound I-81 truck traffic would use BL-81 in the AM and PM peak hours, respectively. Between 11 and 14 percent of northbound and southbound I-81 truck traffic would use the new I-81 in Area 8 during both the AM and PM peak hours. Fewer I-81 trucks would use other roadways in Areas 5 and 7.

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Overall, traffic is dispersed more broadly south of I-690 compared to north of I-690 where traffic patterns are not altered as significantly. This is due to the removal of the I-81 viaduct connection south of I-690 under the Community Grid Alternative which causes traffic to be redirected onto various parallel north/south routes to reach major destinations.

**Table 5-52 I-81 Traffic Diversion
Patterns on Screenline B**

Mode	Peak Hour	I-81 Northbound Traffic Diversion Areas				I-81 Southbound Traffic Diversion Areas			
		Area 5	Area 6	Area 7	Area 8	Area 5	Area 6	Area 7	Area 8
Auto	AM	0%	87%	4%	9%	0%	86%	5%	9%
	PM	0%	89%	3%	8%	0%	85%	3%	12%
Truck	AM	3%	80%	3%	14%	3%	82%	1%	14%
	PM	1%	83%	2%	14%	3%	84%	2%	11%

Level of Service and Mobility

The Community Grid Alternative would relieve the existing/No Build condition traffic congestion issues on southbound I-81, the Harrison Street/Adams Street interchange, and Almond Street by removing the I-81 interchange at Harrison/Adams Streets, as well as dispersing traffic along many roadways with existing surplus capacity and providing more-direct access to the City's major activity centers. The Community Grid

Alternative would provide interstate access at alternative locations and provide capacity improvements on the local street system, in addition to the remaining portions of the interstate system.

Future Community Grid Level of Service: Freeway Level of Service

Based on VISSIM delay calculation, projected future Community Grid Alternative freeway levels of service (LOS) were calculated for all the basic freeway segments, freeway ramps, and weaving segments within the Project Area. **Table 5-53** shows 2026 and 2056 freeway LOS conditions resulting from the Community Grid Alternative traffic on selected critical sections of I-81, I-481, and I-690.

Since the Community Grid Alternative would correct most non-standard and non-conforming highway features within the Project Area and make improvements at existing/No Build locations identified as congested, it would substantially improve traffic operational conditions on the freeway system during the AM and PM peak hours. In comparison to No Build condition LOS results, the numbers of freeway segments, ramp junctions, and weaving sections operating unacceptably would be reduced by 94 and 100 percent in 2026 and 2056, respectively, under the Community Grid Alternative.

All basic freeway and merge and diverge segments would operate at LOS D or better except for the weaving section on northbound BL-81 between the Interchange 29N (NY 481) on and off-ramps, which would operate at LOS E in the 2026 and 2056 PM peak hours.

Future Community Grid Level of Service: Intersection Level of Service

Based on VISSIM delay calculations, **Figures 5-30 through 5-33** show the intersection LOS under the Community Grid Alternative.

One intersection would operate at LOS F during the 2026 AM peak hour. During the PM peak hour, two intersections would operate at LOS E in 2026 and one intersection would operation and LOS E in 2056. The following is a summary of locations that would operate at unacceptable levels:

- Comstock Avenue at Stratford Street (2026 AM, 2056 PM);
- Teall Avenue at Erie Boulevard E. (2026 PM);
- Walnut Avenue at E. Water Street (2026 PM)

All other study area intersection would operate at LOS D or better under the Community Grid Alternative.

Compared to the No Build condition, the number of intersections operating at LOS E or F would be reduced in 2026 from eleven to three. In 2056, the number of intersections operating at LOS E and F would be reduced from ten to one. Intersection operations would improve under the Community Grid Alternative as a result of capacity improvements on the local street network, redistributing traffic to better utilize intersections with surplus capacity, and providing improved access routes to key destinations.

Table 5-53

2026 and 2056 Community Grid Alternative Freeway LOS Analysis

Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
Northbound BL-81 (Former I-81)									
before off-ramp to Northbound Former I-481	BFS	14.9	B	11.2	B	16.2	B	13.1	B
at off-ramp to Northbound Former I-481	Diverge	3.8	A	5.4	A	8.3	A	6.2	A
at off-ramp to Glen Av	Diverge	8.4	A	5.7	A	8.8	A	5.0	A
between Glen Av on and off-ramps	BFS	15.6	B	10.7	A	16.8	B	9.0	A
between Glen Av on-ramp and S. Salina St off-ramp	BFS	10.5	A	7.5	A	13.4	B	6.5	A
at Exit 17 (S. Salina St, Brighton Av) to E Brighton St	Diverge	6.0	A	6.6	A	8.2	A	4.0	A
between Interchange 17 (S. Salina St, Brighton Av) off and on-ramps	BFS	6.7	A	0.6	A	8.7	A	4.2	A
between S. Salina St on-ramp and Colvin St off-ramp	Weave	6.5	A	1.2	A	8.0	A	4.4	A
between Colvin St on and off-ramps	BFS	7.5	A	1.6	A	8.7	A	4.5	A
at Colvin St on-ramp	Merge	8.0	A	2.8	A	10.2	B	7.0	A
at Interchange 19 (N. Salina St, Pearl St) on-ramp	Merge	4.2	A	22.2	C	3.3	A	24.1	C
between Westbound I-690 on-ramp and Court St off-ramp	Weave	7.3	A	18.0	B	10.6	B	20.2	C
between Interchange 22 (Court St) off and on-ramps	BFS	7.5	A	20.1	C	9.4	A	22.2	C
at Interchange 22 (Court St) on-ramp	Merge	7.1	A	18.6	B	8.0	A	22.2	C
at Exit 23 (Hiawatha Blvd) to Hiawatha Blvd W	Diverge	5.4	A	12.3	B	5.2	A	14.1	B
between Interchange 23 (Park St, Hiawatha Blvd) off and on-ramps	BFS	6.8	A	17.2	B	10.9	A	19.5	C
at Interchange 23 (Hiawatha Blvd) on- ramp	Merge	12.9	B	24.2	C	16.4	B	26.9	C
between Interchange 23 (Hiawatha Blvd) on-ramp and Exit 25 (7th Northbound St)	BFS	9.2	A	18.7	C	12.1	B	20.7	C
at Exit 25 (7th Northbound St)	Diverge	10.8	B	20.1	C	14.0	B	22.1	C
between Interchange 25 (7th Northbound St) off and on-ramps	BFS	9.1	A	21.6	C	12.4	B	24.1	C
between Interchange 25 (7th Northbound St) on-ramp and Exit 25A (I-90)	Weave	7.8	A	20.1	C	10.4	B	23.6	C
between Interchange 25A (I-90) off and on-ramps	BFS	8.6	A	22.9	C	11.6	B	25.3	C
between Interchange 25A (I-90) on- ramp and Exit 26 (US 11)	BFS	9.0	A	20.2	C	11.6	B	22.2	C
at Exit 26 (US 11)	Diverge	8.5	A	17.0	B	10.7	B	18.2	B
between Exit 26 (US 11) and Exits 27-28 (Airport Rd)	BFS	8.4	A	19.9	C	11.4	B	22.3	C
between Interchange 27 (Airport Blvd) off and on-ramp	BFS	5.3	A	15.5	B	6.9	A	17.7	B

