

## SYRACUSE METROPOLITAN TRANSPORTATION COUNCIL DOWNTOWN SYRACUSE TWO-WAY FEASIBILITY TECHNICAL ANALYSIS



CITY OF SYRACUSE
Central Business District / JULY 2014





# Downtown Syracuse Two-Way Feasibility Technical Analysis

**Final Report** 

**July 2014** 

Prepared by

Bergmann Associates

for

Syracuse Metropolitan Transportation Council

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For further information contact:

Mario Colone, Program Manager Syracuse Metropolitan Transportation Council 126 N. Salina St., 100 Clinton Square, Suite 100 Syracuse, NY 13202 PHONE: (315) 422-5716; FAX: (315) 422-7753 www.smtcmpo.org

## Syracuse Metropolitan Transportation Council Downtown Syracuse Two-Way Feasibility Technical Analysis — Final Report



## **Table of Contents**

1.	Executive Summary	. 3
П.	Purpose and Scope	. 5
Ш.	Analysis of Alternatives	. 5
IV.	Cost Estimates1	4
V.	Recommended Implementation Plan1	5

## Syracuse Metropolitan Transportation Council Downtown Syracuse Two-Way Feasibility Technical Analysis – Final Report



## **List of Attachments**

Final Study Area Map
Preferred Alternative 2B Map
Existing Signal Optimization Summary
Technical Memorandum #2 – Technical Analysis of Alternative 1
Technical Memorandum #3 – Technical Analysis of Alternatives 2 and 2B
Working Group Meeting Summaries

## **List of Tables**

Table 1	Alternative 1 Comparison of Network Results Morning Peak Hour
Table 2	Alternative 1 Comparison of Network Results Evening Peak Hour
Table 3	Alternatives 2 and 2B Comparison of Network Results Morning Peak Hour
Table 4	Alternatives 2 and 2B Comparison of Network Results Evening Peak Hour
Table 5	Parking Impacts Alternative Comparisons
Table 6	Alternative 2B Estimated Costs by Street
Table 7	Estimated Costs by Manageable Project Size (<\$400,000)
Table 8	



## I. Executive Summary

The purpose of the Downtown Syracuse Two-Way Feasibility Technical Analysis is to evaluate three one-way street conversion alternatives and recommend the most advantageous alternative for implementation. Traffic signal optimization of existing conditions was performed as part of the first steps in the technical analysis. This task provided optimized timing benefits that can immediately be passed on to road users as the network has not been analyzed for improvement opportunities in several years. Also included in the technical analysis is an estimate of costs for the preferred alternative and a proposed implementation plan. The alternatives are defined as:

- 1. Alternative 1: Converting the majority of existing one-way streets within the Study Area (Attachment A).
- 2. Alternative 2: Conversion of only a subset of streets (Clinton, Warren, Montgomery and Jefferson Streets) to two-way operation.
- 3. Alternative 3: Titled Alternative 2B is a modification to Alternative 2 with a reduced area on Warren Street to be converted. Attachment B contains a map defining the extents of the one-way streets analyzed for conversion under Alternative 2B.

The set of alternatives was agreed to by the project's Working Group after the data review findings were presented at Working Group Meeting #2 (see Attachment G for summaries of the Working Group Meetings). Eleven of the twenty-four one-way streets within the Central Business District (CBD) were eliminated from consideration based on feasibility to implement and a benefit/cost analysis which defined Alternative 1 (documented in Technical Memorandum #2). Starting with analysis of Alternative 1, conversion of the pertinent subset of the one-way streets within the CBD, Alternatives 2 and 3 were defined. Alternative 1 was analyzed and compared to the existing and optimized conditions, presented in Technical Memorandum #2 of this project. The findings were presented to the Working Group for discussion and evaluating the scopes of Alternatives 2 and 3.

The process of determining the preferred alternative for implementation is documented in Technical Memorandum #3 contained in Attachment F of this report. All three alternatives are compared in Attachment F. The most advantageous alternative was determined to be Alternative 2B. All three alternatives are feasible with acceptable traffic operations expected. However, Alternative 2B would provide marginally better operations with less delay and fewer stops at intersections and slightly increased average vehicle speeds along city streets.

#### Recommended Implementation Plan

An important part of this transportation study is developing an achievable implementation plan that will help improve the likelihood of success as impacts will be experienced across multiple modes of transportation and with a mix of trip purposes and needs. Factors considered during the evaluation included land use access, ease of conversion, relative costs in comparison to achievable staging of projects (\$250,000-\$350,000/project), economic viability, tourist and entertainment venues, and impacts on mobility within the downtown transportation network.

## Syracuse Metropolitan Transportation Council Downtown Syracuse Two-Way Feasibility Technical Analysis — Final Report



Montgomery Street is proposed for the first phases of conversion to two-way operation based on traffic capacity concerns during the implementation process and the importance of accessibility to land uses along this street including government offices and the theatre district. Improved access is an expected benefit to daily City operations as well as the improved accessibility to entertainment and tourist-related destinations with ease of travel adding to economic viability. Traffic volumes along Montgomery Street are lower than those on Clinton Street and Warren Street, which provide mobility to a greater volume of traffic. The benefits of phasing construction beginning with Montgomery Street and then Warren Street is that the new northbound lane on Montgomery Street would be available for motorists when the northbound capacity of Warren Street is reduced by converting to two-way operation; and similarly the new southbound lane on Warren Street would be available for motorists when the southbound capacity of Clinton Street is reduced. Clinton Street is a southbound link, vital for traffic entering the City from I-81, but has sufficient capacity to be converted to two-way operation. Constructing Clinton Street first could introduce added recurring congestion as the overall implementation plan is executed over several years. The order of magnitude costs developed are sufficient for a planning level evaluation such as this and will require additional review and refinement going forward should the City of Syracuse implement the recommended conversions.

#### **Recommended Implementation Plan**

Street	Segment	Estimated Cost for Converting to Two-Way
#1 Montgomery Street	Erie Boulevard E. to Jefferson Street	\$210,000
#2 Montgomery Street	Jefferson Street to E. Adams Street	\$370,000
#3 Warren Street	Willow Street to Washington Street	\$370,000
#4 Clinton Street	W. Adams Street to Fayette Street	\$260,000
#5 Clinton Street	Fayette Street to I-690	\$270,000
#6 Jefferson Street	Montgomery Street to S. State Street	\$33,000
	TOTAL	\$1,513,000

<sup>\*</sup> Costs for the intersection of Montgomery/Jefferson/Onondaga are included in the Montgomery Street cost and not included in the Jefferson Street cost.



## II. Purpose and Scope

The purpose of the Downtown Syracuse Two-Way Feasibility Technical Analysis is to study three one-way street conversion alternatives and determine the most appropriate and preferred alternative. Optimization of existing traffic signal timing/phasing was performed and utilized as the base condition for comparing two-way alternatives. This task resulted in improved operations that would result in immediate benefits to road users as the network has not been analyzed for improvement opportunities in several years. Also included in the technical analysis is an estimate of costs for the preferred alternative and a proposed implementation plan. Attachment A provides a map defining the extents of one-way streets to be included in the analysis of the Syracuse CBD as the Working Group.

Alternative 1 was defined as converting the following one-way streets under consideration:

- 1. Clinton Street from Marnell Avenue and the I-81 SB off-ramp to W. Adams Street;
- 2. Warren Street from Willow Street to Harrison Street;
- 3. Herald Place from Wallace Street to N. Franklin Street;
- 4. W. Water Street from S. Franklin Street to Warren Street;
- 5. Erie Boulevard E. from S. Salina Street to Montgomery Street;
- 6. W. Washington Street from West Street to mid-block parking facility;
- 7. Market Street from E. Washington Street to E. Water Street;
- 8. McCarthy Avenue from S. State Street to S. Townsend Street;
- 9. E. Jefferson Street from Montgomery Street to S. State Street;
- 10. Montgomery Street from Erie Boulevard E. to E. Adams Street
- 11. Madison Street from S. Warren Street to S. State Street;
- 12. Harrison Street from S. Salina Street to Townsend Street; and,
- 13. E. Adams Street from S. State Street to Townsend Street.

Alternative 2 analysis considered only Clinton, Warren, Montgomery and Jefferson Streets. The third alternative (2B) is a modification of Alternative 2 eliminating the section of Warren Street from Washington Street to Adams Street due to concerns raised by members of the Working Group. Attachment B contains a map defining the extents of the one-way streets analyzed for conversion under Alternative 2B.

## III. Analysis of Alternatives

The first steps of the technical analysis included reviewing available data and defining the one-way alternatives for analysis. The data review process was documented in the Technical Memorandum #1 contained in Attachment C. Data was reviewed in detail and additional data needs were identified for consideration to improve the accuracy of the technical analysis.

Additional information was provided by the Syracuse Metropolitan Transportation Council (SMTC) and the first phase of the technical analysis was completed as documented in Attachment D – Existing Signal Optimization Summary. Existing conditions were improved considerably in the technical analysis by modeling optimized traffic signal timing plans within the CBD. The analysis included evaluation of Measures of Effectiveness (MOE's) by arterial, overall corridor and full network for both the morning and evening optimized condition

### Syracuse Metropolitan Transportation Council Downtown Syracuse Two-Way Feasibility Technical Analysis – Final Report



Overall network conditions show significant improvement to MOE's during both the morning and evening peak hours with the developed signal optimization plans implemented. The results were compared to the existing model MOE's to identify expected level of improvement. Improvements during the peak hours range from:

- 34%-37% reduction in delay,
- 17%-19% reduction in number of stops,
- 20%-30% increase in operating speeds,
- 18%-19% reduction in fuel consumed, and:
- 23%-24% increase in fuel economy.

The Optimized models were then used to develop the Alternative 1 analysis models. Technical Memorandum #2 contained in Attachment E of this report provides the analysis of Existing, Optimized and Alternative 1 conditions.

#### The alternatives are defined as:

- 1. Alternative 1: Converting the majority of existing one-way streets within the Study Area (Attachment A).
- 2. Alternative 2: Conversion of only a subset of streets (Clinton, Warren, Montgomery and Jefferson Streets) to two-way operation.
- 3. Alternative 3: Titled Alternative 2B is a modification to Alternative 2 with a reduced area on Warren Street to be converted. Attachment B contains a map defining the extents of the one-way streets analyzed for conversion under Alternative 2B.

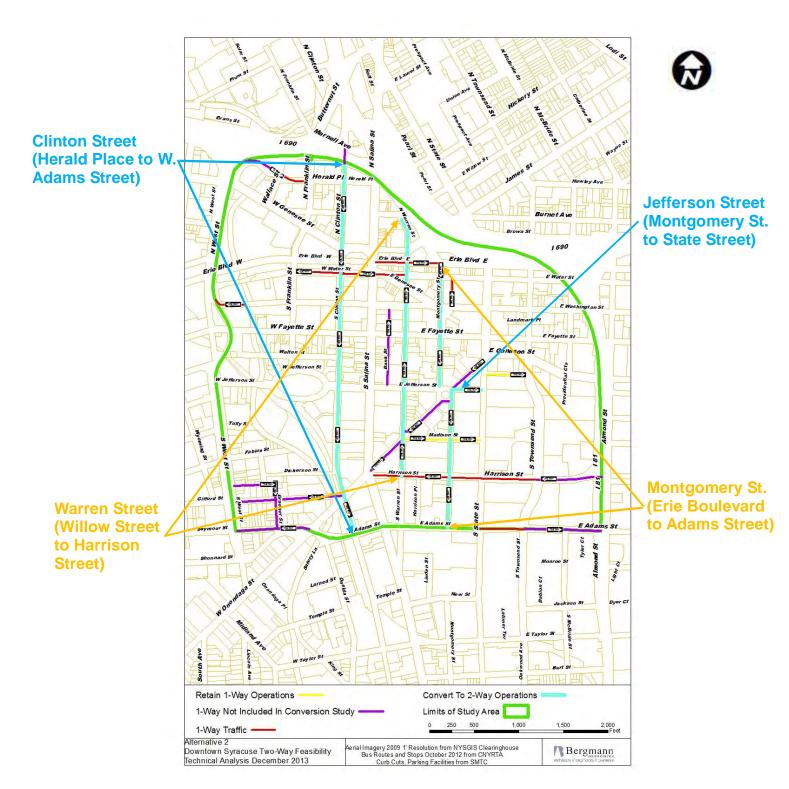
The set of alternatives were agreed to by the project's Working Group after the data review findings were presented at Working Group Meeting #2. Eleven of the twenty-four one-way streets within the CBD were eliminated from consideration based on feasibility to implement conversion and a benefit/cost analysis which defined Alternative 1 (documented in Technical Memorandum #2). The Working Group consisted of the following agencies, organized to collaboratively guide and refine development of the technical analysis:

- Syracuse Metropolitan Transportation Council
- CENTRO
- New York State Department of Transportation
- City of Syracuse Department of Engineering
- City of Syracuse Department of Public Works
- Downtown Committee of Syracuse, Inc.
- City of Syracuse Neighborhood & Business Development
- Syracuse-Onondaga County Planning Agency
- GTS Consulting
- Bergmann Associates

Starting with analysis of Alternative 1, conversion of the pertinent subset of the one-way streets within the CBD, Alternatives 2 and 3 were defined as shown on the following pages (pages 8 and 9). Alternative 1 was analyzed and compared to the existing and optimized conditions, presented in Technical Memorandum #2 of this project. The findings were presented to the Working Group for discussion and evaluating the scope of Alternatives 2 and 3.

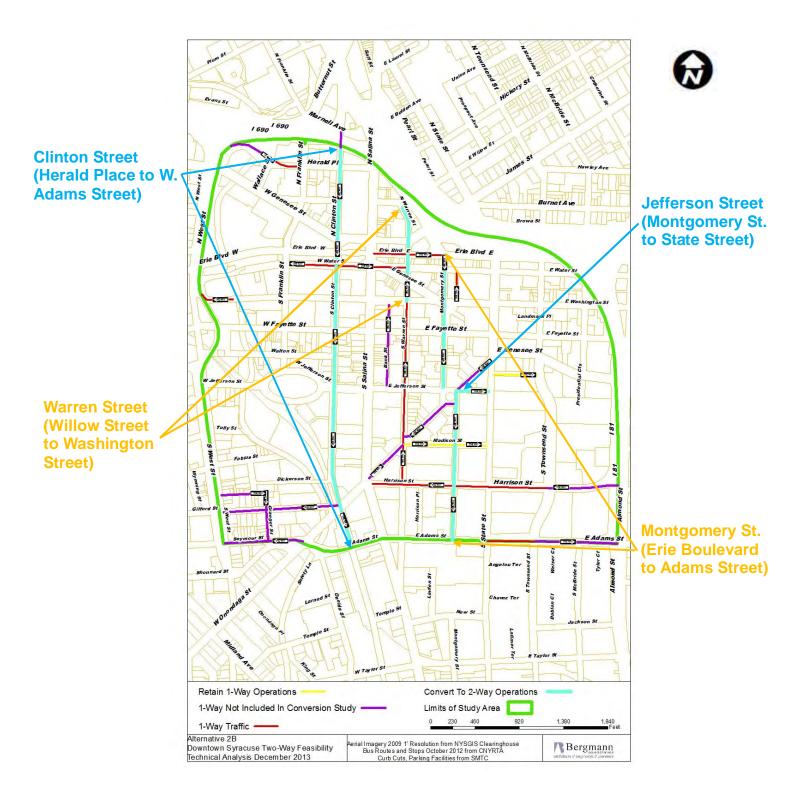


## **Alternative #2**





## Alternative #2B





#### Alternative 1

The overall network results of the technical analysis show significant improvement to all MOE's for Alternative 1 as compared to the existing condition during both the morning and evening peak hours with the developed Alternative 1 signal plans implemented. These improvements during the peak hours range from a 31%-32% reduction in delay, a 14%-16% reduction in number of stops, a 20%-30% increase in operating speeds, an 16%-17% reduction in fuel consumed and a 20%-21% increase in fuel economy. Tables 1 and 2 summarize the comparison of network MOE's between the Alternative 1 condition and the existing and optimized conditions for the morning and evening peak hours.

The benefits to be realized comparing the existing condition with Alternative 1 are generally less than the improvements that could be realized by retaining the existing one-way operation with the implementation of signal optimization only. Comparison of Alternative 1 conversion results to the optimized signal timing and coordination implementation shows a slight degradation in MOE's ranging from a 3%-5% increase in delay, a 3%-4% increase in number of stops, a 0% decrease in operating speeds, a 2%-3% increase in fuel consumed and a 2% decrease in fuel economy.

Intersection Level of Service (LOS) was also reviewed to determine locations where unacceptable LOS is expected for Alternative 1. LOS D or better is considered acceptable and LOS E and F are unacceptable. The following improvements are required to mitigate LOS E or F (indicating expected congestion on the intersection approach):

- 1. Provide two right turn lanes on the westbound Washington Street approach to West Street to alleviate poor levels of service indicative of LOS E and F during peak hours with one right turn lane, and
- 2. Provide two shared through lanes (one shared left/through and one shared through/right) on the westbound Harrison Street approach to Onondaga Street/Salina Street to alleviate the LOS F expected during the PM peak hour with one shared through lane.

Table 1. Alternative 1 Comparison of Network Results Morning Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Total Delay (Hours)	450	296	312	-138 (-31%)	+16 (+5%)
Stops (#)	44826	36387	37542	-7284 (-16%)	+1155 (+3%)
Average Speed (mph)	10	13	13	+3 (+30%)	0 (0%)
Fuel Consumed (gal)	863	703	723	-140 (-16%)	20 (+3%)
Fuel Economy (mpg)	8.0	9.8	9.6	+1.6 (+20%)	-0.2 (-2%)



Table 2. Alternative 1 Comparison of Network Results Evening Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Total Delay (Hours)	497	328	339	-158 (-32%)	+11 (+3%)
Stops (#)	47313	39204	40615	-6698 (-14%)	+1411 (+4%)
Average Speed (mph)	10	12	12	+2 (+20%)	+0 (+0%)
Fuel Consumed (gal)	914	745	763	-151 (-17%)	+18 (+2%)
Fuel Economy (mpg)	7.6	9.4	9.2	+1.6 (+21%)	-0.2 (-2%)

Implementation of Alternative 1 will have impacts on parking. The following list shows the loss of parking along identified streets:

- 1. Clinton Street from Herald Place to Genesee Street removal of approximately 24 parking spaces on the east side of the street.
- 2. Warren Street from Washington Street to Harrison Street removal of approximately 81 parking spaces on the west side of the street.
- 3. Water Street from Clinton Street to Franklin Street removal of approximately 40 parking spaces on the north side of the street.
- 4. Erie Boulevard from Salina Street to Warren Street removal of approximately 25 parking spaces on the south side of the street.
- 5. Erie Boulevard from Warren Street to Montgomery Street removal of approximately 10 parking spaces due to converting angled parking on the north side of the street to parallel parking.
- 6. Market Street from Washington Street to Water Street removal of approximately 11 parking spaces on the east side of the street.
- 7. Jefferson Street from Montgomery Street to State Street removal of approximately 12 spaces due to converting angled parking on the south side of the street to parallel parking.

### Syracuse Metropolitan Transportation Council Downtown Syracuse Two-Way Feasibility Technical Analysis — Final Report



However, implementation of Alternative 1 would also increase the number of parking spaces on the identified streets:

- 1. Clinton Street from Jefferson Street to Onondaga Street addition of approximately 30 parking spaced on the east side of the street.
- Herald Place from Franklin Street to Wallace Street addition of approximately 6
  parking spaces on the north side of the street
- 3. Harrison Street from Warren Street to Montgomery Street addition of approximately 12 parking spaces on the north side of the street.

As previously discussed, the greatest improvements in MOE's have been found with the optimized condition. While the Alternative 1 condition still yields significant improvements in MOE's over the existing condition, the improvements are generally less than the optimized condition. Technical Memorandum #2 contained in Attachment E of this report provides the detailed analysis of Existing, Optimized and Alternative 1 conditions.

#### Alternatives 2 and 2B

Overall network results of the technical analysis show Alternative 2B is marginally more effective than Alternative 2. This is shown in Tables 3 and 4 by comparing each Alternative to the optimized one-way condition. The increased delay experienced under Alternative 2 compared to the optimized condition is approximately 1%-2%, whereas delay for Alternative 2B exhibits nearly the same amount of delay in the AM peak hour and exhibits 1% less delay during the PM peak hour than the optimized condition.

Table 3. Alternatives 2 and 2B Comparison of Network Results Morning Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2	MOE Change - Optimized to Alternative 2B
Total Delay (Hours)	296	302	297	+6 (+2%)	+1 (+0%)
Stops (#)	36387	37645	36573	+1258 (+3%)	+186 (+1%)
Average Speed (mph)	13	13	13	0 (0%)	0 (0%)
Fuel Consumed (gal)	703	716	706	+13 (+2%)	+3 (+0%)
Fuel Economy (mpg)	9.8	9.7	9.8	-0.1 (-1%)	0 (0%)



Table 4. Alternatives 2 and 2B Comparison of Network Results Evening Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2	MOE Change - Optimized to Alternative 2B
Total Delay (Hours)	328	332	324	+4 (+1%)	-4 (-1%)
Stops (#)	39204	39413	38857	+209 (+1%)	-347 (-1%)
Average Speed (mph)	12	12	13	0 (0%)	+1 (+8%)
Fuel Consumed (gal)	745	750	742	+5 (+1%)	-3 (-0%)
Fuel Economy (mpg)	9.4	9.3	9.4	-0.1 (-1%)	0 (0%)

The number of stops increase 1%-3% for the peak hours under Alternative 2 and increase less than 1% for Alternative 2B during the AM peak hour when compared to the optimized condition. The number of stops during the PM peak hour are expected to decrease approximately 1% under Alternative 2B as compared to the optimized one-way condition.

