Appendix C1 :
Transportation Technical Report

NFTA-METRO

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Acronyms

ADA....Americans with Disabilities Act
BRT....Bus Rapid Transit
CPTED....Crime Prevention Through Environmental Design
GBNRTC....Greater Buffalo Niagara Regional Transportation Council
GPS....Global Positioning System
FTA....Federal Transit Administration
LOS....Level of Service
LRT....Light Rail Transit
Metro....Niagara Frontier Transit Metro System, Inc.
Metro Rail....Metro Light Rail Transit System
NFTA....Niagara Frontier Transportation Authority
NYSDOT....New York State Department of Transportation
PAL....Paratransit Access Line
Project....Buffalo-Amherst-Tonawanda Corridor Transit Expansion
STOPS....Simplified Trips-On-Project Software
TSP....Traffic Signal Priority
UB....University at Buffalo
VMT....Vehicle Miles Traveled

Appendix C. Transportation

The Niagara Frontier Transit Metro Systems, Inc. (Metro) is proposing to expand high quality transit in the Buffalo-Amherst-Tonawanda Corridor. Two Build Alternatives are being considered – a light rail transit (LRT) extension and a bus rapid transit (BRT) line. Both Build Alternatives would follow the same alignment and would be primarily at-grade. Ten stations, two with park & ride facilities and an overnight storage and light maintenance facility are proposed for both Build Alternatives. This appendix documents the transportation and traffic analysis methodology used to determine the existing and future transportation conditions within the study area, analysis results, and provides detailed documentation in support of Chapter 3, "Transportation."

C.1 METHODOLOGY AND REGULATORY CONTEXT

This section describes the approach for the traffic analysis and the definition of level of service (LOS) criteria, along with the assessment of transit, parking, and pedestrian and bicycle facilities. The study area for the traffic analysis includes 45 intersections along the Project alignment. The study area for the assessment of impacts to transit, parking, and pedestrian and bicycle facilities is the Project alignment.

Multiple state and local agencies including the New York State Department of Transportation (NYSDOT), Erie County, City of Buffalo, Town of Tonawanda and the Town of Amherst regulate the design, operations, safety, and security of the Project Corridor and adjacent roadways. The American Association of State Highway and Transportation Officials (Manual on Uniform Traffic Control Devices for Streets and Highways) and the Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways establishes national best practices through design and operational guidelines and standards widely used for transportation projects.

The Project is a part of the transportation planning process in the Greater Buffalo-Niagara region. The metropolitan planning organization—in this case, the Greater Buffalo Niagara Regional Transportation Council (GBNRTC)—manages the transportation planning process, including the adoption of the Project into its regional transportation model. GBNRTC's adopted metropolitan long-range transportation plan—*Moving Forward 2050: A Regional Transportation Plan for Buffalo Niagara*—includes a transit investment in the region.[1]

[1] GBNRTC. May 2023. Moving Forward 2050. https://www.gbnrtc.org/metropolitan-transportation-plan

C.1.1 Traffic

C.1.1.1 Study Area

WSP conducted a traffic analysis, including 20 intersections along the Project alignment, to support the environmental review process completed in accordance with the New York State Environmental Quality Review Act (SEQR). A SEQR Draft Environmental Impact Statement (Draft EIS) was released in January 2020. During the public and agency comment period for the Draft EIS, comments relating to traffic diversion were provided. In addition, during the comment period, the Federal Transit Administration (FTA) requested lead agency status for the preparation of an EIS under the National Environmental Policy Act (NEPA) to include Bus Rapid Transit (BRT) as a second Build Alternative. With the addition of a BRT Build Alternative, WSP expanded the traffic study area to address concerns about diversion of direct left-turns at unsignalized intersections. Twenty-five intersections were added to the VISSIM model as well as an extension of the modeling limits to the north (I-990) and south (UB South Campus and Main Street), for a total of 45 intersections in the traffic study area as follows:

1. Main Street and Allenhurst Road*
2. Main Street and Capen Boulevard*
3. Main Street and Kenmore Avenue
4. Kenmore Avenue and Capen Boulevard*
5. Kenmore Avenue and Allenhurst Road*
6. Kenmore Avenue and Niagara Falls Boulevard
7. Niagara Falls Boulevard and Kenilworth Avenue*
8. Niagara Falls Boulevard and Princeton Avenue*
9. Niagara Falls Boulevard and Ford Avenue/Cambridge Boulevard*
10. Niagara Falls Boulevard and Paige Avenue*
11. Niagara Falls Boulevard and Oxford Avenue*
12. Niagara Falls Boulevard and Chalmers Avenue*
13. Niagara Falls Boulevard and Decatur Road
14. Niagara Falls Boulevard and Yale Avenue*
15. Niagara Falls Boulevard and Lincoln Park Drive*
16. **Niagara Falls Boulevard and Longmeadow Road**
17. **Niagara Falls Boulevard and Highland Avenue/Ruth Drive***
18. Niagara Falls Boulevard and Harrison Avenue*
19. Niagara Falls Boulevard and Betina Avenue/Moore Avenue*
20. **Niagara Falls Boulevard and Eggert Road**
21. **Niagara Falls Boulevard and Sheridan Drive**
22. **Niagara Falls Boulevard and Franklin Ave/Rochelle Place**
23. **Niagara Falls Boulevard and Treadwell Road**
24. **Niagara Falls Boulevard and Mall Entrance**
25. **Niagara Falls Boulevard and Brighton Road/Maple Road**

26. **Maple Road and Alberta Drive**
27. **Maple Road and Bailey Avenue**
28. **Maple Road and Bowmart Parkway**
29. **Maple Road and Hillcrest Drive**
30. **Maple Road and Sweet Home Road**
31. **Sweet Home Road and Rensch Road**
32. **John James Audubon Parkway and Rensch Road**
33. **John James Audubon Parkway and Hamilton Road**
34. **John James Audubon Parkway and Core Road/Lee Road***
35. John James Audubon Parkway and Frontier Road
36. **John James Audubon Parkway and Forest Road**
37. **John James Audubon Parkway and Sylvan Parkway***
38. **John James Audubon Parkway and Gordon Yaeger Drive***
39. John James Audubon Parkway and Bryant Woods South*
40. John James Audubon Parkway and Bryant Woods North*
41. John James Audubon Parkway and Dodge Road
42. John James Audubon Parkway and I-990 Eastbound Ramps*
43. John James Audubon Parkway and I-990 Westbound Ramps*
44. **Eggert Road and Sheridan Road**
45. **Eggert Road and Alberta Drive**

The intersections in BOLD are the intersections analyzed for the SEQR environmental review. Data for these intersections were collected in 2018. The unsignalized intersections are noted with an asterisk (*).

The following is a detailed description of the major roadways within the study area:

- **Main Street** (NY 5) is an east-west arterial road that connects downtown Buffalo to the Town of Amherst. Main Street is owned by the City of Buffalo within the City limits and NYSDOT outside of the City. The stretch of Main Street along the Project alignment is a four-lane (two lanes in each direction) road with a mixture of center left-turn lanes and landscaped median.
- **Kenmore Avenue** (CR 307) is an east–west arterial road that connects Main Street to Military Road. The roadway is partially owned by both the City of Buffalo and Erie County. The stretch of Kenmore Avenue along the Project alignment is a two-lane (one lane in each direction) road with a center left-turn lane and bike lanes running along both shoulders. At the signalized intersection at Niagara Falls Boulevard, Kenmore Avenue has one lane going in each direction and an eastbound left- and right-turn lane bisected by the eastbound lane and the bike lane.
- **Niagara Falls Boulevard** (US 62) is a north–south running roadway that divides Amherst (to the east) and Tonawanda (to the west) and is owned by NYSDOT. Niagara Falls

Boulevard's southern terminus is in Buffalo and its northern terminus is in Niagara Falls. It is a major thoroughfare surrounded by residential neighborhoods south of Eggert Road and commercial and retail north of Sheridan Drive. Niagara Falls Boulevard has two lanes running in each direction with portions including a center left-turn lane, containing signalized and non-signalized intersections from Kenmore Avenue to Eggert Road. At the intersection of Eggert Road, the road widens to three northbound lanes and one left-turn lane, and two southbound lanes and one left-turn lane. North of Sheridan Drive, the roadway widens to a median-divided boulevard with three lanes going in each direction. Left-turn lanes are at the intersections of major roads and commercial parking lots. Along the Project alignment the road contains entrances to the Boulevard Mall and several commercial establishments. At the intersection of Maple Road, the northbound approach widens to three lanes with a left and right-turn lane and the southbound approach widens to three lanes with two left-turn lanes.

- **Maple Road** (CR 192) is an east–west running arterial road in Amherst owned by Erie County. Along the Project alignment the road contains entrances to the Boulevard Mall, Sweet Home Middle School, and several commercial establishments. Between Niagara Falls Boulevard and North Bailey Avenue, the road has three westbound lanes and two eastbound lanes with a center left-turn lane. East of North Bailey Avenue, the roadway consists of two eastbound lanes, two westbound lanes, and a center left-turn lane.
- **Sweet Home Road** (NY 952T, CR 171) is a north–south road in Amherst that extends from Eggert Road to Tonawanda Creek Road. NYSDOT owns the portion of the road between Maple Road and North Ellicott Creek Road, and Erie County owns the other portions. Along the Project alignment, the roadway consists of two lanes in both directions with a center left-turn lane and bike lanes running along both shoulders.
- **Rensch Road** is an entrance to the west side of the UB North Campus. Owned by UB east of Sweet Home Road and by Town of Amherst west of Sweet Home Road, the road is a short, east–west running road that terminates in a loop at the eastern end. The loop contains parking and acts as a pickup and drop-off location for UB buses. Rensch Road contains two lanes in each direction with a grassy median and left-turn lanes at the John James Audubon Parkway intersection. At the intersection of Sweet Home Road, Rensch Road contains two westbound lanes, one right-turn lane, one left-turn lane, and two eastbound lanes.
- **Mary Talbert Way** (formerly Putnam Way) is a one-way road owned by UB that loops around the center of the UB North Campus. It consists of one travel lane with curbside parking.
- **Lee Road** is a north–south road owned by UB in the eastern section of the UB North Campus. Lee Road is divided into two unconnected sections, a south section from Augspurger Road to Mary Talbert Way and a north section from the Lee Loop to the John James Audubon Parkway. The south section is one way in the southbound direction and serves as access to parking lots in the southern portion of the campus. The north section is a

two-lane facility with bike lanes in each direction that serves as access to the UB North Campus bus loop.

- **John James Audubon Parkway** loops around the western edge of the UB North Campus before turning north and connecting to I-990 . From Lee Road to North Forest Road, the roadway is a two-lane facility and is owned by UB. North of Forest Road north, John James Audubon Parkway is owned by the Town of Amherst includes two lanes in each direction, with a wide median and left-turn lanes at major intersections. The road serves the UB North Campus, the UB Ellicott Complex, multiple office parks, and residential neighborhoods in the northern portion of the road. The Town of Amherst recently reconstructed the Frontier/John James Audubon Parkway intersection into a roundabout and converted this portion of John James Audubon Parkway into a two-lane roadway. In addition, a private development north of I-990 (Muir Woods) has converted the southbound I-990 off ramp at John James Audubon Parkway into a roundabout.

C.1.1.2 Data Collection

Figure 1-1 shows the location of intersections that were included in the traffic operations analysis. Existing traffic conditions were established using traffic counts at Project alignment intersections. These counts included vehicular turning-movement, bicyclist, and pedestrian counts collected in 2018, and turning movement counts collected prior to 2018. Counts for the initial 20 intersections were collected as follows:

- AM peak-period data was collected on April 24, 2018 (Tuesday)
- PM peak-period data was collected on April 26, 2018 (Thursday)
- Midday peak-period data was collected on April 28, 2018 (Saturday)

Based on coordination with NYSDOT and FTA, NFTA agreed to evaluate an additional 25 intersections along the Project alignment. Counts for these 25 additional intersections could not be made before the COVID-19 pandemic, which significantly changed travel patterns and volumes. Therefore, instead of new counts, the VISSIM model was calibrated using available data from GBNRTC's travel demand model for the additional intersection locations. Future traffic conditions were also established using GBNRTC's regional travel demand model. The roadway network was modeled over a scaled aerial photograph. A field review of the entire Project study area in 2018 inventoried signal equipment and pedestrian facilities and reviewed operations (to calibrate the VISSIM analysis and traffic simulation models). The traffic signal controllers were modeled in VISSIM to match the existing signal operations provided by the NYSDOT, Erie County, and the Town of Amherst. There were no traffic capacity improvements to the roadway network implemented since the counts were conducted. The model developed for traffic operations analyses of the No Build Alternative included optimized signal timing but no geometric improvements to the roadway.

Figure C.1 Traffic Analysis Intersections

ANALYSIS IMPACTS OF THE COVID-19 PANDEMIC

The COVID-19 pandemic, began with an outbreak of COVID-19 in December 2019, spread worldwide in early 2020. The World Health Organization declared the outbreak as a global pandemic in March 2020. The pandemic caused severe social and economic disruption around the world. A variety institutions and public areas were partially or fully closed in many jurisdictions, and many events were cancelled or postponed. Telework or remotely working at home became much more common as the pandemic evolved. This move toward telework dramatically reduced the number of automobile trips on roadways worldwide.

A comparison of 2018 and 2023 traffic volumes at ten intersections throughout the corridor was conducted. This comparison shows an average traffic volume reduction of 17% for all ten intersections in 2023 as compared to the 2018 volumes. This comparison is summarized in Table 1-1. Utilizing traffic volumes collected before the COVID-19 pandemic represents higher traffic volumes and a conservative approach to evaluating Project traffic impacts. As such, 2018 traffic volumes have been used within this traffic assessment.

Table C.1. Traffic Volume Comparison Before and After the COVID-19 Pandemic (2018 versus 2023)

Intersections	2018 Total Intersection Volumes (AM and PM Peak)	2023 Total Intersection Volumes (AM and PM Peak)	Percent Difference Between 2018 and 2023
Niagara Falls Blvd. and Longmeadow Rd.	7,566	6,765	-12%
Niagara Falls Blvd. and Sheridan Dr.	14,853	11,538	-29%
Niagara Falls Blvd. and Almeda Ave.	8,583	6,711	-28%
Maple Rd. and Alberta Dr.	6,999	5,891	-19%
Maple Rd. and Bailey Ave.	10,304	9,100	-13%
Maple Rd. and Hillcrest Dr.	8,453	7,741	-9%
Maple Rd. and Sweet Home Rd.	12,984	11,797	-10%
John James Audubon Pkwy. And Rensch Rd.	5,065	4,085	-24%
John James Audubon Pkwy. and Forest Rd.	4,916	4,325	-14%
John James Audubon Pkwy and Gordon R Yaeger Dr.	2,783	2,557	-9%
Average Percent Difference of all Ten Intersections			**-17%**

TURNING MOVEMENT COUNT ESTIMATION

The remaining intersections added to the traffic study area lacked historical turning movement counts. Therefore, select link data from the GBNRTC travel demand model was requested to provide insight into the travel patterns along the Project corridor. Many of the Traffic Analysis Zones (TAZs) in the traffic study area had centroid connectors that corresponded with many of the unsignalized intersections. The select link analysis provided relative turning movements into and out of many of the TAZs.

According to the previously collected 2018 traffic count data in the traffic study area, an estimation of the turning movement volumes off and on the Project corridor at each of the previously identified intersections was processed to balance traffic.

Based on the relative turning movements from the travel demand model for AM and PM peak periods, the turning movements to and from the Project corridor were determined. The observed departing or arriving throughput volumes served as the reference count to determine all other counts at an intersection. All cross streets that were controlled by the same TAZ were assumed to have the same traffic patterns although varying magnitude of influence to attract or generate traffic. To determine the relative influence or preferred local roadway that was contained within the same TAZ, the adjacent residential areas near Niagara Falls Boulevard (NFB) were divided into zones based on the likely local road access. The relative land size of each zone determined the magnitude of traffic that would be distributed to each of the local cross streets or the relative influence factor. If any remaining vehicle imbalance between adjacent counts was present, the error was distributed evenly to all adjacent intersections by either adding or removing vehicles from the Project corridor. Figure 1-2 and Table 1-2 below depict the side street relative influence boundaries and factors utilized.

Figure C.2. Side Street Relative Influence Map

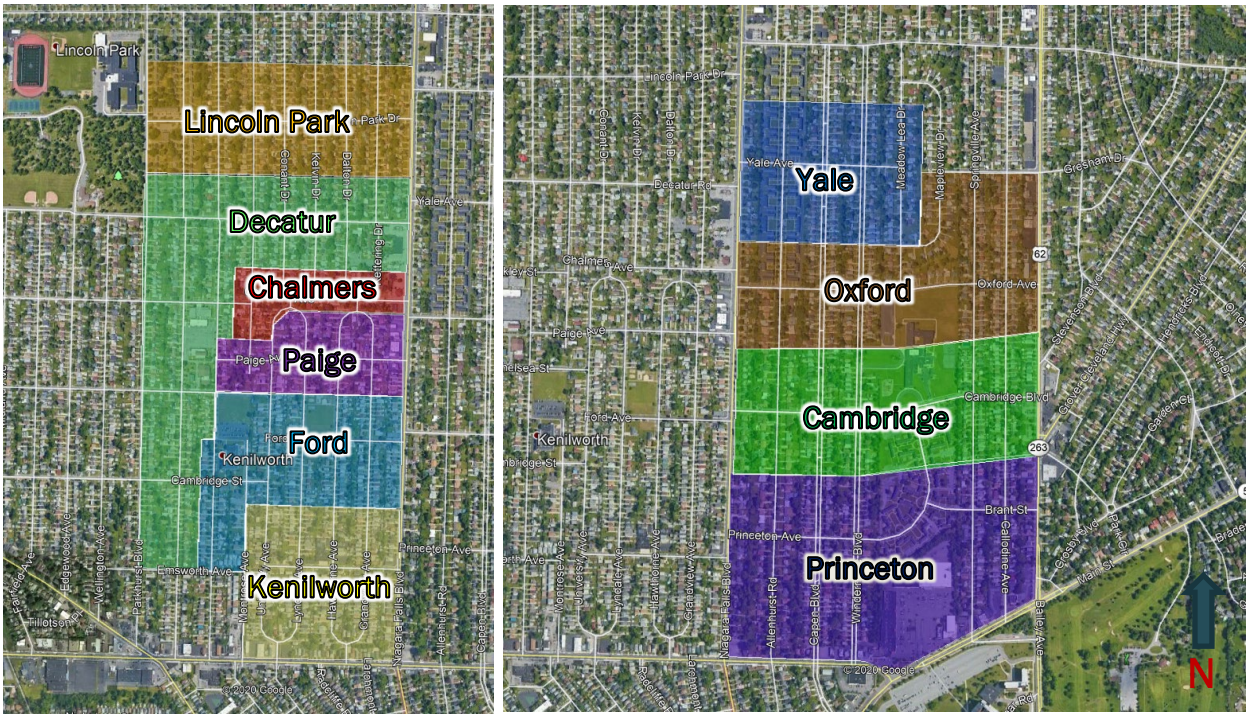


Table C.2. Relative Influence Factors for Side Streets

Side Street		Relative Influence
West	Lincoln Park	20.2%
	Decatur	31.7%
	Chalmers	5.7%
	Paige	9.2%
	Ford	17.0%
	Kenilworth	16.1%
	Total	**100%**
East	Princeton	24.7%
	Cambridge	28.0%
	Oxford	28.7%
	Yale	18.7%
	Total	**100%**

For example, whether the through movement of the northbound direction along NFB increases or decreases at the next signalized intersections determines if there is a net reduction or increase of traffic added at each estimated intersection. A reduction in northbound NFB through volumes, is accounted for by allocating new estimated turning movements off of NFB which are higher than turning movements on to NFB. The calculated difference was multiplied by the relative influence factor for each side street and assigned to the appropriate movements.

The weekday AM and PM peak hour turning movement counts were estimated in the same manner as described above. To estimate the Saturday MD peak hour volumes a different process was conducted. The travel demand model predicts weekday travel patterns not weekend, therefore a MD factor was deployed by dividing the observed total MD intersection volume at an adjacent signalized intersection by the total AM intersection volume. This factor was then applied to the previously calculated AM peak hour turning movements to approximate Saturday MD peak hour turning movements. If a vehicle imbalance occurred between observed counts in the MD peak hour, the imbalance was evenly distributed to adjacent intersections as conducted in the AM and PM peak hour analysis.

C.1.1.3 Analysis Tool: VISSIM Model Methodology

VISSIM[2] traffic simulation computer models were developed to analyze traffic operations and identify the LOS at the intersections under existing and future conditions with and without the LRT Build Alternative and the BRT Build Alternative. In 2019, Metro conducted a traffic analysis utilizing VISSIM that focused on 20 intersections (18 signalized and two unsignalized intersections) along the Project alignment. In 2021, Metro expanded the VISSIM model to include the evaluation of 25 additional unsignalized intersections along the Project alignment.

The Project VISSIM model also incorporated existing pedestrian volumes based on counts collected at signalized intersections. Therefore, the traffic analyses accounts for turn movement conflicts with pedestrians at signalized intersections based on current pedestrian volumes. The model did not adjust existing pedestrian counts for future growth and did not include bicyclist traffic because existing bicyclist counts were minimal.

VISSIM 10.0 software was used for the traffic evaluation. VISSIM is a simulation modelling platform that models traffic at the microscopic level, meaning that traffic movements are explicitly modeled based on geometric parameters, traffic volumes, vehicle types, intersection control, and driver behavior. VISSIM assesses the roadway network in a dynamic fashion, instead of analyzing each intersection or each roadway segment in isolation. Unlike macroscopic analysis, which can be calculated manually, simulation models function only as a computer analysis tool. Average performance statistics, such as vehicle delay, volume served, flow density, and travel time, are measured during the simulation. Furthermore, as a stochastic model, a random number seed guides the assignment of vehicle headways. By varying the random number seed, the model results can also vary with identical inputs. This allows the user to test several iterations with the same input values to determine average performance.

VISSIM provides several measures of effectiveness (MOEs) such as vehicle delay, travel time, queuing, and fuel consumption on a network-wide basis, so that the effects of improvements at a single location may be measured throughout the network. This ability makes VISSIM an ideal tool for testing and comparing alternatives to determine the most effective combination of elements in facilitating mobility for all modes. In addition, the sensitivity of the VISSIM model allows the user to test more subtle changes to the roadway system, such as adjustments in traffic signalization, addition or removal of driveways and access points, changes in bus operations, and others.

The simulation component of VISSIM is a powerful feature, as it provides a graphical, intuitive representation of traffic flow throughout the corridor that is simple to visualize and interpret, making it an ideal tool for presentation to non-technical parties. The following describes the elements involved in coding the conditions in VISSIM, as well as a summary of the

[2] VISSIM is a traffic-flow software package that simulates vehicle interactions and models demand, supply, and behavior.

calibration/validation of the models and the traffic operations analysis within the traffic study area.

ROADWAY NETWORK

WSP modeled the roadway network over a scaled aerial photograph obtained from Bing Maps. WSP conducted a field review of the traffic study area to inventory signal equipment, pedestrian facilities, and review operations during a typical mid-weekday in July 2018 (to assist in identifying deficiencies and calibration of the simulation models).

The traffic signal controllers were modeled in VISSIM to match the signal operations provided by the New York State Department of Transportation (NYSDOT) and the Greater Buffalo Niagara Regional Transportation Council (GBNRTC).

VOLUME DEVELOPMENT

VISSIM requires that all traffic balance within the model between intersections/driveways. The general volume balancing methodology used by WSP was as follows:

- Where minor volume imbalances occurred between intersections, the through volumes were adjusted to always favor the higher volume intersection, in other words, the volumes were always adjusted up, not down, to provide a conservative approach.
- Where larger imbalances occurred (approximately 100 or more vehicles), artificial (dummy) driveways were placed to represent a major traffic generator that would account for this imbalance (*i.e.*, cross streets not currently modeled as part of traffic study area, commercial driveways, parking deck entrances/exits, etc.).

The traffic volumes were entered as static routes within the VISSIM models for all time periods.

VEHICLE COMPOSITION AND DRIVER BEHAVIOR

The vehicle composition (cars versus heavy vehicles) was based on the percentages identified in the traffic counts collected by Tri-State Traffic Data. A 2 percent heavy vehicle composition was determined to be representative for the project area for all modeled time periods.

The default VISSIM driver behavior parameters were adjusted in the models to more accurately represent the types of drivers utilizing the study network. The average standstill distance was reduced from the default 6.56 feet to 4 feet to increase the capacity of the modeled roadways. This change was determined to match the queueing observed in the field and historical conditions witnessed by the stakeholders. The Wiedemann 74 car following model defaults were utilized which are specifically oriented towards urban surface-street driver behavior parameters, versus the Wiedemann 99 car following model that is specifically oriented towards freeway driver behavior and is the other car following model supported within VISSIM. In addition, minor adjustments from the default VISSIM parameters for lane change distances were necessary to accurately represent the driving behavior exhibited within the study area.

SEED INTERVAL AND MODEL CALIBRATION

A seed interval is the amount of time the model is run in advance of summarizing MOEs. An 1800-second (30-minute) seed interval was used for all time periods. This ensures that the appropriate level of traffic is on the roadway network at the time the MOEs begin recording in the model.

To obtain accurate results from the VISSIM traffic simulation model, the driver behavior parameters may need to be adjusted to calibrate the model to real-world conditions. Driver behavior varies significantly based on location, weather, roadway condition, geometry, and other factors. Model results must be validated by comparing them to real-world measures of operational performance, such as volume served, travel time, queuing, and delay, until a certain level of accuracy is reached.

Model results were validated based on a combination of volume served and travel time information available through Google Maps from 2018. While volume served is a useful comparison measure for use in model validation, it does not always reflect actual demand. For instance, in real-world conditions, when the demand on a segment of roadway exceeds its capacity, the unserved demand results in queuing, while a volume count on the segment may remain constant or potentially decrease as congestion builds. When demand exceeds capacity traffic is also diverted to competing routes. Excessive delay due to operational deficits may also push traffic to alternate routes, but that was not analyzed in this project within the VISSIM platform.

The models were considered validated when the volumes served as reported by the model were within the greater of +/-10-percent or +/-20 vehicles of the actual recorded volumes. FHWA recommends a maximum threshold of 15% of model hourly volumes versus observed. The network (end-to-end) travel times were also compared to Google Maps estimated travel time range for the same day and time as the counts. These thresholds were achieved in all time periods.

For the intersections added to the traffic study area in 2020, the ability to recalibrate or validate the expanded models is hampered by the inability to collect either pre-Covid traffic counts or travel time runs for the expanded corridor. Utilizing the local knowledge of Project stakeholders, the additional intersections added to the models were determined to have minimal congestion. Therefore, it is unlikely that the addition of intersections on either side of the previous model would meter traffic and materially effect the pre-established calibration.

C.1.2 Level of Service Criteria

LOS is used to quantitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay, and safety. LOS standards are based on the Highway Capacity Manual and use letters A through F, with LOS A being the best and LOS F being the worst. The average delay per vehicle is the primary basis for determining the LOS for

individual lane groups (grouping of movements in one or more travel lanes), the overall approaches to each intersection, and the overall intersection itself. Table 1-3 and

Table 1-4 display the LOS criteria for signalized and unsignalized intersections, respectively.

Metro coordinated with NYSDOT and Project stakeholders regarding LOS thresholds, and for this analysis a change in intersection LOS from LOS A, B, C, or D under the No Build Alternative to LOS E or F under the Build Alternative would result in an adverse Project impact.