Table 5-53 (cont'd)

2026 and 2056 Community Grid Alternative Freeway LOS Analysis

Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
at Interchange 27 (Airport Blvd) on- ramp	Merge	8.0	A	19.7	B	9.7	A	22.0	C
between Interchange 27 (Airport Blvd) on-ramp and Interchange 28 (Taft Rd) on-ramp	BFS	7.9	A	20.2	C	9.6	A	22.8	C
at Interchange 28 (Taft Rd) on-ramp	Merge	10.4	B	21.5	C	12.0	B	23.2	C
between Interchange 28 (Taft Rd) on-ramp and Exit 29S (Former I-481 Southbound)	BFS	10.0	A	23.8	C	11.8	B	26.4	D
at Exit 29S (Former I-481 Southbound)	Diverge	9.5	A	18.9	B	11.0	B	20.7	C
between Exit 29S (I-481 Southbound) and NY 481 Southbound on-ramp	BFS	8.9	A	25.8	C	10.5	A	30.1	D
between Interchange 29N (NY 481) on and off-ramps	Weave	6.9	A	36.3	E	7.9	A	39.4	E
between Exit 29N (Northbound NY-481) and Northbound Former I-481 (3 lane)	BFS	6.7	A	16.3	B	7.4	A	15.4	B
between Exit 29N (Northbound NY-481) and Northbound Former I-481 (2 lane)	BFS	9.9	A	19.4	C	10.8	A	21.7	C
at Interchange 29S (Former I-481) on-ramp	Merge	6.5	A	12.7	B	7.5	A	14.8	B
between Interchange 29N (Former I-481) and Exit 30 (NY 31)	BFS	8.3	A	16.6	B	9.7	A	20.0	C
Southbound BL-81 (Former I-81)									
between Interchange 30 (NY-31) on-ramp and Exit 29N (Former I-481)	BFS	21.0	C	12.1	B	27.2	D	13.8	B
at Exit Southbound Former I-81	Diverge	21.6	C	11.7	B	33.9	D	13.3	B
between Southbound Former I-481 off-ramp and Westbound NY 481 off-ramp	BFS	22.2	C	11.9	B	26.7	D	13.3	B
at Exit 29N (NY-481)	Diverge	14.6	B	8.0	A	16.8	B	8.9	A
between Northbound NY-481 off-ramp and Former Northbound I-481 on-ramp	BFS	20.3	C	10.5	A	23.4	C	11.9	B
at Interchange 29S (NY-481) on-ramp	Merge	14.6	B	8.9	A	17.2	B	10.5	B
between Interchange 29S (Former I-481) and Southbound NY 481 on-ramps	BFS	14.4	B	8.0	A	16.5	B	9.1	A
at Interchange 29N (NY 481) on-ramp	Merge	22.4	C	13.2	B	24.6	C	14.0	B
between Interchange 29S (Former I-481) on-ramp and Exit 28 (Taft Rd)	BFS	23.8	C	13.3	B	26.5	D	14.3	B
at Exit 28 (Taft Rd)	Diverge	17.5	B	11.3	B	19.0	B	11.9	B
between Exit 28 (Taft Rd) and Exits 27-26 (Airport Rd) off-ramps	BFS	20.9	C	11.3	B	23.7	C	12.3	B
at Exit 27(Airport Blvd)	Diverge	22.2	C	15.6	B	19.7	B	13.8	B
between Interchange 27 (Airport Rd) off and on-ramps	BFS	17.8	B	8.8	A	20.1	C	9.6	A
at Interchange 27 (Airport Rd) on-ramp	Merge	17.6	B	12.4	B	19.9	B	13.5	B
between Interchange 27 (Airport Rd) and Interchange 27-26 (US 11) on-ramps	BFS	20.3	C	12.4	B	22.9	C	13.5	B
at Interchange 26 (US 11) on-ramp	Merge	16.3	B	13.8	B	17.4	B	14.4	B
between Interchange 26 (US 11) on-ramp and Exit 25A (I-90)	BFS	18.0	C	13.9	B	20.2	C	14.8	B
between Exit 25A (I-90) and Westbound I-90 Exit 36	BFS	21.6	C	15.3	B	24.4	C	16.2	B
between Interchange 25A (I-90) on-ramp and Exit 25 (7th Northbound St)	Weave	17.7	B	12.2	B	19.9	B	12.8	B

Table 5-53 (cont'd)