The average speed is expected to remain the same as optimized under Alternative 2, and increases under Alternative 2B from 12 mph to 13 mph during the PM peak hour. The change in fuel consumption increases by 1%-2% under Alternative 2 and almost no change is expected under Alternative 2B. Fuel economy is expected to decrease 1% under Alternative 2 and no change is expected under Alternative 2B when compared to the optimized condition.

Intersection LOS was also reviewed to determine locations if unacceptable LOS could be expected for Alternatives 2 and 2B. LOS D or better are considered acceptable while LOS E and F are considered unacceptable. All individual movement and overall intersection LOS's are expected to be indicative of LOS D or better within the CBD.

Implementation of Alternatives 2 and 2B will have impacts on parking as shown in Table 5. The difference between Alternative 2 and 2B is that Alternative 2B proposed conditions retain one-way (northbound) operations on Warren Street south of Washington Street to continue to provide parking on both sides of the street. Alternative 2 is slightly less effective based on the comparison of MOE's. Therefore, the optimized one-way and Alternative 2B conditions are expected to provide the most effective MOE's and the least impact to parking.



Table 5. Parking Impacts Alternative Comparisons

Street Name	Number of Parking Spaces Loss/Gain (-/+)		
(Terminus to Terminus)	Alternative 2	Alternative 2B	
Clinton Street (Herald Place – Genesee Street)	- 24	-24	
Clinton Street (Jefferson Street – Onondaga Street)	+30	+30	
Jefferson Street (Montgomery Street – State Street)	-12	-12	
Warren Street (Washington Street – Harrison Street)	-81	0	
Overall Parking Impacts	-87	-6	

#### Conclusion

As previously discussed, the greatest improvements in MOE's have been found with the optimized and Alternative 2B conditions. While the Alternative 2 condition still yields improvements in MOE's over the Alternative 1 condition, the improvements are generally less than the Alternative 2B and optimized conditions.

The overall network results for Alternative 2 indicate traffic operations will be marginally less effective than Alternative 2B and the optimized timing condition with existing one-way operation. Yet Alternative 2 would be a marginal improvement compared to Alternative 1 and a considerable improvement over existing traffic operations. All of the one-way streets to be converted to two-way operations as described under Alternatives 2 and 2B are expected to experience acceptable impacts to traffic operations and intersection LOS.

The overall network results for Alternative 2B indicate traffic operations will be marginally less effective than the optimized timing with the existing one-way operation during the AM peak hour. Yet during the PM peak hour Alternative 2B will be marginally more effective than optimized timing with one-way operation and Alternative 1 and significantly better than the existing traffic operations. All of the one-way streets to be converted to two-way operations as described under Alternative 2 and 2B are expected to experience acceptable impacts to traffic operations and intersection LOS.

The process of determining the preferred alternative for implementation is documented in Technical Memorandum #3 contained in Attachment F. All three alternatives are compared in Attachment F with the final determination that implementing Alternative 2B is the most



appropriate action. All three alternatives are feasible with acceptable traffic operations expected yet Alternative 2B would provide marginally better operations with less delay and fewer stops at intersections and slightly increased average vehicle speeds along city streets.

## IV. Cost Estimates

Cost estimates were developed for the preferred Alternative 2B based on a field review of intersections and street segments. Traffic control requirements were identified at each intersection and street segment impacted by conversion of one-way streets to two-way operation under Alternative 2B. The requirements included a planning level evaluation of the span wire and mast arm traffic signal systems and a review for completeness of vehicle signal heads, vehicle detection and pedestrian signals/pushbutton actuation/ADA compliance as well as re-establishment of the existing centrally-controlled traffic signal system communication. Street signs and pavement marking removal/installation were also included in the evaluation.

Construction costs were used to determine presumed engineering and construction inspection costs which combined to produce an overall cost estimate as provided below. Table 6 shows the estimated engineering and construction/inspection costs by street. The total costs for Clinton and Montgomery Streets are each estimated to be greater than \$500,000. Under Alternative 2B Clinton and Montgomery Streets are converted to two-way operation for the length of the CBD (Adams Street to I-690). As mentioned, these costs represent only order of magnitude estimates at this time developed for a planning level evaluation, and will require further examination and refinement moving forward should a street conversion be implemented.

Table 6. Alternative 2B Estimated Costs by Street

Street	Segment	Estimated Cost for Converting to Two-Way
Clinton Street	I-690 to W. Adams Street	\$530,000
Warren Street	Willow Street to Washington Street	\$370,000
Montgomery Street	Erie Boulevard E. to E. Adams Street	\$580,000
Jefferson Street*	Montgomery Street to S. State Street	\$33,000
	TOTAL	\$1,513,000

<sup>\*</sup> Costs for the intersection of Montgomery/Jefferson/Onondaga are included in the Montgomery Street cost and not included in the Jefferson Street cost.

The construction work required to accomplish implementation of Alternative 2B on Clinton and Montgomery Streets was divided into more manageable sized projects as shown in Table 7.



Table 7. Estimated Costs by Manageable Project Size (<\$400,000)

Street	Segment	Estimated Cost for Converting to Two-Way
Clinton Street	I-690 to Fayette Street	\$270,000
Clinton Street	Fayette Street to W. Adams Street	\$260,000
Warren Street	Willow Street to Washington Street	\$370,000
Montgomery Street	Erie Boulevard E. to Jefferson Street	\$210,000
Montgomery Street	Jefferson Street to E. Adams Street	\$370,000
Jefferson Street	Montgomery Street to S. State Street	\$33,000
	\$1,513,000	

<sup>\*</sup> Costs for the intersection of Montgomery/Jefferson/Onondaga are included in the Montgomery Street cost and not included in the Jefferson Street cost.

## V. Recommended Implementation Plan

An important part of this transportation study is developing an achievable implementation plan that will help improve the likelihood of success as impacts will be experienced across multiple transportation modes, purposes and needs. Factors considered during the evaluation included land use access, ease of conversion, relative costs in comparison to achievable staging of projects (\$250,000-\$300,000/project), economic viability, tourist and entertainment venues and impacts on mobility within the downtown transportation network.

Montgomery Street is proposed for the first phases of conversion to two-way operation based on traffic capacity concerns during the implementation process and the importance of accessibility to land uses along this street including government offices and the theatre district. Improved access is an expected benefit to daily City operations as well as the improved tourism with ease of travel adding to economic viability. Traffic volumes along Montgomery Street are lower than those on Clinton and Warren Streets, which function to provide mobility to a greater volume of traffic.

The benefits of phasing construction beginning with Montgomery Street, then onto Warren Street would be to provide a new northbound lane on Montgomery Street for motorists when the northbound capacity of Warren Street is reduced. Similarly the new southbound lane on Warren Street would be available for motorists when the southbound capacity of Clinton Street is reduced. As Clinton Street is a southbound link, vital for traffic entering the City from I-81, if Clinton Street were converted before the additional southbound streets are available on Montgomery and Warren Street, added recurring congestion could be problematic as the overall implementation plan is executed over several years.



Table 8. Implementation Plan – Sequence of Projects

Street	Segment	Estimated Cost for Converting to Two-Way
#1 Montgomery Street	Erie Boulevard E. to Jefferson Street	\$210,000
#2 Montgomery Street	Jefferson Street to E. Adams Street	\$370,000
#3 Warren Street	Willow Street to Washington Street	\$370,000
#4 Clinton Street	W. Adams Street to Fayette Street	\$260,000
#5 Clinton Street	Fayette Street to I-690	\$270,000
#6 Jefferson Street	Montgomery Street to S. State Street	\$33,000
	\$1,513,000	

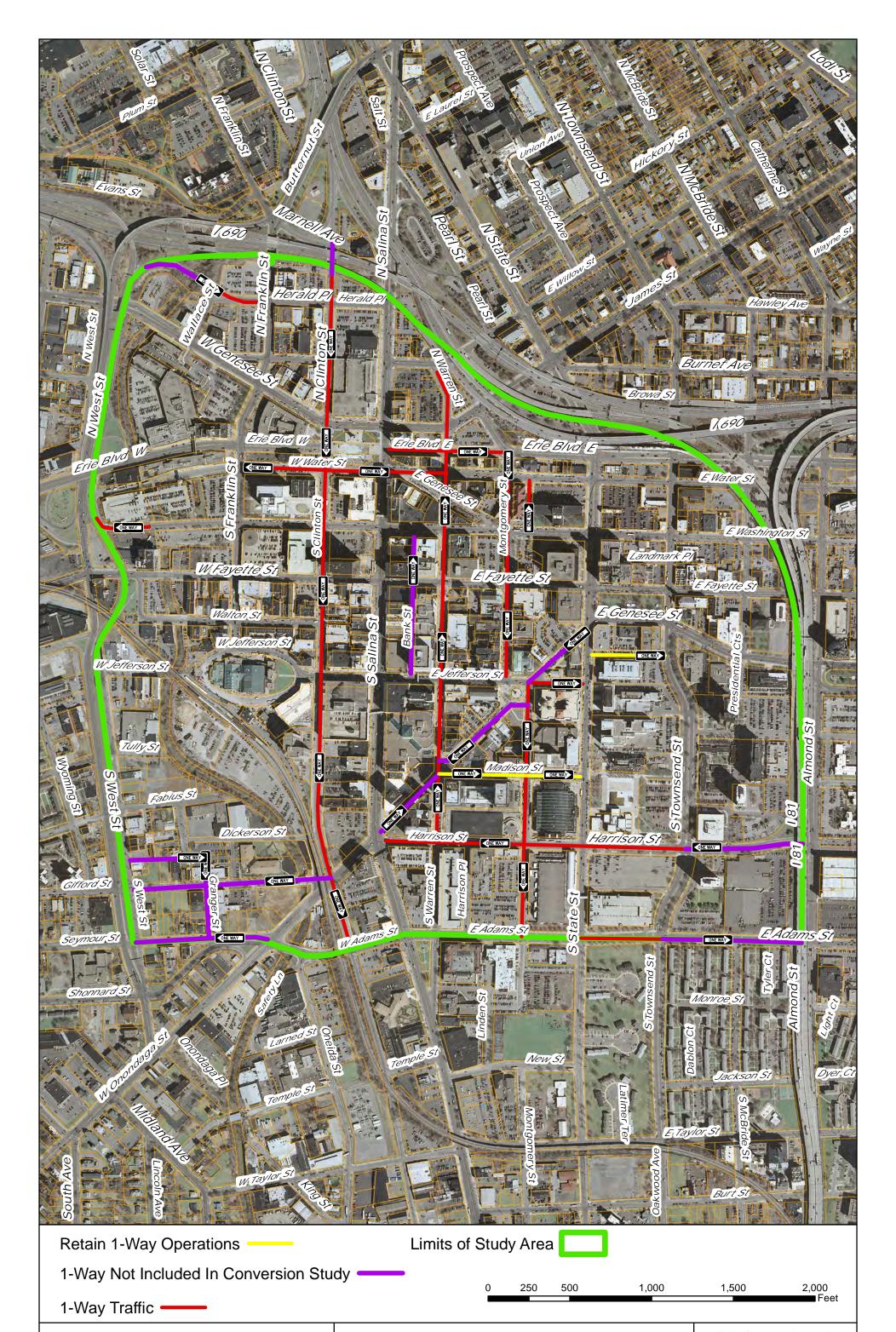
<sup>\*</sup> Costs for the intersection of Montgomery/Jefferson/Onondaga are included in the Montgomery Street cost and not included in the Jefferson Street cost.

The most advantageous action for Downtown Syracuse, based on a comparison of all three alternatives to optimized existing conditions, parking impacts of each alternative, and expected benefits of improved land use accessibility, is implementation of Alternative 2B. All three alternatives are feasible with acceptable traffic operations expected. Alternative 2B, however, would provide marginally better operations with less delay and fewer stops at intersections and slightly increased average vehicle speeds along city streets.

## **Attachment A**

**Final Study Area** 





Downtown Syracuse Two-Way Feasibility Technical Analysis October 2013

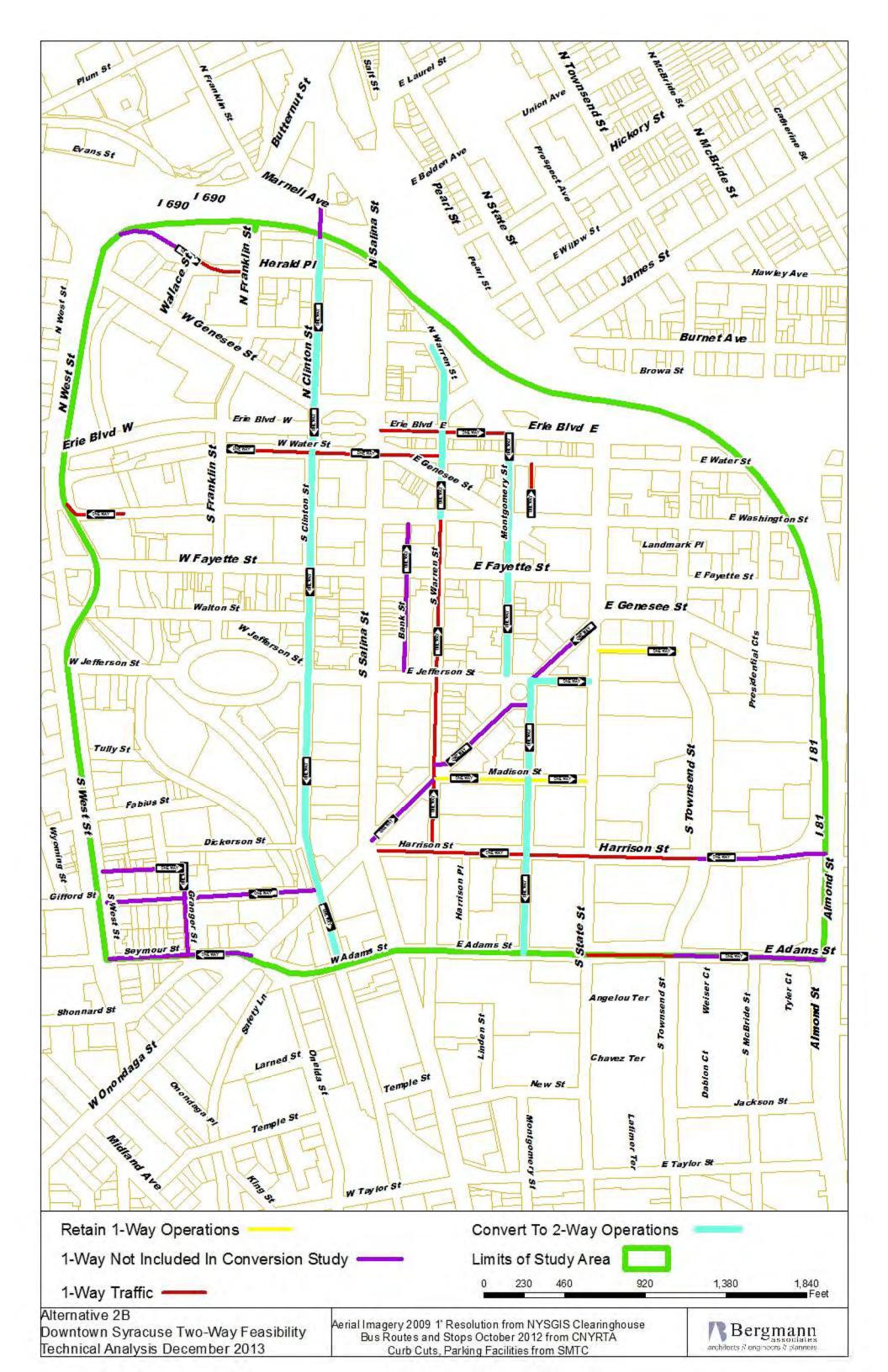
Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC

Bergmann associates architects // engineers // planners

## **Attachment B**

**Preferred Alternative 2B** 





## **Attachment C**

**Technical Memorandum #1** 

**Review of Project Data** 





#### Introduction

The purpose of this project is to examine the existing street network within Syracuse's Central Business District (CBD) in order to determine the feasibility of converting various streets, currently operating under one-way traffic operation, to two-way operation. Converting to two-way operation can offer improved access and Measures of Effectiveness (MOE's) such as Level of Service and delay. This will be studied to optimize mobility for each alternative under consideration. The project will also include signal optimization of the existing street network as it operates today, with current one-way streets remaining one-way. The benefits of this initial phase can immediately be passed on to road users as the network has not been analyzed for improvement opportunities in several years. The benefits include reduced travel times, delays, fuel consumption and vehicle emissions.

The objective of this memorandum is to present results of the Downtown Syracuse Two-Way Feasibility Technical Analysis data review. The data collected to date was reviewed to identify any shortcomings. Additional data required to complete the existing conditions and future scenarios technical analysis, as described in the scope of services, is summarized in this memorandum.

A Working Group consisting of the following agencies was formed to collaboratively guide and refine development of the technical analysis:

- Syracuse Metropolitan Transportation Council
- CENTRO
- New York State Department of Transportation
- City of Syracuse Department of Engineering
- City of Syracuse Department of Public Works
- Downtown Committee of Syracuse, Inc.
- GTS Consulting
- Bergmann Associates

The Syracuse Metropolitan Transportation Council (SMTC) provided to Bergmann Associates the following data sets, which have been reviewed for completeness:

- Turning Movement Counts for 53 intersections within Downtown Syracuse
- Automatic Traffic Recorder (Tube Counts)
- Downtown road widths
- Curb cut locations
- Off-street parking facilities
- On-street parking inventory
- Existing City of Syracuse Synchro files
- City of Syracuse parcels GIS shapefile
- Transit routes and stops
- 2008 Downtown Syracuse Parking Study
- 2009 Transfer Hub Traffic Capacity Report
- Syracuse roads GIS shapefile, including truck route data





Information from the Downtown Committee of Syracuse Retail Brochure "Be Downtown Syracuse" provides context as to the demographics and transportation demands within the study area as stated below. The population of the downtown area is approximately 2,700 with 61% using alternative means of transportation to work including walking, public transportation, bicycling and taxicabs. Demand for new housing is high due to the existing occupancy rate of 99%. Travel demand on the street network within the downtown area is high as indicated by the number of workers employed within downtown totaling 27,000 (10 times the population). The Annual Average Daily Traffic (AADT) volume entering downtown is greater than 67,000 vehicles according to the Downtown Committee of Syracuse, Inc.. An efficient network of streets and intersection traffic signal controls balancing access and mobility are vital to continued growth.

The study boundary limits for this study are Interstate 690 to the north, Adams Street to the south, Interstate 81 / Almond Street to the east and West Street to the west. The study area is shown on Figures 1 and 2 in Appendix A.

As described below there are 23 one-way streets located within the CBD boundary. The following is a list of one-way streets along with the direction of travel:

- 1. Clinton Street (I-690 Border to Adams Street) Southbound
- 2. Warren Street (Adams Street to Willow Street) Northbound
- 3. Jefferson Street (Onondaga Street/Montgomery Street to State Street) Eastbound
- 4. Onondaga Street (State Street to Jefferson Street) Southwest bound
- 5. Onondaga Street (Montgomery Street to Warren Street) Southwest bound
- 6. Montgomery Street (Jefferson Street to Adams Street) Southbound
- 7. Madison Street (Warren Street to State Street) Eastbound
- 8. Harrison Street (Almond Street/I-81 Border to Salina Street) Westbound
- 9. Water Street (Clinton Street to Warren Street) Eastbound
- 10. Water Street (Clinton Street to Franklin Street) Westbound
- 11. Erie Boulevard (Salina Street to Montgomery Street/Oswego Boulevard) Eastbound
- 12. Herald Place (West Street to Franklin Street) Eastbound
- 13. Onondaga Street (Salina Street to Warren Street) Northeast bound
- 14. Market Street (Washington Street to Water Street) Northbound
- 15. Montgomery Street (Erie Boulevard to Jefferson Street) Southbound
- 16. Gifford Street (Clinton Street to West Street) Westbound
- 17. Granger Street (McCormick Avenue to Seymour Street) Southbound
- 18. McCormick Avenue (West Street to Granger Street) Eastbound
- 19. Washington Street (Onondaga Creekwalk to West Street) Westbound
- 20. Seymour Street (Onondaga Street to West Street) Westbound
- 21. Adams Street (State Street to Almond Street) Eastbound
- 22. Bank Street (Jefferson Street to Washington Street) Northbound
- 23. McCarthy Avenue (State Street to Townsend Street) Eastbound

A fatal flaw analysis will be undertaken utilizing the available traffic data rather than physically inspecting each intersection to update the Synchro models for use in the technical analysis. The





purpose of the fatal flaw analysis is to provide sufficient analysis of existing and future conditions without expending extensive data collection efforts for each parameter of the Synchro models. The data will be reviewed to determine if there are fatal flaws in the Synchro input significantly affecting the analysis that would lead to a skewed or inaccurate result. After the analysis of alternatives is complete utilizing Synchro, the feasibility and logistics of implementing the alternatives will be investigated to determine necessary changes to the traffic signal infrastructure and how to undertake these changes.