Table C.3. Level of Service Definitions for Signalized Intersections

Level of Service	Description	Average Control Delay Per Vehicle (seconds)
A	Operations with very low control delay occurring with favorable progression or short cycle lengths.	≤ 10.0
B	Operations with low control delay occurring with good progression or short cycle lengths.	> 10.0 and ≤ 20.0
C	Operations with average control delays resulting from fair progression or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 and ≤ 35.0
D	Operations with longer control delays due to a combination of unfavorable progression, long cycle lengths, or high volume to capacity (V/C) ratios. Many vehicles stop, and individual cycle failures are noticeable.	> 35.0 and ≤ 55.0
E	Operations with high control delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered the limit of acceptable delay.	> 55.0 and ≤ 80.0
F	Operation with control delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 80.0

Source 2016 Highway Capacity Manual 6th Edition, Transportation Research Board National Research Council

Table C.4. Level of Service Definitions for Unsignalized Intersections

Level of Service	Description	Average Control Delay Per Vehicle (seconds)
A	Operations with very low control delay occurring with favorable progression or short cycle lengths.	≤ 10.0
B	Operations with low control delay occurring with good progression or short cycle lengths.	> 10.0 and ≤ 15.0
C	Operations with average control delays resulting from fair progression or longer cycle lengths. Individual cycle failures begin to appear.	> 15.0 and ≤ 25.0
D	Operations with longer control delays due to a combination of unfavorable progression, long cycle lengths, or high volume to capacity (V/C) ratios. Many vehicles stop, and individual cycle failures are noticeable.	> 25.0 and ≤ 35.0
E	Operations with high control delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered the limit of acceptable delay.	> 35.0 and ≤ 50.0
F	Operation with control delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 50.0[3]

[3] If the v/c exceeds 1.0, the LOS is automatically F even if the delay is less than 50 seconds.

Source: 2016 Highway Capacity Manual 6th Edition, Transportation Research Board National Research Council

C.1.3 Transit

The assessment of transit service provides an overview of the existing Metro Rail, as well as public bus routes operated by Metro and University at Buffalo (UB) Stampede bus routes, that intersect with or provide service along the Project alignment. Potential impacts to these services resulting from the LRT Build Alternative and the BRT Build Alternative are identified.

The Federal Transit Administration (FTA) Simplified Trips-On-Project Software (STOPS) model was used to forecast ridership for the LRT Build Alternative and the BRT Build Alternative. The STOPS model was developed, calibrated, and tested using travel characteristics from the GBNRTC regional planning model. The latest adopted 2050 population, employment, and educational enrollment forecasts provided by the GBNRTC and 2023 UB campus shuttle ridership data were used to determine potential ridership demand for the Project. Projected commuter travel times and transit supply were used as additional inputs to the model. Appendix C2, "Travel Demand Forecasting," provides a detailed summary of ridership forecasting.

C.1.4 Parking

Existing parking facilities along the Project alignment, existing Metro Rail park & ride facilities, and on-street parking in the study area were identified to assess the potential impacts related to the implementation of the Project. Data sources include field reconnaissance, available mapping, and data from parking facility owners, including Erie County, Metro, UB, and private entities.

C.1.5 Pedestrian and Bicycle

Many transit riders would access the new service by walking or bicycling, making these travel modes important to the overall success of the Project. Pedestrian and bicycle facilities along the Project alignment were identified to assess any potential impacts related to the implementation of the Project.

Metro referenced the NYSDOT Pedestrian Safety Corridor Evaluation (2019) for Niagara Falls Boulevard for pedestrian conditions. The evaluation includes a comprehensive pedestrian safety plan for the Niagara Falls Boulevard corridor that extends from Kenmore Avenue in the south to the Erie-Niagara county line.

The Buffalo Bicycle Facility Master Plan Update (2016) and the GBNRTC Bicycle and Pedestrian Master Plan (2020) are referenced in this appendix's assessment of bicycle facilities. The Buffalo Bicycle Facility Master Plan is a collaborative project with the City of Buffalo and GObike Buffalo to make the city more bicycle friendly; it documents the community's comprehensive vision and provides a detailed work plan for increasing the attractiveness of bicycling as a key strategy for enhancing overall livability in Buffalo. The GBNRTC Bicycle and Pedestrian Master Plan is a regional vision to create a safer and more effective bicycle and pedestrian network and includes existing bike lanes along Lee Road and Sweet Home Road and

planned bike lanes along Maple Road. In addition, the Towns of Amherst and Tonawanda address pedestrian and bicycle enhancements within the study area in their respective comprehensive plans.

C.2 AFFECTED ENVIRONMENT

The operational characteristics of roadways within the Project study area are described below.

C.2.1 Traffic Operations

Table 1-5 through Table 1-10 present the existing conditions of the overall LOS for intersections in the study area as well as the specific traffic movements that operate at LOS E or F during the weekday AM, weekday PM, and Saturday midday peak hours, respectively. During the AM peak period, all signalized intersections operate at an overall acceptable LOS (LOS D or better). A total of 11 individual movements operate at LOS E or F. During the PM peak, the intersection of Maple Road and Sweet Home Road operates at LOS E. A total of 31 movements operate at LOS E or F. During the Saturday midday peak hour, the intersection of Niagara Falls Boulevard and Brighton/Maple Road operates at LOS E. A total of 21 movements operate at LOS E or F.

Table C.5. Existing Conditions: Weekday AM Peak-Hour Levels of Service for Signalized Intersections

Intersection	Delay	Overall LOS	Traffic Movements at LOS E or F
Main St and Kenmore Ave	16.2	B	None
Kenmore Ave and Niagara Falls Blvd	28.4	C	Eastbound left
Niagara Falls Blvd and Decatur Rd	7.4	A	None
Niagara Falls Blvd and Longmeadow Rd	5.8	A	None
Niagara Falls Blvd and Eggert Rd	20.4	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	30.7	C	Southbound left and Eastbound left
Niagara Falls Blvd and Treadwell Rd	10.5	B	Eastbound left
Niagara Falls Blvd and Mall Entrance	6.9	A	Westbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	30.9	C	None
Maple Rd and Alberta Dr	6.4	A	None
Maple Rd and Bailey Ave	17.6	B	None
Maple Rd and Bowmart Pkwy	5.0	A	None
Maple Rd and Hillcrest Dr	5.7	A	None
Maple Rd and Sweet Home Rd	28.7	C	None
Sweet Home Rd and Rensch Rd	22.3	C	None
John James Audubon Pkwy and Rensch Rd	16.3	B	None
John James Audubon Pkwy and Hamilton Rd	10.4	B	None
John James Audubon Pkwy and Frontier Rd	6.7	A	None
John James Audubon Pkwy and N Forest Rd	12.4	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	0.8	A	None
John James Audubon Pkwy and Dodge Rd	35.6	D	Westbound approach, left, through, and right
Eggert Rd and Sheridan Dr	25.3	C	None
Eggert Rd and Alberta Dr	34.1	C	None

Table C.6. Existing Conditions: Weekday AM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	Delay	LOS	Worst Performing Approach
Main St and Allenhurst Rd	10.1	B	Eastbound
Main St and Capen Blvd	9.0	A	Eastbound
Kenmore Ave and Capen Blvd	15.8	C	Northbound
Kenmore Ave and Allenhurst Rd	11.8	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	9.2	A	Eastbound
Niagara Falls Blvd and Princeton Ave	7.1	A	Westbound
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	10.3	B	Eastbound
Niagara Falls Blvd and Paige Ave	9.3	A	Eastbound
Niagara Falls Blvd and Oxford Ave	7.9	A	Westbound
Niagara Falls Blvd and Chalmers Ave	9.6	A	Eastbound
Niagara Falls Blvd and Yale Ave	7.9	A	Westbound
Niagara Falls Blvd and Lincoln Park Dr	8.6	A	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	11.1	B	Eastbound
Niagara Falls Blvd and Harrison Ave	10.0	B	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	12.0	B	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	7.5	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	4.1	A	Eastbound
John James Audubon Pkwy and Sylvan Pkwy	7.7	A	Westbound
John James Audubon Pkwy and Bryant Woods S	8.6	A	Eastbound
John James Audubon Pkwy and Bryant Woods N	8.4	A	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	15.4	C	Eastbound
John James Audubon Pkwy and I-990 WB Off Ramp	8.9	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.7. Existing Conditions: Weekday PM Peak-Hour Levels of Service for Signalized Intersections

Intersection	Delay	Overall LOS	Traffic Movements at LOS E or F
Main St and Kenmore Ave	15.0	B	None
Kenmore Ave and Niagara Falls Blvd	34.3	C	Southbound left, Eastbound approach, and Eastbound left
Niagara Falls Blvd and Decatur Rd	6.1	A	None
Niagara Falls Blvd and Longmeadow Rd	7.9	A	None
Niagara Falls Blvd and Eggert Rd	25.8	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	36.1	D	Southbound left
Niagara Falls Blvd and Treadwell Rd	19.4	B	Northbound left and Westbound left
Niagara Falls Blvd and Mall Entrance	16.7	B	Northbound left, Eastbound left, and Westbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	44.9	D	Northbound left and Southbound left. Eastbound approach, left, and through. Westbound through.
Maple Rd and Alberta Dr	16.8	B	None
Maple Rd and Bailey Ave	46.7	D	Southbound left, through, and approach.
Maple Rd and Bowmart Pkwy	11.7	B	None
Maple Rd and Hillcrest Dr	5.2	A	None
Maple Rd and Sweet Home Rd	56.5	E	Northbound left, through, and approach. Southbound left, through, and approach. Eastbound left.
Sweet Home Rd and Rensch Rd	31.4	C	Northbound left
John James Audubon Pkwy and Rensch Rd	22.2	C	None
John James Audubon Pkwy and Hamilton Rd	9.5	A	None
John James Audubon Pkwy and Frontier Rd	9.4	A	None
John James Audubon Pkwy and N Forest Rd	15.4	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	3.1	A	None
John James Audubon Pkwy and Dodge Rd	31.3	C	Eastbound left, through, and approach.
Eggert Rd and Sheridan Dr	31.3	C	None
Eggert Rd and Alberta Dr	28.8	C	None

Table C.8. Existing Conditions: Weekday PM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	Delay	LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.8	A	Eastbound
Main St and Capen Blvd	10.0	A	Eastbound
Kenmore Ave and Capen Blvd	12.7	B	Northbound
Kenmore Ave and Allenhurst Rd	13.0	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	10.5	B	Eastbound
Niagara Falls Blvd and Princeton Ave	9.0	A	Westbound
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	11.2	B	Eastbound
Niagara Falls Blvd and Paige Ave	8.7	A	Eastbound
Niagara Falls Blvd and Oxford Ave	10.6	B	Westbound
Niagara Falls Blvd and Chalmers Ave	9.6	A	Northbound
Niagara Falls Blvd and Yale Ave	11.1	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	10.7	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	13.3	B	Eastbound
Niagara Falls Blvd and Harrison Ave	12.1	B	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	14.6	B	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	8.1	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	10.0	B	Westbound
John James Audubon Pkwy and Sylvan Pkwy	9.0	A	Westbound
John James Audubon Pkwy and Bryant Woods S	9.0	A	Eastbound
John James Audubon Pkwy and Bryant Woods N	8.3	A	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	12.4	B	Eastbound
John James Audubon Pkwy and I-990 WB Off Ramp	8.5	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.9. Existing Conditions: Saturday Midday Peak-Hour Levels of Service for Signalized Intersections

Intersection	Delay	Overall LOS	Traffic Movements at LOS E or F
Main St and Kenmore Ave	15.2	B	None
Kenmore Ave and Niagara Falls Blvd	29.5	C	Eastbound left
Niagara Falls Blvd and Decatur Rd	7.7	A	None
Niagara Falls Blvd and Longmeadow Rd	6.1	A	None
Niagara Falls Blvd and Eggert Rd	22.8	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	37.6	D	Southbound left. Eastbound left and Eastbound approach.
Niagara Falls Blvd and Treadwell Rd	21.2	C	Northbound left and Westbound through
Niagara Falls Blvd and Mall Entrance	18.7	B	Northbound left and Eastbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	60.6	E	Northbound left. Southbound left. Eastbound left, through, right, and approach. Westbound left, through, right, and approach.
Maple Rd and Alberta Dr	20.1	C	None
Maple Rd and Bailey Ave	30.1	C	Southbound left
Maple Rd and Bowmart Pkwy	10.0	A	None
Maple Rd and Hillcrest Dr	1.9	A	None
Maple Rd and Sweet Home Rd	29.1	C	None
Sweet Home Rd and Rensch Rd	19.1	B	None
John James Audubon Pkwy and Rensch Rd	11.7	B	None
John James Audubon Pkwy and Hamilton Rd	9.4	A	None
John James Audubon Pkwy and Frontier Rd	6.0	A	None
John James Audubon Pkwy and N. Forest Rd	8.5	A	None
John James Audubon Pkwy and Gordon R Yaeger Dr	2.1	A	None
John James Audubon Pkwy and Dodge Rd	13.6	B	None
Eggert Rd and Sheridan Dr	29.3	C	None
Eggert Rd and Alberta Dr	29.0	C	None

Table C.10. Existing Conditions: Saturday Midday Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	Delay	LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.8	A	Eastbound
Main St and Capen Blvd	9.4	A	Eastbound
Kenmore Ave and Capen Blvd	15.1	C	Northbound
Kenmore Ave and Allenhurst Rd	17.6	C	Northbound
Niagara Falls Blvd and Kenilworth Ave	9.7	A	Eastbound
Niagara Falls Blvd and Princeton Ave	7.6	A	Westbound
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	10.1	B	Eastbound
Niagara Falls Blvd and Paige Ave	8.7	A	Eastbound
Niagara Falls Blvd and Oxford Ave	8.1	A	Westbound
Niagara Falls Blvd and Chalmers Ave	9.6	A	Eastbound
Niagara Falls Blvd and Yale Ave	8.7	A	Westbound
Niagara Falls Blvd and Lincoln Park Dr	10.1	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	12.2	B	Eastbound
Niagara Falls Blvd and Harrison Ave	12.0	B	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	15.1	C	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	9.8	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	2.6	A	Westbound
John James Audubon Pkwy and Sylvan Pkwy	7.1	A	Westbound
John James Audubon Pkwy and Bryant Woods S	7.0	A	Westbound
John James Audubon Pkwy and Bryant Woods N	6.7	A	Westbound
John James Audubon Pkwy and I-990 EB Off Ramp	7.9	A	Eastbound
John James Audubon Pkwy and I-990 WB Off Ramp	7.1	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

C.2.1.1 Individual Intersection Movements

A detailed description of the LOS for individual intersection movements are documented in Table 1-11 through Table 1-13 Ind which illustrate the weekday AM, weekday PM and Saturday MD peak hour operational results from the Expanded Existing VISSIM models, respectively. The results are the average of 10 runs per time period using different random number seeds.

Table C.11. *Existing Weekday: AM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Overall
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	B	A	A	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	A	C	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	B	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	B	C	D	C	A	C	E	C	B	C	C	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	B	A	A	A	N/A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	A	A	N/A	A	N/A	A	A	A	C	N/A	A	B	N/A	N/A	N/A	N/A	A
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	A	C	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	B	N/A	A	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	A	A	B	D	A	A	A	N/A	D	B	D	E	D	C	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	B	A	B	E	C	A	C	E	D	A	D	D	D	A	D	C
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	B	A	B	D	A	A	A	E	N/A	B	C	D	N/A	A	D	B
	Niagara Falls Blvd and Mall Entrance	Signal	D	A	A	A	C	A	A	A	A	A	A	A	E	A	A	C	A
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	D	C	B	C	D	C	C	C	C	D	C	D	D	D	A	C	C
	Maple Rd and Alberta Dr	Signal	B	B	A	B	B	C	A	B	A	A	A	A	A	A	A	A	A
	Maple Rd and Bailey Ave	Signal	B	C	A	B	B	B	A	B	B	C	A	B	B	B	A	B	B
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	B	N/A	B	B	C	A	N/A	A	N/A	A	A	A	A
	Maple Rd and Hillcrest Dr	Signal	C	N/A	A	A	C	C	B	C	N/A	A	A	A	B	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	C	D	B	C	C	C	A	C	C	C	A	C	C	C	A	C	C
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	C	C	B	B	C	D	D	C	D	D	D	A	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	C	B	A	B	C	A	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	A	A	A	A	A	A	A	A	B	B	A	A	B	A	A	A	A
	John Jame Auduon Pkwy and Forest Rd	Signal	B	B	A	A	B	B	A	B	A	A	A	A	B	B	B	B	B
	John James Audubon Pkwy and Sylvan Pkwy	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	B	A	A	B	A	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	B	A	A	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	C	B	A	C	C	B	A	B	D	C	B	C	E	E	E	E	D
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	N/A	A	N/A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	C	C	A	B	N/A	B	B	B	C
	Eggert Rd and Alberta Dr	Signal	A	A	A	A	A	A	A	A	D	D	C	D	D	C	C	C	C

Table C.12. *Existing Weekday: PM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Overall
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
PM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	C	C	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	B	C	A	B	A	B	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	C	A	B	B	B	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	D	C	C	C	E	C	A	C	F	D	C	E	C	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	B	A	A	B	N/A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	A	N/A	N/A	A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	B	A	N/A	A	N/A	A	A	A	C	N/A	A	B	N/A	N/A	N/A	N/A	A
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	A	A	A	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	A	B	C	D	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	C	N/A	A	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	B	A	C	D	B	A	B	N/A	D	B	C	E	D	D	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	B	C	E	C	B	C	D	D	A	D	D	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	C	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	E	B	B	C	D	B	B	B	D	D	C	D	E	D	B	D	B
	Niagara Falls Blvd and Mall Entrance	Signal	E	B	B	B	D	A	A	B	E	D	A	D	E	D	B	C	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	B	D	E	D	D	D	E	E	D	E	D	E	C	D	D
	Maple Rd and Alberta Dr	Signal	C	C	A	B	C	C	B	C	B	C	A	B	C	B	A	B	B
	Maple Rd and Bailey Ave	Signal	D	D	B	D	F	E	C	F	C	C	A	C	C	C	C	C	D
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	D	A	N/A	A	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	C	N/A	A	B	D	C	A	D	N/A	A	A	A	B	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	F	E	C	E	F	F	D	F	E	D	B	D	D	D	A	D	E
	Sweet Home Rd and Rensch Rd	Signal	E	D	A	C	C	C	C	C	D	D	C	D	D	D	B	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	D	C	A	C	C	C	B	C	C	B	A	B	C	C	B	C	C
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A
	John James Audubon Pkwy and Frontier Rd	Signal	B	A	A	A	A	A	A	A	B	B	A	A	B	B	B	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	B	B	A	B	C	B	A	B	B	B	A	B	C	C	B	C	B
	John James Audubon Pkwy and Sylvan Pkwy	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	A	B	B	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	C	B	C	C	B	A	C	E	E	D	E	D	C	B	C	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	N/A	A	N/A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	A	A	A	A	A	A	A	A	D	C	C	C	D	C	C	C	C

Table C.13. *Existing Saturday: MD Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Overall
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	B	A	A	C	N/A	C	C	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	B	C	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	C	C	B	C	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	D	C	B	C	D	C	A	C	E	C	B	C	D	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	B	A	A	A	N/A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	B	A	N/A	A	N/A	A	A	A	C	N/A	A	B	N/A	N/A	N/A	N/A	A
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	C	A	B	B	B	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	C	C	N/A	A	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	B	A	B	D	B	A	B	D	N/A	A	C	E	D	D	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	B	C	E	C	B	C	F	D	A	E	D	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	E	C	B	C	D	B	B	B	D	N/A	C	D	E	N/A	B	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	E	C	B	C	D	B	B	B	E	D	A	D	D	D	B	C	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	E	D	D	D	F	F	F	F	E	E	E	E	E
	Maple Rd and Alberta Dr	Signal	C	C	B	B	C	C	B	C	B	C	A	C	C	B	B	C	C
	Maple Rd and Bailey Ave	Signal	D	D	B	C	E	C	B	D	C	C	A	C	C	C	C	C	C
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	D	A	N/A	A	N/A	B	B	B	A
	Maple Rd and Hillcrest Dr	Signal	C	N/A	A	B	A	A	A	A	N/A	A	A	A	A	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	D	D	A	C	C	D	B	C	C	C	A	C	C	D	A	C	C
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	B	B	B	B	B	D	D	B	D	C	C	A	B	B
	John James Audubon Pkwy and Rensch Rd	Signal	C	B	A	B	C	B	A	B	B	A	A	A	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	A	A	A	A	A	A	A	A	A	B	A	A	B	A	A	A	A
	John Jame Auduon Pkwy and Forest Rd	Signal	A	A	A	A	A	A	A	A	B	A	A	A	B	B	A	B	A
	John James Audubon Pkwy and Sylvan Pkwy	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	C	B	A	B	C	B	A	B	C	C	A	B	C	C	A	B	B
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	N/A	A	N/A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	A	A	A	A	A	A	A	A	D	C	C	C	D	C	C	C	C

C.2.2 Transit

Metro is the public transportation operator in the Buffalo-Niagara metropolitan region and the Project Corridor, operating the Metro Rail LRT system and a network of bus lines.

C.2.2.1 Metro Rail

Metro Rail runs along Main Street between the Erie Canal Harbor Station in downtown Buffalo and University Station on the UB South Campus. While the first 1.2-mile segment of the 6.4-mile service operates at-grade in the downtown area, the remaining portion of the line is underground. The line has 13 fully operational stations. Park & ride facilities are available at University Station (450 spaces) and LaSalle Station (732 spaces). The Metro Rail Maintenance Yard & Shop is located at the former Delaware-Lackawanna and Western Railroad Terminal at the south end of the route. Independent of the proposed Project, a new station (DL&W Station) is under construction and scheduled for completion in 2025. The DL&W Station will provide enhanced access to Canalside and the historic Cobblestone District, replacing existing service at the Special Event station which is now closed.

Metro Rail along Main Street

Metro Rail passengers

University Station[4]

Church Street Station

Weekday service runs from 5:10 a.m. to 12:50 a.m. and includes 79 daily trips in each direction. Trains run as often as once every 12 minutes during peak hours and 15 minutes during the midday, with late-night headways at 20 minutes. Saturday service runs from 7:05 a.m. to 12:50 a.m. and includes 62 trips in each direction, and Sunday/holiday service runs from 8:00 a.m. to 11:50 p.m. with 46 trips in each direction. For hockey games and selected events at the KeyBank Center and Canalside, a later train departs the Events Only Station 30 minutes after the

[4] Located near the intersection of Main Street and Niagara Falls Boulevard on the University at Buffalo South Campus, University Station is a major transfer point between Metro Rail and many city and suburban bus routes.

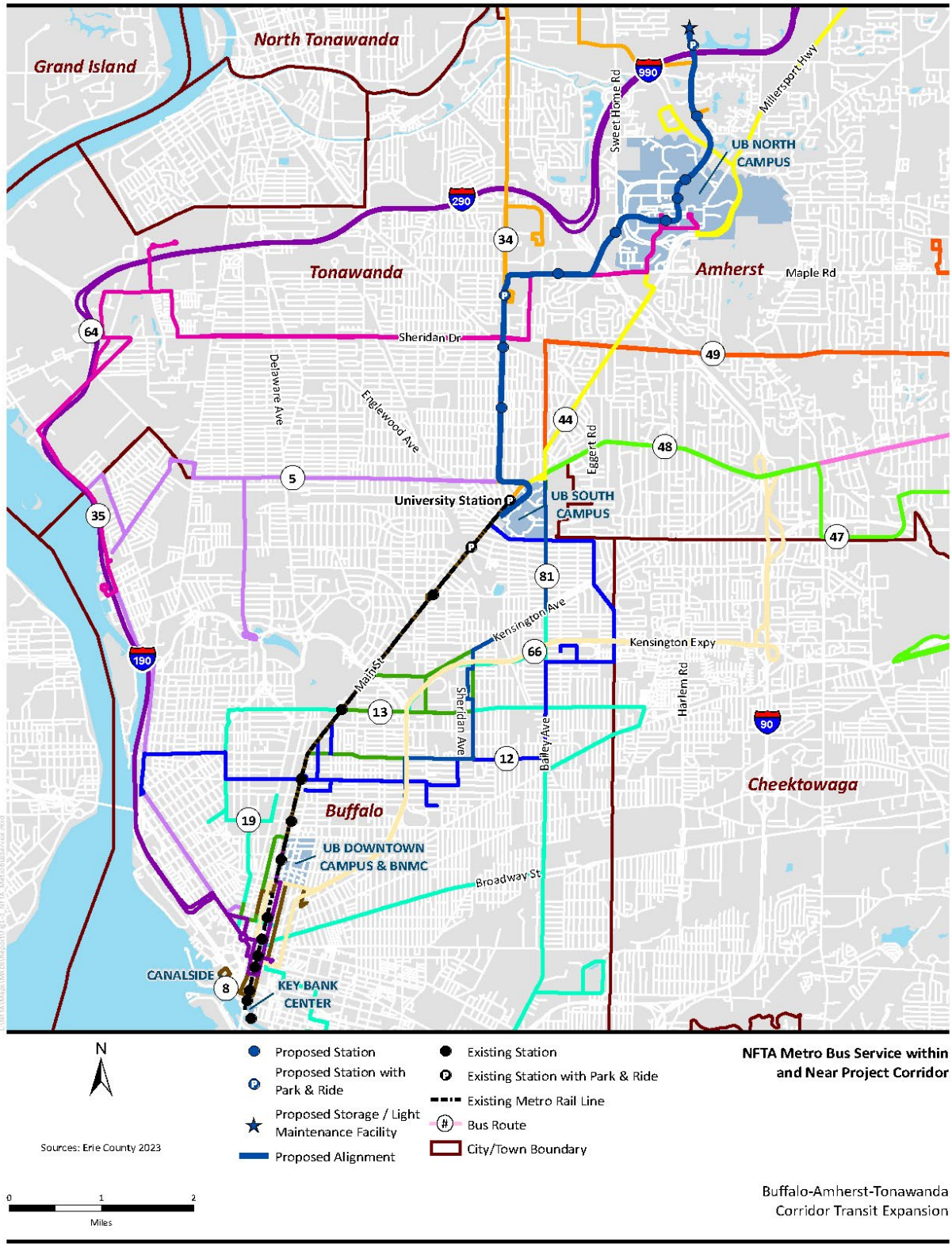
end of the event, if necessary. Metro reports that during fiscal year 2019, 4.5 million riders (pre COVID-19 Pandemic) used the LRT system.

C.2.2.2 Metro Bus

Metro Bus service in Metro's service area of Erie and Niagara Counties currently includes ten express bus routes and 37 regular bus routes (see Figure 1-3). Many of these routes intersect with or serve a portion of the study area, including the following:

- **Metro Bus Route 34-Niagara Falls Boulevard** provides service between University Station and the Town of Amherst. Service is provided on two variants; one runs to the Audubon Industrial Park and one runs to the Amherst Town Center at Audubon Parkway/Gordon Yaeger Drive, serving 947 average weekday boardings in 2023.
- **Metro Bus Route 35-Sheridan** provides east–west service from the Black Rock Riverside Transit Hub along Sheridan Drive in Tonawanda and into Amherst. The bus route serves Boulevard Mall, Northtown Plaza, and the UB North Campus, serving 771 average weekday boardings in 2023.
- **Metro Bus Route 44-Lockport** runs primarily via Millersport Highway between Lockport and University Station. The bus route serves UB North Campus and CrossPoint Business Park with limited service to Weinberg Campus, serving 441 average weekday boardings in 2023.
- **Metro Bus Route 47-Wehrle** provides service between University Station and the Eastern Hills Mall via Harlem Road, Wehrle Drive, and Transit Road, serving 219 average weekday boardings in 2023.
- **Metro Bus Route 48-Williamsville** runs primarily along Main Street and provides service between University Station and the Eastern Hills Mall via the State University of New York Erie Community College North Campus, Main Street, and Transit Road, serving 309 average weekday boardings in 2023.
- **Metro Bus Route 49-East Amherst** operates between University Station and the Eastern Hills Mall via Main Street, Bailey Avenue, Sheridan Drive, Hopkins Road, Maple Road, and Transit Road, also serving Millard Fillmore Suburban Hospital, serving 502 average weekday boardings in 2023.
- **Metro Bus Route 64-Lockport** is an express bus route running between Lockport, CrossPoint Business Park, and downtown Buffalo, serving 63 average weekday boardings in 2023.
- **Metro Bus Route 66** is an express route operating between downtown Buffalo and Eastern Hills Mall via Main Street. The route serves the Main and Union park & ride facilities, as well as the Allen-Medical Campus, serving 105 average weekday boardings in 2023.