2026 and 2056 Community Grid Alternative Freeway LOS Analysis

Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
between Exit 25 (7th Northbound St) and on-ramp from 7th N St	BFS	18.5	C	12.4	B	21.0	C	13.3	B
between Interchange 25 (7th Northbound St) on-ramp and Exit 23A (Hiawatha Blvd)	Weave	17.0	B	12.1	B	18.9	B	13.0	B
between Exit 23A (Hiawatha Blvd) and Old Liverpool Rd on-ramp	BFS	18.3	C	10.6	A	21.1	C	11.4	B
at Old Liverpool Rd on-ramp	Merge	18.6	B	11.6	B	20.8	C	14.0	B
at N. Clinton St off-ramp	Diverge	17.0	B	10.4	B	19.4	B	13.0	B
between N. Clinton St on and off-ramp	BFS	17.7	B	8.0	A	19.9	C	8.5	A
at N. Clinton St on-ramp	Merge	13.6	B	5.8	A	14.6	B	8.0	A
between N. Clinton St on-ramp and I-690 off-ramp	BFS	20.2	C	12.5	B	22.5	C	13.4	B
at I-690 off-ramp	Diverge	20.1	C	12.3	B	22.1	C	13.1	B
at Clinton St off-ramp	Diverge	25.4	C	6.9	A	27.4	C	9.4	A
between MLK East Intersection and Exit 17 (S. Salina St, Brighton Av) off-ramp	BFS	3.4	A	10.5	A	3.5	A	10.6	A
at Exit 17 (S. Salina St, Brighton Av) off-ramp	Diverge	3.3	A	8.9	A	3.4	A	8.7	A
between Exit 17 (S. Salina St, Brighton Av) off and on-ramps	BFS	1.9	A	6.7	A	1.9	A	7.7	A
at Brighton Av on-ramp	Merge	2.6	A	7.3	A	3.9	A	9.4	A
at Glen Av off-ramp	Diverge	2.6	A	7.5	A	3.4	A	10.0	A
at off-ramp to Northbound Former I-481	Diverge	1.5	A	10.8	B	4.5	A	11.5	B
between off-ramp to Northbound Former I-481 and on-ramp from Southbound Former I-481	BFS	0.4	A	8.1	A	4.1	A	11.6	B
at on-ramp from Glen Av	Merge	1.7	A	6.1	A	3.1	A	8.6	A
at Interchange 16A (Former I-481) on-ramp	Merge	3.7	A	7.8	A	6.0	A	9.7	A
after on-ramp from Southbound Former I-481	BFS	4.7	A	8.9	A	7.5	A	10.9	A
Northbound I-81 (Former I-481)									
at Exit 1 (Rock Cut Rd)	Weave	6.1	A	8.0	A	6.3	A	8.0	A
between Interchange 1 (Brighton Av, Rock Cut Rd) off and on-ramps	BFS	9.1	A	7.2	A	9.6	A	10.9	A
at Interchange 1 (Brighton Av, Rock Cut Rd) on-ramp	Merge	11.9	B	10.8	B	11.6	B	14.1	B
between Interchange 1 (Brighton Av, Rock Cut Rd) and Exit 2 (Jamesville Rd)	BFS	19.6	C	13.2	B	16.1	B	17.3	B
at Exit 2 (Jamesville Rd)	Diverge	13.1	B	8.7	A	10.9	B	11.4	B
between Interchange 2 (Jamesville Rd) off and on-ramps	BFS	14.6	B	11.8	B	14.0	B	16.0	B
at Interchange 2 (Jamesville Rd) on-ramp	Merge	17.1	B	13.7	B	18.1	B	16.8	B
between Interchange 2 (Jamesville Rd) on-ramp and Exit 3E (Eastbound NY-5)	BFS	22.9	C	18.4	C	23.5	C	22.9	C
at Exit 3E (Eastbound NY-5)	Diverge	14.7	B	19.3	B	21.0	C	15.0	B
between Interchange 3E (Eastbound NY-5) off and on-ramps	BFS	19.6	C	17.5	B	22.1	C	21.8	C
between Interchange 3E (Eastbound NY-5) on-ramp and Exit 3W (Westbound NY-5)	Weave	15.2	B	14.2	B	17.5	B	16.9	B

Table 5-53 (cont'd)

2026 and 2056 Community Grid Alternative Freeway LOS Analysis

Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
between Interchange 3W (Westbound NY-5) off and on-ramps	BFS	19.2	C	19.0	C	21.8	C	22.8	C
at Interchange 3W (Westbound NY-5) on-ramp	Merge	19.7	B	15.9	B	21.4	C	17.6	B
between Interchange 3W (Westbound NY-5) on-ramp and Exit 4 (Westbound I-690)	BFS	18.3	C	14.5	B	22.0	C	16.4	B
at Exit 4 (Westbound I-690)	Diverge	17.5	B	14.3	B	19.2	B	16.1	B
between Interchange 4 (Westbound I-690) off and on-ramps	BFS	15.5	B	14.7	B	16.2	B	17.0	B
at Interchange 4 (Eastbound I-690) on-ramp	Merge	11.5	B	19.1	B	16.5	B	21.1	C
between Interchange 4 (Eastbound I-690) on-ramp and Exit 5E (Kirkville Rd)	BFS	11.5	B	18.0	B	15.9	B	19.7	C
at Exit 5E (Kirkville Rd)	Diverge	11.1	B	17.9	B	14.7	B	19.1	B
between Interchange 5E (Kirkville Rd) off and on-ramps	BFS	16.1	B	16.0	B	21.7	C	25.0	C
between Interchange 5E (Kirkville Rd) on-ramp and Exit 5W (Kirkville Rd)	Weave	11.4	B	12.4	B	14.3	B	19.1	B
between Interchange 5W (Kirkville Rd) off and on-ramps	BFS	12.5	B	16.0	B	16.8	B	24.6	C
at Interchange 5W (Kirkville Rd) on-ramp	Merge	9.6	A	11.6	B	12.6	B	17.8	B
between Interchange 5W (Kirkville Rd) on-ramp and Exit 6 (I-90)	BFS	9.4	A	11.7	B	12.6	B	17.8	B
at Exit 6 (I-90)	Diverge	9.3	A	11.7	B	12.7	B	18.5	B
between Interchange 6 (I-90) off and on-ramps	BFS	10.2	A	10.3	A	13.5	B	16.2	B
at Interchange 6 (I-90) on-ramp	Merge	8.9	A	9.3	A	11.3	B	13.5	B
at Exit 7 (NY-298 Bridgeport Rd)	Diverge	10.6	B	10.6	B	14.3	B	16.6	B
between Interchange 7 (NY-298 Bridgeport Rd) off and on-ramps	BFS	9.2	A	10.3	A	11.5	B	15.3	B
at Interchange 7 (NY-298 Bridgeport Rd) on-ramp	Merge	6.9	A	10.0	A	8.5	A	13.8	B
between Interchange 7 (NY 298 Bridgeport Rd) on-ramp and Exit 8 (Northern Blvd)	BFS	10.2	A	14.5	B	12.7	B	20.1	C
at Exit 8 (Northern Blvd)	Diverge	7.3	A	10.2	B	9.1	A	14.3	B
between Interchange 8 (Northern Blvd) off and on-ramps	BFS	7.6	A	11.6	B	9.5	A	15.9	B
at Interchange 8 (Northern Blvd) on-ramp	Merge	6.5	A	14.7	B	8.8	A	15.9	B
between interchange 8 (Northern Blvd) on-ramp and NY481 Westbound off-ramp	BFS	6.2	A	13.0	B	7.5	A	16.7	B
at Exit to Former I-81	Diverge	6.0	A	12.0	B	7.0	A	15.6	B
between split to Former I-481 mainline and Northbound Former I-81 merge	BFS	4.3	A	9.2	A	5.6	A	8.4	A
Southbound I-81 (Former I-481)									
at Interchange 9N (Former I-81) on-ramp	Merge	11.7	B	7.8	A	14.9	B	8.8	A
between Interchange 9N (Northbound Former I-81) on-ramp and Southbound Former I-81 on-ramp	BFS	14.7	B	11.0	B	17.7	B	9.7	A
at Southbound Former I-81 on-ramp	Merge	13.3	B	8.9	A	15.1	B	9.2	A
at Exit 8 (Northern Blvd) off-ramp	Diverge	15.8	B	10.6	B	18.4	B	12.3	B

Table 5-53 (cont'd)