The curb cut and off-street parking facility data will be used to determine if traffic count imbalances between intersections are acceptable based on potential traffic volumes entering and exiting parking ramps and surface lots. This information will also be useful in quantifying the level of improved access provided by each two-way street conversion alternative. One-way street segments with the greatest potential for parking demand will be determined utilizing the GIS inventory provided.

This is an example of how the traffic data will be used instead of field investigation as part of the fatal flaw analysis. The Traffic Data Assessment section that follows explains the usefulness of each data set in greater detail.

#### **Traffic Data Assessment**

The data provided to Bergmann Associates for the technical analysis is described in more detail in this section. The data was evaluated for how current it is, its usefulness in evaluating the status of the Synchro model that will be key in the feasibility analyses for directional conversion from one-way to two-way operation, and for identifying roadway elements that would require additional or corrected data due to changes in the street network since the dataset was developed. Based on the consultant's review of the various datasets, additional data needs are summarized and support for providing these additional datasets described.

#### **Turning Movement Count Data**

Turning movement volumes at the study intersections are vitally important to the technical analysis. The volumes will provide the basis of the end product optimized signal timing plans that are to accommodate traffic demand. The use of actual intersection turning movement count data is key in reducing the number of intersections where turning volumes will need to be estimated.

The scope of study is the Syracuse CBD, assumed to be sixty (60) signalized intersections. An investigation into the number of signalized intersections located *inside* the CBD depicted in Appendix A, revealed sixty-six (66) intersections. Turning movement count data was provided for 50 of these. There are also three (3) unsignalized intersections where traffic counts were collected (i.e., Clinton Street at Webster's Landing, Clinton Street at Erie Boulevard and Warren Street at Onondaga Street), bringing the total number of intersections counted to 53. The list of fifty-three (53) intersections where manual turning movement counts were collected is shown in Appendix A along with a map that displays all 53 of these intersections.





Count data was not provided for the following 16 <u>signalized</u> intersections that are *inside the CBD* **boundary**:

- 1. Erie Boulevard @ State Street
- 2. Erie Boulevard @ Warren Street
- 3. Erie Boulevard @ Franklin Street
- 4. Washington Street @ McBride Street
- 5. Washington Street @ State Street
- 6. Washington Street @ Franklin Street
- 7. Favette Street @ McBride Street
- 8. Fayette Street @ Franklin Street
- 9. East Genesee Street @ McBride Street
- 10. West Genesee Street @ Franklin Street
- West Genesee Street @ Wallace Street
- 12. Franklin Street @ Willow Street
- 13. Franklin Street @ Herald Place
- 14. Salina Street @ Herald Place
- 15. Salina Street @ Willow Street
- 16. James Street @ Oswego Boulevard

Data for the James Street intersection with Oswego Boulevard can be obtained from the James Street Road Diet Study which was completed by the SMTC in 2011, bringing the shortfall to fifteen (15) intersections. Originally, it was anticipated that turning movement data would not be available for twelve (12) intersections within the CBD. This requires new turning movement data be collected from an additional three (3) intersections if the final number of intersections determined for analysis purposes remains as originally anticipated.

There are eleven (11) signalized intersections located on/near the CBD boundary. Adding these 11 would bring the total from 69, including the three unsignalized intersections already counted, to 80 intersections if included in the work activity. Count data was not provided for the following signalized intersections that are *on/near the CBD boundary*:

- 1. West Street NB @ Washington Street
- 2. West Street SB @ Fayette Street (available from GTS Consulting)
- 3. West Street NB @ Fayette Street (available from GTS Consulting)
- 4. Adams Street @ Harrison Place
- 5. Adams Street @ McBride Street
- 6. Adams Street @ Almond Street
- 7. Almond Street @ Harrison Street
- 8. Almond Street @ East Genesee Street
- 9. Almond Street @ Fayette Street
- 10. Almond Street @ Washington Street
- McBride Street @ Erie Boulevard

Data for the Fayette Street intersections with West Street can be obtained from a current traffic study conducted by GTS Consulting.

A summary table of the Automatic Traffic Recorder (ATR) tube counts conducted in the last six years in the Syracuse CBD is provided on the next page.





## **Summary of Automatic Traffic Recorder Tube count data**

Street Name	<u>From</u>	<u>To</u>	<u>Year</u>	Annual Average Daily Traffic (AADT)	
Clinton St.	Genant Dr.	Genesee St.	2010		SB – 7,308
Clinton St.	Erie Blvd.	Tallman St.	2010		SB – 2,425
Erie Blvd. EB	Salina St.	Oswego Blvd.	2010	EB – 2,108	
Fayette St.	State St.	Almond St.	2010	EB – 1,537	WB – 1,548
Fayette St.	Warren St.	State St.	2010	EB – 3,024	WB – 3,005
Fayette St.	Salina St.	Franklin St.	2010	EB – 3,382	WB – 3,183
Fayette St.	Franklin St.	West St.	2010	EB – 5,079	WB – 4,892
Fayette St.	Salina St.	Franklin St.	2007	EB – 3,404	WB – 3,659
Franklin St.	Jefferson St.	Erie Blvd.	2010	NB – 2,258	SB – 1,669
Franklin St.	Walton St.	Jefferson St.	2006	NB – 3,606	SB – 2,641
Harrison St.	Salina St.	Almond St.	2006		WB – 8,099
181 SB exit ramp	I81 SB ramp	Butternut St.	2006		WB – 686
James St.	Salina St.	State St.	2007	EB – 6,641	WB – 6,427
James St.	Oswego Blvd.	State St.	2008	EB – 5,759	WB – 4,600
Jefferson St.	Salina St.	Montgomery St.	2010	EB – 1,089	WB – 1,998
Jefferson St.	Salina St.	Clinton St.	2008	EB – 1,683	WB – 2,072
McBride St.	Erie Blvd.	Fayette St.	2010	NB – 1,062	SB – 663
Montgomery St.	Madison St.	Adams St.	2006		SB – 2,089
Montgomery St.	Madison St.	Adams St.	2010		SB – 1,978
Montgomery St.	Erie Blvd.	Fayette St.	2010		SB – 1,952
Montgomery St.	Fayette St.	Madison St.	2010		SB – 2,262
RT 930C (Adams St.)	Clinton St.	State St.	2010	EB – 11,940	WB – 1,513
RT 930C (Adams St.)	Onondaga St.	Clinton St.	2007	EB – 5,901	WB – 2,207
RT 930C (Adams St.)	State St.	I-81	2010	EB – 15,929	
Salina St.	Genesee St.	I-81	2010	NB – 3,951	SB – 13,474
Salina St.	Erie Blvd.	Adams St.	2010	NB – 4,702	SB – 3,922
State St.	State St.	Rt. 92	2006	NB – 2,763	SB – 2,995
Townsend St.	Genesee St.	Adams St.	2010	NB – 3,657	SB – 5,991
Townsend St.	Fayette St.	Genesee St.	2010	NB – 3,713	SB – 6,629
Townsend St.	Erie Blvd.	Fayette St.	2010	NB – 3,351	SB – 7,320
Townsend St.	Genesee St.	Adams St.	2007	NB – 3,870	SB – 6,469
W Genesee St.	West St.	Salina St.	2007	EB – 1,512	WB – 1,673
Walton St.	Franklin St.	Clinton St.	2006	EB – 908	WB – 888
Warren St.	Fayette St.	Harrison St.	2010	NB – 3,121	
Warren St.	Harrison St.	Adams St.	2010	NB – 2,013	
Washington St.	Salina St.	Almond St.	2010	EB – 914	WB – 875
Washington St.	Salina St.	West St.	2009	EB – 335	WB – 1,885
Water St.	Salina St.	Warren St.	2010	EB – 2,010	***************************************
Water St.	Warren St.	Almond St.	2009	EB – 1,272	WB – 1,011
Water St.	Warren St.	Almond St.	2006	EB – 1,332	WB – 1,127
West Onondaga St.	Salina St.	Adams St.	2006	EB – 3,184	WB – 4,815





The ATR count data includes Average Annual Daily Traffic (AADT) volumes. This information provides an indication of the existing traffic demand and travel patterns within the Syracuse Central Business District (CBD). In conjunction with the peak hour intersection turning movement volumes, this information will be used to determine the streets carrying the greatest volume of traffic. This will aid in grouping and then prioritizing street corridors for optimum coordination in Synchro, improving mobility to a greater degree than exists today. Streets carrying less traffic and providing access to a greater number of parking spaces (major off-street parking generators) will be grouped at a lower priority for mobility. In this manner, the street network will be optimized for function of each zone or grouping within the CBD. The table of AADT data indicates that the top 5 most-traveled two-way streets and top 5 most-traveled one-way streets are:

#### Two-way:

- 1. Salina Street between Genesee Street and I-81
- 2. Adams Street between Clinton Street and State Street
- 3. James Street between Salina Street and State Street
- 4. Townsend Street between Erie Boulevard and Adams Street
- 5. Fayette Street between Franklin Street and West Street

#### One-way:

- 1. Adams Street between State Street and I-81
- 2. Harrison Street between Salina Street and Almond Street
- 3. Clinton Street between Genant Drive and Genesee Street
- 4. Warren Street between Fayette Street and Harrison Street
- 5. Clinton Street between Erie Boulevard and Tallman Street

The AADT data is not provided for all street segments, but a review of peak hour turning movement volumes will be used to fill in the gaps and specifically indicate the streets which have the highest demand, requiring the most attention to mobility.

#### Downtown road widths

Appendix B contains the roadway information provided by the SMTC including functional class, road width and block length for the following city streets:

Adams Street
Dickerson Street
Fayette Street
Genesee Street
Harrison Street
James Street
Madison Street
McBride Street
Montgomery Street
Oswego Boulevard
State Street
Wallace Street
Warren Street

Water Street

Clinton Street
Erie Boulevard
Franklin Street
Gifford Street
Herald Place
Jefferson Street
Market Street
McCarthy Avenue
Onondaga Street
Salina Street
Townsend Street
Walton Street
Washington Street

Willow Street





The road width is helpful for determining lane widths for verification purposes in the existing Synchro model inputs; however, the width of each lane is not specifically provided for direct comparison. Some field verification of lane configurations and lane width is expected to offer better accuracy in developing future signal timing plans.

#### Curb cut locations and off-street parking facilities

Figures 3 and 4 in Appendix C contain the graphical layout of curb cuts and off-street parking within the Syracuse Central Business District. An example of a curb cut location leading to an off-street parking facility is displayed in Photograph #1 below. This data will be used to analyze traffic sources and sinks to/from the street network. The format of this information will help to minimize field review efforts for use in the fatal flaw analysis as described in the previous section of this memorandum.



Photograph #1 - View Facing East at Surface Parking Lot on South Clinton Street, North of Adams Street





#### On-street parking inventory

Figures 5 and 6 in Appendix D contain the extents of the on-street parking inventory provided. The on-street parking regulations will help to minimize field review efforts for use in determining length of vehicle storage for intersection approach lanes in Synchro as part of the fatal flaw analysis. To a lesser degree than the off-street parking, this information will also aid in determining whether mobility or access is the most important function of a street segment. On-street parking data, like the area shown in Photograph #2, can be further used in determining impacts of converting from one-way traffic operation to two-way operation.



Photograph #2 - View Facing North on S. Warren Street, North of Onondaga Street





#### City of Syracuse parcels GIS shapefile

The parcel data provides tax I.D., name, address, type, area size, owner's name, school code, etc. Most of this information is not useful for this Feasibility Study. However, the background mapping, curb cut locations and off-street parking facilities shown on Figures 3 and 4 in Appendix C provide a quality aerial view of parcels including off-street parking structures and parking lots which are useful for determining the functionality and need (mobility versus access) for the streets within the study area.

#### Transit routes and stops

Figures 7 and 8 in Appendix E contain the graphical layout of bus routes and bus stops in the CBD utilized by the Central New York Regional Transportation Authority in downtown Syracuse. The bus routes and bus stop locations are provided for use in improving the accuracy of the Synchro models, and will also minimize field review efforts as part of the fatal flaw analysis previously described.



Photograph #3 – View Facing North Toward the New Transfer Hub on S. Warren Street





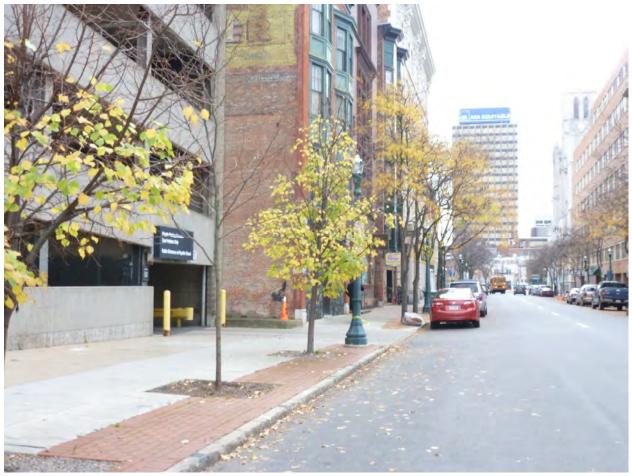
#### 2008 Downtown Syracuse Parking Study

The <u>Downtown Syracuse Parking Study</u> was performed for the Syracuse Industrial Development Agency (SIDA) and completed in February 2008. The purpose of this study was to address parking challenges faced by the City of Syracuse such as loss of existing parking and additional demand created by planned development, parking demands and preferences created by increased residential development and concern that future development may be impeded by real and perceived parking issues and constraints.

The following key information that is provided in the Study is useful for determining the functionality and need (mobility versus access) for the streets within the study area:

- Location, number of spaces and occupancy of existing on-street parking
- Location, number of spaces and occupancy of existing off-street public parking
- Location, number of spaces and occupancy of existing off-street private parking

The parking occupancy Sub-Area Map and Table from the <u>Downtown Syracuse Parking Study</u> are included in Appendix D of this memorandum for reference.



Photograph #4: Montgomery Street Off-Street & On-Street Parking, View Facing South





#### 2009 Transfer Hub Traffic Capacity Report

The <u>Syracuse Transfer Hub Traffic Capacity Report</u> was completed to analyze traffic under the following proposed conditions:

- Additional transit vehicles.
- The addition of an access to the Adams Street/S. Salina Street intersection.
- The conversion of S. Warren Street between Adams Street and Harrison Street from one-way to two-way operation. (The two-way operation will be utilized by buses only while all other vehicles will remain restricted to one-way northbound travel.)
- Additional access points to the proposed bus hub at the following locations:
  - o S. Salina Street: Mid-block between Adams Street and Harrison Street
  - o S. Warren Street: Mid-block between Adams Street and Harrison Street (Enter only)
  - S. Warren Street: Approximately 40 feet north of Adams Street (Exit only)

The morning peak hour traffic capacity analysis determined that with the additional transit vehicles, the study intersection operations will remain within an acceptable range during the morning peak period. The transfer hub report has been reviewed and pertinent elements will be included in evaluating the feasibility of converting existing one-way to two-way street operations in later stages of this Study.

#### Syracuse Roads GIS Shapefile with Truck Route Data

The data contained in the Syracuse roads shapefile includes information whether or not the city block is designated as a truck route. The feasibility of accommodating truck routes will be an essential part of selecting the two-way conversion alternatives for evaluation.

#### Existing City of Syracuse Synchro Model

The morning (AM) peak hour and evening (PM) peak hour Synchro 6 models provided by the City of Syracuse include all 80 intersections shown on the map in Appendix A, <u>within and on the CBD boundary</u> except the following intersections where turning movement counts have been performed:

- 1. Clinton Street @ Webster's Landing (unsignalized)
- 2. Warren Street @ Onondaga Street (unsignalized)

The Synchro models include all 80 intersections shown in Appendix A within and on the CBD boundary and in addition, the following intersections where recent counts were not collected:

- 1. Erie Boulevard @ Salina Street (unsignalized)
- 2. Clinton Street @ signalized pedestrian crossing located between Jefferson and Dickerson Streets
- 3. Salina Street @ Galleries of Syracuse signalized pedestrian crossing

The Synchro models also include intersections outside the CBD boundary such as intersections along James Street to the northeast, West Street to the south, Fayette Street and a network of intersections located east of Interstate 81, among others. The Working Group will limit the Study to a defined boundary area, and therefore any required Synchro model modifications and outputs will be confined to those areas as well.





#### **Additional Data Requested:**

#### **Turning Movement Count Data**

The scope of work noted 60 intersections in the Syracuse CBD, where 48 were planned for the intersection turning movement count program. The remaining 12 would require estimating intersection turning movements based on available data. As depicted in Appendix A, there are 16 signalized intersections located within the CBD where counts were not collected. One of these is available from the James Street Road Diet Study (James Street at Oswego Street). One unsignalized intersection (Erie Boulevard @ Salina Street) was not counted, yet it is included in the Synchro models. Also, the models incorporate two signalized pedestrian crossings: one on Clinton Street and one on Salina Street where traffic counts were not collected.

Pending the Working Group's determination of the Study Boundary, inclusion of signalized intersections on or near the CBD boundary, nine (9) additional intersections making a total of twenty-four (24) signalized intersections would either require data to be provided or estimated as a starting point for the signal timing optimization analyses. Please note that the intersections of West Street SB at Fayette Street and West Street NB at Fayette Street are also on or near the CBD boundary, but are not included in the total of 9 above because these intersection counts are available from another source. Inclusion of West Street between Fayette Street and Onondaga Street and the Adams Street intersection with Onondaga Street is an addition of another 6 intersections. Also there are two unsignalized intersections missing from the Synchro models where recent counts were provided by the SMTC.

The provision of more current turning movement counts at the identified intersections would provide more thorough traffic operations analyses; however, we can assume the historic data within the existing model from which estimated turning movements could produce the initial signal timing optimization. If the data proves to be somewhat inaccurate for current conditions, it could necessitate more extensive field efforts to obtain optimized results.

The following count program is recommended to provide a more thorough technical analysis by collecting count data only at the intersections necessary to account for traffic diverted due to converting one-way streets to two-way and providing the optimum mobility to through corridors such as Salina Street and Fayette Street:

- 1. Erie Boulevard @ Warren Street (intersection of two one-way streets important to alternatives)
- 2. Franklin Street @ Herald Place (Herald Street is one-way)
- 3. Franklin Street @ Fayette Street (significantly more accurate for estimating counts at 6 consecutive signals)
- 4. Franklin Street @ Genesee Street (Genesee Street is part of a through corridor)
- 5. Genesee Street @ Wallace Street (Genesee Street is part of a through corridor)
- 6. Salina Street @ Willow Street (Salina Street is a through corridor)
- 7. Salina Street @ Herald Place (Salina Street is a through corridor)
- 8. State Street @ Erie Boulevard (State Street is a through corridor)
- 9. State Street @ Washington Street (State Street is a through corridor)
- 10. Fayette Street @ McBride Street (Fayette Street is a through corridor)





#### Existing City of Syracuse Synchro files

In examining the Synchro files, the following data is requested to be provided:

- Intersection lane width measurements would improve the accuracy of the Synchro models as the lane widths have an impact on saturation flow rate and delay calculations that would potentially impact optimum timing plans. The timing plans are optimized based on reducing delay and number of stops.
- 2. Turn lane lengths are important for accurately determining if vehicle queues are expected to spillback and block upstream intersections.
- 3. New York State Department of Transportation (NYSDOT), Region 3 plans to implement soon the timing/coordination on Adams Street and Almond Street through the Study Area. When complete, it can be incorporated into the models. Vehicle detection information, if available, would improve the accuracy of the Synchro models and the timing plans to be recommended as part of the traffic analysis.

#### Conclusion

This project has two purposes: 1) to examine the existing street network within Syracuse's CBD in order to determine the feasibility of converting various streets under one-way traffic operation to two-way operation and 2) optimization of the existing traffic signal system in the CBD relying on updated traffic counts and enhancements to the City of Syracuse traffic analysis files. The project will primarily include intersection traffic operations analysis relying on the City of Syracuse's Synchro model as upgraded to the Version 7.

The review of data received to date for the Downtown Syracuse Two-Way Feasibility Technical Analysis has been completed and presented in this memorandum. The data collected to date was reviewed to identify any shortcomings, including how accurate the datasets are with the existing conditions, shortfalls or inconsistencies with the anticipated data to be provided, and knowledge of changes to the Study Area not included in the datasets or as recognized during field reconnaissance performed by the Consultant. Additional data required to complete the existing conditions and future scenarios technical analysis as described in the scope of services is summarized in this memorandum. This data is requested to be provided and/or if not available, such efforts to estimate the required data will be performed and documented as a basis of commencing the Study analyses.

No additional data is required for the following data sets:

- Automatic Traffic Recorder (Tube Counts)
- Downtown road widths
- Curb cut location
- Off-street parking facilities
- On-street parking inventory



# Draft Technical Memorandum #1 Downtown Syracuse Two-Way Feasibility Technical Analysis



- City of Syracuse parcels GIS shapefile
- Updated CNYRTA bus routes and stops
- 2008 Downtown Syracuse Parking Study
- 2009 Transfer Hub Traffic Capacity report
- Syracuse roads GIS shapefile that includes truck route data

Requested additional data is identified for the following datasets and was discussed in more detail in the above section titled, "Additional Data Needed":

- Turning movement counts
- City of Syracuse Synchro files
  - a. Intersection Lane Widths
  - b. Turn Lane Lengths
  - c. NYSDOT Synchro files with timing/coordination and vehicle detection updates to Adams Street and Almond Street

The Working Group will evaluate the opportunities for providing this data and determine the Study Boundary in the upcoming Technical Advisory Group Meeting. Upon determination of the final datasets to be utilized based on availability of this data to the Consultant, the feasibility analysis of converting the existing one-way streets to two-way operation may continue.