Figure C.3. Metro Bus Routes Near Proposed Alignment



C.2.2.3 Paratransit

In accordance with Section 37.129(a) of Title 49, Part 37 of the Code of Federal Regulations (49 CFR 37.129(a)), Metro's complementary Paratransit Access Line (PAL) service is a shared-ride service that provides origin-to-destination transportation for paratransit eligible individuals under the Americans with Disabilities Act (ADA). The following people with disabilities are eligible for PAL:

- Those who are unable to independently board, ride, or exit from any vehicle on the fixed-route bus or rail system, which is accessible and usable by individuals with disabilities.
- Those who are unable to use an accessible fixed-route vehicle, but the route or the accessible vehicle on the route that would be used is not accessible or usable, or the stop that would be used is not accessible or usable due to the physical characteristics of the stop.
- Those who are unable to independently travel to or from the fixed-route bus stop or rail station.

Metro provides a level of complementary PAL service that is comparable to its fixed-route bus and rail systems. The complementary PAL service is provided within 0.75 miles of Metro Bus routes or rail stations during the same hours and on the same days as the Metro fixed-route service.

C.2.2.4 University at Buffalo Bus Service

UB provides extensive bus and shuttle services for its students, faculty, staff, and visitors. The shuttle services are free for users and the costs are covered as a component of the University's comprehensive fee, which is paid by all students at the University at Buffalo. The bus and shuttle services include the following:

- **Stampede Service** (the main service) runs between the UB North and South Campuses along Millersport Highway and Grover Cleveland Highway and consists of two different routes operating on a combined three-minute headway, serving 15,602 average weekday boardings in 2023.
- **University at Buffalo North Campus Shuttles**
  - **Express Service** runs between the Ellicott Complex and the Spine. During the fall and spring semesters, buses depart the Ellicott Tunnel for Lee Loop every 5 to 7 minutes.
  - **North Campus Shuttle** service connects the entire UB North Campus and stops at 18 key locations. The service also provides a valuable park & ride option from the Alumni and Stadium parking lots. The shuttle operates every 10 minutes during the semester between 8:00 a.m. and 7:00 p.m. After 7:00 p.m., the shuttle operates every 10 to 20 minutes.

  - **Green Line Shuttle** service provides a park & ride option from the Center for Tomorrow lot to Flint Loop in the heart of the UB North Campus. The Green Line operates Monday through Friday from 7:00 a.m. to 7:00 p.m. with departures every 10 minutes.
  - **On-Demand North Campus Weekend Shuttle** services the North Campus on weekends from 8:00 a.m. to 3:30 p.m.

- **University at Buffalo South/Downtown Campus Shuttles**
  - **Orange Line Shuttle** service operates Monday through Friday from 8:00 a.m. to 3:30 p.m. with departures every 20 minutes. The Orange Line is a rotator shuttle connecting all areas of the UB South Campus to the UB Blue Line downtown shuttle and the intercampus Stampede bus stops. The Orange Line provides park & ride service from the Main-Bailey and Parker lots.
  - **Blue Line Shuttle** service connects the Downtown and South Campuses during the weekdays. The Blue Line operates daily every 30 minutes between 7:30 a.m. and 5:30 p.m.
  - **Mall/Market Shuttle** service runs Wednesday and Saturdays during the fall and spring semester when classes are in session. Shuttles provide transportation to Walmart, Wegmans, Tops (on Maple Road), and the Boulevard Mall from both UB North and South Campuses.
  - **On-Demand Shuttles** include a Safety Shuttle servicing a 1.5-mile radius around the South Campus, daily from 8:00 p.m. to 2:00 a.m., and a shuttle from South Campus parking lots to buildings on weekdays between 10:30 a.m. and 6:00 p.m.

C.2.3 Parking

The Project alignment contains no on-street parking. However, on-street parking is available on side streets that intersect Kenmore Avenue and Niagara Falls Boulevard. Several parking lots are associated with the Boulevard Mall and adjacent commercial establishments along Niagara Falls Boulevard and Maple Road. Other parking facilities are on the UB North and South Campuses and are used by students, faculty, staff, visitors, and those attending events at university facilities. Existing Metro Rail park & ride facilities are located at the LaSalle and University Stations.

C.2.4 Pedestrians and Bicycles

Pedestrian infrastructure along the Project alignment consists of sidewalks along both sides of the street from the existing University Station to the UB North Campus. Sidewalks are absent along portions of the west side of Niagara Falls Boulevard between Sheridan Drive and Maple Road. There are sidewalks within the UB North and South Campuses. North of the UB North Campus there is a shared bicycle and pedestrian pathway and along the eastern side of John

James Audubon Parkway between Lee Road and North Forest Road; this pathway splits at the Ellicott Creek following the western side of the creek north to Ellicott Creek Park and beyond. Sidewalks do not exist along the remaining portion of John James Audubon Parkway within the study area. There are several trails that meander through the Audubon community. While crosswalks are located at major intersections, not all pedestrian intersection ramps meet ADA accessibility requirements.

The NYSDOT's Pedestrian Safety Corridor Evaluation (2019) reported the following conditions along Niagara Falls Boulevard:

- The presence of stop bars, marked crosswalks, ramps, ADA accessibility ramps, and detectible warning strips at unsignalized intersections varies, and marked crosswalks are often missing on the side-street approaches.
- The long cycle lengths at signalized intersections in the corridor create long wait times for pedestrians preparing to cross the street.
- Pedestrian equipment in the corridor is inconsistent at signalized intersections.
- The conditions of the pedestrian accommodations in the corridor vary with some in good condition and some in poor condition.
- Limited pedestrian intersection signs and no vehicle turning restrictions are present at the signalized intersections, increasing the potential for vehicle/pedestrian conflicts.

Sidewalk on Niagara Falls Boulevard

Crosswalk at Niagara Falls Boulevard and Sheridan Drive

There are bidirectional designated bicycle lanes along Kenmore Avenue between the Tonawanda Rails to Trails and Main Street; these lanes are unprotected and designated with lane markings. No designated bicycle lanes exist along the Project alignment from the start of Niagara Falls Boulevard at Kenmore Avenue to the intersection of Maple Road and Sweet Home Road (included in existing and No Build evaluations). Sweet Home Road is designated as part of the Intercampus Bikeway and consists of striped bike lanes between Maple Road and Rensch Road. Bicycle lane markings exist on some roadways within the campus. UB has a bikeshare program (UB Bikeshare) for students, faculty, and staff, which is powered by Social Bicycles and offers a GPS-enabled bike.

There are proposed bicycle and pedestrian facilities within the study area identified in local comprehensive plans that would support local bicyclist and pedestrian circulation for the No Build Alternative, LRT Build Alternative, and BRT Build Alternative. As discussed, the Town of Amherst Bicentennial Comprehensive Plan (Amended December 2020) proposes on-street bicycle/pedestrian networks on roads including Eggert Road, Niagara Falls Boulevard, Maple Road, Sweet Home Road, Augspurger Road, North Forest Road, and John James Audubon Parkway. The Town of Tonawanda Comprehensive Plan (2014 Update) also proposes a bike lane on Kenmore Avenue; pedestrian crossings at Niagara Falls Boulevard and Sheridan Drive, Treadwell Road, and Maple Road; as well as an off-road trail that runs along the waterway behind Evergreen Drive within the study area.

Bicyclists on Sweet Home Road

Pedestrian and Bicycle Path on John James Audubon Parkway

C.2.5 Transit Safety and Security

NFTA provides security, law enforcement, and roving patrols for transit vehicles, transit stations, and park & ride facilities. Surveillance of the transit stations is conducted through monitoring of closed-circuit televisions placed on each station platform and in park & ride facilities. Blue light emergency phones and lighting are located on station platforms and throughout the park & ride facilities, and passenger assistance phones for non-emergency use are located on each of the ticket vending machines in the stations.

C.3 NO BUILD ALTERNATIVE

A No Build Alternative, as required under NEPA, serves as a baseline against which to assess the impacts of the proposed Build Alternatives. As such, a No Build Alternative VISSIM model was constructed. This model used an identical network to the existing conditions previously modeled, with adjusted growth rates to simulate the expected demand in the target future year. The No Build Alternative assumes optimized signal timings at key intersections. No capacity improvements were made to meet future demand although a roundabout at WB I-990 at John James Audubon Pkwy was modeled in alignment with the planned Muir Woods development. Appendix C3, "Access Modification Report" documents the proposed modifications to the roundabout at John James Audubon Parkway and the Southbound I-990 ramps. Improvements to the Frontier Road roundabout were not modeled. Under the existing condition this intersection

was signalized. This roadway change was not planned at the time of the primary traffic analysis. The Project will invest in a signalized intersection, with the capacity to serve future traffic demands, at this location.

The No Build Alternative would consist of a future scenario with no changes to the Project Corridor beyond the projects that are already committed. The No Build Alternative did not account for the following roadway improvements, because these projects were not planned at the time that the traffic model was developed:

- The reconstruction of the Frontier/John James Audubon Parkway intersection into a roundabout.
- The reduction of John James Audubon Parkway to one lane in each direction using the former southbound travel lanes between Lee Road and North Forest Road.

Additional roadway projects are planned by others but not included within the No Build Alternative. The GBNRTC Transportation Improvement Program includes a roadway improvement project within the study area along North Forest Road in Amherst between Route 263 (Millersport Highway) and Dodge Road. This project entails pavement resurfacing for a 1.67-mile stretch of North Forest Road. The Town of Amherst is considering converting John James Audubon Parkway to a two-lane roadway utilizing the southbound lanes and abandoning the northbound lanes between the traffic circle at Lee Road and Dodge Road.

C.3.1.1 Forecasted Growth

The traffic demand was forecast to the estimated volumes of the target future year (2040) to analyze future conditions. This process applied growth rates on a corridor level to the network, based on estimated travel demand from a TransCAD model provided by GBNRTC. Any negative growth rates identified were assumed to be 0% growth to be conservative. Table 1-14 contains the effective growth rates implemented for the future year models in relation to the existing peak hour volumes.

Table C.14. Corridor Growth Rates for Future Conditions

Corridor	Percent Change					
	Future No Build Alternative			Build Alternatives		
	AM	PM	MD	AM	PM	MD
Niagara Falls Blvd	0%	0%	0%	0%	0%	0%
Maple Rd	12%	11%	18%	9%	8%	16%
Sweet Home Rd	2%	0%	1%	2%	0%	0%
Rensch Rd	0%	0%	0%	0%	0%	0%
John James Audubon Pkwy	0%	3%	4%	0%	2%	4%
Eggert Rd	8%	14%	24%	9%	15%	25%
Sheridan Dr	0%	0%	0%	0%	0%	0%

C.3.2 Traffic Operations

As described, Metro developed VISSIM models to analyze traffic operations without the Project for the year 2040. As compared to existing conditions, the No Build Alternative network is consistent with the GBNRTC's adopted transportation plans, includes an adjustment for anticipated vehicular traffic growth rates, and funded improvements such as the roundabout at the I-990 southbound off-ramp at John James Audubon Parkway. Metro derived the growth rates from GBNRTC's regional travel demand model, which accounts for anticipated population and land use changes in the region. In addition, the No Build Alternative assumes optimized signal timing would be implemented by others without the Project.

The No Build Alternative traffic LOS was determined for each of the traffic analysis intersections. Table 1-15 through Table 1-20 present the resulting overall LOS at each intersection in the study area as well as the specific traffic movements that operate at LOS E or F during the weekday and Saturday peak hours, respectively.

Table C.15. No Build Alternative: Weekday AM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	16.3	B	None
Kenmore Ave and Niagara Falls Blvd	28.4	C	Eastbound left
Niagara Falls Blvd and Decatur Rd	7.5	A	None
Niagara Falls Blvd and Longmeadow Rd	5.7	A	None
Niagara Falls Blvd and Eggert Rd	20.6	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	30.6	C	Southbound left and Eastbound left
Niagara Falls Blvd and Treadwell Rd	9.8	A	Eastbound left and Westbound through
Niagara Falls Blvd and Mall Entrance	6.6	A	Northbound left and Westbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	29.1	C	None
Maple Rd and Alberta Dr	6.5	A	None
Maple Rd and Bailey Ave	19.0	B	None
Maple Rd and Bowmart Pkwy	5.5	A	None
Maple Rd and Hillcrest Dr	6.1	A	None
Maple Rd and Sweet Home Rd	29.3	C	None
Sweet Home Rd and Rensch Rd	23.2	C	None
John James Audubon Pkwy and Rensch Rd	16.2	B	None
John James Audubon Pkwy and Hamilton Rd	11.4	B	None
John James Audubon Pkwy and Frontier Rd	7.1	A	None
John James Audubon Pkwy and N Forest Rd	13.2	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	0.8	A	None
John James Audubon Pkwy and Dodge Rd	27.1	C	None
Eggert Rd and Sheridan Dr	26.5	C	None
Eggert Rd and Alberta Dr	34.9	C	None

Table C.16. No Build Alternative: Weekday AM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	10.1	B	Eastbound
Main St and Capen Blvd	9.9	A	Eastbound
Kenmore Ave and Capen Blvd	12.2	B	Northbound
Kenmore Ave and Allenhurst Rd	14.3	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	9.3	A	Eastbound
Niagara Falls Blvd and Princeton Ave	7.1	A	Westbound
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	10.7	B	Eastbound
Niagara Falls Blvd and Paige Ave	9.1	A	Eastbound
Niagara Falls Blvd and Oxford Ave	8.1	A	Westbound
Niagara Falls Blvd and Chalmers Ave	9.3	A	Eastbound
Niagara Falls Blvd and Yale Ave	8.0	A	Westbound
Niagara Falls Blvd and Lincoln Park Dr	9.0	A	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	10.7	B	Eastbound
Niagara Falls Blvd and Harrison Ave	10.0	A	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	11.5	B	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	7.1	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	6.3	A	Eastbound
John James Audubon Pkwy and Sylvan Pkwy	8.1	A	Westbound
John James Audubon Pkwy and Bryant Woods S	10.7	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	9.5	A	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	33.8	D	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.8	A	Southbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.17. No Build Alternative: Weekday PM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	15.1	B	None
Kenmore Ave and Niagara Falls Blvd	30.0	C	Southbound left and Eastbound left
Niagara Falls Blvd and Decatur Rd	6.1	A	None
Niagara Falls Blvd and Longmeadow Rd	7.8	A	None
Niagara Falls Blvd and Eggert Rd	25.9	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	36.7	D	Southbound left
Niagara Falls Blvd and Treadwell Rd	20.1	C	Northbound left
Niagara Falls Blvd and Mall Entrance	16.0	B	Northbound left, Eastbound left, and Westbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	37.9	D	Northbound left
Maple Rd and Alberta Dr	18.0	B	None
Maple Rd and Bailey Ave	44.1	D	Eastbound through and approach. Westbound left
Maple Rd and Bowmart Pkwy	12.6	B	None
Maple Rd and Hillcrest Dr	5.9	A	None
Maple Rd and Sweet Home Rd	72.8	E	Northbound left, through, and approach. Southbound left, through, and approach. Eastbound left and approach. Westbound left, through, and approach.
Sweet Home Rd and Rensch Rd	33.7	C	Northbound left
John James Audubon Pkwy and Rensch Rd	35.9	D	Northbound left, Southbound right
John James Audubon Pkwy and Hamilton Rd	10.0	B	None
John James Audubon Pkwy and Frontier Rd	10.0	B	None
John James Audubon Pkwy and N Forest Rd	21.7	C	None
John James Audubon Pkwy and Gordon R Yaeger Dr	3.2	A	None
John James Audubon Pkwy and Dodge Rd	31.5	C	None
Eggert Rd and Sheridan Dr	31.6	C	None
Eggert Rd and Alberta Dr	28.0	C	None

Table C.18. No Build Alternative: Weekday PM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.6	A	Eastbound
Main St and Capen Blvd	10.1	B	Eastbound
Kenmore Ave and Capen Blvd	13.1	B	Northbound
Kenmore Ave and Allenhurst Rd	12.0	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	10.8	B	Eastbound
Niagara Falls Blvd and Princeton Ave	8.5	A	Westbound
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	11.6	B	Eastbound
Niagara Falls Blvd and Paige Ave	9.3	A	Eastbound
Niagara Falls Blvd and Oxford Ave	10.5	B	Westbound
Niagara Falls Blvd and Chalmers Ave	9.9	A	Eastbound
Niagara Falls Blvd and Yale Ave	10.9	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	10.8	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	13.0	B	Eastbound
Niagara Falls Blvd and Harrison Ave	11.1	B	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	14.4	B	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	8.2	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	22.0	C	Westbound
John James Audubon Pkwy and Sylvan Pkwy	9.4	A	Westbound
John James Audubon Pkwy and Bryant Woods S	10.7	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	9.1	A	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	18.3	C	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	3.9	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.19. No Build Alternative: Saturday Midday Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or F
Main St and Kenmore Ave	15.4	B	None
Kenmore Ave and Niagara Falls Blvd	30.3	C	Eastbound left
Niagara Falls Blvd and Decatur Rd	7.8	A	None
Niagara Falls Blvd and Longmeadow Rd	6.0	A	None
Niagara Falls Blvd and Eggert Rd	24.6	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	39.4	D	Southbound left, Eastbound left, and Eastbound approach
Niagara Falls Blvd and Treadwell Rd	21.2	C	Northbound left
Niagara Falls Blvd and Mall Entrance	17.8	B	Northbound left and Eastbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	56.8	E	Northbound left and through. Southbound left and approach. Eastbound through and approach. Westbound left, right, and approach.
Maple Rd and Alberta Dr	22.6	C	None
Maple Rd and Bailey Ave	42.2	D	Northbound left and through
Maple Rd and Bowmart Pkwy	11.4	B	None
Maple Rd and Hillcrest Dr	2.2	A	None
Maple Rd and Sweet Home Rd	35.3	D	None
Sweet Home Rd and Rensch Rd	20.4	C	None
John James Audubon Pkwy and Rensch Rd	13.9	B	None
John James Audubon Pkwy and Hamilton Rd	9.6	A	None
John James Audubon Pkwy and Frontier Rd	6.1	A	None
John James Audubon Pkwy and N Forest Rd	8.8	A	None
John James Audubon Pkwy and Gordon R Yaeger Dr	1.7	A	None
John James Audubon Pkwy and Dodge Rd	14.7	B	None
Eggert Rd and Sheridan Dr	34.8	C	Southbound left
Eggert Rd and Alberta Dr	27.8	C	None

Table C.20. No Build Alternative: Saturday Midday Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.5	A	Eastbound
Main St and Capen Blvd	9.3	A	Eastbound
Kenmore Ave and Capen Blvd	15.8	C	Northbound
Kenmore Ave and Allenhurst Rd	15.9	C	Northbound
Niagara Falls Blvd and Kenilworth Ave	9.8	A	Eastbound
Niagara Falls Blvd and Princeton Ave	7.3	A	Westbound
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	10.5	B	Eastbound
Niagara Falls Blvd and Paige Ave	8.8	A	Eastbound
Niagara Falls Blvd and Oxford Ave	8.2	A	Westbound
Niagara Falls Blvd and Chalmers Ave	9.7	A	Eastbound
Niagara Falls Blvd and Yale Ave	9.1	A	Westbound
Niagara Falls Blvd and Lincoln Park Dr	9.8	A	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	12.0	B	Eastbound
Niagara Falls Blvd and Harrison Ave	12.3	B	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	16.5	C	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	10.1	B	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	4.4	A	Westbound
John James Audubon Pkwy and Sylvan Pkwy	7.4	A	Westbound
John James Audubon Pkwy and Bryant Woods S	8.0	A	Eastbound
John James Audubon Pkwy and Bryant Woods N	7.1	A	Westbound
John James Audubon Pkwy and I-990 EB Off Ramp	9.9	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	1.8	A	Southbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

A comparison of the overall intersection LOS and individual traffic movement LOS shows that due to the additional volumes generated by the background traffic growth, additional locations would operate at mid LOS (D or worse) under the No Build Alternative as compared to existing conditions. The intersection of Maple Road and Sweet Home Road would continue to operate an overall LOS E during the weekday PM peak period as compared to existing conditions. The intersection of Niagara Falls Boulevard and Brighton Road/Maple Road would continue to operate an overall LOS E during the Saturday midday peak period as compared to existing conditions.

C.3.2.1 Individual Intersection Movements

A detailed description of the LOS for individual intersection movements are documented in Table 1-21 through Table 1-23 which illustrate the weekday AM, weekday PM and Saturday MD peak hour operational results from the Expanded No Build VISSIM models, respectively. The results are the average of 10 runs per time period using different random number seeds.

Table C.21. *No Build Alternative Weekday: AM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Overall
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	B	A	A	D	N/A	D	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	B	B	A	B	B	C	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	C	B	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	C	C	D	C	A	C	E	C	B	C	C	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	B	A	A	A	N/A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	A	A	N/A	A	N/A	A	A	A	C	N/A	A	C	N/A	N/A	N/A	N/A	A
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	B	C	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	B	N/A	A	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	A	A	B	D	A	A	A	N/A	D	B	D	E	N/A	C	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	B	A	B	E	C	A	C	E	D	A	D	D	D	A	D	C
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	B	A	B	C	A	A	A	E	A	B	C	D	E	A	D	A
	Niagara Falls Blvd and Mall Entrance	Signal	E	A	A	A	C	A	A	A	A	A	A	A	E	A	A	C	A
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	D	C	B	C	D	C	C	C	C	D	C	C	C	C	A	C	C
	Maple Rd and Alberta Dr	Signal	B	B	A	B	C	C	A	B	A	A	A	A	A	A	A	A	A
	Maple Rd and Bailey Ave	Signal	B	C	A	B	C	B	A	C	B	C	A	C	B	B	B	B	B
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	B	B	C	A	N/A	A	N/A	A	A	A	A
	Maple Rd and Hillcrest Dr	Signal	B	N/A	A	A	C	C	B	C	N/A	A	A	A	B	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	C	D	B	C	C	C	A	C	C	C	A	C	C	C	A	C	C
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	C	C	B	B	C	D	D	C	D	D	D	A	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	C	B	A	B	C	A	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	B	B	B	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	B	B	A	B	B	B	A	A	A	A	A	A	A	A	A	A	A
	John Jame Auduon Pkwy and Forest Rd	Signal	B	B	A	A	B	B	A	B	B	A	A	A	B	B	B	B	B
	John James Audubon Pkwy and Sylvan Pkwy	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	B	N/A	A	A	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	B	B	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	A	B	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	C	B	A	C	C	C	B	C	C	C	B	B	D	D	D	D	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	N/A	D	D	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	C	C	A	B	N/A	C	B	B	C
	Eggert Rd and Alberta Dr	Signal	A	A	A	A	A	A	A	A	D	D	C	D	C	C	C	C	C

Table C.22. *No Build Alternative Weekday: PM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Overall
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
PM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	B	B	A	B	A	B	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	C	C	E	C	A	C	E	C	C	D	C	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	B	A	A	A	N/A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	B	A	N/A	A	N/A	A	A	A	C	N/A	A	B	N/A	N/A	N/A	N/A	A
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	A	A	A	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	A	B	B	D	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	C	N/A	A	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	B	A	C	D	B	A	B	N/A	D	B	C	E	N/A	D	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	B	C	E	C	B	C	D	D	A	D	D	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	C	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	E	B	B	C	D	B	B	B	D	A	C	D	D	D	B	D	C
	Niagara Falls Blvd and Mall Entrance	Signal	E	B	B	C	D	A	A	A	E	D	A	D	E	D	B	C	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	B	D	D	D	C	D	C	D	C	D	D	D	C	D	D
	Maple Rd and Alberta Dr	Signal	C	C	B	B	C	C	B	C	B	C	A	B	C	B	B	B	B
	Maple Rd and Bailey Ave	Signal	D	D	C	D	D	C	A	C	D	E	A	E	E	D	D	D	D
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	D	A	N/A	A	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	D	N/A	B	B	D	D	A	D	N/A	A	A	A	B	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	F	E	D	E	F	F	D	E	F	D	B	E	F	F	D	F	E
	Sweet Home Rd and Rensch Rd	Signal	E	D	B	C	D	C	C	C	D	D	C	D	D	D	B	D	C
	John James Audubon Pkwy and Rensch Rd	Signal	E	C	A	D	D	D	E	D	D	B	A	C	C	C	B	C	D
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	C	C	C	C	B	A	B	B	B	B	A	B	D	D	D	D	C
	John James Audubon Pkwy and Frontier Rd	Signal	B	A	A	A	B	A	A	A	B	B	A	B	B	B	B	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	B	B	B	B	C	B	A	C	B	B	B	B	D	D	C	D	C
	John James Audubon Pkwy and Sylvan Pkwy	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	B	N/A	A	A	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	B	N/A	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	A	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	C	B	C	D	C	A	C	D	D	D	D	C	C	B	C	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	A	A	A	A	A	A	A	D	C	C	C	D	C	C	C	C

Table C.23. *No Build Alternative Saturday: MD Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Overall
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
MD	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	B	A	A	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	A	B	C	B	C	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	C	C	A	C	B	C	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	D	C	B	C	D	C	A	C	E	C	B	D	C	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	B	A	A	A	N/A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	B	A	N/A	A	N/A	A	A	A	C	N/A	A	B	N/A	N/A	N/A	N/A	A
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	A	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	B	B	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	C	B	N/A	A	A	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	B	A	B	D	B	A	B	N/A	D	B	C	E	N/A	D	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	B	C	E	C	B	C	F	D	A	E	D	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	B	N/A	A	B	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	E	C	B	C	D	B	B	B	D	A	C	D	D	D	B	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	E	C	B	C	D	A	B	B	E	D	A	D	D	D	B	C	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	E	C	D	F	D	D	E	D	E	D	E	E	D	E	E	E
	Maple Rd and Alberta Dr	Signal	C	C	B	C	C	D	B	C	B	C	A	C	C	B	B	C	C
	Maple Rd and Bailey Ave	Signal	E	E	C	D	D	C	B	C	D	D	A	D	D	D	D	D	D
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	D	A	N/A	A	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	C	N/A	A	B	A	A	A	A	N/A	A	A	A	B	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	D	D	A	D	D	D	B	C	D	C	B	D	C	D	A	D	D
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	C	B	B	B	B	D	D	B	D	C	C	A	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	C	B	A	B	C	C	A	B	C	A	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	A	A	A	A	A	A	A	A	A	B	A	A	B	B	A	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	A	A	A	A	A	A	A	A	A	B	A	A	B	B	A	B	A
	John James Audubon Pkwy and Sylvan Pkwy	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	B	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	C	B	A	B	C	B	A	B	C	C	A	B	C	C	B	B	B
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	E	D	C	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	A	D	C	D	C	D	C	C	C	C

C.3.3 Transit

Under the No Build Alternative, the existing Metro Rail, Metro Bus, and PAL service, as well as the UB bus service, would operate as they currently do. Table 1-24 summarizes the anticipated ridership on the existing Metro Rail under the No Build Alternative.

Table C.24 No Build Alternative Weekday Total (All Access Modes) Boardings by Metro Rail Station

Station	No Build Alternative (2045)	Station	No Build Alternative (2045)
DL&W*	99	Summer-Best	753
Erie Canal Harbor	614	Utica	1,107
Seneca	451	Delavan-Canisius College	588
Church Street	1,267	Humboldt	376
Lafayette	1,538	Amherst	911
Fountain Plaza	2,042	LaSalle	755
Allen-Medical Campus	946	University Station	1,923
		Subtotal of all Stations	**13,370**

Source: STOPS Model Runs
*Note: Forecasted ridership estimates based on the Special Event station is assumed to occur at the future DL&W station.

C.3.4 Parking

Parking facilities under the No Build Alternative would continue to consist of existing nearby on-street parking, off-street residential and commercial establishment parking lots, UB on-campus parking, and the existing Metro Rail park-and-ride facilities located at the LaSalle and University Stations.