2026 and 2056 Community Grid Alternative Freeway LOS Analysis

Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
between Interchange 8 (Northern Blvd) off and on-ramps	BFS	17.2	B	13.3	B	20.0	C	15.2	B
at Interchange 8 (Northern Blvd) on-ramp	Merge	14.1	B	10.4	B	16.2	B	12.0	B
between Interchange 8 (Northern Blvd) on-ramp and Exit 7 (NY-298 Bridgeport Rd)	BFS	21.0	C	15.6	B	24.1	C	18.0	B
at Exit 7 (NY-298 Bridgeport Rd)	Diverge	18.4	B	11.3	B	21.5	C	13.3	B
between Interchange 7 (NY-298 Bridgeport Rd) off and on- ramp	BFS	17.1	B	14.5	B	19.6	C	16.6	B
at Interchange 7 (NY-298 Bridgeport Rd) on-ramp	Merge	14.1	B	13.9	B	16.1	B	16.2	B
between Interchange 7 (NY-298 Bridgeport Rd) and Exit 6 (I-90)	BFS	20.5	C	19.9	C	23.2	C	22.8	C
at Exit 6 (I-90)	Diverge	15.7	B	16.0	B	17.8	B	18.4	B
between Interchange 6 (I-90) off and on-ramp	BFS	18.4	C	16.8	B	20.8	C	19.2	C
at Interchange 6 (I-90) on-ramp	Merge	18.1	B	16.6	B	20.8	C	18.3	B
between Interchange 6 (I-90) on-ramp and Exit 5W (Kirkville Rd)	BFS	25.4	C	23.0	C	28.8	D	25.6	C
at Exit 5W (Kirkville Rd)	Diverge	16.7	B	14.9	B	19.2	B	16.7	B
between Interchange 5W (Kirkville Rd) off and on-ramps	BFS	21.9	C	21.2	C	24.4	C	23.7	C
between Interchange 5W (Kirkville Rd) on-ramp and Exit 5E (Kirkville Rd)	Weave	17.5	B	15.4	B	20.2	C	17.9	B
between Interchange 5E (Kirkville Rd) off and on-ramps	BFS	23.5	C	20.2	C	26.1	D	23.3	C
at Interchange 5E (Kirkville Rd) on-ramp	Merge	18.3	B	17.6	B	20.2	C	20.0	B
between Interchange 5E (Kirkville Rd) on-ramp and Exit 4 (Westbound I-690)	BFS	18.0	B	16.9	B	19.8	C	19.1	C
at Exit 4 (Westbound I-690)	Diverge	17.7	B	16.6	B	20.0	B	18.7	B
between Interchange 4 (Eastbound I-690) on and off-ramps	BFS	14.1	B	17.1	B	15.6	B	19.7	C
at Interchange 4 (Eastbound I-690) on-ramp	Merge	8.6	A	21.3	C	14.8	B	23.3	C
between Interchange 4 (Eastbound I-690) on-ramp and Exit 3W (Westbound NY-5)	BFS	11.5	B	27.6	D	18.4	C	34.6	D
at Exit 3W (Westbound NY-5)	Diverge	8.6	A	20.6	C	13.6	B	26.4	C
between Interchange 3W (Westbound NY-5) off and on-ramps	BFS	7.4	A	13.2	B	11.5	B	14.7	B
between Interchange 3W (Westbound NY-5) on-ramp and onramp from (Eastbound NY-5)	BFS	8.1	A	9.2	A	11.9	B	9.3	A
at Interchange 3E (Eastbound NY-5) on-ramp	Merge	8.7	A	13.5	B	12.5	B	14.6	B
between Interchange 3E (Eastbound NY-5) on-ramp and Exit 2 (Jamesville Rd)	BFS	8.8	A	15.1	B	13.0	B	16.6	B
at Exit 2 (Jamesville Rd)	Diverge	13.2	B	22.8	C	19.6	B	24.8	C
between Interchange 2 (Jamesville Rd) off and on-ramps	BFS	9.5	A	14.7	B	14.5	B	16.4	B
at Interchange 2 (Jamesville Rd) on-ramp	Merge	7.3	A	10.3	B	10.5	B	11.6	B

Table 5-53 (cont'd)