### **Appendix A**

**Area of Study and Turning Movement Count Locations** 



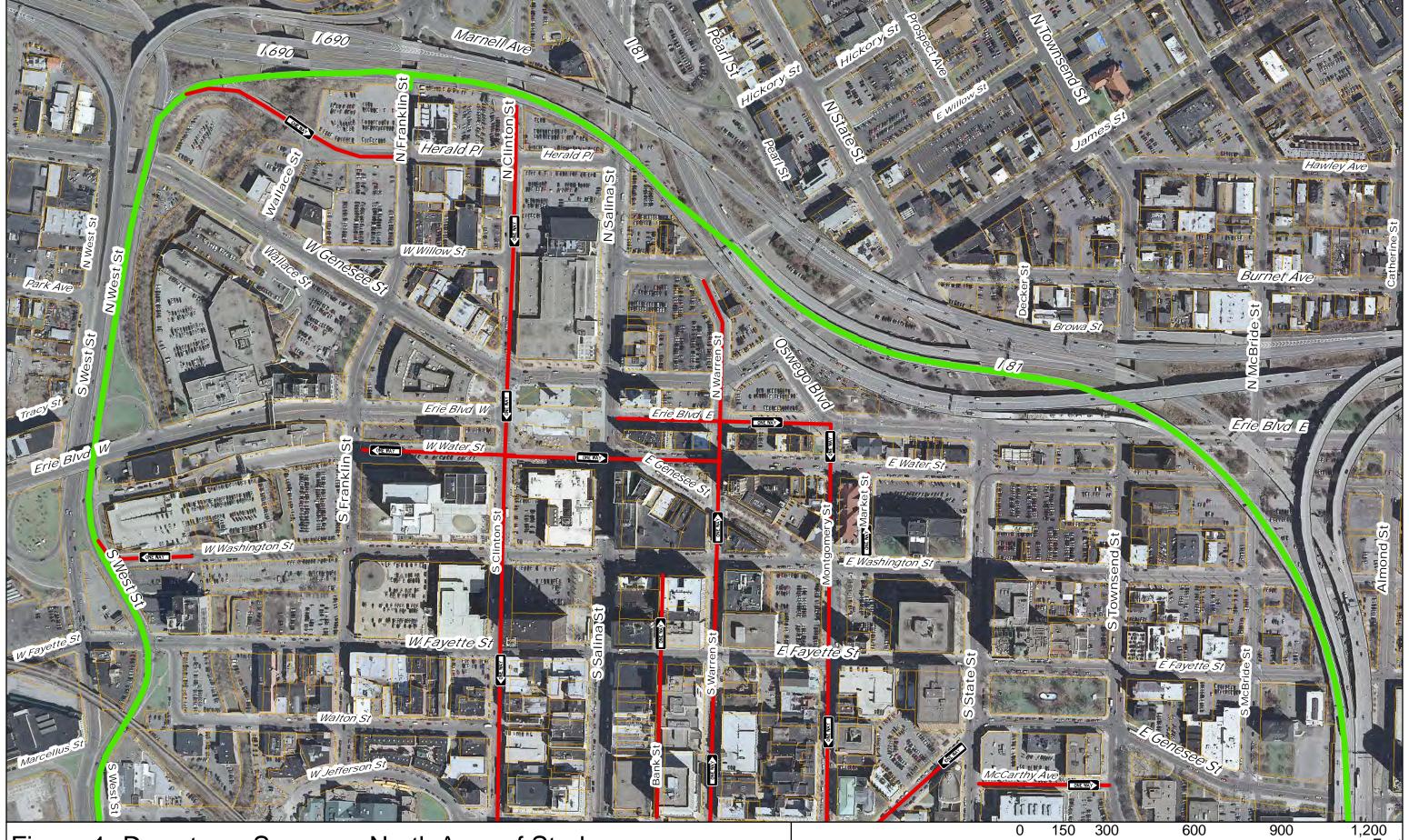


Figure 1- Downtown Syracuse North Area of Study

Downtown Syracuse Two-Way Feasibility Technical Analysis November 2012

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC

Legend

1-Way Traffic — Limits of Study Area





Figure 2- Downtown Syracuse South Area of Study

Downtown Syracuse Two-Way Feasibility Technical Analysis
November 2012

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse
Bus Routes and Stops October 2012 from CNYRTA
Curb Cuts, Parking Facilities from SMTC

Legend

Limits of Study Area

1-Way Traffic

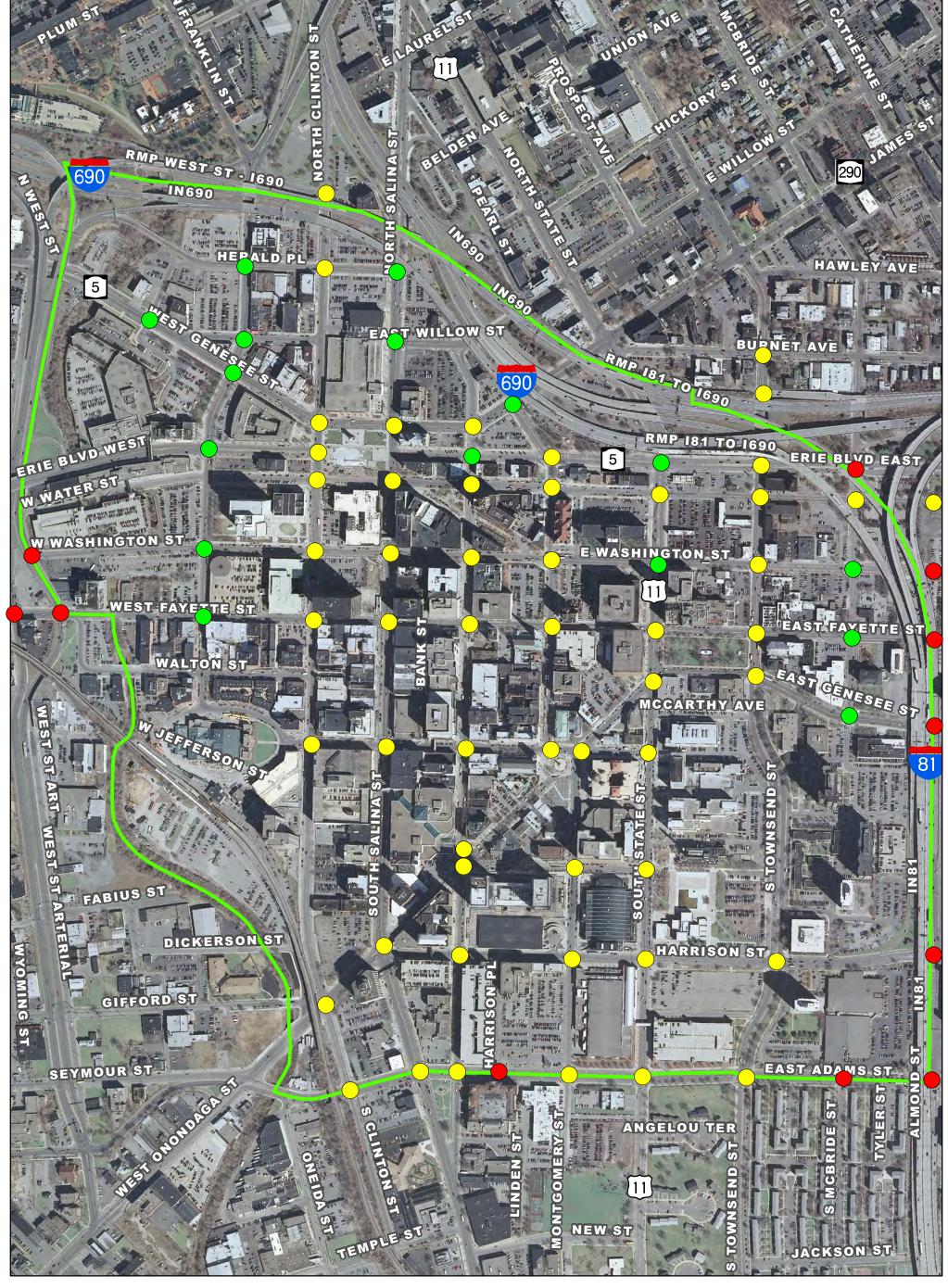


#### Downtown Syracuse - Manual Counts

Downtown Syracuse - Ivianuai	
Intersection	Date
Water St./Clinton St.	5/24/2011
Water St./Salina St.	5/24/2011
Water St./Warren St.	5/24/2011
Water St./State St.	5/24/2011
Water St./Montgomery St.	5/24/2011
Water St./Townsend St.	5/24/2011
Water St./McBride St.	5/24/2011
Water St./Almond St.	5/24/2011
Salina St./James St.	5/25/2011
Salina St./Washington St.	5/25/2011
Salina St./Fayette St.	5/25/2011
Salina St./Jefferson St.	5/25/2011
Salina St./Harrison St.	5/25/2011
Salina St./Adams St.	5/25/2011
State St./Fayette St.	5/25/2011
State St./Genesee St.	5/25/2011
State St./Jefferson St.	7/31/2011
State St./Madison St.	7/31/2011
State St./Harrison St.	5/25/2011
State St./Adams St.	5/25/2011
Warren St./James St.	5/24/2011
Warren St./Washington St.	5/24/2011
Warren St./Fayette St.	5/24/2011
Warren St./Jefferson St.	5/24/2011
Warren St./Onondaga St.	
Warren St./Madison St.	5/24/2011
	5/24/2011
Warren St./Harrison St.	5/24/2011
Warren St./Adams. St.	5/24/2011
Montgomery St./Erie Blvd.	5/25/2011
Montgomery St./Washington St.	5/25/2011
Montgomery St./Fayette St.	5/25/2011
Montgomery St./Jefferson St. (west)	5/25/2011
Montgomery St./Jefferson St. (east)	5/25/2011
Montgomery St./Madison St.	5/25/2011
Montgomery St./Harrison St.	5/25/2011
Montgomery St./Adams St.	5/25/2011
Townsend St./Burnet Ave.	5/26/2011
Townsend St./I-690 off ramp	5/26/2011
Townsend St./Erie Blvd.	5/26/2011
Townsend St./Washington St.	5/26/2011
Townsend St./Fayette St.	5/26/2011
Townsend St./Genesee St.	5/26/2011
Townsend St./Harrison St.	5/26/2011
Townsend St./Adams St.	5/26/2011
Clinton St./Webster's Landing	5/26/2011
Clinton St./Herald Pl.	5/26/2011
Clinton St./Genesee St.	5/26/2011
Clinton St./Erie Blvd.	5/26/2011
Clinton St./Washington St.	5/26/2011
Clinton St./Fayette St.	5/26/2011
Clinton St./Jefferson St.	5/26/2011
Clinton St./Gifford St.	5/26/2011
Clinton St./Adams St.	5/26/2011
	-, -0, 2011

Clinton St./Adams St. 5/26/2011

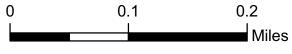
Manual counts assembled for *Downtown Syracuse Two-Way Feasibility Technical Analysis* 



# **SYRACUSE CENTRAL BUSINESS DISTRICT**

Locations on CBD Boundary without Data

Locations within CBD without Count Data



Syracuse CBD

**Manual Count Locations** 

This map is for presentation purposes only.
The SMTC does not guarantee the accuracy or completeness of this map.



# Appendix B

### **Downtown Road Widths**



Street Name	Block	Category	Feature	Route	FHWA_FC	Street Name	From	То	Block	Width_Feet	Length_Feet
Adams St., E.	100	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	Salina	Warren	100	64	178.3
Adams St., E.	200	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	Warren	Montgomery	200	64	343.45
Adams St., E.	200	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	Warren	Montgomery	200	64	192.71
Adams St., E.	300	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	Montgomery	S. State	300	64	354.15
Adams St., E.	400	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	S. State	Townsend	400	64	498.19
Adams St., E.	500	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	Townsend	McBride	500	64	218.62
Adams St., E.	500	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., E.	Townsend	McBride	500	64	232.28
Adams St., W.	200	NYSRTE	State Route, Undivided, 2 to 4 Lanes	SR930C	14	Adams St., W.	Clinton	Onondaga/Oneida	200	56	295.87
Bank Alley	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Bank Alley	Fayette St.	Jefferson	200	21	600.17
Clinton St N	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St N	Genesee/James	Willow	200	40	397.73
Clinton St N	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St N	Willow	Herald Pl.	300	40	343.99
Clinton St N	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St N	Herald Pl.	Webster's Lndg.	400		358.93
Clinton St S	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St S	Washington	Fayette	200	50	331.96
Clinton St S	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St S	Fayette	Walton	300	50	266.36
Clinton St S	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St S	Walton	Jefferson	400	50	329.03
Clinton St S	500	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St S	Jefferson	Dickerson	500	50	976.29
Clinton St S	600	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St S	Dickerson	Onondaga	600	50	284.56
Clinton St S	700	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Clinton St S	Onondaga	Adams	700	36	427.31
Dickerson St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Dickerson St	S. Clinton	Granger	100	22	747.66
Erie Blvd. E.	300	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. E.	Montgomery	State	300	55	522.35
Erie Blvd. E.	400	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. E.	State	Townsend	400		484.05
Erie Blvd. E.	500	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. E.	Townsend	McBride	500		457.38
Erie Blvd. E.	closed	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	17	Erie Blvd. E.	Warren	Montgomery	closed	56	382.23
Erie Blvd. W.	200	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. W.	Clinton	Franklin	200	56	520.7
Erie Blvd. W.	300	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. W.	Franklin	West St.	300	56	103.41
Erie Blvd. W.	300	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. W.	Franklin	West St.	300	56	678.78
Erie Blvd. W.	300	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY5	14	Erie Blvd. W.	Franklin	West St.	300	56	163.83
Fayette St., E.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	S. Salina	S. Warren	100	38	189.2
Fayette St., E.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	S. Salina	S. Warren	100	38	200.19
Fayette St., E.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	S. Warren	Montgomery	200	36	395.85
Fayette St., E.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	Montgomery	State	300	36	210.4
Fayette St., E.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	Montgomery	State	300	36	286.81
Fayette St., E.	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	State	Townsend	400	34	483.19
Fayette St., E.	500	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	Townsend	McBride	500	36	458.68
Fayette St., E.	600	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., E.	McBride	Almond	600	36	462.94
Fayette St., W.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., W.	S. Salina	S. Clinton	100	37	361.04
Fayette St., W.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., W.	S. Clinton	Franklin	200	37	523.25
Fayette St., W.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., W.	Franklin	West	300	37	439.97
Fayette St., W.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Fayette St., W.	Franklin	West	300	37	144.84
Franklin St, S.	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Franklin St, S.	Erie Blvd.	Washington	100	45	344.84
Franklin St, S.	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Franklin St, S.	Erie Blvd.	Washington	100	45	139.2
Franklin St, S.	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Franklin St, S.	Washington	Fayette	200	45	333.77
Franklin St, S.	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Franklin St, S.	Fayette	Walton	300	45	268.18
Franklin St, S.	400	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Franklin St, S.	Walton	Jefferson	400	45	171.26
Franklin St., N.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Franklin St., N.	Erie Blvd.	Genesee	100	45	386.22
Franklin St., N.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Franklin St., N.	Genesee	Willow	200	45	171.55
Franklin St., N.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Franklin St., N.	Willow	Herald Pl.	300	45	347
Franklin St., N.	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Franklin St., N.	Herald Pl.	Butternut	400	30	523.34

Street Name	Block	Category	Feature	Route	FHWA_FC	Street Name	From	То	Block	Width_Feet	Length_Feet
Genesee St., E.	500	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY92	19	Genesee St., E.	Townsend	McBride	500	42	493.15
Genesee St., E.	600	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY92	14	Genesee St., E.	McBride	Almond	600	42	93.62
Genesee St., E.	600	NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY92	19	Genesee St., E.	McBride	Almond	600	42	370.32
Genesee St., E.		NYSRTE	State Route, Undivided, 2 to 4 Lanes	NY92	19	Genesee St., E.	State	Townsend		42	504.64
Genesee St., W.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Genesee St., W.	Clinton	Franklin	200	42	472.13
Genesee St., W.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Genesee St., W.	Franklin	Wallace	300	40	163.8
Genesee St., W.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Genesee St., W.	Franklin	Wallace	300	40	311.83
Genesee St., W.	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Genesee St., W.	Wallace	West St.	400	40	630.48
Genesee St., W.		LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Genesee St., W.	Salina	Clinton		0	361.3
Gifford St	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Gifford St	S. Clinton	Granger	100	30	673.22
Gifford St	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Gifford St	S. Clinton	Granger	100	30	95.01
Harrison Pl	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Harrison Pl	Harrison St.	Adams	100	28	557.55
Harrison St	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	Salina	Warren	100	46	358.77
Harrison St	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	Warren	Montgomery	200	46	193.81
Harrison St	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	Warren	Montgomery	200	46	343.75
Harrison St	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	Montgomery	State	300	46	353.11
Harrison St	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	State	Townsend	400	30	629.36
Harrison St	500600	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	Townsend	Almond	500600	30	418.17
Harrison St	500600	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Harrison St	Townsend	Almond	500600	30	369.39
Herald Pl	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Herald Pl	N. Salina	N. Clinton	100	40	351.74
Herald Pl	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Herald Pl	N. Clinton	N. Franklin	200	40	369.88
Herald Pl	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Herald Pl	N. Franklin	Wallace	300	40	332.41
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James St.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	James St.	N.Salina	N. Warren	100	54	379.79
James St.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	James St.	N. Warren	Oswego Blvd.	200	40	209.7
James St.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	James St.	Oswego Blvd.	State	300	40	404.45
James St.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	James St.	Oswego Blvd.	State	300	40	145.85
Jefferson St E	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St E	Salina	Warren	100	48	174.22
Jefferson St E	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St E	Salina	Warren	100	48	207.93
Jefferson St E	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St E	Warren	Montgomery	200	48	408.37
Jefferson St E	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Jefferson St E	Montgomery	State	300	48	329.62
Jefferson St E	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St E	Montgomery	State	300	48	147.79
Jefferson St W	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St W	Salina	Clinton	100	36	122.2
Jefferson St W	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St W	Salina	Clinton	100	36	470.81
Jefferson St W	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Jefferson St W	Clinton	Franklin	200	36	358.99
Jefferson St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Jefferson St W	Franklin	Clinton(circle)	300	36	443.91
Jefferson St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Jefferson St W	Franklin	Clinton(circle)	300	36	221.51
Jefferson St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Jefferson St W	Franklin	Clinton(circle)	300	36	400.88
Jefferson St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Jefferson St W	Franklin	Clinton(circle)	300	36	366.75
Madison St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Madison St	Onondaga/Warren	Montgomery	100	48	534.75
Madison St	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Madison St	Montgomery	S. State	200	48	350.38
Market St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Market St	Washington	Water	100	16	344.06
McBride St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	McBride St S	Erie Blvd	Washington	100	30	220.82
McBride St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	McBride St S	Erie Blvd	Washington	100	30	104.22
McBride St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	McBride St S	Erie Blvd	Washington	100	30	154.77
McBride St S	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	McBride St S	Washington	Fayette	200	30	331.66
McBride St S	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	McBride St S	Fayette	Genesee	300	30	388.13
McCarthy Ave	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	McCarthy Ave	S. State	S. Townsend	100	29	516.22
Montgomery St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Erie Blvd.	Washington	100	46	348.72
Montgomery St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Erie Blvd.	Washington	100	46	145.39
Montgomery St	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Washington	Fayette	200	30	319.99