C.3.5 Pedestrian and Bicycle

Under the No Build Alternative, the NYSDOT Pedestrian Safety Corridor Evaluation reported the following projects as being progressed along Niagara Falls Boulevard within the Project Corridor by NYSDOT:

- **Niagara Falls Boulevard/Almeda Drive/Rochelle Place,** where ADA-compliant detectable warning fields on the Almeda Drive crossing and transverse crosswalks (parallel lines) on Almeda Drive and Rochelle Place approaches will be added.
- **Niagara Falls Boulevard/Boulevard Mall Driveway,** where accessible pedestrian signals will be added, ADA ramps will be updated, and high-visibility crosswalks will be installed at the southbound and westbound crossings.
- **The Niagara Falls Boulevard corridor from Sheridan Drive to Tonawanda Creek Road,** where there will be traffic signal coordination including an analysis of detailed signal connections with consideration for leading pedestrian intervals.

In the Town of Amherst Bicentennial Comprehensive Plan (Amended December 2020) there are proposed on-street bicycle/pedestrian networks on roads within the study area, including Eggert Road, Niagara Falls Boulevard, Maple Road, Sweet Home Road, Augspurger Road, North Forest

Road, and John James Audubon Parkway. These networks would frequently contain safe, clearly demarcated crossings. The Town of Tonawanda Comprehensive Plan demarcates one proposed bike lane on Kenmore Avenue and an off-road trail that runs along the waterway behind Evergreen Drive within the study area. The plan also outlines improved pedestrian crossings at Niagara Falls Boulevard and Sheridan Drive, Treadwell Road, and Maple Road. Both plans emphasize the desire to restripe and redesign streets as complete streets that are conducive to multimodal transportation.

C.3.6 Safety and Security

The No Build Alternative would continue to consist of existing safety and security measures within the Project Corridor.

C.4 ENVIRONMENTAL CONSEQUENCES OF THE BUILD ALTERNATIVES

The following sections describe the potential impacts to the transportation system (traffic, transit, pedestrian and bicycle, and safety and security) which would result from the LRT Build Alternative and the BRT Build Alternative.

C.4.1 Traffic Operations

As described, VISSIM traffic simulation models were developed to analyze traffic operations for the LRT Build Alternative and the BRT Build Alternative through the year 2040. This includes the same vehicle volume growth evaluated under the No Build Alternative.

C.4.1.1 Build Alternative Network Changes

The inclusion of the LRT Build Alternative and the BRT Build Alternative within the constraints of the existing Project right-of-way would require a lane repurposing. Lane repurposing is defined as converting an automobile travel lane to a dedicated transit lane for the LRT Build Alternative or BRT Build Alternative. This lane repurposing is described as follows:

- Lane repurposing is proposed to occur on Niagara Falls Boulevard between the proposed Metro Rail tunnel portal (between Kenilworth Avenue and Princeton Avenue) and Maple Road. Lane repurposing would entail converting a northbound and southbound through travel lane to a dedicated transit lane. The Project alignment would enter the Boulevard Mall property north of Treadwell Road.

- Lane repurposing is proposed to occur on Maple Road between Alberta Drive, where the Project alignment is proposed to exit the Boulevard Mall property, and Bowmart Parkway. Lane repurposing would entail converting one westbound through travel lane to a dedicated transit lane.

- Lane repurposing is proposed to occur on John James Audubon Parkway between North Forest Road and the I-990 southbound on and off bound ramps at the at-grade roundabout.

Lane repurposing would entail converting John James Audubon Parkway from a four-lane divided facility to a two-lane roadway utilizing the existing two-lane southbound facility; the LRT Build Alternative and the BRT Build Alternative would operate on the vacated two-lane northbound travel lanes from North Forest Road to the I-990 southbound ramps.

Defined as a traffic diversion, this lane repurposing is expected to result in diverting a portion of the automobile traffic to the grid network of neighborhood streets, as summarized in Table 1-25. Based on capacity analyses of local intersections within the traffic diversion area, the adjacent street network is anticipated to have adequate capacity to absorb the diversion of traffic calculated for the Build Alternatives. When determining traffic future year growth factors, any traffic reductions due to reduction in capacity or significant socioeconomic changes were not implemented into the models. This decision ensures that the conducted traffic analysis is conservative in nature and represents a worse-case scenario.

Table C.25. Anticipated Traffic Diversions as a Result Lane Repurposing on Niagara Falls Boulevard

Study Area Roadway	Segment	Direction of Travel	Percent Change in Daily Vehicle Volumes (2040)
Niagara Falls Boulevard	Kenmore Avenue to Sheridan Drive	Northbound	Reduction of 17% to 22%
		Southbound	Reduction of 17% to 21%
Maple Road	Niagara Falls Boulevard to Sweet Home Road	Westbound	Reduction of 4% to 10%
		Eastbound	Reduction of 3% to 6%
Parker Boulevard	Englewood Avenue to Eggert Road	Northbound	Increase of 6% to 11%
		Southbound	Increase of 7% to 12%
Parkhurst Boulevard	Englewood Avenue to Eggert Road	Northbound	Increase of 6% to 17%
		Southbound	Increase of 6% to 19%
Alberta Drive	Sheridan Drive to Maple Road	Northbound	Increase of 7%
		Southbound	Increase of 7%
Bailey Avenue	Main Street to Sheridan Drive	Northbound	Increase of 1% to 5%
		Southbound	Increase of 3% to 6%
North Bailey Avenue	Sheridan Drive to Maple Road	Northbound	Increase of 0% to 1%
		Southbound	Increase of 0% to 1%
Sweet Home Road	Sheridan Drive to Maple Road	Northbound	Increase of 3%
		Southbound	Increase of 5%
Grover Cleveland / Millersport Highways	Bailey Avenue to Sheridan Drive	Northbound	Increase of 3% to 4%
		Southbound	Increase of 1% to 2%
Eggert Road	Parker Boulevard to Niagara Falls Boulevard	Westbound	Reduction of 7% to 9%
		Eastbound	Reduction of 6% to 7%
Eggert Road	Niagara Falls Boulevard to Main Street	Westbound	Increase of 3% to 5%
		Eastbound	Increase of 1% to 3%
Sheridan Drive	Parker Boulevard to Niagara Falls Boulevard	Westbound	0% Change
		Eastbound	Reduction of 0% to 1%

Study Area Roadway	Segment	Direction of Travel	Percent Change in Daily Vehicle Volumes (2040)
Sheridan Drive	Niagara Falls Boulevard to Millersport Highway	Westbound	Increase of 1% to 4%
		Eastbound	Increase of 1% to 4%
Highland Avenue	Parker Boulevard to Niagara Falls Boulevard	Westbound	Increase of 4% to 8%
		Eastbound	Increase of 5% to11%
Longmeadow Road	Niagara Falls Boulevard to Bailey Avenue	Westbound	Reduction of 3% to 6%
		Eastbound	Reduction of 3% to 7%
Longmeadow Road	Bailey Avenue to Millersport Highway	Westbound	Increase of 1% to 2%
		Eastbound	Increase of 0% to 2%
Decatur Road	Parker Boulevard to Parkhurst Boulevard	Westbound	0% Change
		Eastbound	Reduction of 3%
Decatur Road	Parkhurst Boulevard to Niagara Falls Boulevard	Westbound	Increase of 5% to 11%
		Eastbound	Increase of 2% to 7%
Englewood Avenue	Parker Boulevard to Kenmore Avenue	Westbound	Increase of 5% to 7%
		Eastbound	Increase of 3% to 6%
Kenmore Avenue	Englewood Avenue to Main Street	Westbound	Reduction of 5% to 11%
		Eastbound	Reduction of 4% to 9%

Source: GBNRTC Traffic Demand Model, 2019 Evaluation of 2040 Traffic Volume Diversions as a Result of the Project
Note: The GBNRTC Traffic Demand Model and its analysis network does not include all roadways

C.4.1.2 Build Alternative Traffic and Roadway Capacity Investments

Recognizing the impacts of the lane repurposing described above, Metro included traffic and roadway capacity investments and changes to offset the impacts. Table 1-26 lists the traffic modifications proposed for the Build Alternatives. Per the MUTCD, warrants will be met, and an engineering study will be conducted to support the proposed signal installations. The additional capacity for each Build Alternative is shown in Appendix B2, "Conceptual Plans."

Table C.26. LRT Build Alternative and BRT Build Alternative: Traffic Modifications

Corridor Location	Direction	Modification (Capacity or Operations)
Niagara Falls Boulevard between Kenilworth Avenue and Treadwell Road	Northbound and Southbound	Repurpose one lane of traffic for Project operations (Capacity).
Niagara Falls Boulevard at Ford and Cambridge Avenues	Northbound and Southbound	Add Northbound left turn at Ford Avenue and a Southbound turn lane at Cambridge Avenue (Capacity).
	Northbound and Southbound	Implementation of traffic signal control (Operations).
Niagara Falls Boulevard at Longmeadow Road	Northbound	Dedicated right-turn lane at Longmeadow Road (Capacity).
Niagara Falls Boulevard at Eggert Road	Southbound	Add Southbound left-turn lane on Niagara Falls Boulevard at Eggert Road (Capacity).

Corridor Location	Direction	Modification (Capacity or Operations)
	Southbound	Add a 200-foot Southbound receiving lane on Niagara Falls Boulevard south of the Eggert Road intersection (Capacity).
	Southbound	Additional left-turn lane; one through and one shared through/right-turn travel lane (Capacity).
Sheridan Drive and Niagara Falls Boulevard	Northbound	Eliminate one through travel lane and create a shared through/right-turn lane (Capacity).
	Southbound	Convert the dedicated right-turn lane to a shared through/right-turn lane and eliminate one through lane (Capacity).
Niagara Falls Boulevard at Maple Road/ Brighton Road	Westbound	Add Westbound left-turn lane on Maple Road at Niagara Falls Boulevard (Capacity).
	Westbound	Additional left-turn bay and dual left turn (Capacity).
	Eastbound	Add Eastbound through lane on Brighton Road at Niagara Falls Boulevard and extended through and through/right lanes west for more storage (Capacity).
Maple Road and North Bailey Avenue	Northbound	Increase in dedicated right turn storage starting at Argosy Drive (Capacity).
	Southbound	Additional left-turn lane (Capacity).
Maple Road and Sweet Home Middle School eastern driveway	Eastbound	Additional left-turn lane proposed for both Build Alternatives (Capacity). BRT Build Alternative includes traffic signal at this location (Operations).
Maple Road at Sweet Home Road	Northbound	Convert the dedicated right-turn lane to a shared through/right-turn lane at intersection with Maple Road at Sweet Home Road (Capacity).
	Northbound	Convert right-turn-only lane to shared through/right-turn lane and remove Northbound bicycle lane (Capacity).
	Southbound	Add additional receiving lane Southbound on Sweet Home Road south of Maple Road (Capacity).
	Southbound	Add a Southbound through lane that connects to a 200-foot Southbound receiving lane on Sweet Home Road (Capacity).
Sweet Home Road	Northbound Southbound	Restrict left turns at driveways between Maple Road and I-290 Bridge (Operations).
John James Audubon Parkway	Northbound	The Project would operate along the vacated Northbound travel lanes of John James Audubon Parkway (Capacity).
John James Audubon Parkway and Sylvan Parkway	All directions	Signalize intersection (Operations).

Corridor Location	Direction	Modification (Capacity or Operations)
John James Audubon Parkway at Bryant Woods.	Northbound and Southbound	Provide additional left-turn lanes at intersections with Bryant Woods North and Bryant Woods South (Capacity).
John James Audubon Parkway at Dodge Road	Eastbound and Westbound	Additional left-turn lane on Dodge Road for both directions (Capacity).
John James Audubon Parkway at I-990	Northbound and Southbound	Provide an additional Southbound through lane between the I-990 Westbound off-ramp and Dodge Road (Capacity).

C.4.1.3 LRT Build Alternative

For the LRT Build Alternative, Metro Rail vehicles would operate on dedicated tracks with peak 10-minute headways and 30-second station dwell times during operating hours. The LRT Build Alternative alignment is proposed to operate in a tunnel from the existing Metro Rail University Station to the median along Niagara Falls Boulevard and Maple Road. At the intersection of Maple Road and Sweet Home Road, the LRT Build Alternative alignment would pass under the intersection using cut and cover tunnel and structures. The LRT Build Alternative alignment would then continue north along Sweet Home Road, though UB North Campus, and John James Audubon Parkway. For more information Refer to Chapter 2, "Alternatives Considered." The proposed LRT track is anticipated to be constructed using the following techniques:

- For portions of the LRT Build Alternative alignment that does not intersect or interact with a signalized intersection, the track would be built on top of ballast. Ballast is defined as gravel or coarse stone used to form the bed of a railroad track. LRT track with ballast cannot be safely traversed by automobile traffic, therefore left-turn movements from crossing streets at unsignalized intersections would not be permitted. It is anticipated that either one or a combination of the following measures would be used to restrict these left-turn movements; physical separation (i.e., a curb), rail crossing gates, and/or warning signals.

- For portions of the LRT Build Alternative alignment that intersects or interacts with a signalized intersection or select driveways, the track would be unballasted or embedded. Embedded track is defined as track that is set within a medium (concrete slab or other) and is level with the roadway. This embedded track is commonly found at railway crossings. As a result of being flush with the roadway, automobile traffic can safely traverse the tracks.

- At LRT Build Alternative signalized intersections, it is anticipated that each traffic signal would be upgraded to allow, as needed, for a transit signal preemption scheme. Transit signal preemption is defined as an overriding traffic signal phase prioritizing a transit movement.

  Each LRT vehicle would be equipped with a transponder or trip a train wheel sensor that communicates with the corresponding traffic signal. As the LRT vehicle approaches the signal, the transit signal preemption scheme is triggered, restricting any conflicting

automobile traffic movements or pedestrian movements to avoid an unsafe conflict between transit operations and both automobile and pedestrian travel.

A transit signal preemption scheme ensures that any automobile traffic crossing the LRT Build Alternative rail track would have sufficient time to clear the area. Automobile travel not in conflict with the LRT operations would also be allowed to move through the intersection. An example is automobile traffic travelling parallel to the transit service but not crossing.

During design and construction, it is anticipated that additional warning systems and crossing gates may be considered at these conflicting turning movements to ensure the traveling public's safety. Left-turn phases would be protected-only while the LRT vehicle is passing through the intersection.

It also anticipated that emergency response vehicles could also be equipped with these same transponders, triggering the transit signal preemption scheme and allowing emergency services to quickly and safely bypass congestion.

- The LRT Build Alternative would reconstruct and shift 60 feet westwards the roundabout at John James Audubon Parkway and the southbound I-990 ramps at the Muir Woods Multifamily Residential Development. This modification improves safety by creating only one conflict point where the LRT tracks would traverse across the I-990 off-ramp. Appendix C3, "Access Modification Report," details the traffic operations analysis to determine the potential traffic impacts of implementing the LRT Build Alternative with a roundabout versus a signalized intersection at the southbound I-990 ramps.

- The LRT Build Alternative would be designed to pass under the intersection of Maple Road and Sweet Home Road due to track turning radius requirements, vertical clearance requirements, and the need to pass under the I-290 overpass of Sweet Home Road.

Using the VISSIM model, Metro determined the LRT Build Alternative traffic LOS for the 45 traffic analysis locations for the year 2040. Table 1-27 through Table 1-32. L present the resulting overall LOS at each intersection in the study area as well as the specific traffic movements that operate at LOS E or F. Table 1-33. L compares the overall LOS for signalized and unsignalized intersections in the study area for the LRT Build Alternative compared to the No Build Alternative.

Table C.27. LRT Build Alternative: Weekday AM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	16.4	B	None
Kenmore Ave and Niagara Falls Blvd	27.4	C	None
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	13.1	B	Westbound left
Niagara Falls Blvd and Decatur Rd	18.6	B	None
Niagara Falls Blvd and Longmeadow Rd	18.5	B	None
Niagara Falls Blvd and Eggert Rd	25.1	C	Northbound left, Southbound left, and Westbound left
Niagara Falls Blvd and Sheridan Dr	42.9	D	Southbound left, Eastbound left, and Westbound left
Niagara Falls Blvd and Treadwell Rd	21.0	C	Southbound left
Niagara Falls Blvd and Mall Entrance	14.4	B	None
Niagara Falls Blvd and Brighton Rd/Maple Rd	28.3	C	None
Maple Rd and Alberta Dr	21.7	C	Eastbound left
Maple Rd and Bailey Ave	27.8	C	Eastbound left and Westbound left
Maple Rd and Bowmart Pkwy	7.7	A	None
Maple Rd and Hillcrest Dr	14.4	B	None
Maple Rd and Sweet Home Rd	29.9	C	None
Sweet Home Rd and Rensch Rd	20.7	C	Northbound left
John James Audubon Pkwy and Rensch Rd	18.1	B	None
John James Audubon Pkwy and Hamilton Rd	10.9	B	None
John James Audubon Pkwy and Frontier Rd	11.5	B	None
John James Audubon Pkwy and N Forest Rd	25.6	C	None
*John James Audubon Pkwy and Sylvan Pkwy	10.1	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	3.6	A	None
John James Audubon Pkwy and Dodge Rd	32.1	C	Northbound left and Westbound through
Eggert Rd and Sheridan Dr	26.5	C	None
Eggert Rd and Alberta Dr	5.8	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.28. LRT Build Alternative: Weekday AM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.5	A	Eastbound
Main St and Capen Blvd	8.8	A	Eastbound
Kenmore Ave and Capen Blvd	14.8	B	Northbound
Kenmore Ave and Allenhurst Rd	13.6	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.0	A	Eastbound
Niagara Falls Blvd and Princeton Ave	8.1	A	Westbound
Niagara Falls Blvd and Paige Ave	13.6	B	Eastbound
Niagara Falls Blvd and Oxford Ave	11.0	B	Westbound
Niagara Falls Blvd and Chalmers Ave	11.3	B	Eastbound
Niagara Falls Blvd and Yale Ave	11.7	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	11.8	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	6.8	A	Eastbound
Niagara Falls Blvd and Harrison Ave	22.9	C	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	18.7	C	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	5.9	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	5.9	A	Eastbound
John James Audubon Pkwy and Bryant Woods S	12.2	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	11.4	B	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	4.4	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.8	A	Southbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.29. LRT Build Alternative: Weekday PM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	15.2	B	None
Kenmore Ave and Niagara Falls Blvd	26.3	C	Southbound left
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	29.2	C	Northbound left, Southbound left, and Eastbound left. Westbound left and Westbound approach.
Niagara Falls Blvd and Decatur Rd	47.4	D	Northbound left. Eastbound left, right, and approach.
Niagara Falls Blvd and Longmeadow Rd	46.6	D	Southbound left. Westbound left and Westbound approach.
Niagara Falls Blvd and Eggert Rd	36.2	D	Southbound left. Westbound left, right, and approach.
Niagara Falls Blvd and Sheridan Dr	56.0	E	Southbound left. Eastbound left and approach. Westbound left, through, and approach.
Niagara Falls Blvd and Treadwell Rd	16.8	B	None
Niagara Falls Blvd and Mall Entrance	22.6	C	Northbound left, Eastbound left, and Eastbound through.
Niagara Falls Blvd and Brighton Rd/Maple Rd	43.7	D	Northbound left and through. Westbound through.
Maple Rd and Alberta Dr	32.7	C	Eastbound left and Westbound left
Maple Rd and Bailey Ave	71.1	E	Northbound left, through, and approach. Southbound left and approach. Eastbound left, through, and approach. Westbound left and approach.
Maple Rd and Bowmart Pkwy	17.4	B	None
Maple Rd and Hillcrest Dr	12.5	B	Southbound left
Maple Rd and Sweet Home Rd	36.6	D	Southbound left
Sweet Home Rd and Rensch Rd	33.3	C	Northbound left and Eastbound through
John James Audubon Pkwy and Rensch Rd	25.2	C	None
John James Audubon Pkwy and Hamilton Rd	9.9	A	None
John James Audubon Pkwy and Frontier Rd	15.3	B	None
John James Audubon Pkwy and N Forest Rd	38.8	D	Southbound left
*John James Audubon Pkwy and Sylvan Pkwy	12.8	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	8.1	A	None
John James Audubon Pkwy and Dodge Rd	51.1	D	Northbound left and Southbound left. Westbound left, through, right, and approach.
Eggert Rd and Sheridan Dr	33.9	C	None
Eggert Rd and Alberta Dr	6.8	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.30. LRT Build Alternative: Weekday PM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	10.0	A	Eastbound
Main St and Capen Blvd	9.7	A	Eastbound
Kenmore Ave and Capen Blvd	15.3	C	Northbound
Kenmore Ave and Allenhurst Rd	12.7	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.2	A	Eastbound
Niagara Falls Blvd and Princeton Ave	14.6	B	Westbound
Niagara Falls Blvd and Paige Ave	23.9	C	Eastbound
Niagara Falls Blvd and Oxford Ave	294.2	F	Westbound
Niagara Falls Blvd and Chalmers Ave	14.8	B	Eastbound
Niagara Falls Blvd and Yale Ave	162.1	F	Westbound
Niagara Falls Blvd and Lincoln Park Dr	22.9	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	8.2	A	Eastbound
Niagara Falls Blvd and Harrison Ave	24.5	C	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	39.2	E	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	9.2	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	25.8	D	Northbound
John James Audubon Pkwy and Bryant Woods S	14.2	B	Westbound
John James Audubon Pkwy and Bryant Woods N	16.2	C	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	14.2	B	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	3.1	A	Southbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.31. LRT Build Alternative: Saturday Midday Peak-Hour Levels of Service for Signalized Intersection

Intersection	2040 Overall LOS	2040 Delay	Traffic Movements at LOS E or F
Main St and Kenmore Ave	13.9	B	None
Kenmore Ave and Niagara Falls Blvd	29.9	C	None
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	14.5	B	Southbound left and Westbound left
Niagara Falls Blvd and Decatur Rd	27.4	C	Northbound left. Eastbound left and approach.
Niagara Falls Blvd and Longmeadow Rd	36.8	D	Southbound left and Westbound left
Niagara Falls Blvd and Eggert Rd	37.8	D	Northbound left, through, and approach. Westbound right
Niagara Falls Blvd and Sheridan Dr	58.2	E	Southbound left. Eastbound left and approach. Westbound left, through, and approach.
Niagara Falls Blvd and Treadwell Rd	21.5	C	Northbound left, Southbound left, and Westbound left.
Niagara Falls Blvd and Mall Entrance	20.3	C	Northbound left and Southbound left. Eastbound left and through. Westbound left.
Niagara Falls Blvd and Brighton Rd/Maple Rd	50.1	D	Northbound left and Southbound left. Eastbound through and approach. Westbound left, through, and approach.
Maple Rd and Alberta Dr	43.1	D	Northbound left, through, and approach. Southbound through, Eastbound left, Westbound left.
Maple Rd and Bailey Ave	61.2	E	Northbound left and through. Southbound left and approach. Eastbound left and approach. Westbound left, through, right, and approach.
Maple Rd and Bowmart Pkwy	17.5	B	None
Maple Rd and Hillcrest Dr	7.2	A	Northbound left, Southbound approach, and Westbound left.
Maple Rd and Sweet Home Rd	30.0	C	None
Sweet Home Rd and Rensch Rd	16.0	B	None
John James Audubon Pkwy and Rensch Rd	14.7	B	None
John James Audubon Pkwy and Hamilton Rd	9.6	A	None
John James Audubon Pkwy and Frontier Rd	8.1	A	None
John James Audubon Pkwy and N Forest Rd	16.3	B	None
*John James Audubon Pkwy and Sylvan Pkwy	5.4	A	None
John James Audubon Pkwy and Gordon R Yaeger Dr	5.3	A	None
John James Audubon Pkwy and Dodge Rd	18.3	B	None
Eggert Rd and Sheridan Dr	37.1	D	Southbound left and approach.
Eggert Rd and Alberta Dr	8.2	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.32. LRT Build Alternative: Saturday Midday Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.8	A	Eastbound
Main St and Capen Blvd	9.2	A	Eastbound
Kenmore Ave and Capen Blvd	12.8	B	Northbound
Kenmore Ave and Allenhurst Rd	13.4	B	Southbound
Niagara Falls Blvd and Kenilworth Ave	8.2	A	Eastbound
Niagara Falls Blvd and Princeton Ave	9.3	A	Westbound
Niagara Falls Blvd and Paige Ave	14.6	B	Eastbound
Niagara Falls Blvd and Oxford Ave	12.9	B	Westbound
Niagara Falls Blvd and Chalmers Ave	12.3	B	Eastbound
Niagara Falls Blvd and Yale Ave	38.8	E	Westbound
Niagara Falls Blvd and Lincoln Park Dr	17.8	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	8.1	A	Eastbound
Niagara Falls Blvd and Harrison Ave	44.5	E	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	51.1	F	Westbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	14.3	B	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	4.9	A	Westbound
John James Audubon Pkwy and Bryant Woods S	10.8	B	Westbound
John James Audubon Pkwy and Bryant Woods N	9.0	A	Westbound
John James Audubon Pkwy and I-990 EB Off Ramp	1.4	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.1	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.33. LRT Build Alternative: Peak-Hour Levels of Service Compared to the No Build Alternative (Signalized and Unsignalized)

Intersection	Peak-Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	No Build	LRT	No Build	LRT	No Build	LRT
Main St and Allenhurst Rd*	B	A	A	A	A	A
Main St and Capen Blvd*	A	A	B	A	A	A
Main St and Kenmore Ave	B	B	B	B	B	B
Kenmore Ave and Capen Blvd*	B	B	B	C	C	B
Kenmore Ave and Allenhurst Rd*	B	B	B	B	C	B
Kenmore Ave and Niagara Falls Blvd	C	C	C	C	C	C
Niagara Falls Blvd and Kenilworth Ave*	A	A	B	A	A	A
Niagara Falls Blvd and Princeton Ave*	A	A	A	B	A	A
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	B	B	B	C	B	B
Niagara Falls Blvd and Paige Ave*	A	B	A	C	A	B
Niagara Falls Blvd and Oxford Ave*	A	B	B	F	A	B
Niagara Falls Blvd and Chalmers Ave*	A	B	A	B	A	B
Niagara Falls Blvd and Decatur Rd	A	B	A	D	A	C
Niagara Falls Blvd and Yale Ave*	A	B	B	F	A	E
Niagara Falls Blvd and Lincoln Park Dr*	A	B	B	C	A	C
Niagara Falls Blvd and Longmeadow Rd	A	B	A	D	A	D
Niagara Falls Blvd and Highland Ave/Ruth Dr*	B	A	B	A	B	A
Niagara Falls Blvd and Harrison Ave*	A	C	B	C	B	E
Niagara Falls Blvd and Betina Ave/Moore Ave*	B	C	B	E	C	F
Niagara Falls Blvd and Eggert Rd	C	C	C	D	C	D
Niagara Falls Blvd and Sheridan Dr	C	D	D	E	D	E
Niagara Falls Blvd and Franklin Ave/Rochelle Pl*	A	A	A	A	B	B
Niagara Falls Blvd and Treadwell Rd	A	C	C	B	C	C
Niagara Falls Blvd and Mall Entrance	A	B	B	C	B	C
Niagara Falls Blvd and Brighton Rd/Maple Rd	C	C	D	D	E	D

Intersection	Peak-Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	No Build	LRT	No Build	LRT	No Build	LRT
Maple Rd and Alberta Dr	A	C	B	C	C	D
Maple Rd and Bailey Ave	B	C	D	E	D	E
Maple Rd and Bowmart Pkwy	A	A	B	B	B	B
Maple Rd and Hillcrest Dr	A	B	A	B	A	A
Maple Rd and Sweet Home Rd	C	C	E	D	D	C
Sweet Home Rd and Rensch Rd	C	C	C	C	C	B
John James Audubon Pkwy and Rensch Rd	B	B	D	C	B	B
John James Audubon Pkwy and Hamilton Rd	B	B	B	A	A	A
John James Audubon Pkwy and Core Rd/Lee Rd	A	A	C	D	A	A
John James Audubon Pkwy and Frontier Rd	A	B	B	B	A	A
John James Audubon Pkwy and N Forest Rd	B	C	C	D	A	B
John James Audubon Pkwy and Sylvan Pkwy	A	B	A	B	A	A
John James Audubon Pkwy and Gordon R Yaeger Dr	A	A	A	A	A	A
John James Audubon Pkwy and Bryant Woods S*	B	B	B	B	A	B
John James Audubon Pkwy and Bryant Woods N*	A	B	A	B	A	A
John James Audubon Pkwy and Dodge Rd	C	C	C	D	B	B
John James Audubon Pkwy and I-990 EB Off-Ramp*	D	A	C	B	A	A
John James Audubon Pkwy and I-990 WB Off-Ramp*	A	A	A	A	A	A
Eggert Rd and Sheridan Dr	C	C	C	C	C	D
Eggert Rd and Alberta Dr	C	A	C	A	C	A

* Unsignalized intersection: Level of service was determined using the worst performing stop-controlled approach.