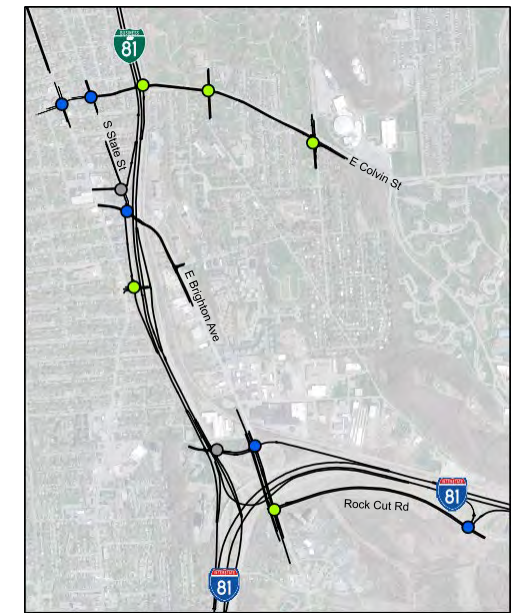
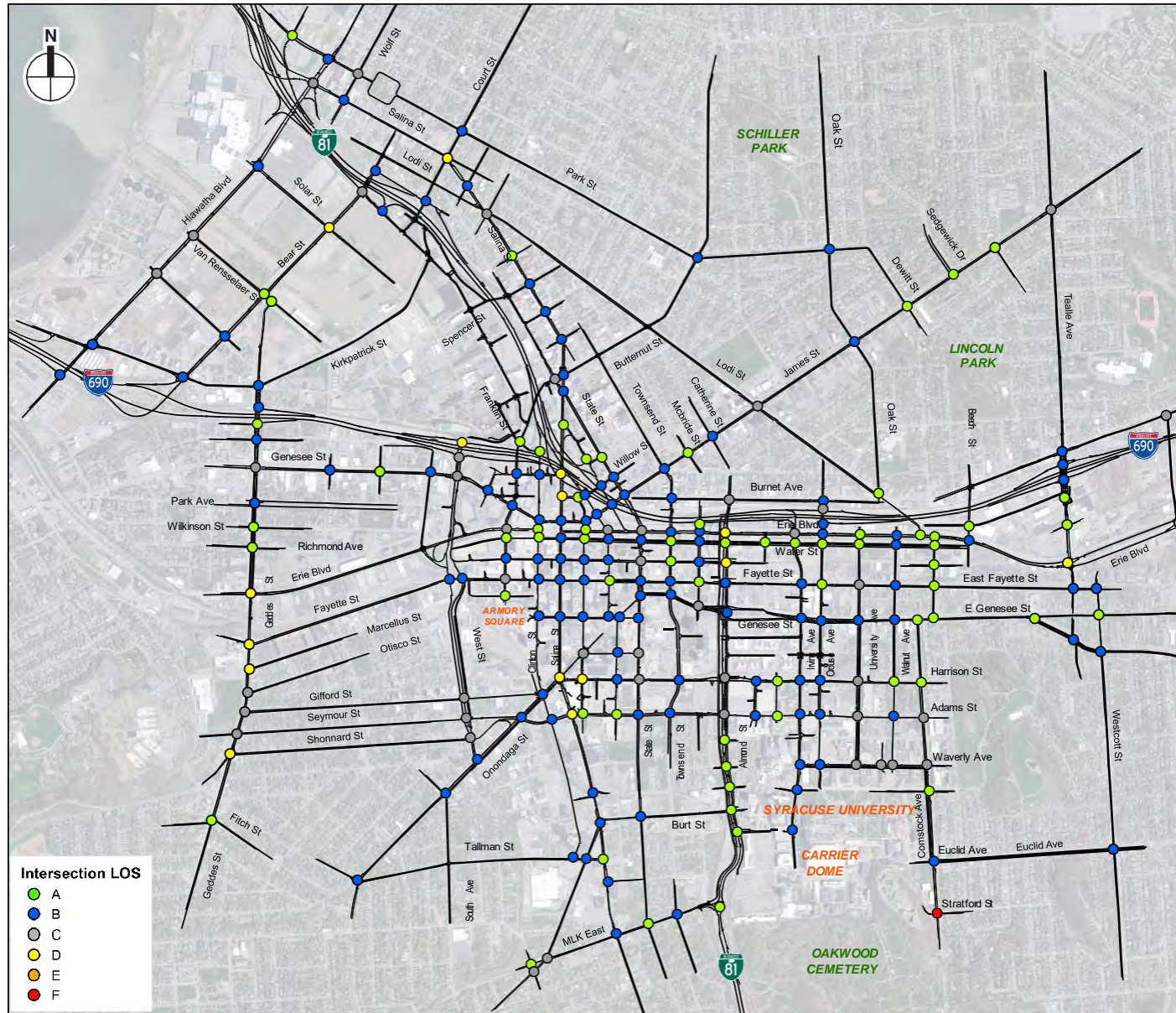
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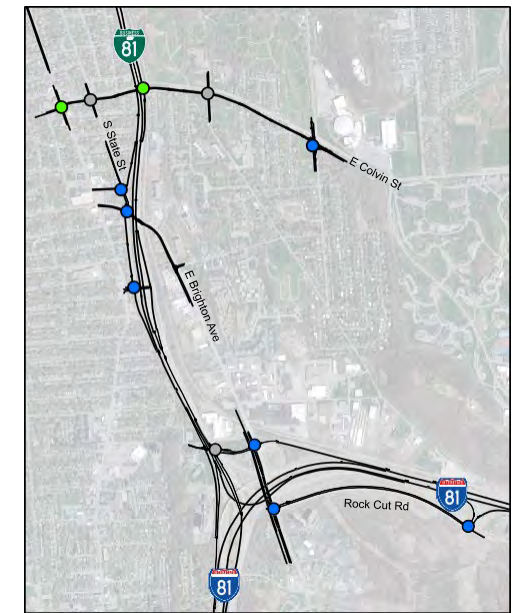
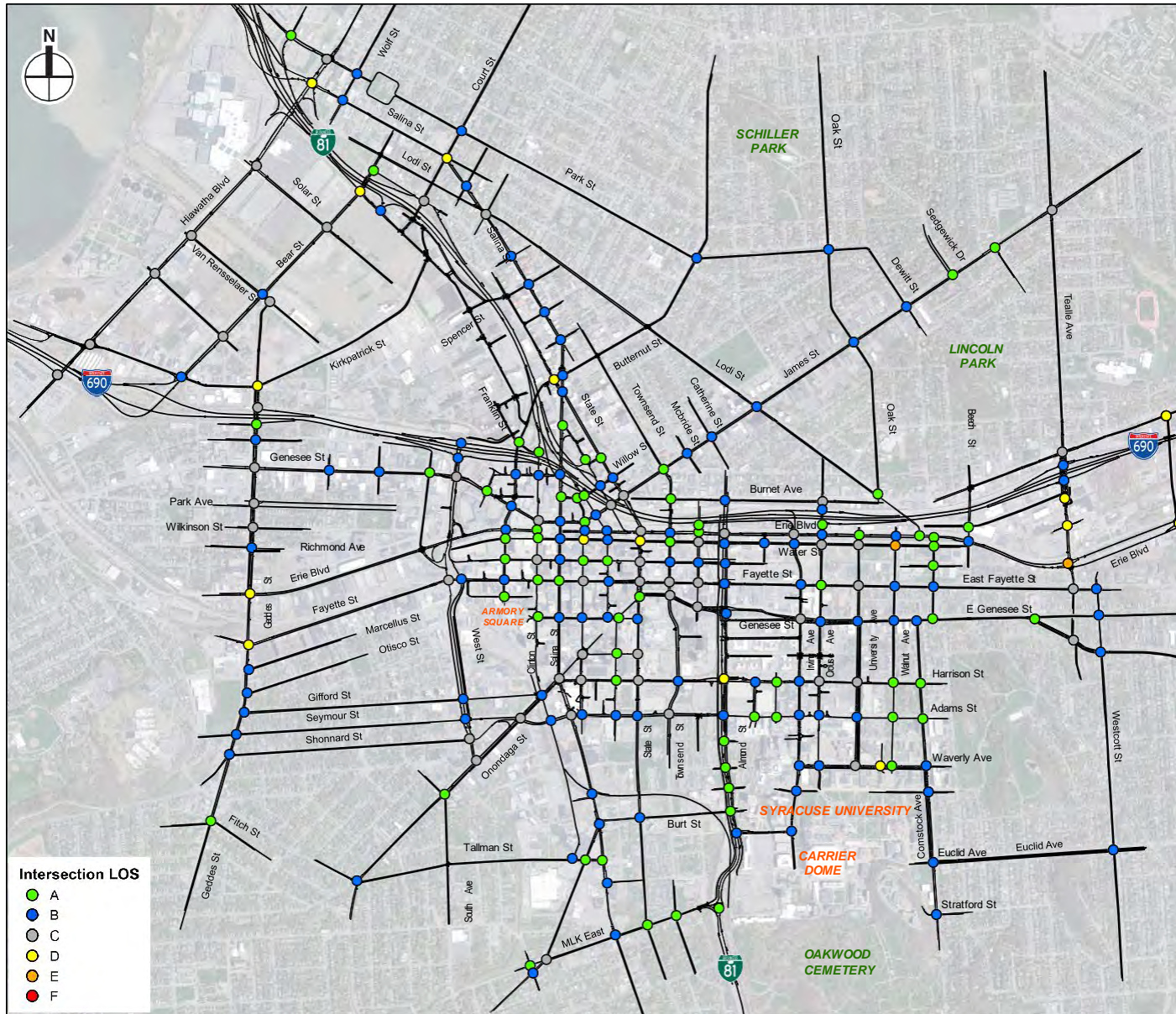
Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
between Interchange 2 (Jamesville Rd) on-ramp and Exit 1 (Brighton Av)	BFS	10.9	A	15.5	B	15.7	B	17.3	B
at Exit 1 (Brighton Av)	Diverge	7.1	A	11.0	B	10.8	B	12.7	B
between Exit 1 (Brighton Av) and Southbound Former I-81 merge	BFS	5.3	A	8.7	A	8.5	A	9.7	A
Eastbound I-690									
between Interchange 7 (NY-297) and Interchange 8 (State Fair Blvd) on-ramps	BFS	27.4	D	13.6	B	31.5	D	15.6	B
at Interchange 8 (State Fair Blvd) on-ramp	Merge	19.7	B	13.0	B	22.8	C	14.4	B
at Exit 8 (Hiawatha Blvd)	Diverge	22.6	C	13.9	B	32.7	D	15.5	B
between Exit 8 (Hiawatha Blvd) and Exit 9 (Bear St)	BFS	24.7	C	11.6	B	29.1	D	13.5	B
at Exit 9 (Bear St)	Diverge	19.7	B	12.2	B	21.8	C	13.8	B
between Exit 9 (Bear St) and Interchange 10 (N. Geddes St) on-ramp	BFS	21.5	C	11.5	B	23.7	C	13.4	B
at Interchange 10 (N. Geddes St) on-ramp and West St off-ramp	Weave	21.2	C	14.1	B	23.1	C	15.7	B
at Exit 11 (West St) off-ramp	Diverge	19.9	B	12.5	B	21.5	C	15.0	B
between West St off-ramp and on-ramp	BFS	18.4	C	14.8	B	19.8	C	16.2	B
at Interchange 11 (West St) on-ramp	Merge	18.8	B	19.0	B	18.2	B	17.2	B
between onramp from Southbound Former I-81 and Irving Av off-ramp	Weave	22.5	C	22.4	C	26.0	C	21.4	C
between Irving Av off-ramp and Crouse Av on-ramp	BFS	19.0	C	20.6	C	20.3	C	21.2	C
between Crouse Av on-ramp and Exit 14 (Teall Av)	Weave	19.3	B	22.6	C	18.5	B	24.1	C
between Interchange 14 (Teall Av) off and on-ramps	BFS	19.2	C	23.0	C	17.9	B	23.8	C
at Interchange 14 (Teall Av) on-ramp	Merge	17.8	B	23.1	C	18.4	B	24.1	C
at Exit 15 (Midler Av)	Diverge	16.4	B	21.1	C	17.2	B	21.8	C
between Interchange 15 (Midler Av) off and on-ramps	BFS	16.5	B	24.0	C	17.6	B	25.3	C
at Interchange 15 (Midler Av) on-ramp	Merge	1.6	A	21.8	C	15.9	B	21.1	C
between Interchange 15 (Midler Av) on-ramp and Exits 16S-N (Thompson Rd)	BFS	1.8	A	27.5	D	19.3	C	28.7	D
at Exits 16S-N (Thompson Rd) and Exit 17 (Bridge St)	Diverge	1.1	A	19.6	B	17.3	B	20.3	C
between Interchange 16S-N (Thompson Rd) off and on-ramps	BFS	1.3	A	17.3	B	11.0	B	18.1	C
at Interchange 16S-N (Thompson Rd) on-ramp	Merge	2.4	A	18.9	B	11.4	B	19.5	B
between Interchange 16S-N (Thompson Rd) and Interchange 17 (Bridge St) on-ramps	BFS	3.4	A	22.8	C	14.0	B	23.7	C
at Interchange 17 (Bridge St) on-ramp	Merge	3.6	A	20.6	C	14.5	B	20.9	C
at Former I-481 ramps	Diverge	3.6	A	26.7	C	16.0	B	27.2	C
Westbound I-690									
at on-ramp from Southbound Former I-481	Merge	23.1	C	18.1	B	25.6	C	19.8	B
at Exit 17 (Bridge St)	Diverge	16.9	B	14.0	B	18.9	B	15.3	B