Street Name	Block	Category	Feature	Route	FHWA_FC	Street Name	From	То	Block	Width_Feet	Length_Feet
Montgomery St	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Fayette	Jefferson	300	38	591.87
Montgomery St	400	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Jefferson	Madison	400	45	419.04
Montgomery St	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	17	Montgomery St	Jefferson	Madison	400	45	146.59
Montgomery St	500	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Madison	Harrison	500	45	438.81
Montgomery St	600	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Montgomery St	Harrison	Adams	600	45	555
Montgomery St	700	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Montgomery St	Adams	dead end	700	30	783.81
Onondaga St E	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St E	S. Salina	Warren	100	40	538.5
Onondaga St E	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St E	Warren	Montgomery/Jeff	200	33	573.47
Onondaga St E	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St E	Warren	Montgomery/Jeff	200	33	138.96
Onondaga St E	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St E	Montgomery/Jeff	S. State	300	40	323.1
Onondaga St E	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St E	Montgomery/Jeff	S. State	300	40	156.16
Onondaga St. W.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	14	Onondaga St. W.	S. Salina	Clinton	100	58	398.61
Onondaga St., W.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St., W.	Clinton	Adams	200	58	295.49
Onondaga St., W.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Onondaga St., W.	Clinton	Adams	200	58	234.22
Oswego Blvd	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	14	Oswego Blvd	Erie Blvd	James	100	56	322.75
Salina St., N.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., N.	Genesee	Willow	100	60	133.37
Salina St., N.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., N.	Genesee	Willow	100	60	400.81
Salina St., N.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., N.	Willow	Herald Pl	200	60	343.66
Salina St., N.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., N.	Herald Pl.	Pearl	300	60	235.78
Salina St., S.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., S.	Washington	Fayette	200	56	329.43
Salina St., S.	300	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., S.	Fayette	Jefferson	300	56	600.48
Salina St., S.	400	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., S.	Jefferson	Onondaga	400	56	955.54
Salina St., S.	500	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., S.	Onondaga	Adams	500	56	597.47
Salina St., S.	500	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	16	Salina St., S.	Onondaga	Adams	500	56	32.04
State St., N.	100	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., N.	Erie Blvd.	James	100	60	570.46
State St., S.	100	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Erie Blvd.	Washington	100	45	333.78
State St., S.	100	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Erie Blvd.	Washington	100	45	147.59
State St., S.	200	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Washington	Fayette	200	45	325.13
State St., S.	300	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Fayette	E. Genesee	300	45	245.38
State St., S.	400	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	E. Genesee	Jefferson	400	45	194.65
State St., S.	400	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	E. Genesee	Jefferson	400	45	150.56
State St., S.	600	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Jefferson	Madison	600	45	553.12
State St., S.	700	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Madison	Harrison	700	45	435.1
State St., S.	800	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Harrison	Adams	800	45	563.7
State St., S.	900	FEDRTE	Federal Route, Undivided, 2 to 4 Lanes	US11	14	State St., S.	Adams	New	900	45	785.23
Townsend St N	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Townsend St N	Erie Blvd	Burnet	100	35	344.91
Townsend St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Townsend St S	Erie Blvd.	Washington	100	60	322.88
Townsend St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Townsend St S	Erie Blvd.	Washington	100	60	153.01
Townsend St S	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Townsend St S	Washington	Fayette	200	60	331.65
Townsend St S	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Townsend St S	•	,	300	60	203.69
Townsend St S	400	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Townsend St S	Fayette Genesee	Genesee	400	34	1194.15
Townsend St S	400	LOCRD		unk	17	Townsend St S	Genesee	Harrison Harrison	400	34 34	194.15
Townsend St S	800	LOCRD	Town/City/Village Road, Not Named on CBM Map Town/City/Village Road, Not Named on CBM Map	unk	17	Townsend St S	Harrison	Adams	800	34 34	584.33
					17					25	
Wallace St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk		Wallace St	W. Genesee	Herald Pl.	100		394.99
Wallace St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Wallace St	W. Genesee	Herald Pl.	100	25	358.05
Walton St	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Walton St	Clinton	Franklin	100	35	524.32
Walton St.	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Walton St.	Franklin	Fayette	200	35	367.93
Walton St.	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Walton St.	Franklin	Fayette	200	35	284.56
Warren St N	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St N	Erie Blvd. E.	E. Willow	100	42	142.82
Warren St N	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Warren St N	Erie Blvd. E.	E. Willow	100	42	417.06

Street Name	Block	Category	Feature	Route	FHWA_FC	Street Name	From	То	Block	Width_Feet	Length_Feet
Warren St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Water	Washington	100	38	200.08
Warren St S	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Water	Washington	100	38	149.05
Warren St S	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Washington	Fayette	200	38	321.39
Warren St S	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Fayette	Jefferson	300	38	598.41
Warren St S	400	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Jefferson	Onondaga	400	38	565.19
Warren St S	500	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Onondaga	Harrison	500	38	426.8
Warren St S	600	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Harrison	Adams	600	38	560.1
Warren St S	700	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St S	Adams	S. Salina	700	38	459.48
Warren St, S.		LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	16	Warren St, S.	Erie Blvd	Water			137.39
Washington St E	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	Salina	Warren	100	38	187.21
Washington St E	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	Salina	Warren	100	38	202.38
Washington St E	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	Warren	Montgomery	200	38	385.14
Washington St E	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	Montgomery	State	300	38	391.26
Washington St E	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	Montgomery	State	300	38	120.28
Washington St E	400	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	State	Townsend	400	38	480.76
Washington St E	500	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	Townsend	McBride	500	47	460.96
Washington St E	600	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St E	McBride	Almond	600	37	462.91
Washington St W	100	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St W	Salina	Clinton	100	42	362.15
Washington St W	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St W	Clinton	Franklin	200	42	524.88
Washington St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St W	Franklin	West	300	42	361.2
Washington St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Washington St W	Franklin	West	300	42	490.48
Water St E	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Water St E	Warren	Montgomery	200	34	387.06
Water St E	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Water St E	Montgomery	State	300	34	388.85
Water St E	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Water St E	Montgomery	State	300	34	130.56
Water St E	400	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Water St E	State	Townsend	400	34	481.96
Water St E	500	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Water St E	Townsend	McBride	500	34	458.11
Water St E	600	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	17	Water St E	McBride	Almond	600	34	464.25
Water St W	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Water St W	Clinton	Franklin	200	42	519.96
Water St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Water St W	Franklin	West St.	300	42	579.52
Water St W	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Water St W	Franklin	West St.	300	42	350.6
Willow St. E.	100	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Willow St. E.	N. Salina	N. Warren	100	40	277.67
Willow St. E.	200	LOCRD	Connecting Town/City/Village Road, Named on CBM Map	unk	19	Willow St. E.	N. Warren	Pearl	200	40	398.65
Willow St., W.	200	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Willow St., W.	N. Clinton	N. Franklin	200	40	381.91
Willow St., W.	300	LOCRD	Town/City/Village Road, Not Named on CBM Map	unk	19	Willow St., W.	N. Franklin	W. Genesee	300	40	307.3
			-								

### **Appendix C**

**Curb Cuts and Off-Street Parking** 



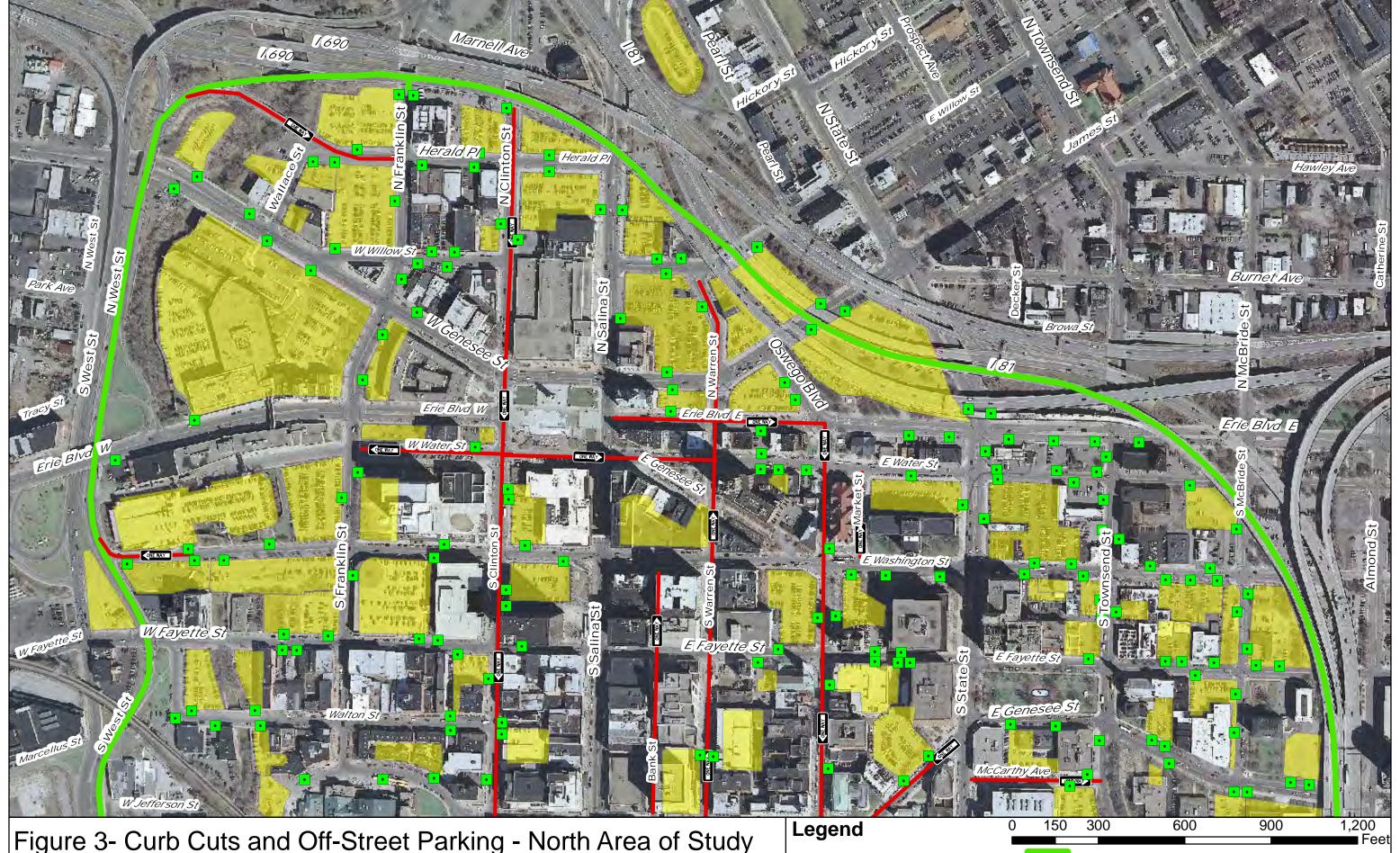


Figure 3- Curb Cuts and Off-Street Parking - North Area of Study

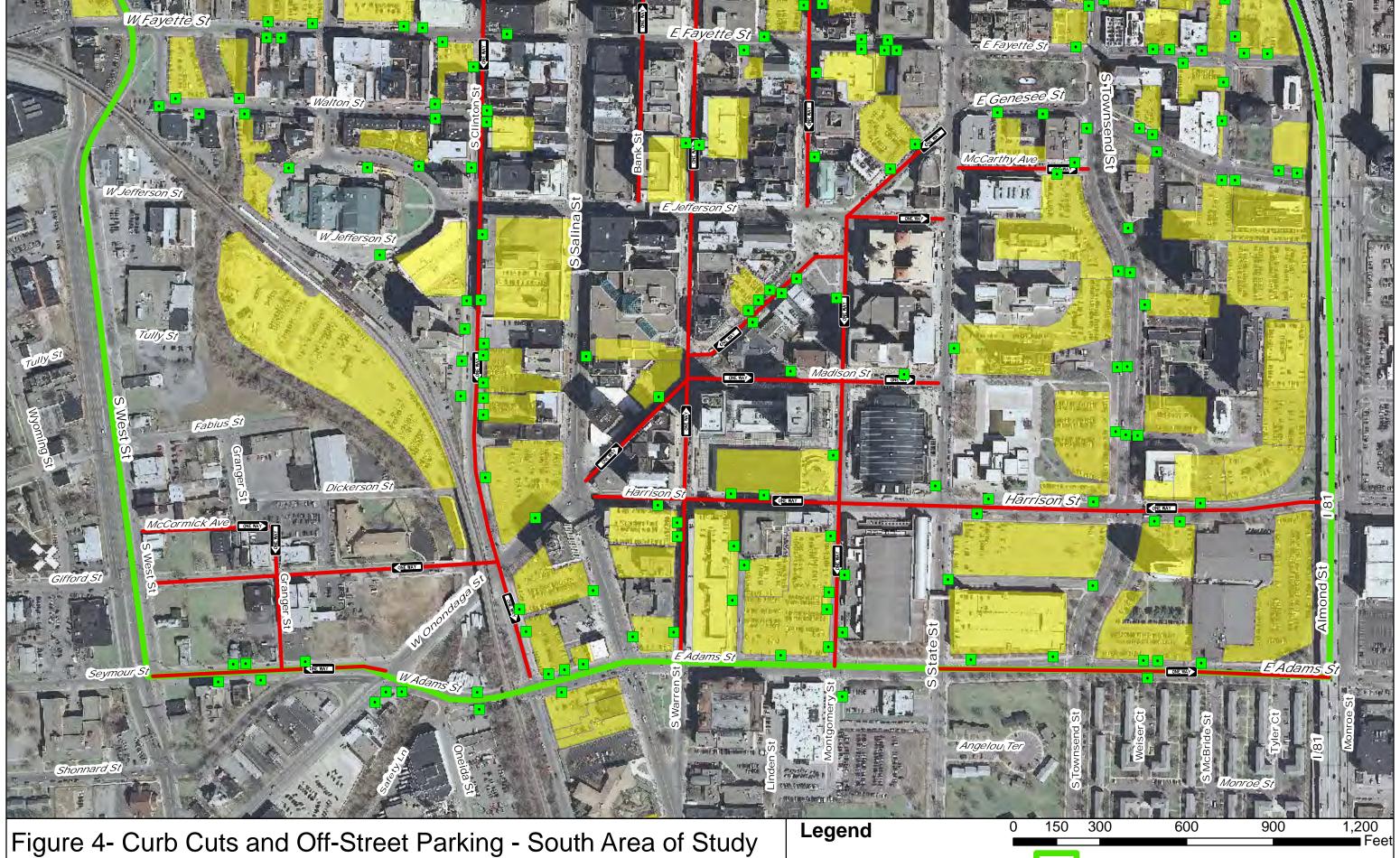
November 2012

Downtown Syracuse Two-Way Feasibility Technical Analysis
November 2012

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse
Bus Routes and Stops October 2012 from CNYRTA
Curb Cuts, Parking Facilities from SMTC

**Curb Cuts** Limits of Study Area Bergmann architects // engineers // planners

Off-Street Parking Facilities \_\_\_\_\_ 1-Way Traffic



Downtown Syracuse Two-Way Feasibility Technical Analysis

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse
Bus Routes and Stops October 2012 from CNYRTA
Curb Cuts, Parking Facilities from SMTC November 2012

Curb Cuts Limits of Study Area

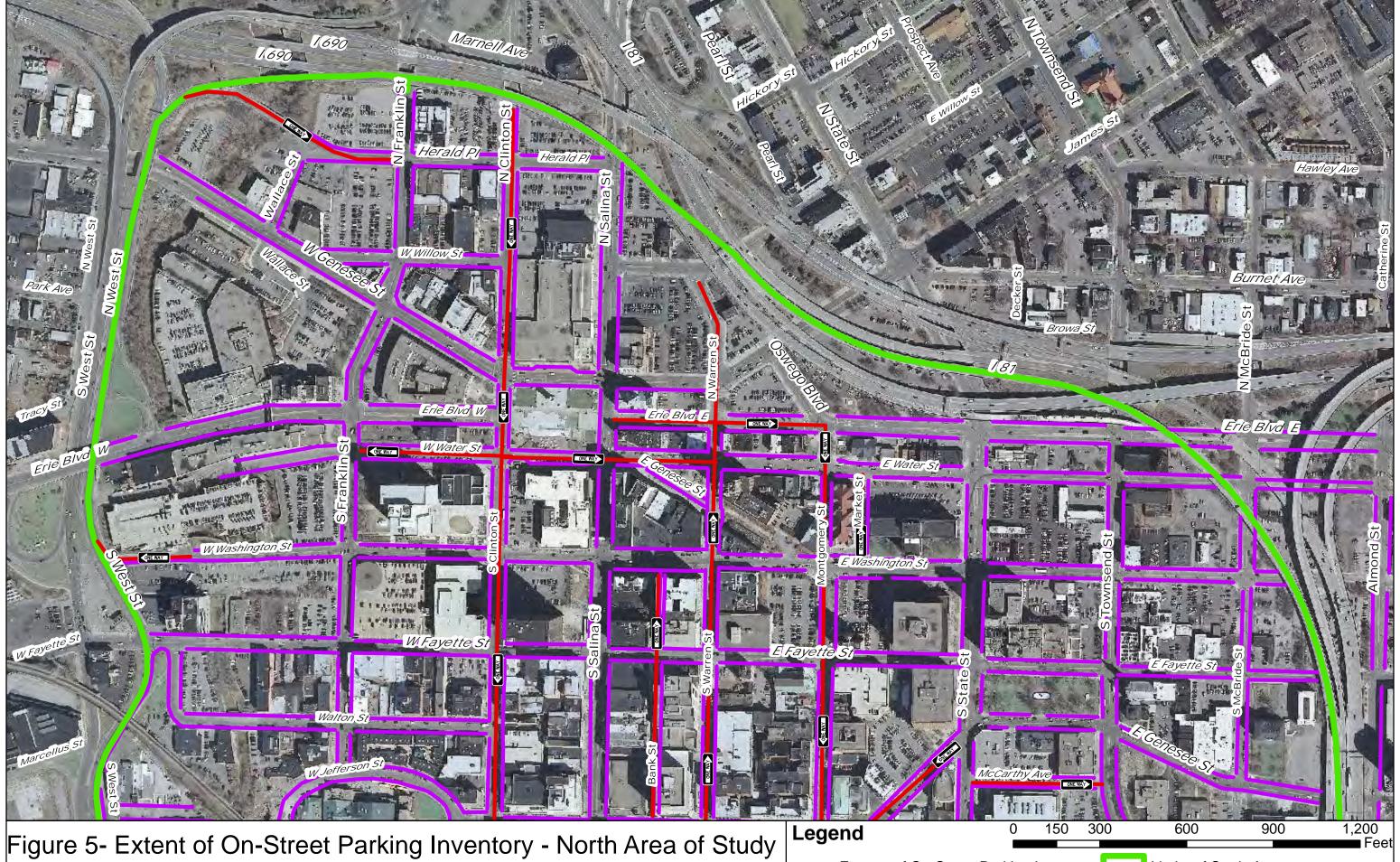
Off-Street Parking Facilities \_\_\_\_\_ 1-Way Traffic

Bergmann architects // engineers // planners

### **Appendix D**

**Extent of On-Street Parking Inventory** 



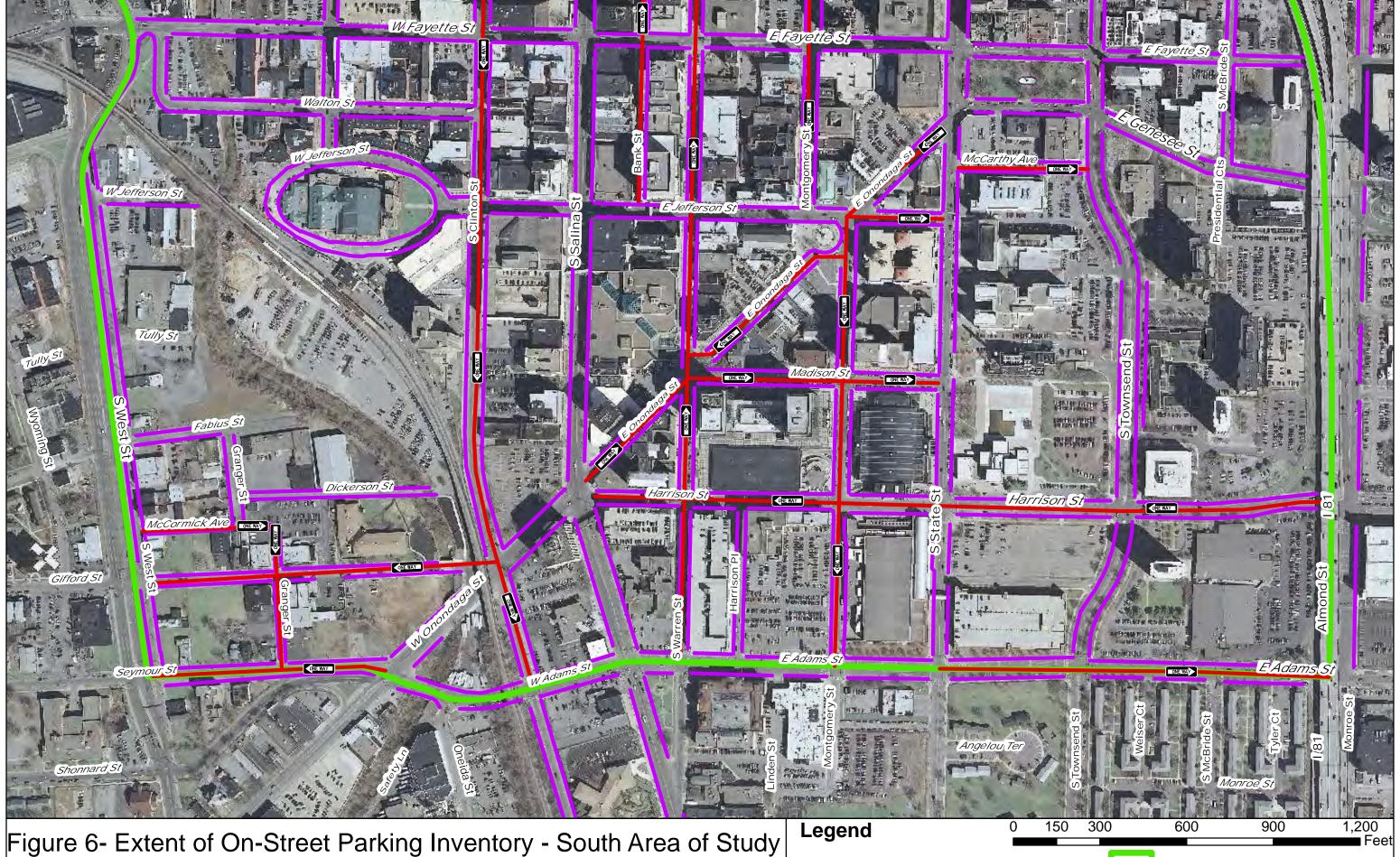


Extents of On-Street Parking Inventory

Limits of Study Area

1-Way Traffic

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Downtown Syracuse Two-Way Feasibility Technical Analysis
November 2012