The LRT Build Alternative would result in the adverse traffic impacts at the intersections summarized in Table 1-34.

Table C.34. LRT Build Alternative LOS Impact Summary

Period	Condition	LOS Summary (2040)
Weekday AM peak	Existing	All intersections operate at overall LOS D or better.
	No Build	All intersections operate at overall LOS D or better. No adverse impact.
	LRT Build Alternative	All intersections operate at overall LOS D or better. The LRT Build Alternative does not result in adverse traffic impacts during the weekday AM peak travel period.
Weekday PM peak	Existing	One intersection operates at LOS E during the weekday PM peak period, Maple Rd and Sweet Home Rd.
	No Build	The Maple Rd and Sweet Home Rd intersection continues to operate LOS E. No adverse impact.
	LRT Build Alternative	Five intersections are adversely impacted during the weekday PM peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave degrades from a No Build LOS B to a LOS E ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E
Saturday Midday Peak	Existing	One signalized intersection operates at LOS E, Niagara Falls Blvd and Brighton Rd/Maple Rd.
	No Build	The Niagara Falls Blvd and Brighton Rd/Maple Rd intersection continues to operate LOS E. No adverse impact.
	LRT Build Alternative	Five intersections are adversely impacted during the Saturday midday peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS A to a LOS E ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave degrades from a No Build LOS B to a LOS E ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave degrades from a No Build LOS C to a LOS F ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E

LRT BUILD ALTERNATIVE: INDIVIDUAL INTERSECTION MOVEMENTS

A detailed description of the LOS for individual intersection movements are documented in Table 1-35 through Table 1-37 which illustrate the weekday AM, weekday PM and Saturday MD peak hour operational results from the Expanded LRT Build Alternative VISSIM models, respectively. The results are the average of 10 runs per time period using different random number seeds.

Table C.35. ***LRT Build Alternative Weekday: AM Peak Hour Levels of Service Individual Movements***

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	B	A	A	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	B	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	C	B	B	B	C	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	B	C	D	C	A	C	D	C	B	C	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	B	B	B	D	A	A	B	D	A	B	D	E	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	D	B	N/A	B	N/A	B	B	B	D	N/A	B	D	N/A	N/A	N/A	N/A	B
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	B	B	B	D	A	N/A	B	N/A	N/A	N/A	N/A	D	N/A	A	C	B
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	B	A	C	F	B	A	B	N/A	D	A	C	E	N/A	C	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	C	C	D	F	D	A	D	F	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	B	A	A	A	E	C	C	C	D	N/A	B	C	D	C	A	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	B	A	B	A	C	B	B	B	A	A	A	A	D	A	A	B	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	D	C	B	C	D	B	A	C	C	D	C	D	D	C	A	C	C
	Maple Rd and Alberta Dr	Signal	D	D	D	D	D	D	B	C	E	C	C	C	D	A	A	A	C
	Maple Rd and Bailey Ave	Signal	C	D	A	C	D	C	A	D	E	B	B	C	E	C	B	C	C
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	C	A	N/A	A	N/A	A	A	A	A
	Maple Rd and Hillcrest Dr	Signal	C	A	A	A	D	C	B	D	A	B	B	B	C	A	N/A	A	B
	Maple Rd and Sweet Home Rd	Signal	D	D	C	D	D	C	B	C	C	C	A	C	B	C	A	C	C
	Sweet Home Rd and Rensch Rd	Signal	E	C	A	C	B	B	B	B	D	D	C	D	D	D	A	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	C	C	A	B	C	B	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	B	B	B	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	A	A	C	B	A	B	B	B	A	B	B	B	B	B	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	C	B	C	D	B	B	C	B	B	A	B	C	C	C	C	C
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	A	A	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	C	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	C	A	B	B	C	A	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	A	A	B	A	C	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	E	B	A	C	D	C	B	C	C	D	C	D	D	E	D	D	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	C	C	A	C	N/A	B	B	B	C
	Eggert Rd and Alberta Dr	Signal	A	B	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A

Table C.36. *LRT Build Alternative Weekday: PM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
PM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	B	C	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	C	A	B	B	B	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	C	C	F	C	A	C	D	B	B	C	D	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	C	B	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	E	C	C	C	F	B	B	C	E	A	C	D	E	A	D	E	C
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F	F	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	F	D	N/A	D	N/A	C	C	C	F	N/A	F	F	N/A	N/A	N/A	N/A	D
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F	F	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	D	D	D	F	B	N/A	D	N/A	N/A	N/A	N/A	E	N/A	D	E	D
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	E	N/A	N/A	C	C	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	D	B	D	E	B	B	C	N/A	C	B	C	F	N/A	E	E	D
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	C	C	D	F	D	A	E	F	E	B	E	E
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	B	B	B	D	B	A	B	D	N/A	B	C	D	D	B	C	B
	Niagara Falls Blvd and Mall Entrance	Signal	E	C	C	C	D	B	B	C	E	F	B	A	D	D	B	C	C
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	E	C	D	D	C	B	C	C	D	C	D	D	E	B	D	D
	Maple Rd and Alberta Dr	Signal	D	C	B	C	C	C	B	C	E	D	D	D	F	A	A	C	C
	Maple Rd and Bailey Ave	Signal	F	F	D	F	F	D	C	E	E	E	D	E	F	D	D	E	E
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	B	C	D	A	N/A	A	N/A	C	C	C	B
	Maple Rd and Hillcrest Dr	Signal	D	A	B	C	E	D	A	D	C	A	A	A	D	B	N/A	B	B
	Maple Rd and Sweet Home Rd	Signal	D	D	C	D	E	D	C	D	C	C	A	C	D	D	A	D	D
	Sweet Home Rd and Rensch Rd	Signal	E	D	B	D	C	C	C	C	D	E	D	D	D	D	B	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	D	C	A	C	C	D	C	C	C	A	A	B	D	C	B	C	C
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	E	E	E	E	B	A	A	B	C	C	A	B	D	D	E	D	D
	John James Audubon Pkwy and Frontier Rd	Signal	D	B	A	B	D	B	A	B	B	B	A	B	C	C	B	C	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	D	C	C	E	B	B	D	C	C	B	C	D	D	D	D	D
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	B	A	B	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	C	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	B	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	A	B	C	C	B	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	B	A	C	B	B	C	B	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	F	D	D	D	E	B	A	D	D	D	D	D	E	F	E	F	D
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	B	A	A	A	A	A	A	A	A	A

Table C.37. *LRT Build Alternative Saturday: MD Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
MD	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	A	A	A	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	B	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	B	B	B	C	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	B	C	D	C	A	C	D	C	C	D	D	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	B	B	B	E	A	A	B	D	A	B	D	E	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	B	N/A	B	N/A	B	B	C	F	N/A	D	E	N/A	N/A	N/A	N/A	C
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	E	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	C	C	C	F	B	N/A	D	N/A	N/A	N/A	N/A	E	N/A	C	D	D
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	E	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	D	N/A	N/A	F	F	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	E	C	E	D	B	A	B	N/A	C	A	C	D	N/A	E	D	D
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	C	C	D	F	D	A	E	F	E	B	E	E
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	E	C	B	C	E	B	B	B	D	N/A	C	D	E	D	B	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	F	C	B	C	E	B	B	B	E	E	B	A	E	D	B	C	C
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	E	C	A	C	D	E	D	E	F	F	C	E	D
	Maple Rd and Alberta Dr	Signal	E	E	D	E	D	E	C	D	E	D	D	D	E	B	B	C	D
	Maple Rd and Bailey Ave	Signal	E	E	A	D	E	D	D	E	F	D	D	E	F	E	E	E	E
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	B	D	D	A	N/A	B	N/A	C	B	C	B
	Maple Rd and Hillcrest Dr	Signal	E	A	B	C	A	A	A	F	A	A	A	A	E	B	N/A	B	A
	Maple Rd and Sweet Home Rd	Signal	D	D	C	D	D	D	B	C	C	C	B	C	B	C	B	C	C
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	B	B	A	B	A	D	D	B	D	C	C	A	C	B
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	C	C	A	B	C	A	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	A	A	A	A	A	A	B	B	A	B	B	B	A	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	C	B	B	B	C	B	A	B	B	B	A	B	C	C	B	C	B
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	A	A	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	C	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	A	B	C	A	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	B	A	A	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	B	B	B	D	B	A	B	C	C	A	C	C	D	B	C	B
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	E	D	B	E	D	D	A	D	N/A	C	C	C	D
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	B	B	A	A	A	A	A	A	A	A

C.4.1.4 BRT Build Alternative

For the BRT Build Alternative, Metro BRT vehicles would operate on dedicated lanes with peak five-minute headways and 30-second station dwell times during operating hours. The BRT Build Alternative alignment is proposed to operate in the median along Niagara Falls Boulevard and Maple Road. The proposed BRT dedicated lane is anticipated to be constructed using the following techniques:

- For portions of the BRT Build Alternative alignment that does not intersect or interact with a signalized intersection, the median-dedicated busway would include a separation between the BRT lanes and the general purpose lanes to prohibit encroachment onto the busway. Left-turn movements from crossing streets at unsignalized intersections would not be permitted. It is anticipated that either one or a combination of the following measures would be used to restrict these left-turn movements; physical separation (i.e., a curb), crossing gates, and/or warning signals.

- At BRT Build Alternative signalized intersections, it is anticipated that each traffic signal would be upgraded to allow for traffic signal priority (TSP)[5] technology. TSP would be utilized along the entire Project alignment at all signalized intersections.

  Each BRT vehicle would be equipped with a transponder that communicates with the corresponding traffic signal. As the BRT vehicle approaches the signal, the TSP scheme is triggered, restricting any conflicting automobile traffic movements to avoid an unsafe conflict between transit operations and automobile travel.

  A TSP scheme ensures that any automobile traffic crossing the BRT Build Alternative dedicated lane would have time to clear the area. Automobile travel not in conflict with the BRT operations would also be allowed to move through the intersection. An example is automobile traffic travelling parallel to the transit service, but not crossing.

  It also anticipated that emergency response vehicles could also be equipped with these same transponders, triggering the TSP scheme and allowing emergency services to quickly and safely bypass congestion.
- The BRT Build Alternative alignment would be consistent with the LRT Build Alternative, except for the following locations:

  - Between University Station and Niagara Falls Boulevard, The BRT Build alignment would travel in mixed traffic along Main Street and Kenmore Avenue onto Niagara Falls Boulevard, then into the median-dedicated alignment on Niagara Falls Boulevard near Kenilworth Avenue.

[5] Traffic signal priority gives special treatment to transit vehicles at signalized intersections. Since transit vehicles can hold many people, giving priority to transit can potentially increase the person throughput of an intersection.

- The BRT Build alignment would not utilize an underground crossing at the intersection of Maple Road and Sweet Home Road, but rather operate within a dedicated BRT lane and travel through the intersection at-grade utilizing traffic signal priority (TSP)[6] technology.

- The BRT Build Alternative would operate in mixed traffic north of Dodge Road.

Using the VISSIM model, the BRT Build Alternative traffic LOS was determined for the 45 traffic analysis locations. Other than the alignment changes described above, the modeling assumptions for the BRT Build Alternative differed from the LRT Build Alternative with respect to service operations characteristics. These operational characteristics include service frequencies (peak weekday headways of five minutes with BRT and 10 minutes with LRT) and the BRT Build Alternative's use of TSP at all signalized intersections (10 second maximum early or extend of priority phase) versus the LRT Build Alternative's use of signal pre-emption at all signalized intersections. Table 1-38 through Table 1-43 present the resulting overall LOS at each intersection in the study area as well as the specific traffic movements that operate at LOS E or F. Table 1-44 compares the overall LOS for signalized and unsignalized intersections in the study area for the BRT Build Alternative to the No Build Alternative.

[6] Traffic signal priority gives special treatment to transit vehicles at signalized intersections. Since transit vehicles can hold many people, giving priority to transit can potentially increase the person throughput of an intersection.

Table C.38. BRT Build Alternative: Weekday AM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	19.3	B	None
Kenmore Ave and Niagara Falls Blvd	33.0	C	Eastbound left
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	13.1	B	None
Niagara Falls Blvd and Decatur Rd	19.6	B	None
Niagara Falls Blvd and Longmeadow Rd	19.5	B	None
Niagara Falls Blvd and Eggert Rd	24.9	C	Northbound left and Westbound left
Niagara Falls Blvd and Sheridan Dr	36.1	D	Southbound left
Niagara Falls Blvd and Treadwell Rd	25.7	C	Eastbound through
Niagara Falls Blvd and Mall Entrance	15.3	B	Westbound left and Westbound approach
Niagara Falls Blvd and Brighton Rd/Maple Rd	32.1	C	None
Maple Rd and Alberta Dr	22.6	C	Northbound through and right. Southbound through. Eastbound left and Westbound left.
Maple Rd and Bailey Ave	29.7	C	Westbound left
Maple Rd and Bowmart Pkwy	6.4	A	None
Maple Rd and Hillcrest Dr	14.2	B	None
Maple Rd and Sweet Home Rd	53.0	D	Northbound left, through, right, and approach. Southbound left and Southbound approach.
Sweet Home Rd and Rensch Rd	21.6	C	Northbound left
John James Audubon Pkwy and Rensch Rd	36.3	D	Southbound left and Eastbound left.
John James Audubon Pkwy and Hamilton Rd	10.6	B	None
John James Audubon Pkwy and Frontier Rd	12.1	B	None
John James Audubon Pkwy and N Forest Rd	30.6	C	None
*John James Audubon Pkwy and Sylvan Pkwy	11.3	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	3.1	A	None
John James Audubon Pkwy and Dodge Rd	24.1	C	None
Eggert Rd and Sheridan Dr	27.0	C	None
Eggert Rd and Alberta Dr	5.9	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.39. BRT Build Alternative: Weekday AM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.0	A	Eastbound
Main St and Capen Blvd	10.0	B	Eastbound
Kenmore Ave and Capen Blvd	15.3	C	Northbound
Kenmore Ave and Allenhurst Rd	14.9	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.0	A	Eastbound
Niagara Falls Blvd and Princeton Ave	8.2	A	Westbound
Niagara Falls Blvd and Paige Ave	14.8	B	Eastbound
Niagara Falls Blvd and Oxford Ave	10.8	B	Westbound
Niagara Falls Blvd and Chalmers Ave	12.3	B	Eastbound
Niagara Falls Blvd and Yale Ave	12.9	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	13.3	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	6.8	A	Eastbound
Niagara Falls Blvd and Harrison Ave	25.6	D	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	19.3	C	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	6.1	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	6.1	A	Eastbound
John James Audubon Pkwy and Bryant Woods S	11.7	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	12.4	B	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	6.6	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	6.6	A	Southbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.40. BRT Build Alternative: Weekday PM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	17.0	B	None
Kenmore Ave and Niagara Falls Blvd	31.3	C	Eastbound left
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	25.0	C	Northbound left, Southbound left, Eastbound left, and Westbound left.
Niagara Falls Blvd and Decatur Rd	46.0	D	Northbound left. Eastbound left, right, and approach.
Niagara Falls Blvd and Longmeadow Rd	51.6	D	Southbound left. Westbound left, right, and approach.
Niagara Falls Blvd and Eggert Rd	37.0	D	Westbound left and Westbound approach.
Niagara Falls Blvd and Sheridan Dr	48.5	D	Southbound left. Westbound through and approach.
Niagara Falls Blvd and Treadwell Rd	27.3	C	None
Niagara Falls Blvd and Mall Entrance	36.2	D	Northbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	41.3	D	Northbound left and Westbound through
Maple Rd and Alberta Dr	31.9	C	Northbound left and Westbound left
Maple Rd and Bailey Ave	73.0	E	Northbound left, through, and approach. Southbound left, through, and approach. Eastbound left, through, and approach. Westbound left, through, right, and approach.
Maple Rd and Bowmart Pkwy	16.2	B	None
Maple Rd and Hillcrest Dr	10.6	B	Southbound left
Maple Rd and Sweet Home Rd	77.1	E	Northbound left, through, right, and approach. Southbound left, right, and approach. Eastbound left. Westbound left, through, and approach.
Sweet Home Rd and Rensch Rd	33.4	C	Northbound left. Eastbound left, through, and approach.
John James Audubon Pkwy and Rensch Rd	45.8	D	Northbound left and approach. Southbound left and through. Eastbound left and Westbound left.
John James Audubon Pkwy and Hamilton Rd	10.0	A	None
John James Audubon Pkwy and Frontier Rd	16.6	B	None
John James Audubon Pkwy and N Forest Rd	54.1	D	Northbound left, right, and approach. Southbound left. Westbound left, through, right, and approach.
*John James Audubon Pkwy and Sylvan Pkwy	16.7	C	None
John James Audubon Pkwy and Gordon R Yaeger Dr	8.8	A	None
John James Audubon Pkwy and Dodge Rd	44.7	D	Northbound left, through, right, and approach. Eastbound left.
Eggert Rd and Sheridan Dr	31.8	C	None
Eggert Rd and Alberta Dr	6.9	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.41. BRT Build Alternative: Weekday PM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.9	A	Eastbound
Main St and Capen Blvd	10.2	B	Eastbound
Kenmore Ave and Capen Blvd	13.3	B	Northbound
Kenmore Ave and Allenhurst Rd	14.5	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.3	A	Eastbound
Niagara Falls Blvd and Princeton Ave	13.0	B	Westbound
Niagara Falls Blvd and Paige Ave	24.1	C	Eastbound
Niagara Falls Blvd and Oxford Ave	90.1	F	Westbound
Niagara Falls Blvd and Chalmers Ave	14.2	B	Eastbound
Niagara Falls Blvd and Yale Ave	124.5	F	Westbound
Niagara Falls Blvd and Lincoln Park Dr	20.2	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	7.8	A	Eastbound
Niagara Falls Blvd and Harrison Ave	22.6	C	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	33.1	D	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	27.5	D	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	26.4	D	Northbound
John James Audubon Pkwy and Bryant Woods S	14.1	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	31.0	D	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	13.7	B	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	4.6	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.42. BRT Build Alternative: Saturday Midday Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Overall LOS	2040 Delay	Traffic Movements at LOS E or F
Main St and Kenmore Ave	15.7	B	None
Kenmore Ave and Niagara Falls Blvd	31.9	C	Northbound through
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	15.5	B	Southbound left and Westbound left.
Niagara Falls Blvd and Decatur Rd	23.1	C	Northbound left and Eastbound left.
Niagara Falls Blvd and Longmeadow Rd	35.2	D	Southbound left. Westbound left and approach.
Niagara Falls Blvd and Eggert Rd	29.4	C	None
Niagara Falls Blvd and Sheridan Dr	56.0	E	Southbound left and approach. Eastbound left, through, and approach. Westbound through and approach.
Niagara Falls Blvd and Treadwell Rd	20.8	C	Northbound left and Eastbound left. Westbound left and through.
Niagara Falls Blvd and Mall Entrance	21.0	C	Northbound left. Westbound through, right, and approach.
Niagara Falls Blvd and Brighton Rd/Maple Rd	54.0	D	Northbound left and Southbound left. Eastbound through and approach. Westbound left, through, and approach.
Maple Rd and Alberta Dr	57.2	E	Northbound through. Southbound through, right, and approach. Eastbound left, through, right, and approach.
Maple Rd and Bailey Ave	70.0	E	Northbound left, through, and approach. Southbound left, through, right, and approach. Eastbound left, through, right, and approach. Westbound left, through, and approach.
Maple Rd and Bowmart Pkwy	17.6	B	Southbound left and Eastbound left.
Maple Rd and Hillcrest Dr	5.2	A	Northbound left
Maple Rd and Sweet Home Rd	44.2	D	Northbound left, through, and approach. Southbound left.
Sweet Home Rd and Rensch Rd	19.4	B	None
John James Audubon Pkwy and Rensch Rd	33.0	C	Eastbound left
John James Audubon Pkwy and Hamilton Rd	9.7	A	None
John James Audubon Pkwy and Frontier Rd	9.2	A	None
John James Audubon Pkwy and N Forest Rd	19.5	B	None
*John James Audubon Pkwy and Sylvan Pkwy	6.5	A	None
John James Audubon Pkwy and Gordon R Yaeger Dr	6.0	A	None
John James Audubon Pkwy and Dodge Rd	18.2	B	None
Eggert Rd and Sheridan Dr	30.3	C	None
Eggert Rd and Alberta Dr	8.1	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.43. BRT Build Alternative: Saturday Midday Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.9	A	Eastbound
Main St and Capen Blvd	9.3	A	Eastbound
Kenmore Ave and Capen Blvd	14.1	B	Northbound
Kenmore Ave and Allenhurst Rd	12.4	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.4	A	Eastbound
Niagara Falls Blvd and Princeton Ave	9.7	A	Westbound
Niagara Falls Blvd and Paige Ave	14.2	B	Eastbound
Niagara Falls Blvd and Oxford Ave	13.4	B	Westbound
Niagara Falls Blvd and Chalmers Ave	12.3	B	Eastbound
Niagara Falls Blvd and Yale Ave	33.9	D	Westbound
Niagara Falls Blvd and Lincoln Park Dr	17.6	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	7.9	A	Eastbound
Niagara Falls Blvd and Harrison Ave	35.1	E	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	33.7	D	Westbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	12.4	B	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	5.1	A	Westbound
John James Audubon Pkwy and Bryant Woods S	8.5	A	Eastbound
John James Audubon Pkwy and Bryant Woods N	8.6	A	Westbound
John James Audubon Pkwy and I-990 EB Off Ramp	7.1	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.2	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.44. BRT Build Alternative: Peak-Hour Levels of Service Compared to the No Build Alternative (Signalized and Unsignalized)

Intersection	Peak Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	No Build	BRT	No Build	BRT	No Build	BRT
Main St and Allenhurst Rd*	B	A	A	A	A	A
Main St and Capen Blvd*	A	B	B	B	A	A
Main St and Kenmore Ave	B	B	B	B	B	B
Kenmore Ave and Capen Blvd*	B	C	B	B	C	B
Kenmore Ave and Allenhurst Rd*	B	B	B	B	C	B
Kenmore Ave and Niagara Falls Blvd	C	C	C	C	C	C
Niagara Falls Blvd and Kenilworth Ave*	A	A	B	A	A	A
Niagara Falls Blvd and Princeton Ave*	A	A	A	B	A	A
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	B	B	B	C	B	B
Niagara Falls Blvd and Paige Ave*	A	B	A	C	A	B
Niagara Falls Blvd and Oxford Ave*	A	B	B	F	A	B
Niagara Falls Blvd and Chalmers Ave*	A	B	A	B	A	B
Niagara Falls Blvd and Decatur Rd	A	B	A	D	A	C
Niagara Falls Blvd and Yale Ave*	A	B	B	F	A	D
Niagara Falls Blvd and Lincoln Park Dr*	A	B	B	C	A	C
Niagara Falls Blvd and Longmeadow Rd	A	B	A	D	A	D
Niagara Falls Blvd and Highland Ave/Ruth Dr*	B	A	B	A	B	A
Niagara Falls Blvd and Harrison Ave*	A	D	B	C	B	E
Niagara Falls Blvd and Betina Ave/Moore Ave*	B	C	B	D	C	D
Niagara Falls Blvd and Eggert Rd	C	C	C	D	C	C
Niagara Falls Blvd and Sheridan Dr	C	D	D	D	D	E
Niagara Falls Blvd and Franklin Ave/Rochelle Pl*	A	A	A	D	B	B
Niagara Falls Blvd and Treadwell Rd	A	C	C	C	C	C
Niagara Falls Blvd and Mall Entrance	A	B	B	D	B	C
Niagara Falls Blvd and Brighton Rd/Maple Rd	C	C	D	D	E	D
Maple Rd and Alberta Dr	A	C	B	C	C	E

Intersection	Peak Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	No Build	BRT	No Build	BRT	No Build	BRT
Maple Rd and Bailey Ave	B	C	D	E	D	E
Maple Rd and Bowmart Pkwy	A	A	B	B	B	B
Maple Rd and Hillcrest Dr	A	B	A	B	A	A
Maple Rd and Sweet Home Rd	C	D	E	E	D	D
Sweet Home Rd and Rensch Rd	C	C	C	C	C	B
John James Audubon Pkwy and Rensch Rd	B	D	D	D	B	C
John James Audubon Pkwy and Hamilton Rd	B	B	B	A	A	A
John James Audubon Pkwy and Core Rd/Lee Rd	A	A	C	D	A	A
John James Audubon Pkwy and Frontier Rd	A	B	B	B	A	A
John James Audubon Pkwy and N Forest Rd	B	C	C	D	A	B
John James Audubon Pkwy and Sylvan Pkwy	A	B	A	C	A	A
John James Audubon Pkwy and Gordon R Yaeger Dr	A	A	A	A	A	A
John James Audubon Pkwy and Bryant Woods S*	B	B	B	B	A	A
John James Audubon Pkwy and Bryant Woods N*	A	B	A	D	A	A
John James Audubon Pkwy and Dodge Rd	C	C	C	D	B	B
John James Audubon Pkwy and I-990 EB Off-Ramp*	D	A	C	B	A	A
John James Audubon Pkwy and I-990 WB Off-Ramp*	A	A	A	A	A	A
Eggert Rd and Sheridan Dr	C	C	C	C	C	C
Eggert Rd and Alberta Dr	C	A	C	A	C	A

* Unsignalized intersection: Level of service was determined using the worst performing stop-controlled approach.

The BRT Build Alternative would result in adverse traffic impacts at intersections as summarized in Table 1-45.

Table C.45. BRT Build Alternative LOS Impact Summary

Period	Condition	LOS Summary (2040)
Weekday AM peak	Existing	All intersections operate at overall LOS D or better.
	No Build	All intersections operate at overall LOS D or better. No adverse impact.
	BRT Build Alternative	All intersections operate at overall LOS D or better. The BRT Build Alternative does not result in adverse traffic impacts during the weekday AM peak travel period.
Weekday PM peak	Existing	One intersection operates at LOS E during the weekday PM peak period, Maple Rd and Sweet Home Rd.
	No Build	The Maple Rd and Sweet Home Rd intersection continues to operate LOS E. No adverse impact.
	BRT Build Alternative	Three intersections are adversely impacted during the weekday PM peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS B to a LOS F ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E
Saturday Midday Peak	Existing	One signalized intersection operates at LOS E, Niagara Falls Blvd and Brighton Rd/Maple Rd.
	No Build	The Niagara Falls Blvd and Brighton Rd/Maple Rd intersection continues to operate LOS E. No adverse impact.
	BRT Build Alternative	Four intersections are adversely impacted during the Saturday midday peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave degrades from a No Build LOS B to a LOS E ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Alberta Dr would degrade from a No Build LOS C to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E

BRT BUILD ALTERNATIVE: INDIVIDUAL INTERSECTION MOVEMENTS

A detailed description of the LOS for individual intersection movements are documented in Table 1-46 through Table 1-48 which illustrate the weekday AM, weekday PM and Saturday MD peak hour operational results from the Expanded BRT Build Alternative VISSIM models, respectively. The results are the average of 10 runs per time period using different random number seeds.