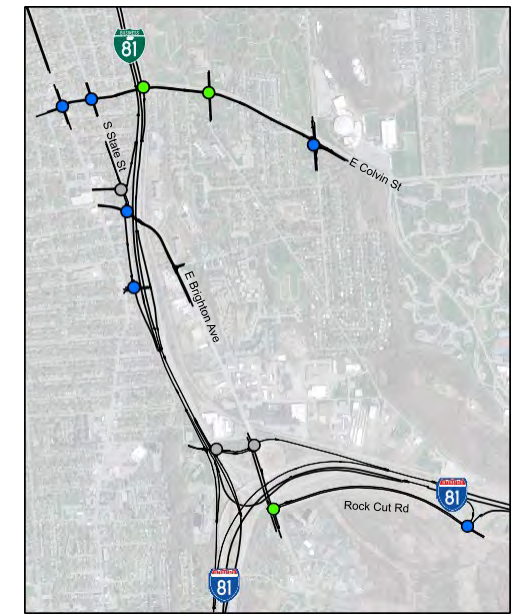
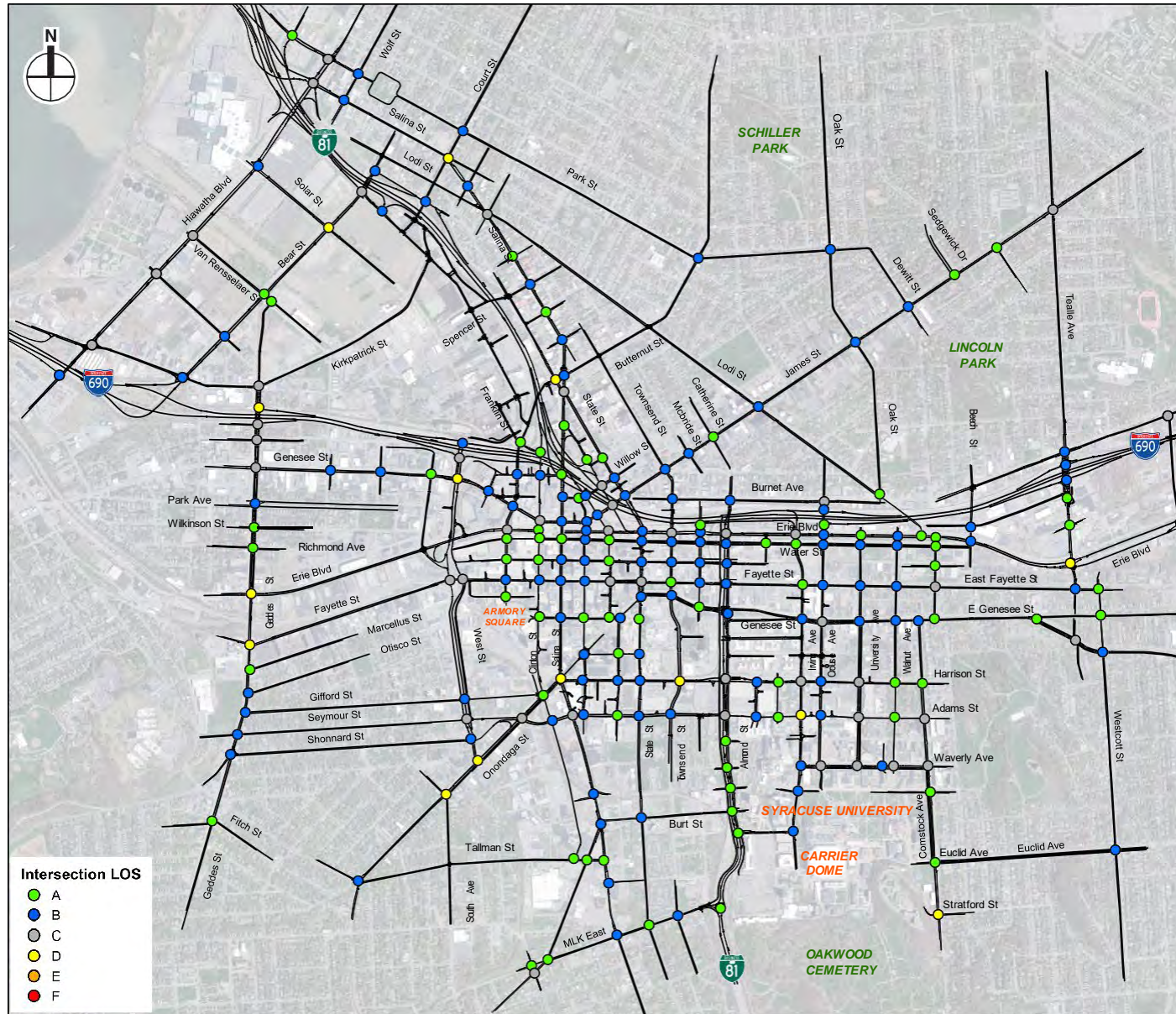
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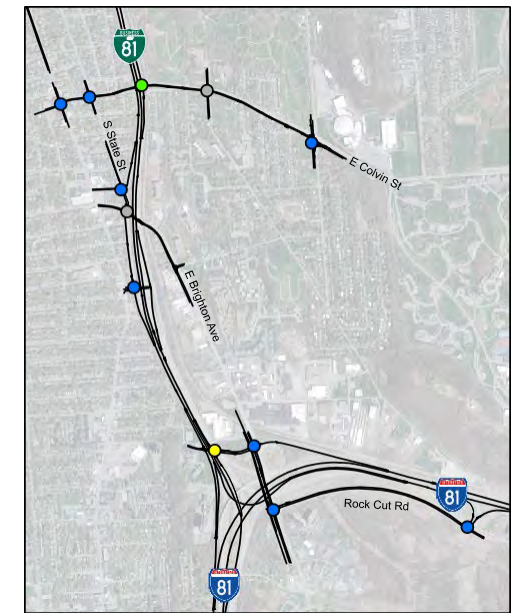
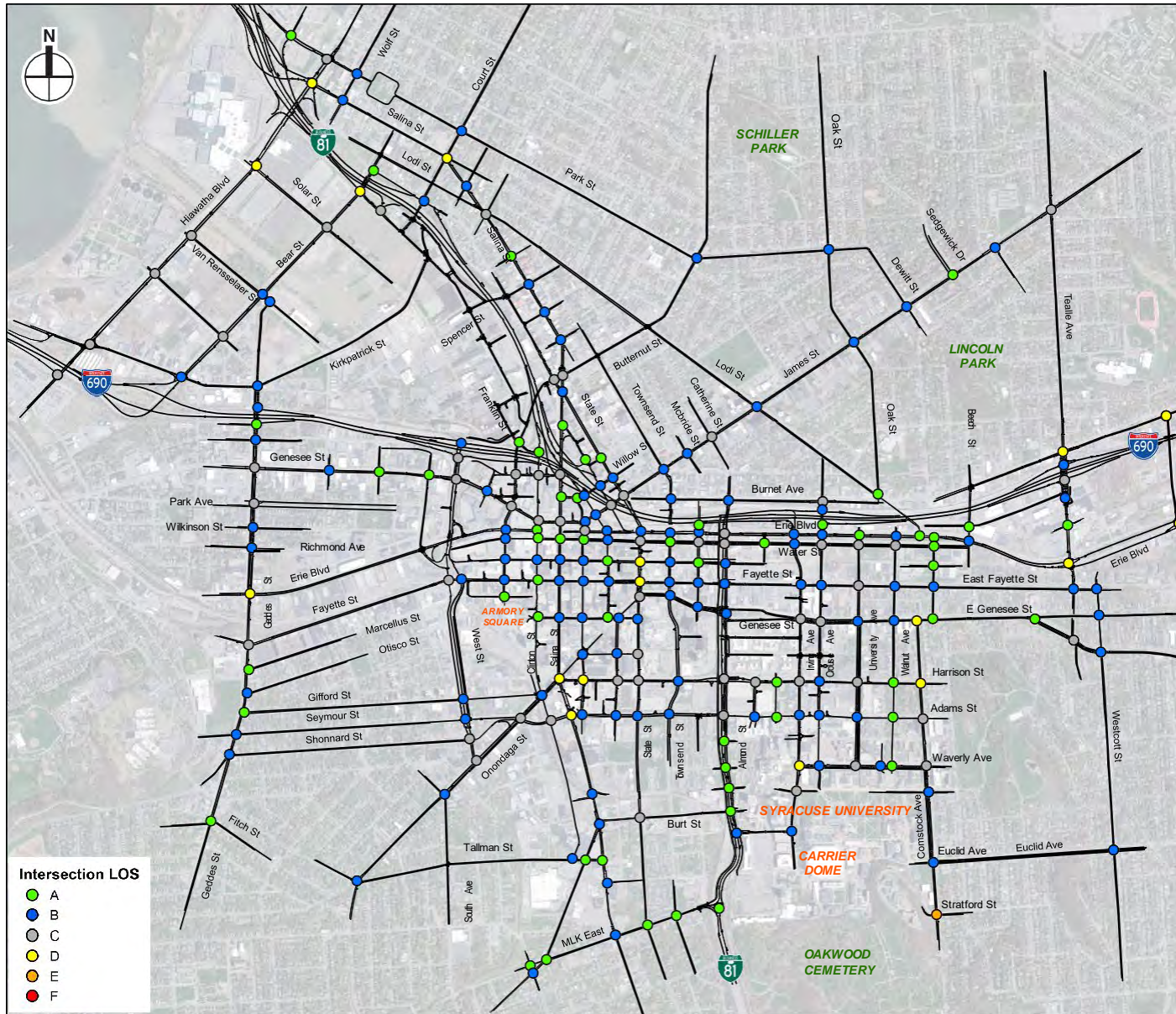
2026 and 2056 Community Grid Alternative Freeway LOS Analysis