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse
Bus Routes and Stops October 2012 from CNYRTA
Curb Cuts, Parking Facilities from SMTC

Extents of On-Street Parking Inventory

Limits of Study Area

■ 1-Way Traffic

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SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
1	100	E Erie	N				11	6
1	200	E Erie	N				11	9
1	200	E Erie	N	S-52	Lot #3	private	75	47
1	100	E Erie	S	S-106	Bank of America	private	29	11
1	100	E Willow	S	S-2	100 Clinton Sq.	public	220	187
1	100	E Willow	N	S-46	Murbro Lot #21	private	51	42
1	100	Herald	N				11	1
1	100	Herald	S N				12 6	4
1	200 100	Herald Herald	N N	S-43	Post Standard Parking	privata	154	6 112
1	100	Herald	S	S-45	Post Standard Parking	private private	100	100
1	200	Herald	N	S-43	Herald Place	private	175	138
1	300	Herald PI	N	S-42	National Grid Herald Lot	private	171	120
1	300	Herald PI	S	S-44	National Grid Willow Lot	private	187	138
1	300	Herald PI	S	S-76	corner of Herald & Wallace	private	43	19
1	200	N Clinton	E	0.70	corner or riciaid & vvaliace	private	5	9
1	200	N Clinton	W				0	8
1	300	N Clinton	W				0	4
1	300	N Clinton	W	S-78	Lofts on Willow	private	19	11
1	100	N Franklin	E	S-49	Clinton Exchange	private	35	24
1	200	N Franklin	Ē			,	4	7
1	100	N Salina	Ē	1		1	0	1
1	100	N Salina	W				9	3
1	200	N Salina	E	S-1	City Lot #10	public	50	40
1	200	N Warren	Е	S-51	James & Warren Streets	private	44	42
1	200	W Erie	N				11	5
1	300	W Erie	N				11	6
1	100	W Genesse	N				3	0
1	200	W Genesse	N				7	12
1	200	W Genesse	S				14	10
1	300	W Genesse	N				9	4
1	300	W Genesse	S	S-48	National Grid Main Lot	private	300	300
1	400	W Genesse	N	S-47	National Grid Genesee Lot	private	58	47
1	200	W Willow	N				13	14
1	200	W Willow	S				6	10
1	300	W Willow	N				7	3
1	300	W Willow	S				7	2
1	200	Wallace	E	S-74	344 E Genesee St	private	16	5
1	200	Wallace	W	S-75	corner of Herald & Wallace	private	40	30
						Totals =	1924	1537
SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
2	200	S Clinton	W				5	5
2	100	S Clinton	Е	S-53	Atrium Bldg Lot	private	52	35
2	200	S Clinton	Е	S-13	City Lot#21	public	62	62
2	100	S Franklin	Е	G-0	Federal Building	private	0	0
2	200	S Franklin	Е	G-12	Atrium Garage	public	800	658
2	200	S Franklin	W	S-5	Federal Lot	public	180	157
2	200	W Erie	S	S-77	corner of Water & Franklin	private	28	7
2	200	W Erie	S	S-107	corner of Water & Clinton	private	18	7
2	300	W Erie	S			ļ	18	8
2	100	W Fayette	N			<b></b>	0	4
2	200	W Fayette	N				9	5
2	300	W Fayette	N		-	ļ	7	4
2	300	W Fayette	N	S-11	Syracuse Supply	public	150	126
2	100	W W Stater	S				13	13
2	100	W Washington	S			-	7	3
2	200	W Washington	N			1	13	10
2	200	W Washington	S			<del>                                     </del>	17	10
2	300	W Washington	S	0.4	Machineton Ctra-t Carr	mark II -	18	5
2	300	W Washington	N	G-4	Washington Street Garage	public	1230	782
2	300	W Washington	S	S-10a	Franklin-Washington	public	200	178
2	300	W Washington	S	S-10b	Franklin-Washington	public	200	104
2	200 200	W Water W Water	N S	<del>                                     </del>		+	30	25
2		W Water		<del>                                     </del>		+		25 1
2	300		N S			+	14 7	1
Z	300	W Water	<u> </u>			Totala		2224
						Totals =	3089	2221

# <u>Appendix F - Existing Parking Supply and Demand by Sub-Area and Block</u> 2 of 5



SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
3	100	Bank	Е				0	3
3	100	Bank	W				0	6
3	100	E Erie	S				17	21
3	200	E Erie	S				10	11
3	200	E Fayette	N				0	1
3	300	E Fayette	N				0	2
3	100	E Hanover St	S				0	6
3	100	E Washington	N				9	10
3	100	E Washington	S				5	6
3	200	E Washington	N				14	12
3	200	E Washington	S				7	8
3	300	E Washington	N				10	7
3	300	E Washington	S				12	7
3	100	E Washington	Е	G-6	M&T Bank	public	450	450
3	100	E Water	N				11	12
3	100	E Water	S				9	7
3	200	E Water	N				12	10
3	200	E Water	S				0	7
3	300	E Water	N				16	17
3	300	E Water	S				11	10
3	200	E Water	S	G-7	State Tower Building	public	90	56
3	300	E Water	S	S-72	State Building	private	99	82
3	100	Market	Ē	0.2	Ctate Danaing	piirate	11	8
3	100	Market	S				12	9
3	100	Montgomery	Ē				11	5
3	200	Montgomery	E				5	5
3	200	Montgomery	W				5	5
3	200	Montgomery	W	S-14	Key Bank Lot	public	100	80
3	200	Montgomery	E	S-15	City Hall Lot	public	80	69
3	100	S Salina	E	0 10	Oity Haii Lot	public	0	1
3	200	S Salina	E				0	11
3	100	S Warren	Ē				11	5
3	100	S Warren	W				5	4
3	200	S Warren	E				3	7
3	200	3 Wallell				Totals =	1025	960
SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
4	400	E Fayette	N				8	8
4	500	E Fayette	N				8	3
4	500	E Fayette	N	S-84	Orthopedic CNY	private	35	15
4	400	E Washington	N				10	5
4	400	E Washington	S				5	3
4	500	E Washington	N				3	1
4	400	E Washington	S	S-57	Woodbine Group Lot	private	89	45
4	400	E Washington	S	S-80	Verizon & ATT (Washington)	private	31	26
4	400	E Washington	S	S-79	Lewis & Tanner (Washington)	private	25	20
4	400	E Water	S	S-8	State-Washington-Water	public	260	232
4	100	S McBride	W	S-9	Smith Lot	public	75	45
4	200	S McBride	W	S-56	Gilberti Law Parking	private	60	54
4	200	S McBride	E	S-58	Former Pete's Empire block	private	82	56
4	200	S Townsend	W	S-81	Josephs Salon	private	26	12
4	200	S Townsend	E	S-83	Law firm/psychologist office	private	17	16
4	200	S Townsend	W	S-82	Partners Trust Bank	private	23	10
	200	O I OWINGCING		0 02	i ditiicis iiust bailk	Totals =	757	551
						i otais =	/5/	551

# <u>Appendix F - Existing Parking Supply and Demand by Sub-Area and Block</u> 3 of 5



SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
5	100	Dickerson	N	S-27	Trolley Lot	public	700	376
5	100	Gifford	N				0	4
5	100	Gifford	S				11	13
5	200	Gifford	N				14	3
5	200	Gifford	S				14	0
5	100	Granger	S				1	1
5	300	S Clinton	Е				8	3
5	300	S Clinton	W				7	3
5	400	S Clinton	Е				3	1
5	400	S Clinton	W				6	5
5	500	S Clinton	W				22	5
5	700	S Clinton	W				30	19
5	400	S Clinton	Е	G-21	Shoppers Garage	public	310	255
5	500	S Clinton	Е	S-28	Clinton Station	public	136	102
5	500	S Clinton	W	S-32	Clinton-Gifford Lot	public	90	50
5	500	S Clinton	Е	S-33	Murbro Lot#11	public	200	68
5	500	S Clinton	E	G-63	Sibley's Garage	private	800	455
5	500	S Clinton	E	S-65	Empire Building Lot	private	58	29
5	600	S Clinton	E	S-66	500 Bldg Parking	private	100	75
5	600	S Clinton	E	S-67	Chamber of Commerce- rear	private	45	37
5	800	S Clinton	E	S-102	Adams & Clinton	private	75	45
5	800	S Clinton	E	S-103	Adams & Clinton 2	private	33	4
5	800	S Clinton	E	S-104	Adams & Clinton 3	private	85	13
5	300	S Franklin	E	-			8	4
5	300	S Franklin	W				5	7
5 5	400	S Franklin	E W				4	4
5	400 100	S Franklin S Salina	W				0	<u>3</u>
5	300	S Salina	W				13	16
5	400	S Salina	W				23	16
5	500	S Salina	W				12	4
5	600	S Salina	E				13	7
5	600	S Salina	W				21	4
5	400	S Salina	W	S-64	450 South Salina Lot	private	91	55
5	600	S Salina	W	S-105	Adams & Clinton 4	private	10	0
5	600	S West	E	0 100	Addition of Children	piivato	13	0
5	100	Temple	S				8	9
5	100	W Walton	N				13	12
5	100	W Walton	S				18	16
5	200	W Walton	N/E				20	9
5	200	W Walton	S/W	1			28	10
5	100	W Adams	N	S-68	580 Bldg Parking	private	14	9
5	100	W Fayette	S		<del> </del>	,	0	1
5	200	W Fayette	S				14	11
5	300	W Fayette	S				8	3
5	200	W Fayette	S	S-20	Clinton-Fayette Lot	public	77	62
5	300	W Fayette	S	S-55	Murbro Lot #34	public	55	44
5	100	W Jefferson	N		_		11	4
5	100	W Jefferson	S				0	2
5	200	W Jefferson	Cir				60	36
5	200	W Jefferson	Cir	G-19	Center Armory	public	120	108
5	200	W Jefferson	Cir	S-18	Walton-Jeffeson Lot	public	75	61
5	300	W Jefferson	N				11	
5	300	W Jefferson	S		-		15	3
5	100	W Onondaga	N				12	
5	200	Walton	N/E	S-16	Fayette-Walton St	public	90	80
5	200	Walton	S/W	S-17	Walton St Lot	public	100	86
						Totals =	3714	2253

# <u>Appendix F - Existing Parking Supply and Demand by Sub-Area and Block</u> 4 of 5



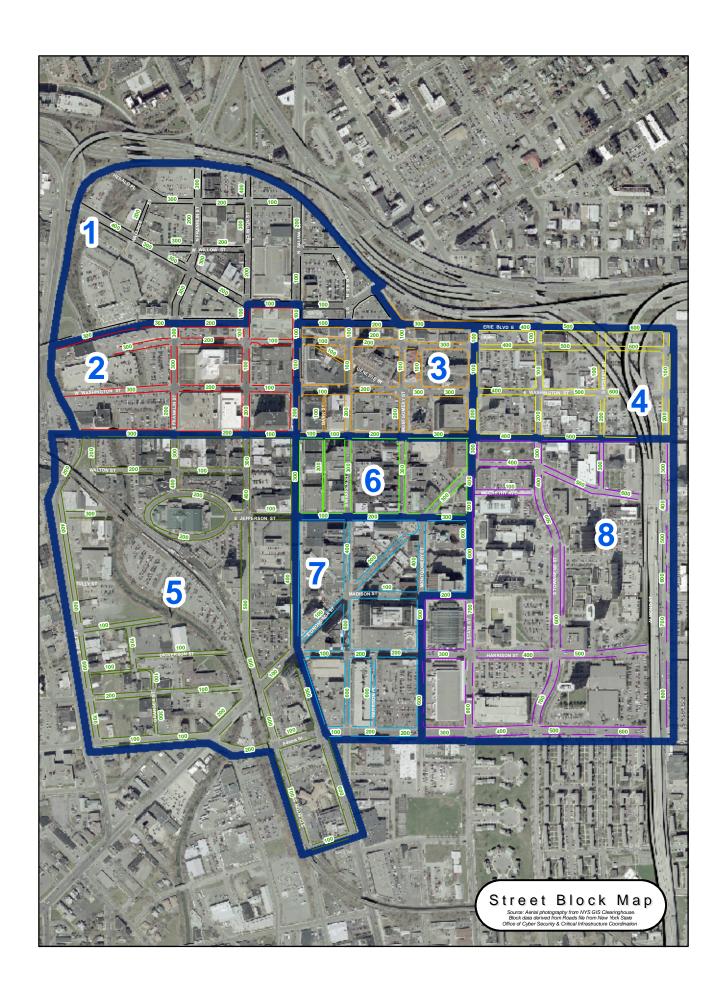
6 6 6 6 6 6 6 6 6 6 6 6 6	200 200 300 200 100 200 300 300 300 300 300 300 300	Bank E Fayette E Fayette E Fayette E Jefferson E Jefferson E Jefferson E Onondaga E Onondaga E Onondaga Montgomery	W S S S N N N N S S	S-24	206 E. Fayette	nuh!:c	0	1
6 6 6 6 6 6 6 6 6 6 6	300 200 100 200 300 300 300 300 300 300 300 300	E Fayette E Fayette E Jefferson E Jefferson E Jefferson E Onondaga E Onondaga E Onondaga	S S N N N	S-24	206 E. Fayette	nuh!ia	0	
6 6 6 6 6 6 6 6 6 6	200 100 200 300 300 300 300 300 300 300 300	E Fayette E Jefferson E Jefferson E Jefferson E Onondaga E Onondaga E Onondaga	S N N N	S-24	206 E. Fayette	nublic.		1
6 6 6 6 6 6 6 6 6 6	100 200 300 300 300 300 300 300 300 300	E Jefferson E Jefferson E Jefferson E Onondaga E Onondaga E Onondaga	N N N	S-24	206 E. Fayette	null-lin	0	1
6 6 6 6 6 6 6 6 6	200 300 300 300 300 300 300 300 300	E Jefferson E Jefferson E Onondaga E Onondaga E Onondaga	N N N			public	50	28
6 6 6 6 6 6 6 6	300 300 300 300 300 300 300 300	E Jefferson E Onondaga E Onondaga E Onondaga	N N				11	9
6 6 6 6 6 6 6	300 300 300 300 300 300 300	E Onondaga E Onondaga E Onondaga	N				10	10
6 6 6 6 6 6	300 300 300 300 300	E Onondaga E Onondaga					6	9
6 6 6 6 6	300 300 300 300	E Onondaga					14	16
6 6 6 6	300 300 300	_		_			13	13
6 6 6	300 300	Montgomory	N	S-62	One Park Place Parking	private	96	70
6 6 6	300		E				17	12
6		Montgomery	W				17	14
6		Montgomey	Е	G-25	Fayette Street Garage	public	571	481
	500	S State	W				10	5
6	300	S Salina	E				9	11
	300	S Warren	E				15	12
6	300	S Warren	W				0	3
6	200	S Warren	W	G-22	Onondaga Tower Garage	public	375	355
6	200	S Warren	Е	G-23	Warren Street Garage	public	0	0
			,			Totals =	1214	1051
SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
7	100	E Jefferson	S				14	10
7	200	E Jefferson	S				10	9
7	300	E Jefferson	S				15	17
7	200	E Montgomery	W				0	3
7	100	E Onondaga	S				0	2
7	200	E Onondaga	N				25	12
7	200	E Onondaga	S				16	13
7	300	E Onondaga	N	G-37	MONY Garage	public	550	550
7	200	E Onondaga	N	S-30	Galleries Lot	public	80	60
7	200	E Onondaga	N	S-31	Raymour Lot	public	75	55
7	200	Harrison	S				2	7
7	600	Harrison	Е				0	2
7	100	Harrison PI	Е	G-34	Harrison St Garage	public	1345	1145
7	100	Harrison PI	Е	S-36	Kemper Building Lot	public	140	128
7	100	Madison	N				6	13
7	100	Madison	S				22	16
7	200	Madison	N	<b>—</b>			6	6
7	500	Mongomery	E	S-35	Syracuse Building Lot	public	350	294
7	400	Montgomery	E	<b> </b>			19	18
7	400	Montgomery	W	<b> </b>			11	14
7	500	Montgomery	W	<del>                                     </del>		-	9	8
7	600	Montgomery	W	<del>                                     </del>		-	12	0
7	600	S State	W				18	11
7	400	S Salina	E	<del>                                     </del>			18	11
7	500	S Salina	E	0.00	The Colleges Cores	nublic.	15	4
	400	S Salina	E	G-29	The Galleries Garage	public	175	175
7	400	S Warren	E	+			11	12
7	400	S Warren	W	<del>                                     </del>			0	2
7	600	S Warren	W	0.00	Hatal Company	multi	9	2
7	600	S Warren	W	G-69	Hotel Syracuse garage	private	0	0
7	600	S Warren	N	S-100	American Red Cross	private	47	26
7	600	S Warren	W	S-101	American Red Cross	private	28	20
7	500	Warren	E	<del>                                     </del>		-	13	8
7	500	Warren	W			Totals =	2 <b>3043</b>	2 <b>2655</b>

# <u>Appendix F - Existing Parking Supply and Demand by Sub-Area and Block</u> 5 of 5



SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
8	500	E Adams	N	S-92	Townsend Towers	private	124	109
8	400	E Fayette	S				13	11
8	400	E Genesee	N				18	14
8	400	E Genesee	S				16	10
8	500	E Genesee	N				5	4
8	600	E Genesee	S				7	0
8	500	E Genesse	N	S-61	Hamilton White House	private	39	19
8	500	E Genesse	S	S-85	Bank of America	private	18	5
8	500	E Genesse	S	S-86	Lot 18	public	93	64
8	600	E Genesse	S	S-26	Presidential Plaza	public	300	187
8	600	E Genesse	N	S-59	Former Charter School Lot	private	0	0
8	600	E Genesse	S	G-87	600 E Genesee St	private	75	52
8	300	Harrison	N				10	7
8	400	Harrison	N	S-99	Museum Service	private	38	16
8	500	Harrison	S	S-40	Harrison Center	public	100	26
8	500	Harrison	N	G-98	Madison Tower	private	221	187
8	500	Harrison	N	S-95	Harrison House	private	179	101
8	500	Harrison	N	S-94	Upstate Health Care Center	private	21	9
8	500	Harrison	N	G-93	Upstate Health Care Center	private	28	19
8	500	Harrison	S	S-91	Townsend Towers	private	35	16
8	200	Madison	S				12	10
8	100	McCarthy	N				36	28
8	100	McCarthy	S				0	6
8	100	McCarthy	N	S-88	Police/TLS parking	private	65	26
8	500	Montgomery	Е				13	15
8	600	Montgomery	Е				14	7
8	300	S State	Е				4	3
8	400	S State	Е				5	0
8	500	S State	Е				4	5
8	600	S State	Е				18	15
8	700	S State	Е				14	12
8	700	S State	W				0	14
8	800	S State	E				0	1
8	800	S State	W				7	9
8	800	S State	E	G-39	Convention Center Garage	public	1000	651
8	800	S State	E	S-38	Murbro Lot#17	public	335	258
8	300	S McBride	Е				14	5
8	300	S McBride	W	S-60	Vocational School	private	41	20
8	600	S Townsend	Е				15	14
8	600	S Townsend	W	S-70	Murbro Lot B	private	160	110
8	600	S Townsend	Е	S-97	Madison Tower	private	26	24
8	600	S Townsend	Е	S-96	Madison Tower	private	32	28
8	600	S Townsend	W	S-90	City/Police/Sheriff	private	176	111
8	600	S Townsend	W	S-89	City/Police/Sheriff	private	132	120
						Totals =	3463	2348
		1	1	, ,	OFFSITE DATA	1	ı	
SubArea	Block #	Street Name	Side	Off-Street MapKey	Off-Street Facility Name	Off-Street Public/Private	Total Capacity	Occupancy
	300	James	Е	S-50	State Employee Parking	private	800	770
	300	James	E	S-71	State Employee Parking	private	320	237
	400	Pearl	S	S-73	Pearl St	private	120	70
	300	W Fayette	N	S-54	Syracuse University	private	71	6
		.,,			- ,	Totals =	1311	1083