Table C.46 BRT Build Alternative Weekday: AM Peak Hour Levels of Service Individual Movements

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	C	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	C	B	C	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	C	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	D	C	D	C	C	A	C	E	C	C	D	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	A	B	B	D	A	A	B	D	A	B	D	D	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	D	A	N/A	B	N/A	B	B	B	D	N/A	B	D	N/A	N/A	N/A	N/A	B
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	B	B	B	D	A	N/A	B	N/A	N/A	N/A	N/A	D	N/A	A	D	B
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	D	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	E	B	A	C	D	A	A	B	N/A	D	A	C	E	D	D	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	D	C	C	E	C	C	C	D	D	A	D	D	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	C	A	A	A	D	D	D	D	D	E	B	C	D	D	A	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	D	B	C	B	C	B	B	B	A	A	A	A	E	A	D	E	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	C	D	C	D	D	B	A	C	C	D	C	D	D	D	A	C	C
	Maple Rd and Alberta Dr	Signal	D	E	E	D	D	E	B	C	E	C	B	C	E	A	A	B	C
	Maple Rd and Bailey Ave	Signal	C	D	A	C	D	C	A	D	D	C	C	C	E	B	B	C	C
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	C	A	N/A	A	N/A	A	A	A	A
	Maple Rd and Hillcrest Dr	Signal	C	A	A	A	D	D	B	D	A	B	B	B	C	A	N/A	A	B
	Maple Rd and Sweet Home Rd	Signal	F	F	E	F	F	D	B	E	D	D	A	D	C	C	B	C	D
	Sweet Home Rd and Rensch Rd	Signal	E	C	B	B	C	B	B	B	D	D	C	D	D	D	A	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	D	D	D	D	E	D	B	D	E	C	C	C	D	B	A	B	D
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	B	B	A	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	B	A	C	A	A	B	B	B	B	B	C	C	B	C	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	C	C	C	D	B	B	C	B	B	A	B	D	D	D	D	C
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	B	B	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	C	A	B	B	B	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	B	B	B	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	C	C	C	D	B	B	C	C	C	B	B	C	C	C	C	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	C	C	A	C	N/A	C	B	B	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A

Table C.47 BRT Build Alternative Weekday: PM Peak Hour Levels of Service Individual Movements

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
PM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	B	B	B	B	B	A	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	C	B	A	B	B	B	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	D	D	D	C	C	A	B	E	C	C	D	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	B	B	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	E	C	C	C	E	B	B	C	E	A	B	D	E	A	C	D	C
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F	F	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	C	N/A	C	N/A	C	B	C	F	N/A	F	F	N/A	N/A	N/A	N/A	D
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F	F	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	D	C	D	F	B	N/A	C	N/A	N/A	N/A	N/A	F	N/A	F	F	D
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	D	N/A	N/A	C	C	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	C	B	C	C	B	B	B	N/A	D	B	C	F	N/A	D	F	D
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	D	D	D	D	D	A	D	D	E	B	E	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	D	D	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	D	D	D	C	A	A	A	D	N/A	B	D	D	D	B	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	E	D	D	D	D	B	B	C	D	D	B	A	D	D	D	D	D
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	D	C	B	C	C	D	C	D	D	E	B	D	D
	Maple Rd and Alberta Dr	Signal	E	D	B	D	C	C	B	C	D	D	C	D	F	A	A	C	C
	Maple Rd and Bailey Ave	Signal	F	F	D	F	E	E	D	E	E	E	D	E	F	E	E	E	E
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	B	C	D	A	N/A	A	N/A	C	B	C	B
	Maple Rd and Hillcrest Dr	Signal	D	A	B	C	E	D	A	D	C	A	A	A	D	B	N/A	B	B
	Maple Rd and Sweet Home Rd	Signal	F	E	E	F	F	D	F	E	E	D	A	D	F	F	C	F	E
	Sweet Home Rd and Rensch Rd	Signal	E	D	B	D	D	C	C	C	E	E	D	E	D	D	B	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	F	D	D	F	E	E	D	D	E	C	C	D	E	B	B	C	D
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	E	E	E	E	B	B	B	B	C	C	A	C	D	D	D	D	D
	John James Audubon Pkwy and Frontier Rd	Signal	C	B	B	B	C	B	A	B	C	C	B	B	C	C	C	C	B
	John Jame Audubon Pkwy and Forest Rd	Signal	E	D	E	E	E	B	B	D	C	C	B	C	F	F	F	F	D
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	B	B	B	C	B	N/A	B	N/A	N/A	N/A	N/A	C	N/A	C	C	C
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	B	B	B	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	A	B	B	B	B	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	D	C	D	B	C	C	C	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	E	E	E	E	D	B	A	C	E	D	C	D	D	D	D	D	D
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	B	A	B	B	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	A	B	B	A	B	B	A	A	A	B	A	A	A	A

Table C.48 *BRT Build Alternative Saturday: MD Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
MD	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	C	A	N/A	A	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	C	B	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	D	E	D	D	D	C	A	C	D	C	B	C	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	B	A	B	E	A	B	B	D	A	C	D	E	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	B	N/A	B	N/A	B	B	C	E	N/A	C	D	N/A	N/A	N/A	N/A	C
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	D	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	N/A	C	C	C	F	A	N/A	C	N/A	N/A	N/A	N/A	F	N/A	C	F	D
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	E	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	D	D	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	D	C	D	C	B	B	B	N/A	C	A	C	D	C	D	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	C	C	E	E	E	A	E	D	F	A	E	E
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	F	B	B	C	D	A	A	A	E	N/A	C	D	F	E	B	D	C
	Niagara Falls Blvd and Mall Entrance	Signal	E	C	C	C	D	B	B	B	D	D	B	A	D	E	E	E	C
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	E	C	A	D	D	E	D	E	F	F	C	F	D
	Maple Rd and Alberta Dr	Signal	D	E	C	D	D	F	E	E	F	F	F	F	D	C	B	C	E
	Maple Rd and Bailey Ave	Signal	F	F	B	F	E	E	E	E	F	E	E	E	F	E	D	E	E
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	E	N/A	B	D	E	A	N/A	B	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	E	A	B	C	A	A	A	A	A	A	A	A	D	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	F	E	D	E	F	D	C	D	D	C	B	D	C	D	C	D	D
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	B	B	B	B	B	D	D	B	D	C	C	A	C	B
	John James Audubon Pkwy and Rensch Rd	Signal	D	D	C	D	D	D	A	B	F	B	B	D	D	B	A	B	C
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	B	A	A	A	A	A	B	B	A	B	C	B	B	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	C	B	C	B	C	B	A	B	B	B	A	B	C	C	C	C	B
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	B	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	C	C	C	C	B	A	B	C	C	A	B	C	C	C	C	B
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	B	B	A	B	A	B	A	A	A	A

C.4.2 Transit

The LRT Build Alternative and the BRT Build Alternative would expand high-quality transit from the Metro Rail terminus at University Station, along Kenmore Avenue, Niagara Falls Boulevard, Maple Road, and Sweet Home Road, through the UB North Campus to John James Audubon Parkway and I-990. Ten stations are proposed—two with park & ride facilities—and a light maintenance/storage facility is proposed at the Muir Woods development. The LRT Build Alternative and the BRT Build Alternative would expand the area that would have access to high-quality transit service. Additionally, Metro will conduct a comprehensive operational analysis of all local Metro bus routes and consider schedule and route structure refinement upon selection of the preferred Build Alternative. It is anticipated that UB would cancel the Stampede service upon construction of the Project.

The LRT Build Alternative would provide a "one-seat ride" or transit service without a transfer from UB North Campus to Downtown Buffalo. The BRT Build Alternative would require a transfer at the existing Metro Rail station on UB South Campus.

Table 1-49 presents the ridership forecasts for the LRT Build Alternative compared to the BRT Build Alternative.

Table C.49. Average Weekday Total Boardings for LRT Build Alternative and BRT Build Alternative (2045)

Station	No Build Alternative (2045)	LRT Build Alternative (2045)	BRT Build Alternative (2045)
DL&W***	99	101	90
Erie Canal Harbor*	614	629	579
Seneca*	451	478	428
Church Street*	1,267	1,335	1,119
Lafayette*	1,538	1,623	1,459
Fountain Plaza*	2,042	2,107	1,835
Allen-Medical Campus*	946	980	921
Summer-Best*	753	780	746
Utica*	1,107	1,155	1,062
Delavan-Canisius College*	588	666	579
Humboldt*	376	433	363
Amherst*	911	1,103	922
LaSalle*	755	771	735
University Station*	1,923	5,217	6,085**
Decatur		380	70
Eggert		559	189
Boulevard Mall		1,155	134
Maple		275	139
Sweet Home		258	88
Flint		5,268	5,006
Lee		1,768	1,411
Ellicott Complex		3,659	3,633
Audubon Parkway		265	83
I-990		276	70
TOTAL	**13,370**	**31,241**	**27,746**

Source: STOPS Model Runs
*Note: Existing Metro Rail stations, LRT service only
**Note: Higher BRT boardings is a result of the forced transfer from BRT to LRT service at the existing Metro Rail University station.
***Note: Forecasted ridership estimates based on the Special Event station is assumed to occur at the future DL&W station.

For both Build Alternatives, the STOPS model was used to forecast the number of new riders attracted to each alternative as summarized in Table 1-50. New riders are defined as transit patrons using the transit service that would not otherwise use transit as a means of travel.

An important Metro agency goal is the provision of transit services that serves transit dependent populations. Transit dependency is defined as members of the community who rely on transit for mobility. For both Build Alternatives, the STOPS model was used to forecast the number of transit dependent riders.

Transit operations are seen as critical mobility options to help manage the region's travel needs. For both Build Alternatives, the STOPS model was used to forecast the reduction in the number of annual automobile Vehicles Miles Traveled (VMT). VMT is defined as the amount of travel for all vehicles in a geographic region over a given period of time, typically a one-year period. It

is calculated as the sum of the number of miles traveled by each vehicle. For both Build Alternatives, the STOPS model was used to forecast the reduction in annual VMT as a result of the Project. Table 1-50 summarizes each Build Alternative's impact on attracting new riders, serving transit dependent trips, and annual reduction in VMT. For more detailed information regarding Project ridership forecasts refer to Appendix C2, "Travel Demand Forecasting." Given the LRT Build Alternative's forecasted ability to serve more riders and attract more new riders, there is a greater reduction in VMT as compared to the BRT Build Alternative.

Table C.50. New Riders, Transit Dependent Riders, and Annual Reduction in VMT

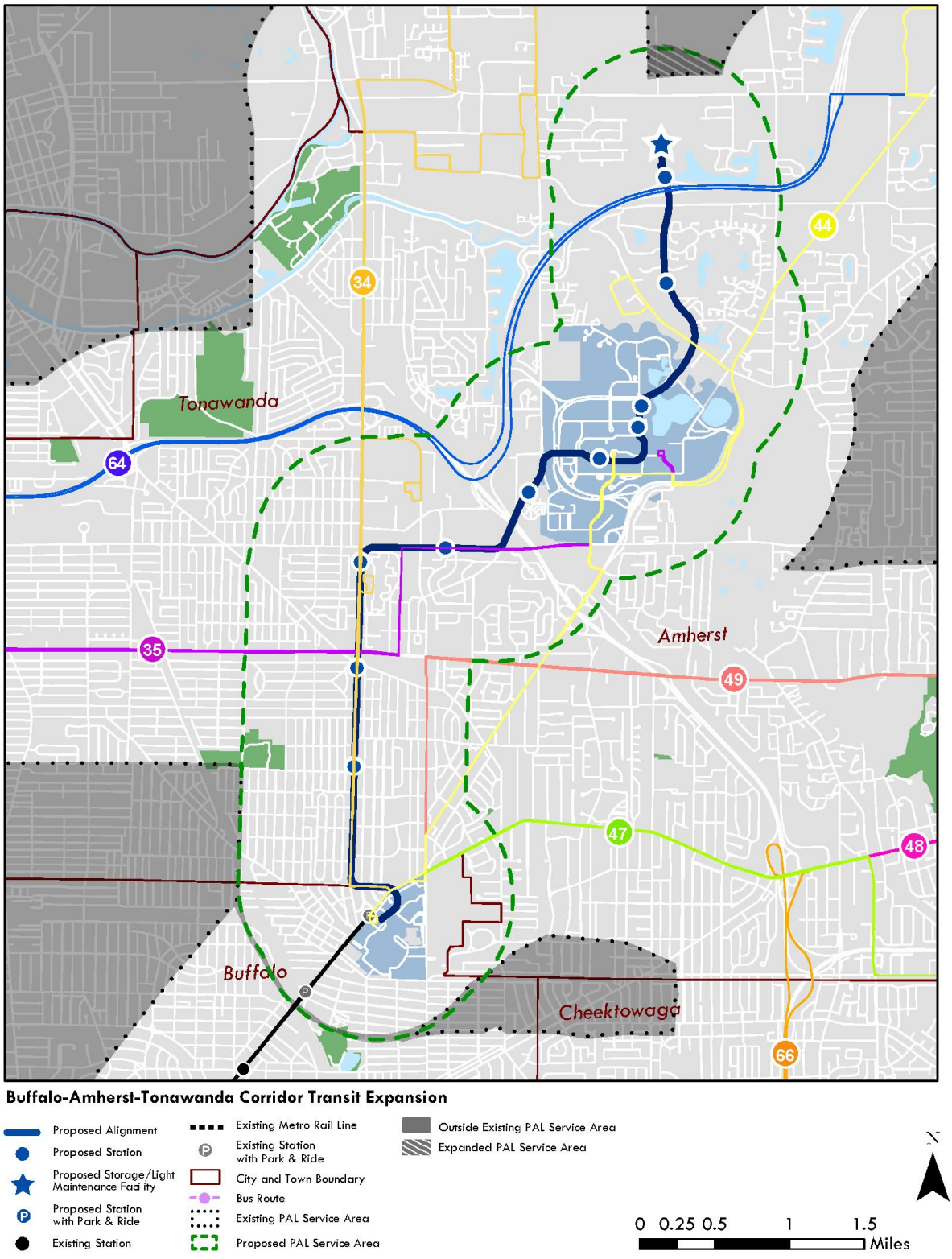
Build Alternative	Annual New Weekday Transit Rider Boardings	Annual Weekday Transit Dependent Rider Boardings	Annual Weekday Reduction in VMT
LRT Build Alternative	873,340	2,493,400	11,646,180
BRT Build Alternative	119,080	1,924,780	763,880

Source: STOPS Model Runs (Average weekday boardings, annualized using a factor of 260)

C.4.2.1 Paratransit

Figure 1-4 shows that the PAL service area would be expanded slightly to the north to reflect the new transit service at the proposed I-990 station provided by both the LRT Build Alternative and the BRT Build Alternative. This expanded PAL service area would include the Muir Woods Multifamily Residential Development.

Figure C.4. Paratransit Service Area



C.4.2.2 University at Buffalo

With the LRT Build Alternative and the BRT Build Alternative, UB Stampede bus services would be redundant and therefore discontinued by UB. This discontinuation of the Stampede service would be replaced by the Project and the Project's anticipated increase in ridership capacity which would serve the same market currently served by the Stampede service. This has been discussed at several coordination meetings with UB and is anticipated to be included within a forthcoming Memorandum of Agreement (MOA) between Metro and UB. This MOA is expected to be included within the Final EIS document. The discontinuation of the UB Stampede is not expected to have adverse impacts on current users because users would shift to, and benefit from, the new Metro transit service. Discontinued services include the following:

- UB Stampede (Blue Line, Main Circle to/from Flint Circle and Ellicott)
- UB Stampede North–South Express (Yellow Line, Main Circle to/from Flint Circle with stops at Maynard, Service Center Road, and Goodyear Residence Hall[7])

Other UB shuttle services would remain in operation including the Lee-Ellicott Express (Red Line) and the North Campus Shuttle.

C.4.3 Parking

Under the LRT Build Alternative and the BRT Build Alternative, park & ride facilities would be constructed at Boulevard Mall Station (300 parking spaces) and I-990 Station (50 parking spaces). These two park & ride facilities would provide approximately 350 additional parking spaces with no fees and would increase parking capacity for Metro passengers. To determine the number of parking spaces needed by the Project, ridership forecasts include the anticipated number of riders who would park an automobile and then board the Project.

The Project alignment would traverse the median of Niagara Falls Boulevard and Maple Road, and roadway widening would be required. As a result, potential impacts would occur to existing private parking facilities along these roadways. Based on the conceptual design of the LRT Build Alternative and BRT Build Alternative (Appendix B, "Conceptual Design Plans"), parcels along the Project Corridor could have their existing parking reduced to some degree. Approximately 552 parking spaces could be impacted by the LRT Build Alternative and 515 parking spaces by the BRT Build Alternative. Many properties that may experience parking impacts have additional space that could be used for relocating affected spaces. As described in Section 4.1, "Property Acquisitions and Displacements", property owners impacted by either the LRT Build Alternative or the BRT Build Alternative will be compensated according to all federal and state regulations.

[7] Stop at Goodyear is made in the southbound direction only.

C.4.4 Pedestrian and Bicycle

Going beyond the improvements in the No Build Alternative, Metro has included investments in the LRT Build Alternative and the BRT Build Alternative that would further enhance existing pedestrian and bicycle facilities with multiuse paths, bicycle lanes, and median refuge areas for pedestrians. On-street bike lanes are proposed to be added to Niagara Falls Boulevard and Maple Road. The LRT Build Alternative and the BRT Build Alternative would also provide continuous sidewalks along both sides of the alignment—filling in gaps where sidewalks are inconsistent or in poor condition—and a new multiuse bike and pedestrian trail would be constructed along John James Audubon Parkway. These connections would improve bicycle and pedestrian access to the proposed stations and promote station connectivity. For pedestrian and wheelchair accessibility, multiuse paths leading up to all station areas would be constructed and intersections along the corridor would be upgraded with ADA-compliant ramps and crosswalk push buttons, further facilitating walkability within the study area.

The Project will take into consideration the planned pedestrian and bicycle improvement recommendations as described within the Town of Amherst Bicentennial Comprehensive Plan (Amended December 2020) and the Town of Tonawanda Comprehensive Plan.

C.4.5 Safety and Security

Vehicle, bicycle, and pedestrian safety provisions, such as signalization, signage, and infrastructure investments, would minimize conflicts between automobiles, bicyclists, and pedestrians. Pedestrian crossings would be clearly marked with signage and limited to dedicated locations such as signalized intersections. During Project design signalized mid-block pedestrian crossing will be evaluated. In locations where pedestrian crossings are prohibited, Project design will evaluate the opportunity to restrict crossings through as use of signage, or a physical barrier, or both. For both the LRT Build Alternative and BRT Build Alternative, safety measures will be put in place to protect the traveling public. These measures may include, but are not limited to the following:

- For portions of the LRT Build Alternative alignment that **does not** intersect or interact with a signalized intersection, the track would be built on top of ballast. Ballast is defined as track bed comprised of crushed stone. LRT track with ballast cannot be safely traversed by automobile traffic, therefore left-turn movements from crossing streets at unsignalized intersections would not be permitted. It is anticipated that either one or a combination of the following measures would be used to restrict these left-turn movements; physical separation (i.e., curbs), rail crossing gates, and/or warning signals.

- For portions of the LRT Build Alternative alignment that **does** intersect or interact with a signalized intersection or select driveways, the track would be unballasted or embedded. As a result of being flush with the roadway, automobile traffic can safely traverse the track. However, measures such as a transit signal preemption scheme would be implemented.

Transit signal preemption is defined as an overriding traffic signal phase prioritizing transit movement and prohibiting conflicting turning movements.

With the addition of signal preemption at each signalized intersection, visible overhead warning signs would be installed to alert drivers of on-coming LRT vehicles and the prohibitive movements of left turns. During design and construction, it is anticipated that additional warning systems and crossing gates may be considered at signalized intersections and across left-turn movements to ensure the traveling public's safety.

- All gates would include an active warning system that would alert the control center of any interference.

- For portions of the LRT Build Alternative, alignment between intersections, design, and construction, will consider investments in a physical separation, such as fencing or curbs, particularly along ballasted track sections of the Project alignment.

- The LRT Build Alternative would construct emergency egress and evacuation routes for the Project in accordance NFTA design standards and in accordance with all national design standards, particularly within Project tunnels.

- For the BRT Build Alternative, there would be no crossing gates installed to restrict left-turn movements at signalized intersections. Metro will train operators on required safety procedures when operating in a pedestrian and bicycle environment.

- For both Build Alternatives, bicycle and pedestrian crossings would be provided at all signalized intersections. The Project would install visual and audible pedestrian signals at each signalized intersection to alert and provide safe pedestrian movements while crossing the street. Pedestrian signals would inform pedestrians when it is safe to cross the street, and a pedestrian refuge area would be provided between the Project alignment and adjacent traffic lanes at signalized intersections. Under the LRT Build Alternative, stations that have center platforms would add an additional stopping point where pedestrians can stand. For both Build Alternatives, it is anticipated that emergency response vehicles could also be equipped with transponders, triggering the transit signal preemption or TSP scheme, allowing emergency services to bypass congestion quickly and safely.

- For both Build Alternatives, investments will be made to improve traffic operations, roadway capacity, intersection geometries, and bus pullout zones to ensure safety.

- For both Build Alternatives, Project stations will implement measures to ensure safety, such as lighting, security camera systems, security personnel, emergency phones, and Crime Prevention Through Environmental Design (CPTED). CPTED is a station design strategy that uses physical design and social policies to reduce crime and fear of crime in public

spaces. Examples of CPTED at transit stations includes architectural design that maximizes the visibility of users to the surrounding public, provides security illumination, and discourages loitering and vandalism.

- For both Build Alternatives, the Project light maintenance / storage facility proposed to be constructed at the Muir Woods development will comply with all NFTA safety and security protocols and measures, including federal safety and security requirements as guided by the federal Transportation Security Administration.

- For both Build Alternatives, the Project's 30% design plans will be review by NYSDOT, Erie County, and the Towns of Amherst and Tonawanda. This design review will ensure that the safety design standards and policies of all parties are met and satisfied.

For both Build Alternatives, the STOPS model was used to forecast the reduction in annual crashes because of the Project's transit operations. To measure change in safety, Metro uses FTA guidelines and changes in VMT to calculate changes in disabling injuries and fatalities for automobiles and transit. The key difference in reducing crashes between the LRT Build Alternative and BRT Build Alternative is predicated on the forecasted change of VMT per Alternative which is summarized in Table 1-50. Table 1-51 summarizes each Build Alternative's impact on reducing crashes resulting in fatalities and injuries.

Table C.51. Project Reduction in Crashes Resulting in Fatalities and Disabling Injuries

Build Alternative	2045 Annual Weekday Reduction in Fatalities (Based on Annual Weekday VMT Reduction)	2045 Annual Weekday Reduction in Injuries (Based on Annual Weekday VMT Reduction)
LRT Build Alternative	0.15	2.27
BRT Build Alternative	0.001	0.15

Source: STOPS Model Runs (Per million average weekday VMT reduction, annualized VMT using a factor of 260)

C.5 PROPOSED MITIGATION STRATEGIES

The following section describes the proposed mitigation strategies (traffic, transit, pedestrian and bicycle, and safety and security) to reduce the anticipated impacts as a result of the LRT Build Alternative and the BRT Build Alternative.

C.5.1 Traffic Operations

As described, VISSIM traffic simulation models were developed to analyze traffic operations related to the proposed mitigation strategies for the LRT Build Alternative and the BRT Build Alternative through the year 2040. This includes the same vehicle volume growth evaluated under the No Build Alternative.

C.5.1.1 Intersection Impacts

Metro coordinated with NYSDOT and Project stakeholders regarding LOS thresholds, and for this analysis a change in intersection LOS from LOS A, B, C, or D under the No Build

Alternative to LOS E or F under the Build Alternative would result in an adverse Project impact. Compared to the No Build Alternative, adverse traffic impacts were identified at the intersections summarized in Table 1-52 (Signalized) and Table 1-53 (Unsignalized).

Table C.52. Summary of Intersection Impacts to Signalized Intersections as a Result of the Project without Mitigation

Build Alternative	AM Peak (2040)	PM Peak (2040)	Midday Saturday (2040)
LRT Build Alternative without Mitigation	No Adverse Impact	Two Intersection Impacts: ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E	Two Intersection Impacts: ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E
BRT Build Alternative without Mitigation	No Adverse Impact	One Intersection Impact: ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd and Sweet Home Rd continues to operate at LOS E	Three Intersection Impacts: ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Alberta Dr would degrade from a No Build LOS C to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E

Table C.53. Summary of Intersection Impacts to Unsignalized Intersections as a Result of the Project without Mitigation

Build Alternative	AM Peak (2040)	PM Peak (2040)	Midday Saturday (2040)
LRT Build Alternative without Mitigation	No Adverse Impact	Three Adverse Intersection Impacts: ▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave degrades from a No Build LOS B to a LOS E	Three Adverse Intersection Impacts: ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS A to a LOS E ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave degrades from a No Build LOS B to a LOS E ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave degrades from a No Build LOS C to a LOS F
BRT Build Alternative without Mitigation	No Adverse Impact	Two Adverse Intersection Impacts: ▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS B to a LOS F	One Adverse Intersection Impact: ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave degrades from a No Build LOS B to a LOS E

C.5.1.2 Proposed Mitigation Strategies for Traffic Impacts

For the LRT Build Alternative, proposed mitigation strategies include an investment in non-ballasted (embedded) track along Niagara Falls Boulevard and Maple Road. This investment in embedded track would allow automobiles to transverse the LRT track alignment at designated locations, no longer requiring the prohibition of left-turn movements onto Niagara Falls Boulevard from intersecting east-west neighborhood streets. Likewise, proposed mitigation strategies for the BRT Build Alternative also include allowing left-turn movements at the same designated intersections.

Intersections were selected based on their location to nearby signalized intersections and projected left-turn traffic demand and are listed as follows:

- Niagara Falls Boulevard at Rochelle Place/Almeda Avenue (including the addition of 250-foot northbound and southbound left-turn lanes)
- Niagara Falls Boulevard at Moore Avenue/Betina Avenue
- Niagara Falls Boulevard at Harrison Avenue
- Niagara Falls Boulevard at Highland Avenue/ Ruth Drive
- Niagara Falls Boulevard at Oxford Avenue

For both Build Alternatives, a detailed traffic management plan will be developed during Project design to validate the proposed left-turn mitigation measures described above. Additional plans

will be developed to ensure the traveling public's safety at these left-turn movements, which may include additional signalization or other safety measures. During design, the Project will also evaluate the benefits of implementing advanced signal technologies and traffic management systems. Technologies such as Intelligent Transportation Systems and intelligent traffic signals are traffic control systems that combine traditional traffic lights with an array of sensors and artificial intelligence to intelligently route vehicle and pedestrian traffic based on volume and congestion.

SHIFT IN TRAVEL CHARACTERISTICS AS A RESULT OF THE PROJECT (MODE SHIFT)

The operation of the Project is forecasted to encourage a portion of automobile users to shift their travel preferences to transit. This is defined as a mode shift. This forecasted mode shift will reduce the vehicular demand within the Project corridor. For the purposes of transparency and full disclosure, this mode shift was not included within the Project Build Alternatives to document traffic impacts. This expected mode shift is a benefit of each Build Alternative. However, for the purposes of the EIS, it is conservatively assumed as a proposed mitigation strategy.

The proposed traffic mitigation strategies for both Build Alternatives did not account for a mode shift. To evaluate the benefit of this forecasted mode shift and resulting reduction in automobile volumes within the Project corridor, data from the STOPS model analysis was used. As documented in tables C-23 and C-31 of Appendix C2, "Travel Demand Forecasting," incremental transit trips were forecasted for each Build Alternative. Incremental transit trips are defined as new transit riders generated by the proposed Project that were previously traveling by automobile. The following assumptions were used to evaluate this forecasted mode shift benefit:

- Conservatively, only new transit riders (incremental trips) forecasted during the peak travel periods were taken into consideration for the evaluation of this forecasted transit benefit.
- Conservatively, using regional travel information, it was assumed that an average of 1.5 persons travel per automobile within the Project corridor. This factor is defined as the automobile occupancy factor.
- To calculate the forecasted reduction in automobile volumes as a result of the Project, forecasted new transit riders were divided by the vehicle occupancy factor described above.
- The resulting forecasted reduction in automobile volumes was then subtracted from the total automobile volumes used in the analysis of each Build Alternative with proposed mitigation strategies.