Segment	Type	2026				2056			
		AM		PM		AM		PM	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
at Exit 16N-S (Thompson Rd)	Diverge	20.0	B	15.6	B	22.8	C	17.1	B
between Interchange 16N-S (Thompson Rd) off and on-ramps	BFS	21.4	C	18.3	C	24.5	C	19.9	C
at Interchange 16N-S (Thompson Rd) on-ramp	Merge	17.9	B	20.6	C	19.7	B	21.6	C
at Exit 15 (Midler Av)	Diverge	17.1	B	22.2	C	18.8	B	22.9	C
between Interchange 15 (Midler Av) off and on-ramps	BFS	21.2	C	24.2	C	23.6	C	25.5	C
at Interchange 15 (Midler Av) on-ramp	Merge	20.1	C	24.4	C	21.9	C	25.4	C
at Exit 14 (Teall Av)	Diverge	19.0	B	22.7	C	20.7	C	23.7	C
between Teall Av off and on-ramps	BFS	18.8	C	23.9	C	20.5	C	24.7	C
between Interchange 14 (Teall Av) on- ramp and Crouse Av off-ramp	Weave	17.3	B	23.1	C	18.2	B	23.7	C
between off-ramp to Crouse Av and on- ramp from Irving Av	BFS	18.6	C	26.3	D	24.8	C	27.2	D
between Irving Av on-ramp off-ramp to Northbound Former I-81	Weave	14.0	B	20.7	C	19.0	B	22.5	C
between off-ramp to Northbound Former I-81 and West St off-ramp	BFS	10.8	A	14.5	B	14.1	B	15.6	B
between West St off and on-ramps	BFS	9.5	A	14.9	B	13.0	B	16.5	B
between Interchange 11 (West St) on- ramp and Exit 10 (N. Geddes St)	Weave	8.4	A	15.5	B	12.8	B	17.4	B
between Exit 10 (N. Geddes St) and Interchange 9 (Bear St) on-ramp	BFS	7.8	A	18.0	B	10.7	A	20.1	C
at Interchange 9 (Bear St) on-ramp	Merge	11.8	B	23.8	C	14.6	B	25.3	C
between Interchange 9 (Bear St) and Interchange 8 (State Fair Blvd) on- ramps	BFS	11.3	B	25.6	C	14.4	B	27.8	D
at Interchange 8 (Hiawatha Blvd) on- ramp	Merge	12.4	B	24.7	C	15.5	B	25.1	C
between Interchange 8 (State Fair Blvd) on-ramp and Exit 7 (NY 297, Fairgrounds)	BFS	12.9	B	29.4	D	16.6	B	31.6	D