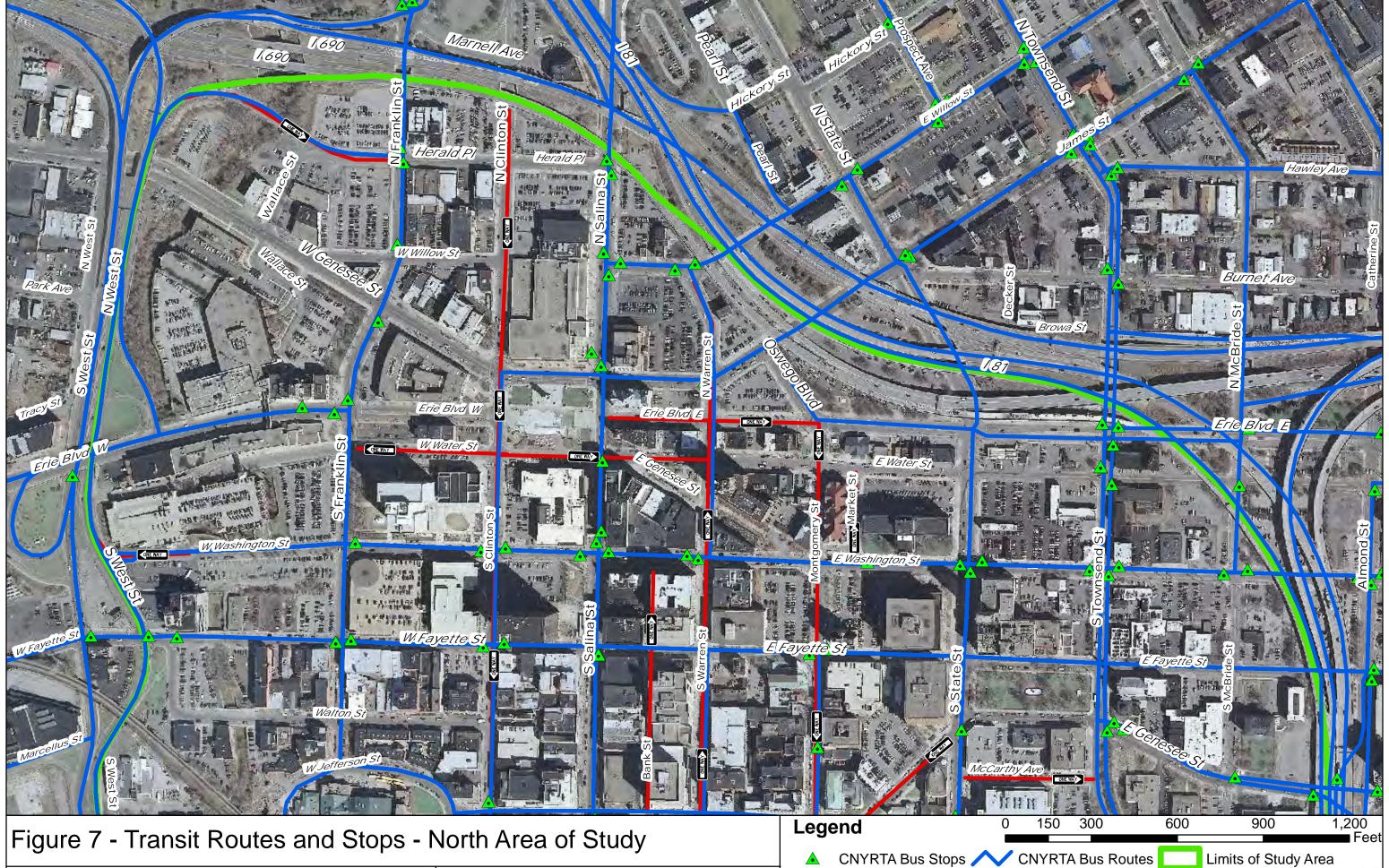
Source: CS Data Collection SMTC Downtown Parking Analysis and Mapping



# **Appendix E**

**Transit Routes and Stops** 





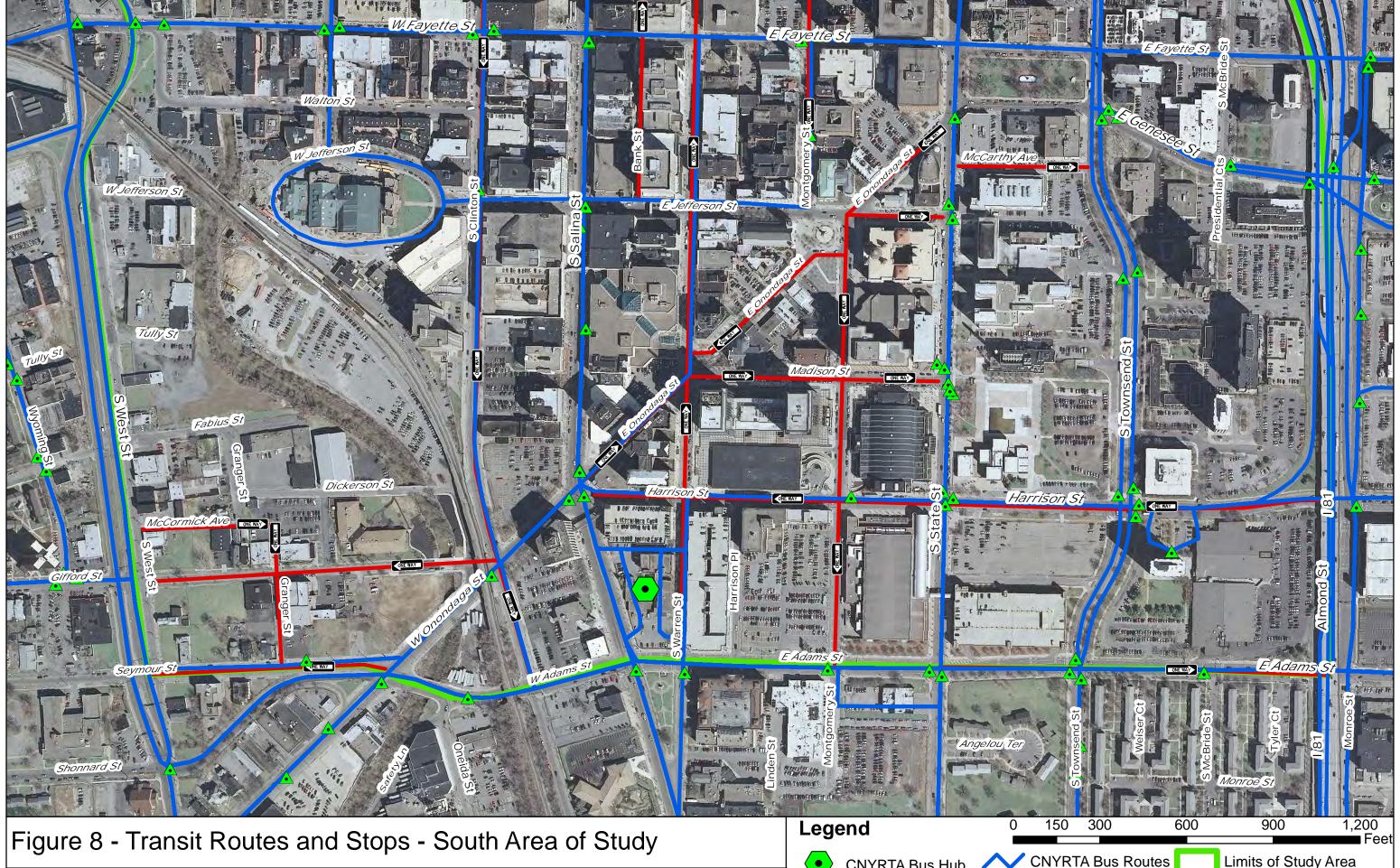
Downtown Syracuse Two-Way Feasibility Technical Analysis
November 2012

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse
Bus Routes and Stops October 2012 from CNYRTA
Curb Cuts, Parking Facilities from SMTC

Bergmann associates architects // engineers // planners

Limits of Study Area





Downtown Syracuse Two-Way Feasibility Technical Analysis

November 2012

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse
Bus Routes and Stops October 2012 from CNYRTA
Curb Cuts, Parking Facilities from SMTC

CNYRTA Bus Hub

**CNYRTA Bus Routes** 

Limits of Study Area Bergmann associates architects // engineers // planners



### **Attachment D**

**Existing Signal Optimization Summary** 





August 30, 2013

Bergmann Associates Waterfront Village Center 40 La Riviere Drive – Suite 150 Buffalo, NY 14202-4306

Attn: Ms. Kelly Thompson

Re: Downtown Syracuse Two Way Feasibility Technical Analysis Existing Signal Optimization Summary

Dear Ms. Thompson:

I have completed the optimization work for the existing signal system within the project study boundary in Syracuse, NY. This letter summarizes the methodology used to complete the Synchro7 optimization runs as well as the results.

Optimization Methodology

The Working Group for this project includes representatives from involved and interested agencies on both the City and State level with the purpose being to collaboratively guide and refine development of the technical analysis. Based on our discussions with the Working Group for the project during Working Group Meeting #2, the following approach was used in developing the Synchro7 optimization models for the morning and evening peak hours:

- The study area boundary for the optimization modeling included all signals bound by West Street on the west, Adams Street on the south, Almond Street on the east and Erie Boulevard on the north. Additional intersections modeled to the north of Erie Boulevard include the Townsend Street signals north to Burnett Avenue, The James Street/Genesee Street corridor from Oswego Boulevard to Wallace Street, as well as the Franklin Street, Clinton Street and Salina Street signals north to Herald Place.
- Current NYSDOT Synchro7 models for the NYSDOT signals along West Street, Adams Street and Almond Street were obtained from NYSDOT and merged into the existing and optimization Synchro7 models for this project. The NYSDOT coordination plans operate at a 110 second signal cycle length during both the morning and evening peak hours.
- The NYSDOT signal timings were locked and therefore not optimized or modified in any way. They were included in the optimization measure of effectiveness reports for informational purposes.
- All pedestrian timings were updated for the City signals in the CBD study area using the current 3.5 feet/second pedestrian walking speed.
- The yellow change interval was standardized to 4 seconds and the all red interval was standardized to 1 second at all City signals in the CBD study area.



Ms. Thompson August 30, 2013 Page 2 of 4

Re: Downtown Syracuse Two Way Feasibility Technical Analysis
Existing Signal Optimization Summary

- The existing 80 second morning signal cycle length and 85 second evening signal cycle length was maintained at all City signals in order to best provide for traffic progression with adjacent interconnect signals outside the CBD.
- All signal phasing and phase orders were maintained with in the study area. City signals were given a cursory review to identify if phasing could be improved and no needs were identified.
- The initial optimization run included a general CBD wide optimization of splits and offsets at all City signals.
- Timing splits were reviewed on an intersection by intersection basis during both the morning and evening peak hours and adjusted as necessary to balance delays. A system wide optimization run for offsets only was then completed.
- 3-4 iterations of offset adjustments were made, first focusing on the primary corridors entering the City in the morning (Almond, Clinton, Genesee, Harrison, Townsend & Salina) and leaving the City in the evening (Almond, Erie, State, Townsend & Warren) and then adjusting to balance benefits between corridors as much as possible.

#### **Optimization Results**

Measures of Effectiveness (MOE's) were evaluated by arterial, overall corridor and full network for both the morning and evening optimized condition and then compared to the existing model MOE's to identify the expected level of improvement. The following MOE's were evaluated for each:

Network MOE's – Total Delay (hours), Number of Stops, Average Speed (mph), Fuel Consumed (gallons) and Fuel Economy (mpg)

Corridor MOE's – Total Delay (hours), Number of Stops, Average Speed (mph), Fuel Consumed (gallons) and Fuel Economy (mpg)

Arterial MOE's – Signal Delay (seconds), Travel Time (seconds), Arterial Speed (mph), LOS

The overall network shows significant improvement in all MOE's during both the morning and evening peak hours with the developed signal optimization plans. These improvements during the peak hours range from a 34%-37% reduction in delay, a 17%-19% reduction in number of stops, a 20%-30% increase in operating speeds, an 18%-19% reduction in fuel consumed and a 23%-24% increase in fuel economy. The following table summarizes the comparison of network MOE's between the optimized condition and the existing condition for the morning and evening peak hours:



Ms. Thompson August 30, 2013 Page 3 of 4

Re: Downtown Syracuse Two Way Feasibility Technical Analysis

**Existing Signal Optimization Summary** 

**Network Optimization Results** 

MOE	MORNING PEAK HOUR	EVENING PEAK HOUR
Total Delays (Hours)	-154 (-34%)	-169 (-37%)
Stops (#)	-8439 (-19%)	-8109 (-17%)
Average Speed (mph)	+3 (+30%)	+2 (+20%)
Fuel Consumed (gal)	-160 (-19%)	-169 (-18%)
Fuel Economy (mpg)	+1.8 (+23%)	+1.8 (+24%)

The following table summarizes anticipated reductions in delay and stops by corridor in the CBD based on the optimization results, with reductions greater than 25% shown in bold.

**Corridor Optimization Results** 

	MORNING I	PEAK HOUR	EVENING F	PEAK HOUR
CORRIDOR	Delay (hrs)	Stops (#)	Delay (hrs)	Stops (#)
Almond Street	-13 (-65%)	-541 (-37%)	-15 (-58%)	-1080 (-48%)
Clinton Street	-23 (-56%)	-486 (-19%)	-1 (-8%)	-125 (-8%)
Erie Boulevard	-1 (-6%)	-32 (-1%)	-9 (-33%)	-596 (-18%)
Fayette Street	-10 (-29%)	-493 (-13%)	-1 (-3%)	-368 (-9%)
Franklin Street	-1 (-8%)	-467 (-23%)	+1 (+6%)	+151 (+6%)
Genesee Street	-25 (-51%)	-827 (-24%)	-5 (-21%)	-692 (-23%)
Harrison Street	-4 (-29%)	-370 (-21%)	-4 (-24%)	-55 (-4%)
Herald Street	-1 (-33%)	-70 (-20%)	-32 (-86%)	+4 (+1%)
Jefferson Street	-1 (-17%)	+10 (+1%)	-2 (-29%)	-147 (-16%)
McBride Street	0 (0%)	-102 (-27%)	-1 (-20%)	-99 (-16%)
Montgomery Street	0 (0%)	+75 (+11%)	+1 (+20%)	-38 (-6%)
Salina Street	-10 (-27%)	-1627 (-33%)	0 (0%)	-363 (-9%)
State Street	-7 (-26%)	-247 (-9%)	-68 (-72%)	-1093 (-28%)
Townsend Street	-37 (-58%)	-316 (-10%)	-13 (-33%)	-574 (-18%)
Warren Street	-4 (-40%)	-189 (-16%)	-10 (-45%)	-1046 (-41%)
Washington Street	-4 (-31%)	-802 (-37%)	-4 (-17%)	-827 (-27%)
Water Street	-4 (-57%)	-198 (-25%)	-1 (-25%)	-116 (-21%)

The detailed summary reports for the network, corridor and arterial MOE's have been attached for your reference. The final optimization Synchro7 files will be forwarded via email.



Ms. Thompson August 30, 2013 Page 4 of 4

Re: Downtown Syracuse Two Way Feasibility Technical Analysis

**Existing Signal Optimization Summary** 

If you have any questions or need additional information, please call.

Sincerely,

Gordon T. Stansbury, P.E., P.T.O.E.

GTS Consulting

Attachments – Detailed Arterial, Corridor and Network Comparison Reports

#### **Network Reports**

	Existing	Optimized	Percent
Morning Peak Hour	Condition	Condition	Change
Total Delay (Hour)	450	296	-34%
Stops (#)	44826	36387	-19%
Average Speed (mph)	10	13	30%
Fuel Consumed (gal)	863	703	-19%
Fuel Economy (mph)	8.0	9.8	23%

	Existing	Optimized	Percent
Evening Peak Hour	Condition	Condition	Change
Total Delay (Hour)	497	328	-34%
Stops (#)	47313	39204	-17%
Average Speed (mph)	10	12	20%
Fuel Consumed (gal)	914	745	-18%
Fuel Economy (mph)	7.6	9.4	24%

#### Corridor Reports

		Existing Conditio	n	Opt	Optimized Condition			Percent Change		
Adams Street - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbo un d	W est bo und	All	
Total Delay (Hour)	32	1	33	32	1	33	0%	0%	0%	
Stops (#)	2961	124	3085	2961	124	3085	0%	0%	0%	
Average Speed (mph)	13	11	13	13	11	13	0%	0%	0%	
Fuel Consumed (gal)	68	2	70	68	2	70	0%	0%	0%	
Fuel Economy (mph)	10.1	7.8	10.1	10.1	7.8	10.1	0%	0%	0%	

		Existing Condition			Optimized Condition			Percent Change		
Almond Street - AM	Northound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	11	10	20	4	3	7	-64%	-70%	-65%	
Stops (#)	845	605	1450	477	432	909	-44%	-29%	-37%	
Average Speed (mph)	7	7	7	13	14	13	86%	100%	86%	
Fuel Consumed (gal)	16	14	30	9	9	18	-44%	-36%	-40%	
Fuel Economy (mph)	5.5	6.4	5.9	9.7	10.4	10.0	76%	63%	69%	

	Existing	Optimized	
	Condition	Condition	Percent Change
Clinton Street - AM	Southbound	So ut hbo un d	Southbound
Total Delay (Hour)	41	18	-56%
Stops (#)	2589	2103	-19%
Average Speed (mph)	9	14	56%
Fuel Consumed (gal)	64	45	-30%
Fuel Economy (mph)	7.6	10.9	43%

		Existing Conditio	n	Optimized Condition			Percent Change		
Erie Boulevard - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All
Total Delay (Hour)	9	7	17	10	6	16	11%	-14%	-6%
Stops (#)	1585	1008	2593	1626	935	2561	3%	-7%	-1%
Average Speed (mph)	15	14	15	15	15	15	0%	7%	0%
Fuel Consumed (gal)	27	19	46	28	17	46	4%	-11%	0%
Fuel Economy (mph)	10.6	10.0	10.4	10.3	10.9	10.5	-3%	9%	1%

	Existing Condition			Opt	Optimized Condition			Percent Change		
Fayette Street - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	
Total Delay (Hour)	22	12	35	17	9	25	-23%	-25%	-29%	
Stops (#)	2708	995	3703	2245	965	3210	-17%	-3%	-13%	
Average Speed (mph)	11	10	11	14	12	13	27%	20%	18%	
Fuel Consumed (gal)	48	22	70	41	19	60	-15%	-14%	-14%	
Fuel Economy (mph)	8.5	8.1	8.3	9.8	9.3	9.7	15%	15%	17%	

		Existing Condition			Optimized Condition			Percent Change		
Franklin Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	5	8	13	4	7	12	-20%	-13%	-8%	
Stops (#)	732	1312	2044	722	855	1577	-1%	-35%	-23%	
Average Speed (mph)	12	15	14	12	16	14	0%	7%	0%	
Fuel Consumed (gal)	11	23	34	11	20	30	0%	-13%	-12%	
Fuel Economy (mph)	8	10.3	9.5	8.2	11.9	10.6	2%	16%	12%	

		Existing Conditio	n	Opt	Optimized Condition			Percent Change		
Genesee Street - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	
Total Delay (Hour)	36	12	49	13	11	24	-64%	-8%	-51%	
Stops (#)	2179	1251	3430	1305	1298	2603	-40%	4%	-24%	
Average Speed (mph)	7	12	9	14	13	14	100%	8%	56%	
Fuel Consumed (gal)	52	26	78	31	25	56	-40%	-4%	-28%	
Fuel Economy (mph)	6.5	9.7	7.6	11.1	9.9	10.6	71%	2%	39%	

	Existing	Optimized	
	Condition Condition F		Percent Change
Harrison Street - AM	Westbound	Westbound	Westbound
Total Delay (Hour)	14	10	-29%
Stops (#)	1799	1429	-21%
Average Speed (mph)	14	17	21%
Fuel Consumed (gal)	36	31	-14%
Fuel Economy (mph)	10.6	12.3	16%

		Existing Conditio	n	Opt	Optimized Condition			Percent Change		
Herald Street - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All	
Total Delay (Hour)	3	0	3	2	0	2	-33%	0%	-33%	
Stops (#)	317	34	351	239	42	281	-25%	24%	-20%	
Average Speed (mph)	7	18	8	10	13	10	43%	-28%	25%	
Fuel Consumed (gal)	5	1	6	4	1	4	-20%	0%	-33%	
Fuel Economy (mph)	5.4	NA	5.9	7.2	NA	7.4	33%	NA	25%	

		Existing Condition			imized Condition	1	Percent Change		
Jefferson Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbo und	Westbound	All
Total Delay (Hour)	4	2	6	3	2	5	-25%	0%	-17%
Stops (#)	475	367	842	525	327	852	11%	-11%	1%
Average Speed (mph)	10	11	10	11	12	11	10%	9%	10%
Fuel Consumed (gal)	8	5	13	8	5	12	0%	0%	-8%
Fuel Economy (mph)	7.3	7.3	7.3	7.4	7.9	7.6	1%	8%	4%

		Existing Condition			Optimized Condition			Percent Change		
McBride Street - AM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	1	2	2	1	1	2	0%	-50%	0%	
Stops (#)	86	292	378	100	176	276	16%	-40%	-27%	
Average Speed (mph)	11	8	9	10	9	9	-9%	13%	0%	
Fuel Consumed (gal)	1	4	5	2	3	4	100%	-25%	-20%	
Fuel Economy (mph)	8.0	5.2	6.0	7.1	6.8	6.9	-11%	31%	15%	

	Existing	Optimized	
	Condition	Condition	Percent Change
Montgomery Street North - AM	Southbound	Southbound	Southbound
Total Delay (Hour)	2	2	0%
Stops (#)	419	436	4%
Average Speed (mph)	11	11	0%
Fuel Consumed (gal)	6	6	0%
Fuel Economy (mph)	7.3	7.2	-1%

		Existing Conditio	n	Opt	imized Condition	1	Percent Change		
Montgomery Street South - AM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	0	2	2	0	2	2	0%	0%	0%
Stops (#)	5	237	242	5	295	300	0%	24%	24%
Average Speed (mph)	7	15	15	7	15	15	0%	0%	0%
Fuel Consumed (gal)	0	5	5	0	5	5	0%	0%	0%
Fuel Economy (mph)	NA	10.8	10.7	NA	10	9.9	NA	-7%	-7%