Using the assumptions described above, Table 1-54 summarizes the forecasted reduction in automobile volumes as a result of the Project's mode shift benefit. The reduction in vehicle volumes as compared to all vehicle volumes with the Project corridor are also presented as a mode shift percentage. Given the LRT Build Alternative's forecasted ability to serve more riders

and attract more new riders, there is a greater mode shift as compared to the BRT Build Alternative.

Table C.54. Forecasted Mode Shift Benefit of the Project (Daily Ridership and Vehicle Volumes)

Alternative	Forecasted New Transit Riders During the Peak Period (2045)	Resulting Reduction in Corridor Vehicle Volumes (2045)	Percent Reduction of All Vehicle Volumes in Project Corridor
LRT Build Alternative	2,328 New Transit Riders as a Result of the Project	1,552 Vehicle Reduction as a Result of Forecasted Mode Shift	7.2% Reduction of Vehicles in Peak Period
BRT Build Alternative	257 New Transit Riders as a Result of the Project	171 Vehicle Reduction as a Result of Forecasted Mode Shift	1.2 % Reduction of Vehicles in Peak Period

C.5.1.3 LRT Build Alternative Mitigation Strategy Results

Table 1-55 through Table 1-60 present the resulting overall LOS resulting from the proposed LRT Build Alternative mitigation strategies at each intersection, as well as the specific traffic movements that operate at LOS E or F. Table 1-61 compares the overall LOS for signalized and unsignalized intersections for the LRT Build Alternative with Mitigation to the LRT Build Alternative without Mitigation. Table 1-62 summarizes the intersections impacts with the proposed mitigation strategy.

Table C.55. LRT Build Alternative with Mitigation: Weekday AM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	15.9	B	None
Kenmore Ave and Niagara Falls Blvd	25.8	C	None
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	9.8	A	None
Niagara Falls Blvd and Decatur Rd	15.6	B	None
Niagara Falls Blvd and Longmeadow Rd	9.9	A	None
Niagara Falls Blvd and Eggert Rd	20.6	C	Southbound left and Westbound left.
Niagara Falls Blvd and Sheridan Dr	39.9	D	Southbound left, Eastbound left, and Westbound left.
Niagara Falls Blvd and Treadwell Rd	20.6	C	None
Niagara Falls Blvd and Mall Entrance	12.9	B	None
Niagara Falls Blvd and Brighton Rd/Maple Rd	27.8	C	None
Maple Rd and Alberta Dr	21.0	C	None
Maple Rd and Bailey Ave	26.6	C	Eastbound left and Westbound left.
Maple Rd and Bowmart Pkwy	7.2	A	None
Maple Rd and Hillcrest Dr	13.8	B	None
Maple Rd and Sweet Home Rd	27.7	C	None
Sweet Home Rd and Rensch Rd	18.9	B	None
John James Audubon Pkwy and Rensch Rd	17.4	B	None
John James Audubon Pkwy and Hamilton Rd	10.5	B	None
John James Audubon Pkwy and Frontier Rd	10.6	B	None
John James Audubon Pkwy and N Forest Rd	23.6	C	None
*John James Audubon Pkwy and Sylvan Pkwy	10.2	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	3.4	A	None
John James Audubon Pkwy and Dodge Rd	28.5	C	None
Eggert Rd and Sheridan Dr	26.5	C	None
Eggert Rd and Alberta Dr	5.8	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.56. LRT Build Alternative with Mitigation: Weekday AM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.3	A	Eastbound
Main St and Capen Blvd	8.7	A	Eastbound
Kenmore Ave and Capen Blvd	14.4	B	Northbound
Kenmore Ave and Allenhurst Rd	12.4	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	7.8	A	Eastbound
Niagara Falls Blvd and Princeton Ave	7.7	A	Westbound
Niagara Falls Blvd and Paige Ave	13.9	B	Eastbound
Niagara Falls Blvd and Oxford Ave	13.3	B	Westbound
Niagara Falls Blvd and Chalmers Ave	11.9	B	Eastbound
Niagara Falls Blvd and Yale Ave	10.8	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	11.1	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	14.5	B	Eastbound
Niagara Falls Blvd and Harrison Ave	21.5	C	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	17.5	C	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	7.0	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	5.0	A	Eastbound
John James Audubon Pkwy and Bryant Woods S	10.8	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	11.3	B	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	3.6	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.6	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.57. LRT Build Alternative with Mitigation: Weekday PM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	14.5	B	None
Kenmore Ave and Niagara Falls Blvd	24.5	C	Southbound left
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	16.3	B	Northbound left, Southbound left, Eastbound left, and Westbound left.
Niagara Falls Blvd and Decatur Rd	20.9	C	Northbound left and Eastbound left.
Niagara Falls Blvd and Longmeadow Rd	20.0	C	Northbound left and Southbound left.
Niagara Falls Blvd and Eggert Rd	23.8	C	Southbound left and Westbound left.
Niagara Falls Blvd and Sheridan Dr	45.7	D	Southbound left. Eastbound left and approach. Westbound left and through.
Niagara Falls Blvd and Treadwell Rd	14.9	B	None
Niagara Falls Blvd and Mall Entrance	20.4	C	None
Niagara Falls Blvd and Brighton Rd/Maple Rd	38.7	D	Westbound through
Maple Rd and Alberta Dr	29.3	C	Eastbound left and Westbound left.
Maple Rd and Bailey Ave	51.8	D	Northbound left, through, and approach. Southbound left, Eastbound left, and Westbound left.
Maple Rd and Bowmart Pkwy	11.6	B	None
Maple Rd and Hillcrest Dr	6.4	A	None
Maple Rd and Sweet Home Rd	31.2	C	Southbound left
Sweet Home Rd and Rensch Rd	30.3	C	Northbound left
John James Audubon Pkwy and Rensch Rd	22.9	C	None
John James Audubon Pkwy and Hamilton Rd	9.5	A	None
John James Audubon Pkwy and Frontier Rd	14.0	B	None
John James Audubon Pkwy and N Forest Rd	32.1	C	Southbound left
*John James Audubon Pkwy and Sylvan Pkwy	12.2	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	7.7	A	None
John James Audubon Pkwy and Dodge Rd	41.2	D	Northbound left, Southbound left, and Westbound through.
Eggert Rd and Sheridan Dr	32.4	C	None
Eggert Rd and Alberta Dr	6.6	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

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Table C.58. LRT Build Alternative with Mitigation: Weekday PM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.9	A	Eastbound
Main St and Capen Blvd	8.9	A	Eastbound
Kenmore Ave and Capen Blvd	13.4	B	Northbound
Kenmore Ave and Allenhurst Rd	12.4	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	7.7	A	Eastbound
Niagara Falls Blvd and Princeton Ave	11.0	B	Westbound
Niagara Falls Blvd and Paige Ave	13.4	B	Eastbound
Niagara Falls Blvd and Oxford Ave	29.1	D	Westbound
Niagara Falls Blvd and Chalmers Ave	14.9	B	Eastbound
Niagara Falls Blvd and Yale Ave	18.2	C	Westbound
Niagara Falls Blvd and Lincoln Park Dr	21.9	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	22.1	C	Eastbound
Niagara Falls Blvd and Harrison Ave	30.9	D	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	34.8	D	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	8.6	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	18.7	C	Eastbound
John James Audubon Pkwy and Bryant Woods S	13.7	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	12.7	B	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	11.2	B	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	3.3	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.59. LRT Build Alternative with Mitigation: Saturday Midday Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	13.5	B	None
Kenmore Ave and Niagara Falls Blvd	26.6	C	None
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	11.7	B	Southbound left and Westbound left.
Niagara Falls Blvd and Decatur Rd	19.2	B	Northbound left
Niagara Falls Blvd and Longmeadow Rd	14.5	B	Northbound left and Southbound left.
Niagara Falls Blvd and Eggert Rd	21.5	C	None
Niagara Falls Blvd and Sheridan Dr	44.9	D	Southbound left. Eastbound left and approach. Westbound left and approach.
Niagara Falls Blvd and Treadwell Rd	18.4	B	Southbound left
Niagara Falls Blvd and Mall Entrance	18.2	B	Northbound left and Southbound left. Eastbound left and through. Westbound left.
Niagara Falls Blvd and Brighton Rd/Maple Rd	44.3	D	Northbound left and Southbound left. Eastbound through. Westbound left, through, and approach.
Maple Rd and Alberta Dr	38.2	D	Northbound left, Eastbound left, and Westbound left.
Maple Rd and Bailey Ave	50.5	D	Northbound left, Southbound left, Eastbound left, and Westbound left.
Maple Rd and Bowmart Pkwy	13.2	B	Eastbound left
Maple Rd and Hillcrest Dr	4.6	A	Northbound left
Maple Rd and Sweet Home Rd	28.5	C	None
Sweet Home Rd and Rensch Rd	15.0	B	None
John James Audubon Pkwy and Rensch Rd	14.2	B	None
John James Audubon Pkwy and Hamilton Rd	9.4	A	None
John James Audubon Pkwy and Frontier Rd	7.9	A	None
John James Audubon Pkwy and N Forest Rd	15.5	B	None
*John James Audubon Pkwy and Sylvan Pkwy	5.6	A	None
John James Audubon Pkwy and Gordon R Yaeger Dr	5.0	A	None
John James Audubon Pkwy and Dodge Rd	18.0	B	None
Eggert Rd and Sheridan Dr	31.1	C	None
Eggert Rd and Alberta Dr	8.1	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

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Table C.60. LRT Build Alternative with Mitigation: Saturday Midday Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.2	A	Eastbound
Main St and Capen Blvd	8.6	A	Eastbound
Kenmore Ave and Capen Blvd	13.0	B	Northbound
Kenmore Ave and Allenhurst Rd	11.7	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.2	A	Eastbound
Niagara Falls Blvd and Princeton Ave	8.9	A	Westbound
Niagara Falls Blvd and Paige Ave	11.9	B	Eastbound
Niagara Falls Blvd and Oxford Ave	14.8	B	Westbound
Niagara Falls Blvd and Chalmers Ave	11.4	B	Eastbound
Niagara Falls Blvd and Yale Ave	13.8	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	14.6	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	18.6	C	Eastbound
Niagara Falls Blvd and Harrison Ave	33.3	D	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	34.9	D	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	11.5	B	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	4.6	A	Eastbound
John James Audubon Pkwy and Bryant Woods S	10.3	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	8.3	A	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	1.3	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.0	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.61. LRT Build Alternative with Mitigation: Peak-Hour Levels of Service Compared to the LRT Build Alternative without Mitigation (Signalized and Unsignalized)

Intersection	Peak-Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	LRT Build without Mitigation	LRT Build with Mitigation	LRT Build without Mitigation	LRT Build with Mitigation	LRT Build without Mitigation	LRT Build with Mitigation
Main St and Allenhurst Rd*	A	A	A	A	A	A
Main St and Capen Blvd*	A	A	A	A	A	A
Main St and Kenmore Ave	B	B	B	B	B	B
Kenmore Ave and Capen Blvd*	B	B	C	B	B	B
Kenmore Ave and Allenhurst Rd*	B	B	B	B	B	B
Kenmore Ave and Niagara Falls Blvd	C	C	C	C	C	C
Niagara Falls Blvd and Kenilworth Ave*	A	A	A	A	A	A
Niagara Falls Blvd and Princeton Ave*	A	A	B	B	A	A
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	B	A	C	B	B	B
Niagara Falls Blvd and Paige Ave*	B	B	C	B	B	B
Niagara Falls Blvd and Oxford Ave*	B	B	F	D	B	B
Niagara Falls Blvd and Chalmers Ave*	B	B	B	B	B	B
Niagara Falls Blvd and Decatur Rd	B	B	D	C	C	B
Niagara Falls Blvd and Yale Ave*	B	B	F	C	E	B
Niagara Falls Blvd and Lincoln Park Dr*	B	B	C	C	C	B
Niagara Falls Blvd and Longmeadow Rd	B	A	D	C	D	B
Niagara Falls Blvd and Highland Ave/Ruth Dr*	A	B	A	C	A	C
Niagara Falls Blvd and Harrison Ave*	C	C	C	D	E	D
Niagara Falls Blvd and Betina Ave/Moore Ave*	C	C	E	D	F	D
Niagara Falls Blvd and Eggert Rd	C	C	D	C	D	C
Niagara Falls Blvd and Sheridan Dr	D	D	E	D	E	D
Niagara Falls Blvd and Franklin Ave/Rochelle Pl*	A	A	A	A	B	B

Intersection	Peak-Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	LRT Build without Mitigation	LRT Build with Mitigation	LRT Build without Mitigation	LRT Build with Mitigation	LRT Build without Mitigation	LRT Build with Mitigation
Niagara Falls Blvd and Treadwell Rd	C	C	B	B	C	B
Niagara Falls Blvd and Mall Entrance	B	B	C	C	C	B
Niagara Falls Blvd and Brighton Rd/Maple Rd	C	C	D	D	D	D
Maple Rd and Alberta Dr	C	C	C	C	D	D
Maple Rd and Bailey Ave	C	C	E	D	E	D
Maple Rd and Bowmart Pkwy	A	A	B	B	B	B
Maple Rd and Hillcrest Dr	B	B	B	A	A	A
Maple Rd and Sweet Home Rd	C	C	D	C	C	C
Sweet Home Rd and Rensch Rd	C	B	C	C	B	B
John James Audubon Pkwy and Rensch Rd	B	B	C	C	B	B
John James Audubon Pkwy and Hamilton Rd	B	B	A	A	A	A
John James Audubon Pkwy and Core Rd/Lee Rd	A	A	D	C	A	A
John James Audubon Pkwy and Frontier Rd	B	B	B	B	A	A
John James Audubon Pkwy and N Forest Rd	C	C	D	C	B	B
John James Audubon Pkwy and Sylvan Pkwy	B	B	B	B	A	A
John James Audubon Pkwy and Gordon R Yaeger Dr	A	A	A	A	A	A
John James Audubon Pkwy and Bryant Woods S*	B	B	B	B	B	B
John James Audubon Pkwy and Bryant Woods N*	B	B	C	B	A	A
John James Audubon Pkwy and Dodge Rd	C	C	D	D	B	B
John James Audubon Pkwy and I-990 EB Off-Ramp*	A	A	B	B	A	A
John James Audubon Pkwy and I-990 WB Off-Ramp*	A	A	A	A	A	A
Eggert Rd and Sheridan Dr	C	C	C	C	D	C
Eggert Rd and Alberta Dr	C	A	A	A	A	A

* Unsignalized intersection: Level of service was determined using the worst performing stop-controlled approach.

Table C.62. LRT Build Alternative with Mitigation LOS Impact Summary

Period	Condition	LOS Summary (2040)
Weekday AM peak	LRT Build Alternative without Mitigation	All intersections operate at overall LOS D or better. The LRT Build Alternative does not result in adverse traffic impacts during the weekday AM peak travel period.
	LRT Build Alternative with Mitigation	All intersections operate at overall LOS D or better. The LRT Build Alternative with proposed mitigation does not result in adverse traffic impacts during the weekday AM peak travel period.
Weekday PM peak	LRT Build Alternative without Mitigation	Five intersections are adversely impacted during the weekday PM peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave degrades from a No Build LOS B to a LOS E ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E
	LRT Build Alternative with Mitigation	All intersections operate at overall LOS D or better. The LRT Build Alternative with proposed mitigation does not result in adverse traffic impacts during the weekday PM peak travel period.
Saturday Midday Peak	LRT Build Alternative without Mitigation	Five intersections are adversely impacted during the Saturday midday peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS A to a LOS E ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave degrades from a No Build LOS B to a LOS E ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave degrades from a No Build LOS C to a LOS F ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E
	LRT Build Alternative with Mitigation	All intersections operate at overall LOS D or better. The LRT Build Alternative with proposed mitigation does not result in adverse traffic impacts during the Saturday midday peak travel period.

LRT BUILD ALTERNATIVE: INDIVIDUAL INTERSECTION MOVEMENTS

A detailed description of the LOS for individual intersection movements are documented in Table 1-63 through Table 1-65 which illustrate the weekday AM, weekday PM and Saturday MD peak hour operational results from the Expanded LRT Build with Mitigation Alternative VISSIM models, respectively. The results are the average of 10 runs per time period using different random number seeds.

Table C.63 *LRT Build Alternative with Mitigation Weekday: AM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	B	A	A	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	B	C	D	C	A	C	D	B	B	C	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	A	A	A	D	A	A	A	D	A	B	D	D	A	B	C	A
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	B	D	N/A	N/A	N/A	N/A	B
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	D	A	A	A	D	A	N/A	A	N/A	N/A	N/A	N/A	D	N/A	A	C	A
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	B	C	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	C	C	C	N/A	B	C	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	A	A	B	F	A	A	B	N/A	D	A	C	E	D	C	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	C	C	D	F	D	A	D	F	D	A	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	B	A	A	A	D	C	C	C	D	D	B	C	C	D	A	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	B	A	B	A	C	B	B	B	A	A	A	A	D	A	A	B	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	D	C	B	C	D	B	A	C	C	D	C	D	D	D	A	C	C
	Maple Rd and Alberta Dr	Signal	D	D	D	D	D	D	B	C	D	C	B	C	D	A	A	B	C
	Maple Rd and Bailey Ave	Signal	C	D	A	C	D	C	A	D	E	B	B	B	E	B	B	C	C
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	C	A	N/A	A	N/A	A	A	A	A
	Maple Rd and Hillcrest Dr	Signal	C	A	A	A	D	D	B	D	A	B	B	B	C	A	N/A	A	B
	Maple Rd and Sweet Home Rd	Signal	D	D	C	D	D	C	A	C	C	C	A	C	B	C	A	C	C
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	B	B	B	B	B	D	D	C	D	D	D	A	C	B
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	C	C	A	B	C	B	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	B	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	A	A	C	A	A	B	B	B	A	B	B	B	A	B	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	C	B	C	D	B	B	C	B	B	A	B	C	C	C	C	C
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	A	A	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	B	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	C	A	B	B	B	A	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	B	A	C	D	B	B	C	C	D	C	C	D	D	C	D	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	C	C	A	B	N/A	C	B	C	C
	Eggert Rd and Alberta Dr	Signal	B	A	A	A	B	B	A	A	A	A	A	A	A	A	A	A	A

Table C.64 *LRT Build Alternative with Mitigation Weekday: PM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
PM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	A	B	B	B	C	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	C	C	E	C	A	C	D	B	B	C	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	B	B	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	E	B	B	B	E	A	C	B	E	A	B	D	E	N/A	C	D	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	C	D	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	B	N/A	B	N/A	B	C	B	E	N/A	B	D	N/A	N/A	N/A	N/A	C
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	E	B	C	B	E	B	N/A	B	N/A	N/A	N/A	N/A	D	N/A	C	D	C
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	N/A	B	C	D	N/A	B	B	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	C	D	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	D	D	E	N/A	C	D	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	B	A	C	E	B	B	B	N/A	C	B	C	F	C	C	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	F	C	D	D	F	D	A	E	F	E	B	D	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	B	B	B	D	B	B	B	D	D	B	C	D	D	B	C	B
	Niagara Falls Blvd and Mall Entrance	Signal	D	C	C	C	D	B	D	B	D	F	B	D	D	D	A	C	C
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	D	D	B	D	D	C	B	C	C	D	C	D	D	E	B	D	D
	Maple Rd and Alberta Dr	Signal	D	D	B	C	C	C	B	C	E	D	D	D	E	A	A	C	C
	Maple Rd and Bailey Ave	Signal	F	F	B	E	E	D	B	D	E	D	D	D	F	D	D	D	D
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	A	C	D	A	N/A	A	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	D	A	B	C	D	D	A	D	C	A	A	A	D	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	D	C	B	D	E	C	C	C	C	C	A	C	C	D	A	C	C
	Sweet Home Rd and Rensch Rd	Signal	E	D	B	C	C	C	C	C	D	D	C	D	D	C	B	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	D	D	C	C	C	A	A	B	C	C	B	C	C
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	C	D	D	D	B	A	A	A	B	B	A	B	C	C	C	C	C
	John James Audubon Pkwy and Frontier Rd	Signal	C	B	A	B	D	B	A	B	B	B	A	B	C	C	B	C	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	C	C	C	E	B	B	D	C	C	B	B	D	D	D	D	C
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	B	A	B	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	B	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	A	B	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	C	A	B	B	C	B	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	A	B	A	B	B	B	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	E	D	C	D	E	B	A	C	D	D	C	D	D	E	D	D	D
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	A	B	B	A	B	A	A	A	A	A	A	A	A	A

Table C.65 *LRT Build Alternative with Mitigation Saturday: MD Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
MD	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	A	N/A	A	A	A	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	B	B	B	B	A	B	A	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	A	B	B	A	A	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	C	B	C	D	C	A	C	D	C	B	C	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	A	A	A	E	A	C	B	D	A	B	D	E	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	B	N/A	B	N/A	B	C	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	E	B	B	B	E	A	N/A	B	N/A	N/A	N/A	N/A	D	N/A	B	D	B
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	C	C	N/A	A	B	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	C	D	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	D	D	D	N/A	C	C	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	C	B	C	D	B	A	B	N/A	C	A	B	D	C	C	C	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	B	C	F	C	C	C	F	D	A	E	F	D	B	E	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	C	N/A	A	B	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	B	C	B	E	B	B	B	D	D	C	D	D	D	B	C	B
	Niagara Falls Blvd and Mall Entrance	Signal	E	B	C	B	E	B	C	B	E	E	B	D	E	C	A	C	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	E	C	C	C	D	E	D	D	F	E	B	E	D
	Maple Rd and Alberta Dr	Signal	E	D	C	D	D	D	C	D	E	D	D	D	E	B	B	C	D
	Maple Rd and Bailey Ave	Signal	E	D	A	D	E	D	D	D	F	D	D	D	F	D	D	D	D
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	A	D	E	A	N/A	A	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	E	A	B	C	A	A	A	A	A	A	A	A	D	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	D	D	C	D	D	D	B	C	C	C	B	C	B	C	B	C	C
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	B	B	A	A	A	D	D	A	C	C	C	A	B	B
	John James Audubon Pkwy and Rensch Rd	Signal	C	C	A	C	C	C	A	B	C	A	A	B	C	B	A	B	B
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	A	A	A	A	A	A	B	B	A	B	B	B	A	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	C	B	B	B	C	B	A	B	B	B	A	B	C	C	B	B	B
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	B	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	B	N/A	A	B	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	B	A	A	B	C	A	B	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	B	A	B	D	B	A	B	C	C	A	C	C	D	B	C	B
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	B	B	A	A	A	B	A	A	A	A

C.5.1.4 BRT Build Alternative with Mitigation Results

Table 1-66 through Table 1-71 present the overall LOS resulting from the proposed BRT Build Alternative with the proposed mitigation strategies at each intersection, as well as the specific traffic movements that operate at LOS E or F. Table 1-72 compares the overall LOS for signalized and unsignalized intersections for the BRT Build Alternative with Mitigation to the BRT Build Alternative without Mitigation. Table 1-73 summarizes the intersection impacts with the proposed mitigation strategy.

Table C.66. BRT Build Alternative with Mitigation: Weekday AM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	19.0	B	None
Kenmore Ave and Niagara Falls Blvd	32.0	C	Eastbound left
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	10.8	B	None
Niagara Falls Blvd and Decatur Rd	16.7	B	None
Niagara Falls Blvd and Longmeadow Rd	11.4	B	None
Niagara Falls Blvd and Eggert Rd	21.3	C	Westbound left
Niagara Falls Blvd and Sheridan Dr	34.5	C	None
Niagara Falls Blvd and Treadwell Rd	25.8	C	Southbound left. Eastbound left and through.
Niagara Falls Blvd and Mall Entrance	15.6	B	Westbound left and approach.
Niagara Falls Blvd and Brighton Rd/Maple Rd	32.6	C	None
Maple Rd and Alberta Dr	22.0	C	Northbound through and Southbound through. Eastbound left and Westbound left.
Maple Rd and Bailey Ave	29.1	C	Westbound left
Maple Rd and Bowmart Pkwy	6.5	A	None
Maple Rd and Hillcrest Dr	14.0	B	None
Maple Rd and Sweet Home Rd	48.3	D	Northbound left, through, right, and approach. Southbound left and approach.
Sweet Home Rd and Rensch Rd	20.7	C	None
John James Audubon Pkwy and Rensch Rd	34.8	C	Southbound left and Eastbound left.
John James Audubon Pkwy and Hamilton Rd	10.6	B	None
John James Audubon Pkwy and Frontier Rd	12.3	B	None
John James Audubon Pkwy and N Forest Rd	29.5	C	None
*John James Audubon Pkwy and Sylvan Pkwy	11.2	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	3.2	A	None
John James Audubon Pkwy and Dodge Rd	24.0	C	None
Eggert Rd and Sheridan Dr	28.1	C	None
Eggert Rd and Alberta Dr	5.8	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.67. BRT Build Alternative with Mitigation: Weekday AM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.2	A	Eastbound
Main St and Capen Blvd	9.1	A	Eastbound
Kenmore Ave and Capen Blvd	15.1	C	Northbound
Kenmore Ave and Allenhurst Rd	12.0	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.2	A	Eastbound
Niagara Falls Blvd and Princeton Ave	8.1	A	Westbound
Niagara Falls Blvd and Paige Ave	12.0	B	Eastbound
Niagara Falls Blvd and Oxford Ave	13.2	B	Westbound
Niagara Falls Blvd and Chalmers Ave	12.6	B	Eastbound
Niagara Falls Blvd and Yale Ave	11.4	B	Westbound
Niagara Falls Blvd and Lincoln Park Dr	11.8	B	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	20.8	C	Eastbound
Niagara Falls Blvd and Harrison Ave	21.2	C	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	17.1	C	Westbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	7.3	A	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	5.6	A	Eastbound
John James Audubon Pkwy and Bryant Woods S	11.1	B	Eastbound
John James Audubon Pkwy and Bryant Woods N	12.0	B	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	5.9	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.9	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.68. BRT Build Alternative with Mitigation: Weekday PM Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	16.7	B	None
Kenmore Ave and Niagara Falls Blvd	30.8	C	Eastbound left
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	23.6	C	Northbound left, Southbound left, Eastbound left, and Westbound left.
Niagara Falls Blvd and Decatur Rd	20.3	C	Northbound left and Eastbound left.
Niagara Falls Blvd and Longmeadow Rd	23.8	C	Northbound left and Southbound left. Westbound left and approach.
Niagara Falls Blvd and Eggert Rd	31.8	C	Westbound left and approach.
Niagara Falls Blvd and Sheridan Dr	44.9	D	Westbound through and approach.
Niagara Falls Blvd and Treadwell Rd	25.4	C	None
Niagara Falls Blvd and Mall Entrance	36.0	D	Northbound left
Niagara Falls Blvd and Brighton Rd/Maple Rd	40.9	D	Northbound left and Westbound through.
Maple Rd and Alberta Dr	34.8	C	Northbound left, Eastbound left, and Westbound left.
Maple Rd and Bailey Ave	74.9	E	Northbound left, through, and approach. Southbound left, through, and approach. Eastbound left, through, and approach. Westbound left, through, right, and approach.
Maple Rd and Bowmart Pkwy	15.0	B	None
Maple Rd and Hillcrest Dr	9.5	A	Southbound left and approach.
Maple Rd and Sweet Home Rd	68.1	E	Northbound left, through, and approach. Southbound left, right, and approach. Eastbound left. Westbound left, through, and approach.
Sweet Home Rd and Rensch Rd	32.4	C	Northbound left and Eastbound through.
John James Audubon Pkwy and Rensch Rd	43.2	D	Northbound left and approach. Southbound left and Eastbound left.
John James Audubon Pkwy and Hamilton Rd	9.7	A	None
John James Audubon Pkwy and Frontier Rd	16.2	B	None
John James Audubon Pkwy and N Forest Rd	51.5	D	Southbound left. Westbound left, through, right, and approach.
*John James Audubon Pkwy and Sylvan Pkwy	16.3	B	None
John James Audubon Pkwy and Gordon R Yaeger Dr	9.1	A	None
John James Audubon Pkwy and Dodge Rd	47.4	D	Northbound left, through, right, and approach. Eastbound left.
Eggert Rd and Sheridan Dr	32.4	C	None
Eggert Rd and Alberta Dr	6.9	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.69. BRT Build Alternative with Mitigation: Weekday PM Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	9.8	A	Eastbound
Main St and Capen Blvd	10.2	B	Eastbound
Kenmore Ave and Capen Blvd	13.8	B	Northbound
Kenmore Ave and Allenhurst Rd	14.0	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.0	A	Eastbound
Niagara Falls Blvd and Princeton Ave	12.9	B	Westbound
Niagara Falls Blvd and Paige Ave	23.1	C	Eastbound
Niagara Falls Blvd and Oxford Ave	18.7	C	Westbound
Niagara Falls Blvd and Chalmers Ave	15.2	C	Eastbound
Niagara Falls Blvd and Yale Ave	30.1	D	Westbound
Niagara Falls Blvd and Lincoln Park Dr	19.3	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	23.8	C	Eastbound
Niagara Falls Blvd and Harrison Ave	29.5	D	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	45.0	E	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	14.5	B	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	24.2	C	Westbound
John James Audubon Pkwy and Bryant Woods S	21.2	C	Eastbound
John James Audubon Pkwy and Bryant Woods N	39.0	E	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	10.6	B	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	32.4	C	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.70. BRT Build Alternative with Mitigation: Saturday Midday Peak-Hour Levels of Service for Signalized Intersections