23 CFR 658.11 (d) (2) (iv) Evidence of Consultation with Local Governments

In accordance with the project's coordination plan, FHWA and NYSDOT identified the appropriate agencies to be involved in the project, including local government agencies. The list of participating agencies includes Onondaga County; the City of Syracuse; the Towns of Cicero, Dewitt, and Salina; and the Villages of East Syracuse and North Syracuse.

Local government agencies and the public were invited to participate in key milestones and public meetings, as indicated in the table that follows.

Public Involvement Meetings and Key Milestones

Milestone	Date
Publication of Notice of Intent	August 26, 2013
Neighborhood Meeting – Toomey Abbott, Syracuse	September 25, 2013
Neighborhood Meeting – Dr. Weeks Elementary School, Syracuse	October 22, 2013
Neighborhood Meeting – Everson Museum, Syracuse	October 23, 2013
Neighborhood Meeting – Fowler High School, Syracuse	October 29, 2013
Community Meeting – DeWitt Community Room, DeWitt	October 30, 2013
Publication of Initial Scoping Packet	November 2013
Scoping Meeting, Oncenter, Syracuse	November 13, 2013
Project Update Presentation, Everson Museum, Syracuse	May 1, 2014
Publication of Draft Scoping Report	June 2014
Stakeholders' Committee Meeting	June 24, 2014
Scoping Meeting, Oncenter, Syracuse	June 26, 2014
Neighborhood Meeting – Southwest Community Center, Syracuse	July 16, 2014
Neighborhood Meeting – The MOST, Syracuse	July 23, 2014
Neighborhood Meeting – HW Smith School, Syracuse	July 24, 2014
Neighborhood Meeting – Toomey Abbott, Syracuse	July 29, 2014
Neighborhood Meeting – St. Lucy's, Syracuse	July 30, 2014
Neighborhood Meeting – Dr. Weeks Elementary School, Syracuse	July 31, 2014
Neighborhood Meeting – St. Peter's Parish Center, Syracuse	July 31, 2014
Publication of Scoping Report	April 2015
Capital for a Day, SkyArmory, Syracuse	September 30, 2015
Community Meeting, Liverpool Middle School, Liverpool	December 3, 2015
Real Property Rights Acquisition Information Sessions 335 Montgomery Street, Syracuse Assumption Church Parish Center, Syracuse Boys and Girls Club, Syracuse	June 1 and 2, 2016
Stakeholders' Committee Meeting	June 9, 2016
Public Open House, Oncenter, Syracuse	October 6, 2016
Neighborhood Meeting – Henninger High School, Syracuse	October 18, 2016
Community Meeting – Skaneateles High School, Skaneateles	October 19, 2016
Neighborhood Meeting – Grant Middle School, Syracuse	October 20, 2016
Neighborhood Meeting – Syracuse Institute of Technology, Syracuse	October 26, 2016
Neighborhood Meeting – Fowler High School, Syracuse	November 1, 2016
Neighborhood Meeting – Dr. King Elementary School, Syracuse	November 3, 2016
Community Meeting – Jamesville-DeWitt High School, DeWitt	November 16, 2016
Community Meeting – Cicero-North Syracuse High School, Cicero	December 6, 2016
Publication of Preliminary DDR/DEIS	April 22, 2019

Public Involvement Meetings and Key Milestones

Milestone	Date
Project Informational Meeting	June 18, 2019
(11) Neighborhood Meetings	June, July, & August 2019
Publication of DDR/DEIS	July 16, 2021
DDR/DEIS/EDPL Virtual Public Hearing	August 17, 2021
Public Open House, In Person	August 18, 2021
Neighborhood Meeting – Lincoln Middle School, Syracuse	August 24, 2021
Neighborhood Meeting – Fowler High School, Syracuse	August 25, 2021
Neighborhood Meeting – HW Smith School, Syracuse	August 26, 2021
Community Meeting – Grimshaw Elementary School, Lafayette	August 31, 2021
Community Meeting – Chestnut Hill Middle School, Liverpool	September 1, 2021
Community Meeting – Mott Road Elementary School, Fayetteville	September 8, 2012
Neighborhood Meeting – Dr. King Elementary School, Syracuse	September 9, 2021
Community Meeting – Cicero North Syracuse High School, Cicero	September 12, 2001
Community Meeting – Camillus Town Hall, Camillus	September 26, 2021