Intersection	2040 Delay	2040 Overall LOS	Traffic Movements at LOS E or LOS F
Main St and Kenmore Ave	15.2	B	None
Kenmore Ave and Niagara Falls Blvd	30.7	C	None
*Niagara Falls Blvd and Ford Ave/Cambridge Blvd	13.8	B	Southbound left, Eastbound left, and Westbound left.
Niagara Falls Blvd and Decatur Rd	19.3	B	Northbound left
Niagara Falls Blvd and Longmeadow Rd	16.0	B	Northbound left
Niagara Falls Blvd and Eggert Rd	24.3	C	None
Niagara Falls Blvd and Sheridan Dr	43.2	D	Eastbound left, through, and approach. Westbound through and approach.
Niagara Falls Blvd and Treadwell Rd	16.6	B	Northbound left. Eastbound left and through. Westbound left and through.
Niagara Falls Blvd and Mall Entrance	20.4	C	Northbound left. Westbound through, right, and approach.
Niagara Falls Blvd and Brighton Rd/Maple Rd	51.0	D	Northbound left and Southbound left. Eastbound through and approach. Westbound left, through, and approach.
Maple Rd and Alberta Dr	58.2	E	Northbound through. Southbound left, through, right, and approach. Eastbound left, through, right, and approach.
Maple Rd and Bailey Ave	66.4	E	Northbound left, through, and approach. Southbound left, through, right, and approach. Eastbound Southbound left, through, right, and approach. Westbound left and approach.
Maple Rd and Bowmart Pkwy	16.1	B	Eastbound left
Maple Rd and Hillcrest Dr	4.9	A	Northbound left
Maple Rd and Sweet Home Rd	42.2	D	Northbound left and approach. Southbound left.
Sweet Home Rd and Rensch Rd	18.9	B	None
John James Audubon Pkwy and Rensch Rd	33.6	C	Eastbound left
John James Audubon Pkwy and Hamilton Rd	9.7	A	None
John James Audubon Pkwy and Frontier Rd	9.3	A	None
John James Audubon Pkwy and N Forest Rd	19.2	B	None
*John James Audubon Pkwy and Sylvan Pkwy	6.7	A	None
John James Audubon Pkwy and Gordon R Yaeger Dr	6.3	A	None
John James Audubon Pkwy and Dodge Rd	18.3	B	None
Eggert Rd and Sheridan Dr	31.1	C	None
Eggert Rd and Alberta Dr	8.1	A	None

* Indicates an existing unsignalized intersection that is proposed to be signalized as part of the Project.

Table C.71. BRT Build Alternative with Mitigation: Saturday Midday Peak-Hour Levels of Service for Unsignalized Intersections

Intersection	2040 Delay	2040 LOS	Worst Performing Approach
Main St and Allenhurst Rd	8.9	A	Eastbound
Main St and Capen Blvd	9.3	A	Eastbound
Kenmore Ave and Capen Blvd	13.9	B	Northbound
Kenmore Ave and Allenhurst Rd	12.8	B	Northbound
Niagara Falls Blvd and Kenilworth Ave	8.4	A	Eastbound
Niagara Falls Blvd and Princeton Ave	9.2	A	Westbound
Niagara Falls Blvd and Paige Ave	12.6	B	Eastbound
Niagara Falls Blvd and Oxford Ave	16.8	C	Westbound
Niagara Falls Blvd and Chalmers Ave	12.1	B	Eastbound
Niagara Falls Blvd and Yale Ave	16.7	C	Westbound
Niagara Falls Blvd and Lincoln Park Dr	15.4	C	Eastbound
Niagara Falls Blvd and Highland Ave/Ruth Dr	28.7	D	Eastbound
Niagara Falls Blvd and Harrison Ave	37.2	E	Eastbound
Niagara Falls Blvd and Betina Ave/Moore Ave	39.3	E	Eastbound
Niagara Falls Blvd and Franklin Ave/Rochelle Pl	13.2	B	Westbound
*John James Audubon Pkwy and Core Rd/Lee Rd	5.1	A	Westbound
John James Audubon Pkwy and Bryant Woods S	8.3	A	Westbound
John James Audubon Pkwy and Bryant Woods N	8.1	A	Eastbound
John James Audubon Pkwy and I-990 EB Off Ramp	7.0	A	Eastbound
*John James Audubon Pkwy and I-990 WB Off Ramp	2.2	A	Westbound

Note: Level of service for unsignalized intersections was determined using the worst performing stop-controlled approach.
* Indicates an unsignalized roundabout intersection

Table C.72. BRT Build Alternative with Mitigation: Peak-Hour Levels of Service Compared to the BRT Build Alternative without Mitigation (Signalized and Unsignalized)

Intersection	Peak Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	BRT Build without Mitigation	BRT Build with Mitigation	BRT Build without Mitigation	BRT Build with Mitigation	BRT Build without Mitigation	BRT Build with Mitigation
Main St and Allenhurst Rd*	A	A	A	A	A	A
Main St and Capen Blvd*	B	A	B	B	A	A
Main St and Kenmore Ave	B	B	B	B	B	B
Kenmore Ave and Capen Blvd*	C	C	B	B	B	B
Kenmore Ave and Allenhurst Rd*	B	B	B	B	B	B
Kenmore Ave and Niagara Falls Blvd	C	C	C	C	C	C
Niagara Falls Blvd and Kenilworth Ave*	A	A	A	A	A	A
Niagara Falls Blvd and Princeton Ave*	A	A	B	B	A	A
Niagara Falls Blvd and Ford Ave/Cambridge Blvd	B	B	C	C	B	B
Niagara Falls Blvd and Paige Ave*	B	B	C	C	B	B
Niagara Falls Blvd and Oxford Ave*	B	B	F	C	B	C
Niagara Falls Blvd and Chalmers Ave*	B	B	B	C	B	B
Niagara Falls Blvd and Decatur Rd	B	B	D	C	C	B
Niagara Falls Blvd and Yale Ave*	B	B	F	D	D	C
Niagara Falls Blvd and Lincoln Park Dr*	B	B	C	C	C	C
Niagara Falls Blvd and Longmeadow Rd	B	B	D	C	D	B
Niagara Falls Blvd and Highland Ave/Ruth Dr*	A	C	A	C	A	D
Niagara Falls Blvd and Harrison Ave*	D	C	C	D	E	E
Niagara Falls Blvd and Betina Ave/Moore Ave*	C	C	D	E	D	E
Niagara Falls Blvd and Eggert Rd	C	C	D	C	C	C
Niagara Falls Blvd and Sheridan Dr	D	C	D	D	E	D
Niagara Falls Blvd and Franklin Ave/Rochelle Pl*	A	A	D	B	B	B

Intersection	Peak Hour Level of Service (2040)					
	Weekday AM		Weekday PM		Saturday MD	
	BRT Build without Mitigation	BRT Build with Mitigation	BRT Build without Mitigation	BRT Build with Mitigation	BRT Build without Mitigation	BRT Build with Mitigation
Niagara Falls Blvd and Treadwell Rd	C	C	C	C	C	B
Niagara Falls Blvd and Mall Entrance	B	B	D	D	C	C
Niagara Falls Blvd and Brighton Rd/Maple Rd	C	C	D	D	D	D
Maple Rd and Alberta Dr	C	C	C	C	E	E
Maple Rd and Bailey Ave	C	C	E	E	E	E
Maple Rd and Bowmart Pkwy	A	A	B	B	B	B
Maple Rd and Hillcrest Dr	B	B	B	A	A	A
Maple Rd and Sweet Home Rd	D	D	E	E	D	D
Sweet Home Rd and Rensch Rd	C	C	C	C	B	B
John James Audubon Pkwy and Rensch Rd	D	C	D	D	C	C
John James Audubon Pkwy and Hamilton Rd	B	B	A	A	A	A
John James Audubon Pkwy and Core Rd/Lee Rd	A	A	D	C	A	A
John James Audubon Pkwy and Frontier Rd	B	B	B	B	A	A
John James Audubon Pkwy and N Forest Rd	C	C	D	D	B	B
John James Audubon Pkwy and Sylvan Pkwy	B	B	C	B	A	A
John James Audubon Pkwy and Gordon R Yaeger Dr	A	A	A	A	A	A
John James Audubon Pkwy and Bryant Woods S*	B	B	B	C	A	A
John James Audubon Pkwy and Bryant Woods N*	B	B	D	E	A	A
John James Audubon Pkwy and Dodge Rd	C	C	D	D	B	B
John James Audubon Pkwy and I-990 EB Off-Ramp*	A	A	B	B	A	A
John James Audubon Pkwy and I-990 WB Off-Ramp	A	A	B	C	A	A
Eggert Rd and Sheridan Dr	C	C	C	C	C	C
Eggert Rd and Alberta Dr	A	A	A	A	A	A

* Unsignalized intersection: Level of service was determined using the worst performing stop-controlled approach.

Table C.73. BRT Build Alternative with Mitigation LOS Impact Summary

Period	Condition	LOS Summary (2040)
Weekday AM peak	BRT Build Alternative without Mitigation	All intersections operate at overall LOS D or better. The BRT Build Alternative does not result in adverse traffic impacts during the weekday AM peak travel period.
	BRT Build Alternative with Mitigation	All intersections operate at overall LOS D or better. The BRT Build Alternative with proposed mitigation does not result in adverse traffic impacts during the weekday AM peak travel period.
Weekday PM peak	BRT Build Alternative without Mitigation	Three intersections are adversely impacted during the weekday PM peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave degrades from a No Build LOS B to a LOS F ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave degrades from a No Build LOS B to a LOS F ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Sweet Home Rd would degrade from a No Build LOS D to LOS E
	BRT Build Alternative with Mitigation	▪ The unsignalized intersection of Niagara Falls Blvd and Oxford Ave improves from a Build LOS F to a Build with Mitigation LOS C ▪ The unsignalized intersection of Niagara Falls Blvd and Yale Ave improves from a Build LOS F to a Build with Mitigation LOS E Four intersections are adversely impacted during the weekday PM peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave would degrade from a No Build LOS B and Build LOS D to a Build Alternative with Mitigation LOS E ▪ The unsignalized intersection of John James Audubon Pkwy and Bryant Woods N. would degrade from a No Build LOS A and Build LOS D to a Build with Alternative with Mitigation LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would continue to operate at LOS E with the Build Alternative with Mitigation ▪ The signalized intersection of Maple Rd at Sweet Home Rd would continue to operate at LOS E with the Build Alternative with Mitigation
Saturday Midday Peak	BRT Build Alternative without Mitigation	Four intersections are adversely impacted during the Saturday midday peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave degrades from a No Build LOS B to a LOS E ▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr degrades from a No Build LOS D to LOS E ▪ The signalized intersection of Maple Rd at Alberta Dr would degrade from a No Build LOS C to LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would degrade from a No Build LOS D to LOS E

Period	Condition	LOS Summary (2040)
	BRT Build Alternative with Mitigation	▪ The signalized intersection of Niagara Falls Blvd and Sheridan Dr would improve from a Build LOS E to a Build Alternative with Mitigation LOS D Four intersections are adversely impacted during the Saturday midday peak: ▪ The unsignalized intersection of Niagara Falls Blvd and Harrison Ave would continue to operate at LOS E with the Build Alternative with Mitigation ▪ The unsignalized intersection of Niagara Falls Blvd and Betina Ave/Moore Ave would degrade from a No Build LOS B and Build LOS D to a Build Alternative with Mitigation LOS E ▪ The signalized intersection of Maple Rd at Alberta Dr would continue to operate at LOS E ▪ The signalized intersection of Maple Rd at Bailey Ave would continue to operate at LOS E

BRT BUILD ALTERNATIVE: INDIVIDUAL INTERSECTION MOVEMENTS

A detailed description of the LOS for individual intersection movements are documented in Table 1-74 through Table 1-76which illustrate the weekday AM, weekday PM and Saturday MD peak hour operational results from the Expanded BRT Build with Mitigation Alternative VISSIM models, respectively. The results are the average of 10 runs per time period using different random number seeds.

Table C.74. BRT Build Alternative with Mitigation Weekday: AM Peak Hour Levels of Service Individual Movements

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
AM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	C	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	C	B	C	B	C	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	A	B	B	C	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	D	D	D	C	C	A	C	E	C	C	D	C	C	A	B	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	A	A	A	D	A	A	A	D	A	B	D	D	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	B	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	B	D	N/A	N/A	N/A	N/A	B
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	D	A	A	A	D	A	N/A	A	N/A	N/A	N/A	N/A	D	N/A	A	D	B
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	C	B	N/A	A	A	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	C	C	N/A	B	C	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	B	A	B	D	A	A	B	N/A	D	A	C	E	D	C	D	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	D	C	C	C	D	D	A	D	D	D	A	D	C
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	A	N/A	A	A	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	B	A	A	A	E	D	C	D	E	E	B	C	D	D	A	D	C
	Niagara Falls Blvd and Mall Entrance	Signal	C	B	B	B	C	B	B	B	A	A	A	A	E	A	D	E	B
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	C	D	C	D	D	B	A	C	C	D	C	D	D	D	A	C	C
	Maple Rd and Alberta Dr	Signal	D	E	D	D	D	E	B	C	E	C	B	C	E	A	A	B	C
	Maple Rd and Bailey Ave	Signal	C	D	A	C	D	C	A	D	D	C	C	C	E	C	B	C	C
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	C	N/A	C	C	C	A	N/A	A	N/A	A	A	A	A
	Maple Rd and Hillcrest Dr	Signal	C	A	A	A	D	D	B	D	A	B	B	B	C	A	N/A	B	B
	Maple Rd and Sweet Home Rd	Signal	F	E	E	E	F	D	B	E	D	D	A	C	C	C	B	C	D
	Sweet Home Rd and Rensch Rd	Signal	D	C	B	B	C	B	B	B	D	D	C	D	D	D	A	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	D	D	D	D	E	D	A	D	E	C	C	C	D	B	A	B	C
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	B	C	A	A	B	B
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	B	A	C	B	A	B	C	C	B	B	C	B	C	C	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	C	C	C	D	B	B	C	B	B	A	B	D	D	D	D	C
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	B	B	C	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	A	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	B	B	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	A	B	B	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	C	C	C	D	B	B	C	C	C	B	B	C	C	C	C	C
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	B	D	D	D	B	D	C	C	A	C	N/A	C	B	C	C
	Eggert Rd and Alberta Dr	Signal	A	A	A	A	B	B	A	A	A	A	A	A	A	A	A	A	A

Table C.75. *BRT Build Alternative with Mitigation Weekday: PM Peak Hour Levels of Service Individual Movements*

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
PM	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	D	A	N/A	B	N/A	B	A	B	D	N/A	C	D	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	C	B	A	B	B	B	B	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	C	D	D	D	C	C	A	B	E	C	C	D	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	B	B	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	E	B	B	C	E	C	D	C	E	A	B	D	E	N/A	C	D	C
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	C	C	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	B	N/A	B	N/A	C	C	C	E	N/A	B	D	N/A	N/A	N/A	N/A	C
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	D	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	E	B	C	B	E	B	N/A	B	N/A	N/A	N/A	N/A	E	N/A	C	E	C
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	N/A	B	C	C	N/A	B	B	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	C	D	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F	N/A	D	E	F	N/A	C	D	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	C	B	C	C	B	A	B	N/A	D	B	C	F	D	D	E	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	D	D	D	D	D	D	A	D	D	E	B	E	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	C	N/A	B	B	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	D	D	D	D	C	A	A	A	D	D	B	D	D	D	C	C	C
	Niagara Falls Blvd and Mall Entrance	Signal	E	D	D	D	D	B	C	C	D	D	B	C	D	D	D	D	D
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	D	C	B	C	C	D	C	D	D	E	B	D	D
	Maple Rd and Alberta Dr	Signal	E	D	B	D	D	C	B	C	E	D	D	D	F	A	A	C	C
	Maple Rd and Bailey Ave	Signal	F	F	D	F	E	E	C	E	E	E	D	E	F	E	E	E	E
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	B	C	D	A	N/A	A	N/A	C	B	C	B
	Maple Rd and Hillcrest Dr	Signal	D	A	B	C	E	D	A	E	D	A	A	A	D	B	N/A	B	A
	Maple Rd and Sweet Home Rd	Signal	F	E	D	E	F	D	E	E	E	D	B	D	F	F	C	F	E
	Sweet Home Rd and Rensch Rd	Signal	E	D	B	D	C	C	C	C	D	E	C	D	D	D	B	C	C
	John James Audubon Pkwy and Rensch Rd	Signal	F	D	D	F	E	D	D	D	E	C	C	D	D	C	B	C	D
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	D	D	D	D	B	B	A	B	B	C	A	C	D	D	D	D	C
	John James Audubon Pkwy and Frontier Rd	Signal	C	B	B	B	C	B	A	B	C	B	B	B	C	C	C	C	B
	John Jame Auduon Pkwy and Forest Rd	Signal	D	D	D	D	E	B	B	D	C	C	B	C	F	E	E	F	D
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	B	B	B	C	B	N/A	B	N/A	N/A	N/A	N/A	C	N/A	C	C	B
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	B	B	B	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	C	C	B	C	C	C	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	C	C	E	C	C	D	C	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	E	E	E	E	D	B	A	C	E	D	C	D	D	D	D	D	D
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	B	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	C
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	D	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	B	A	A	A	A	A	A	A	A	A

Table C.76. BRT Build Alternative with Mitigation Saturday: MD Peak Hour Levels of Service Individual Movements

Peak	Intersection	Control	Northbound				Southbound				Eastbound				Westbound				Total
			LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	LT	TH	RT	Approach	
			LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
MD	Main St and Allenhurst Rd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Main St and Capen Blvd	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Main St	Signal	C	A	N/A	A	N/A	B	A	B	D	N/A	C	C	N/A	N/A	N/A	N/A	B
	Kenmore Ave and Capen Blvd	Stop	C	B	A	B	B	B	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Kenmore Ave and Allenhurst Rd	Stop	B	B	B	B	B	A	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Kenmore Ave	Signal	D	D	D	D	D	C	A	C	D	B	B	C	C	C	A	C	C
	Niagara Falls Blvd and Kenilworth Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Princeton Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	A	N/A
	Niagara Falls Blvd and Ford Ave/Cambridge Blvd	Signal	D	A	B	B	E	B	C	B	E	A	C	D	E	A	B	C	B
	Niagara Falls Blvd and Paige Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Oxford Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	B	C	N/A
	Niagara Falls Blvd and Chalmers Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	B	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Decatur Rd	Signal	E	B	N/A	B	N/A	B	C	B	D	N/A	B	D	N/A	N/A	N/A	N/A	B
	Niagara Falls Blvd and Yale Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A
	Niagara Falls Blvd and Lincoln Park Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Longmeadow Rd	Signal	E	B	B	B	D	A	N/A	B	N/A	N/A	N/A	N/A	D	N/A	A	D	B
	Niagara Falls Blvd and Highland Ave/Ruth Dr	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	N/A	B	D	C	N/A	B	B	N/A
	Niagara Falls Blvd and Harrison Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	D	E	N/A	N/A	N/A	N/A	N/A
	Niagara Falls Blvd and Betina Ave/Moore Ave	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	N/A	D	E	D	N/A	C	C	N/A
	Niagara Falls Blvd and Eggert Rd	Signal	D	C	B	C	C	B	A	B	N/A	C	A	C	D	C	C	C	C
	Niagara Falls Blvd and Sheridan Dr	Signal	N/A	C	C	C	D	C	C	C	E	E	A	E	D	F	A	E	D
	Niagara Falls Blvd and Franklin Ave/Rochelle Pl	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	C	N/A	B	B	N/A
	Niagara Falls Blvd and Treadwell Rd	Signal	E	B	C	B	D	A	B	A	E	E	C	D	F	E	B	D	B
	Niagara Falls Blvd and Mall Entrance	Signal	E	C	C	C	D	B	C	B	D	D	B	D	D	E	E	E	C
	Niagara Falls Blvd and Brighton Rd/Maple Rd	Signal	E	D	C	D	E	C	C	C	D	E	D	E	F	F	C	E	D
	Maple Rd and Alberta Dr	Signal	D	E	D	D	E	F	F	F	F	F	F	F	D	C	C	C	E
	Maple Rd and Bailey Ave	Signal	F	F	B	E	E	E	E	E	F	E	E	E	F	D	D	E	E
	Maple Rd and Bowmart Pkwy	Signal	N/A	N/A	N/A	N/A	D	N/A	A	D	E	A	N/A	B	N/A	B	B	B	B
	Maple Rd and Hillcrest Dr	Signal	E	A	B	C	A	A	A	A	A	A	A	A	D	A	N/A	A	A
	Maple Rd and Sweet Home Rd	Signal	E	D	C	E	F	D	C	D	D	C	B	C	C	D	C	D	D
	Sweet Home Rd and Rensch Rd	Signal	D	C	A	B	B	B	B	B	D	D	B	D	C	C	A	C	B
	John James Audubon Pkwy and Rensch Rd	Signal	D	D	D	D	D	D	B	B	F	B	C	D	D	B	A	B	C
	John James Audubon Pkwy and Hamilton Rd	Signal	B	B	A	B	B	B	A	A	B	A	A	A	B	A	A	A	A
	John James Audubon Pkwy and Core Rd/Lee Rd	Roundabout	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	John James Audubon Pkwy and Frontier Rd	Signal	C	A	B	A	A	A	A	A	B	B	A	B	C	B	B	B	A
	John Jame Auduon Pkwy and Forest Rd	Signal	C	B	C	B	C	B	A	B	C	B	A	B	C	C	C	C	B
	John James Audubon Pkwy and Sylvan Pkwy	Signal	N/A	A	B	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	C	C	A
	John James Audubon Pkwy and Gordon R Yaeger Dr	Signal	N/A	A	B	A	B	A	N/A	A	N/A	N/A	N/A	N/A	C	N/A	B	C	A
	John James Audubon Pkwy and Bryant Woods S	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	A	A	A	N/A
	John James Audubon Pkwy and Bryant Woods N	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	A	A	B	A	A	N/A
	John James Audubon Pkwy and Dodge Rd	Signal	D	C	C	C	C	B	A	B	C	C	A	B	C	C	C	C	B
	John James Audubon Pkwy and I-990 NB Off Ramp	Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A
	John James Audubon Pkwy and I-990 SB Off Ramp	Roundabout	A	A	N/A	A	A	A	A	A	N/A	N/A	N/A	N/A	A	N/A	A	A	A
	Eggert Rd and Sheridan Dr	Signal	D	D	C	D	D	D	B	D	C	C	A	C	N/A	C	C	C	C
	Eggert Rd and Alberta Dr	Signal	B	B	A	B	B	B	A	B	B	A	B	A	B	A	A	A	A

C.5.1.5 Intersection Impacts with Proposed Mitigation Strategies

Compared to the Build Alternative, a summary of adverse traffic impacts with the Build Alternative's proposed mitigation strategies are summarized in Table 1-77.

Table C.77. Summary of Intersection Impacts to Signalized Intersections as a Result of the Project's Proposed Mitigation Strategies

Build Alternative	AM Peak (2040)	PM Peak (2040)	Midday Saturday (2040)
LRT Build Alternative with Proposed Mitigation Strategies	No Impacts	▪ No adverse impacts after mitigation. ▪ The proposed strategies for the LRT Build Alternative result in mitigating four adversely impacted intersections during the weekday PM peak period. ▪ While allowances for left-turn movements at select locations on Niagara Falls Boulevard improves traffic progression along the corridor, one adverse impact is expected	▪ No adverse impacts after mitigation. ▪ The proposed strategies for the LRT Build Alternative results in mitigating all five adversely impacted intersections during the Saturday midday peak period.
BRT Build Alternative with Proposed Mitigation Strategies	No Impacts	▪ Adverse impacts expected. ▪ The proposed strategies for the BRT Build Alternative results in mitigating two adversely impacted intersections during the weekday PM peak period. ▪ With the proposed strategies for the BRT Build Alternative four intersections are still adversely impacted. While allowances for left-turn movements at select locations on Niagara Falls Boulevard improves traffic progression along the corridor, additional adverse impacts are expected. The BRT Build Alternative is expected to have less of a reduction on vehicle volumes given fewer new transit riders are attracted to the BRT service.	▪ Adverse impacts expected. ▪ The proposed strategies for the BRT Build Alternative result in mitigating one adversely impacted intersection during the Saturday midday peak period. ▪ With the proposed strategies for the BRT Build Alternative four intersections are still adversely impacted. While allowances for left-turn movements at select locations on Niagara Falls Boulevard improves traffic progression along the corridor, additional adverse impacts are expected. The BRT Build Alternative is expected to have less of a reduction on vehicle volumes given fewer new transit riders are attracted to the BRT service.

C.5.2 Proposed Parking Mitigation

Compared to the No Build Alternative, the following temporary adverse parking impacts were identified as a result of constructing either the LRT Build Alternative or BRT Build Alternative:

- Approximately 552 parking spaces are anticipated to be impacted by the LRT Build Alternative as result of property easement needs.
- Approximately 515 parking spaces are anticipated to be impacted by the BRT Build Alternative as result of property easement needs.

Many properties that may experience parking impacts have additional space that could be used for relocating affected spaces. As described in Section 4.1, "Property Acquisitions and Displacements," property owners impacted by either the LRT Build Alternative or the BRT Build Alternative will be compensated according to all federal and state regulations. Considerations that impacted the use of the property included determining if a reduction in parking met local zoning codes, or proximity of limits of disturbance to the main access point to the building. If either of these considerations were not met, the parcel is considered a full acquisition rather than an easement. This proposed mitigation measure is also described in Section 4.17, "Construction Effects."

Both Build Alternatives propose mitigation strategies such as the investment in park & ride lots at UB South Campus, the Boulevard Mall, and the Muir Woods development, where the storage and light maintenance facility is proposed. Combined, these park & ride lots constructed as result of the project will add 350 additional public parking spaces with no fees.

C.5.3 Transit, Pedestrian, Bicycle, Safety, and Security

There are no anticipated impacts to transit, pedestrian, bicycle, safety, and security and no mitigation strategies are required.