		Existing Conditio	n	Optimized Condition			Percent Change		
Salina Street - AM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	10	26	37	11	17	27	10%	-35%	-27%
Stops (#)	1277	3613	4890	1140	2123	3263	-11%	-41%	-33%
Average Speed (mph)	12	13	12	11	16	14	-8%	23%	17%
Fuel Consumed (gal)	23	63	85	22	47	70	-4%	-25%	-18%
Fuel Economy (mph)	8.7	9	8.9	8.8	12	11	1%	33%	24%

		Existing Conditio	n	Optimized Condition			Percent Change		
State Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	12	15	27	9	11	20	-25%	-27%	-26%
Stops (#)	1181	1723	2904	1130	1527	2657	-4%	-11%	-9%
Average Speed (mph)	8	11	9	10	12	11	25%	9%	22%
Fuel Consumed (gal)	21	30	51	18	27	45	-14%	-10%	-12%
Fuel Economy (mph)	6.3	8.0	7.3	7.3	9.0	8.3	16%	13%	14%

		Existing Conditio	n	Opt	Optimized Condition			Percent Change		
Townsend Street - AM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	6	59	64	5	21	27	-17%	-64%	-58%	
Stops (#)	585	2671	3256	662	2278	2940	13%	-15%	-10%	
Average Speed (mph)	16	6	7	16	12	13	0%	100%	86%	
Fuel Consumed (gal)	12	73	85	15	46	61	25%	-37%	-28%	
Fuel Economy (mph)	12.2	5.8	6.8	12.1	9.5	10.1	-1%	64%	49%	

	Existing	Optimized	
	Condition	Condition	Percent Change
Warren Street - AM	Northbound	Northbound	Northbound
Total Delay (Hour)	10	6	-40%
Stops (#)	1190	1001	-16%
Average Speed (mph)	11	14	27%
Fuel Consumed (gal)	20	17	-15%
Fuel Economy (mph)	7.8	9.5	22%

		Existing Condition			Optimized Condition			Percent Change		
Washington Street - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbo und	Westbound	All	
Total Delay (Hour)	7	6	13	4	5	9	-43%	-17%	-31%	
Stops (#)	11.1	1069	2170	608	760	1368	5377%	-29%	-37%	
Average Speed (mph)	11	12	11	16	13	14	45%	8%	27%	
Fuel Consumed (gal)	16	15	31	11	13	24	-31%	-13%	-23%	
Fuel Economy (mph)	7.4	7.9	7.6	10.8	9.4	10	46%	19%	32%	

		Existing Condition			timized Conditior	1	Percent Change		
Water Street - AM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All
Total Delay (Hour)	5	1	7	3	1	3	-40%	0%	-57%
Stops (#)	596	201	797	466	133	599	-22%	-34%	-25%
Average Speed (mph)	9	14	10	15	18	15	67%	29%	50%
Fuel Consumed (gal)	10	3	14	8	2	10	-20%	-33%	-29%
Fuel Economy (mph)	7.2	9.4	7.8	9.9	12.1	10.4	38%	29%	33%

#### Corridor Reports

		Existing Conditio	n	Optimized Condition			Percent Change		
Adams Street - PM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbo und	W est bo und	All
Total Delay (Hour)	15	4	19	15	4	19	0%	0%	0%
Stops (#)	2649	529	3178	2649	529	3178	0%	0%	0%
Average Speed (mph)	16	10	15	16	10	15	0%	0%	0%
Fuel Consumed (gal)	46	8	54	46	8	54	0%	0%	0%
Fuel Economy (mph)	10.9	6.9	10.3	109	6.9	10.3	900%	0%	0%

		Existing Condition			Optimized Condition			Percent Change		
Almond Street - PM	Northound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	12	14	26	5	6	11	-58%	-57%	-58%	
Stops (#)	1231	1021	2252	595	577	1172	-52%	-43%	-48%	
Average Speed (mph)	7	6	6	12	11	12	71%	83%	100%	
Fuel Consumed (gal)	20	20	40	11	11	23	-45%	-45%	-43%	
Fuel Economy (mph)	5.2	5.0	5.1	9	8.8	8.9	73%	76%	75%	

	Existing	Optimized	
	Condition	Condition	Percent Change
Clinton Street - PM	Southbound	So ut hbo un d	Southbound
Total Delay (Hour)	13	12	-8%
Stops (#)	1504	1379	-8%
Average Speed (mph)	13	14	8%
Fuel Consumed (gal)	31	30	-3%
Fuel Economy (mph)	10.2	10.7	5%

	Existing Condition			Optimized Condition			Percent Change		
Erie Boulevard - PM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All
Total Delay (Hour)	13	14	27	9	9	18	-31%	-36%	-33%
Stops (#)	1534	1782	3316	1407	1313	2720	-8%	-26%	-18%
Average Speed (mph)	12	14	13	15	17	16	25%	21%	23%
Fuel Consumed (gal)	29	35	63	25	29	53	-14%	-17%	-16%
Fuel Economy (mph)	8.9	10.3	9.7	10.3	12.5	11.5	16%	21%	19%

	Existing Condition			Optimized Condition			Percent Change		
Fayette Street - PM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All
Total Delay (Hour)	15	18	32	15	17	31	0%	-6%	-3%
Stops (#)	2087	1853	3940	1815	1757	3572	-13%	-5%	-9%
Average Speed (mph)	12	12	12	12	12	12	0%	0%	0%
Fuel Consumed (gal)	35	38	72	33	36	70	-6%	-5%	-3%
Fuel Economy (mph)	8.7	9.3	9.0	9.1	9.7	9.4	5%	4%	4%

		Existing Condition			Optimized Condition			Percent Change		
Franklin Street - PM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	14	4	18	15	4	19	7%	0%	6%	
Stops (#)	1889	565	2454	1973	632	2605	4%	12%	6%	
Average Speed (mph)	10	15	11	10	14	11	0%	-7%	0%	
Fuel Consumed (gal)	30	10	40	31	11	42	3%	10%	5%	
Fuel Economy (mph)	7.2	10.5	8.1	7	9.8	7.7	-3%	-7%	-5%	

	Existing Condition			Optimized Condition			Percent Change		
Genesee Street - PM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All
Total Delay (Hour)	11	13	24	9	10	19	-18%	-23%	-21%
Stops (#)	1255	1767	3022	1150	1180	2330	-8%	-33%	-23%
Average Speed (mph)	12	13	13	13	15	15	8%	15%	15%
Fuel Consumed (gal)	24	33	56	22	27	49	-8%	-18%	-13%
Fuel Economy (mph)	9.2	9.7	9.5	9.9	11.8	10.9	8%	22%	15%

	Existing	Optimized	
	Condition	Condition	Percent Change
Harrison Street - PM	Westbound	Westbound	Westbound
Total Delay (Hour)	17	13	-24%
Stops (#)	1456	1401	-4%
Average Speed (mph)	10	12	20%
Fuel Consumed (gal)	32	29	-9%
Fuel Economy (mph)	8.6	9.5	10%

		Existing Conditio	n	Opt	timized Conditior	1	Percent Change		
Herald Street - PM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	W est bo und	All
Total Delay (Hour)	27	0	37	5	1	5	-81%	0%	-86%
Stops (#)	518	49	567	510	61	571	-2%	24%	1%
Average Speed (mph)	2	14	2	7	12	8	250%	-14%	300%
Fuel Consumed (gal)	24	1	25	8	1	9	-67%	0%	-64%
Fuel Economy (mph)	1.8	NA	2.2	5.5	9.2	5.9	206%	NA	168%

		Existing Condition			timized Conditior	1	Percent Change		
Jefferson Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbo und	Westbound	All
Total Delay (Hour)	3	4	7	3	2	5	0%	-50%	-29%
Stops (#)	457	439	896	430	319	749	-6%	-27%	-16%
Average Speed (mph)	10	7	8	10	10	10	0%	43%	25%
Fuel Consumed (gal)	7	7	14	6	5	11	-14%	-29%	-21%
Fuel Economy (mph)	6.8	5.5	6.1	7.2	7.3	7.3	6%	33%	20%

		Existing Condition			Optimized Condition			Percent Change		
McBride Street - PM	Northbound	Northbound Southbound All		Northbound	Southbound	All	Northbound	Southbound	All	
Total Delay (Hour)	4	1	5	4	1	4	0%	0%	-20%	
Stops (#)	416	139	555	377	89	466	-9%	-36%	-16%	
Average Speed (mph)	8	8	8	8	11	9	0%	38%	13%	
Fuel Consumed (gal)	7	2	9	7	2	8	0%	0%	-11%	
Fuel Economy (mph)	6.0	6	6.0	6.4	8.3	6.8	7%	38%	13%	

	Existing	Optimized	
	Condition	Condition	Percent Change
Montgomery Street North - PM	Southbound	Southbound	Southbound
Total Delay (Hour)	1	2	100%
Stops (#)	318	328	3%
Average Speed (mph)	14	11	-21%
Fuel Consumed (gal)	4	4	0%
Fuel Economy (mph)	8.3	7.4	-11%

		Existing Conditio	n	Opt	imized Condition	1	Percent Change		
Montgomery Street South - PM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	0	4	4	0	4	4	0%	0%	0%
Stops (#)	0	349	349	0	301	301	0%	-14%	-14%
Average Speed (mph)	29	9	9	29	10	10	0%	11%	11%
Fuel Consumed (gal)	0	59	59	0	6	6	0%	-90%	-90%
Fuel Economy (mph)	0	7.7	7.7	NA	8.3	8.4	NA	8%	9%

		Existing Conditio	n	Optimized Condition			Percent Change		
Salina Street - PM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	18	13	30	17	13	30	-6%	0%	0%
Stops (#)	2094	1729	3823	1727	1733	3460	-18%	0%	-9%
Average Speed (mph)	11	15	13	11	14	13	0%	-7%	0%
Fuel Consumed (gal)	37	34	71	35	34	69	-5%	0%	-3%
Fuel Economy (mph)	8.3	10.7	9.4	8.9	10.6	9.8	7%	-1%	4%

		Existing Conditio	n	Optimized Condition			Percent Change		
State Street - PM	Northbound	So ut hbo un d	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	80	15	95	15	12	27	-81%	-20%	-72%
Stops (#)	2316	1568	3884	1551	1240	2791	-33%	-21%	-28%
Average Speed (mph)	2	9	4	10	10	10	400%	11%	150%
Fuel Consumed (gal)	80	28	108	28	23	51	-65%	-18%	-53%
Fuel Economy (mph)	2.6	6.9	3.7	7.4	8.2	7.8	185%	19%	111%

		Existing Condition			timized Condition	1	Percent Change		
Townsend Street - PM	Northbound	Northbound Southbound All			Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	21	19	40	11	16	27	-48%	-16%	-33%
Stops (#)	1421	1852	3273	1361	1338	2699	-4%	-28%	-18%
Average Speed (mph)	9	10	10	14	11	13	56%	10%	30%
Fuel Consumed (gal)	35	36	71	27	31	58	-23%	-14%	-18%
Fuel Economy (mph)	8.2	8.1	8.1	10.5	9.4	9.9	28%	16%	22%

	Existing	Optimized	
	Condition	Condition	Percent Change
Warren Street - PM	Northbound	Northbound	Northbound
Total Delay (Hour)	22	12	-45%
Stops (#)	2551	1505	-41%
Average Speed (mph)	9	13	44%
Fuel Consumed (gal)	42	29	-31%
Fuel Economy (mph)	6.8	9.9	46%

		Existing Condition			Optimized Condition			Percent Change		
Washington Street - PM	East bo und	Eastbound Westbound All			Westbound	All	Eastbound	W est bo und	All	
Total Delay (Hour)	6	17	23	5	14	19	-17%	-18%	-17%	
Stops (#)	913	2143	3056	628	1601	2229	-31%	-25%	-27%	
Average Speed (mph)	12	12	12	15	13	13	25%	8%	8%	
Fuel Consumed (gal)	15	37	52	12	33	45	-20%	-11%	-13%	
Fuel Economy (mph)	8.8	8.6	8.7	10.8	9.8	10.1	23%	14%	16%	

		Existing Condition			Optimized Condition			Percent Change		
Water Street - PM	East bo und	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	
Total Delay (Hour)	3	2	4	2	1	3	-33%	-50%	-25%	
Stops (#)	324	237	561	269	176	445	-17%	-26%	-21%	
Average Speed (mph)	12	16	13	13	17	15	8%	6%	15%	
Fuel Consumed (gal)	6	5	11	5	4	9	-17%	-20%	-18%	
Fuel Economy (mph)	8.8	11.4	9.9	10	13	11.3	14%	14%	14%	

# **Arterial / Segment Reports**

		Existing C	ondition			Optimized	Condition		Percent Change		
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Adams Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Onondaga to Clinton	5.3	22.5	15.3	С	5.3	22.5	15.3	С	0%	0%	0%
Clinton to Salina	54.7	69.7	3.4	F	54.7	69.7	3.4	F	0%	0%	0%
Salina to Warren	7.8	15.0	7.6	E	7.8	15.0	7.6	E	0%	0%	0%
Warren to Harrison Place	0.8	9.1	14.4	С	0.8	9.1	14.4	С	0%	0%	0%
Harrison Place to Montgomery	1.1	15.8	14.8	С	1.1	15.8	14.8	С	0%	0%	0%
Montgomery to State	2.8	18.1	13.4	С	2.8	18.1	13.4	С	0%	0%	0%
State to Townsend	11.2	27.4	11.8	D	11.2	27.4	11.8	D	0%	0%	0%
Townsend to McBride	1.3	17.8	18.5	С	1.3	17.8	18.5	С	0%	0%	0%
Total	85.0	195.4	10.0	D	85.0	195.4	10.0	D	0%	0%	0%

	Existing Condition				Optimized Condition				Percent Change			
AM Peak	Signal	Signal Travel Arterial			Signal	Travel	Arterial		Signal	Travel	Arterial	
Adams Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
State to Montgomery	0.5	15.8	15.3	С	0.5	15.8	15.3	С	0%	0%	0%	
Montgomery to Harrison Place	0.4	15.1	15.4	С	0.4	15.1	15.4	С	0%	0%	0%	
Harrison Place to Warren	5.3	13.6	9.6	D	5.3	13.6	9.6	D	0%	0%	0%	
Warren to Salina	31.7	38.9	2.9	F	31.7	38.9	2.9	F	0%	0%	0%	
Salina to Clinton	7.4	22.4	10.7	D	7.4	22.4	10.7	D	0%	0%	0%	
Total	45.3	105.8	9.1	D	45.3	105.8	9.1	D	0%	0%	0%	

	Existing Condition				Optimized Condition  Signal Travel Arterial				Percent Change			
AM Peak	Signal	·				Travel	Arterial		Signal	Travel	Arterial	
Almond Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Harrison to Genesee	46.7	77.6	10.3	D	18.1	49.0	16.2	С	-61%	-37%	57%	
Genesee to Fayette	5.7	22	11.7	D	5.9	22.2	11.6	D	4%	1%	-1%	
Fayette to Washington	5.3	20.6	11.8	D	4.1	19.4	12.5	D	-23%	-6%	6%	
Washington to Water	33.3	47.8	4.8	F	5.1	19.6	11.7	D	-85%	-59%	144%	
Water to Erie	17.8	23.9	4.1	F	1.9	8.0	12.2	D	-89%	-67%	198%	
Total	108.8	191.9	8.5	E	35.1	118.2	13.7	С	-68%	-38%	61%	

		Existing Condition				Optimized Condition				Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		
Almond Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed		
Entry Link to Erie	54.2	71.2	4.8	F	11.4	28.4	12.0	D	-79%	-60%	150%		
Erie to Water	16.2	22.3	4.4	F	6.5	12.6	7.7	E	-60%	-43%	75%		
Water to Washington	0.4	14.9	15.4	С	4.0	18.5	12.4	D	900%	24%	-19%		
Washington to Fayette	5.1	20.4	11.9	D	6.2	21.5	11.3	D	22%	5%	-5%		
Fayette to Genesee	45.4	61.7	4.2	F	16.7	33.0	7.8	E	-63%	-47%	86%		
Total	121.3	190.5	6.1	F	44.8	114.0	10.3	D	-63%	-40%	69%		

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Clinton Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Herald	71.4	86.7	2.8	F	15.5	30.8	7.9	E	-78%	-64%	182%	
Herald to Genesee	46.9	67.2	7.2	E	23.9	44.2	11.0	D	-49%	-34%	53%	
Genesee to Water	0.6	12.9	15.2	С	0.6	12.9	15.2	С	0%	0%	0%	
Water to Washington	9.7	24.7	9.7	D	6.3	21.3	11.2	D	-35%	-14%	15%	
Washington to Fayette	6.0	20.2	11.1	D	12.0	26.2	8.6	E	100%	30%	-23%	
Fayette to Jefferson	5.9	26.4	15.5	С	4.0	24.5	16.7	С	-32%	-7%	8%	
Jefferson to Ped Crossing	1.1	24.4	22.9	В	1.0	24.3	23.0	В	-9%	0%	0%	
Ped Crossing to Gifford	28.5	43.8	7.0	F	9.2	24.5	12.5	D	-68%	-44%	79%	
Gifford to Adams	60.4	74.4	3.8	F	60.4	74.4	3.8	F	0%	0%	0%	
Total	230.5	380.7	7.7	E	132.9	283.1	10.4	D	-42%	-26%	35%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Erie Blvd Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Salina to Warren	7.8	23.6	10.6	D	10.0	25.8	9.7	D	28%	9%	-8%	
Warren to Montgomery	8.7	22.3	12.2	D	6.8	20.4	13.3	D	-22%	-9%	9%	
Montgomery to State	24.8	42.3	8.3	E	19.0	36.5	9.6	D	-23%	-14%	16%	
State to Townsend	16.5	32.7	9.9	D	14.8	31.0	10.5	D	-10%	-5%	6%	
Townsend to McBride	12.3	27.8	11.2	D	10.7	26.2	11.8	D	-13%	-6%	5%	
McBride to Almond	0.1	15.9	19.8	В	12.4	28.2	11.2	D	12300%	77%	-43%	
Total	70.2	164.6	11.1	D	73.7	168.1	10.8	D	5%	2%	-3%	

	Existing Condition				Optimized Condition				Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Erie Blvd Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Crouse to Almond	2.6	40.6	25.5	Α	14.0	52.0	19.9	В	438%	28%	-22%	
Almond to McBride	15.0	30.8	10.2	D	8.8	24.6	12.8	D	-41%	-20%	25%	
McBride to Townsend	34.1	49.5	6.3	F	15.2	30.7	10.1	D	-55%	-38%	60%	
Townsend to State	20.8	37.0	8.8	E	10.3	26.5	12.2	D	-50%	-28%	39%	
State to Oswego	16.5	34.0	10.3	D	20.7	38.2	9.1	D	25%	12%	-12%	
Total	89.0	192.0	12.2	D	69.0	172.0	13.6	С	-22%	-10%	11%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Fayette Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to West SB	39.9	57.9	6.2	F	39.9	57.9	6.2	F	0%	0%	0%	
West SB West NB	4.1	12.7	10.7	D	4.1	12.7	10.7	D	0%	0%	0%	
West NB to Franklin	20.7	40.0	11.6	D	8.9	28.2	16.4	С	-57%	-30%	41%	
Franklin to Clinton	9.0	26.9	13.3	С	8.3	26.2	13.7	С	-8%	-3%	3%	
Clinton to Salina	24.1	39.4	6.2	F	6.1	21.4	11.4	D	-75%	-46%	84%	
Salina to Warren	7.7	24.0	10.7	D	12.0	28.3	9.1	D	56%	18%	-15%	
Warren to Montgomery	3.2	16.8	16.2	С	3.3	16.9	16.1	C	3%	1%	-1%	
Montgomery to State	16.8	34.0	10.1	D	8.8	26.0	13.3	С	-48%	-24%	32%	
State to Townsend	21.4	37.9	8.7	E	15.6	32.1	10.3	D	-27%	-15%	18%	
Townsend to McBride	14.3	30.1	10.5	D	3.9	19.7	16.0	С	-73%	-35%	52%	
McBride to Almond	2.5	18.0	17.2	С	5.6	21.1	14.7	С	124%	17%	-15%	
Total	163.7	337.7	10.0	D	116.5	290.5	11.7	D	-29%	-14%	17%	

	Existing Condition Signal Travel Arterial					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Fayette Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Irving to Almond	10.1	39.9	20.3	В	7.6	37.4	21.7	В	-25%	-6%	7%	
Almond to McBride	2.9	18.4	16.9	С	5.5	21.0	14.8	С	90%	14%	-12%	
McBride to Townsend	23.7	39.5	8	E	22.9	38.7	8.1	Е	-3%	-2%	1%	
Townsend to State	109.8	126.3	2.6	F	42.3	58.8	5.6	F	-61%	-53%	115%	
State to Montgomery	12.8	30.0	11.5	D	8.9	26.1	13.2	С	-30%	-13%	15%	
Montgomery to Warren	3.9	17.5	15.6	С	5.0	18.6	14.7	С	28%	6%	-6%	
Warren to Salina	8.2	24.5	10.5	D	5.3	21.6	11.9	D	-35%	-12%	13%	
Salina to Clinton	24	39.3	6.2	F	5.9	21.2	11.5	D	-75%	-46%	85%	
Clinton to Franklin	8.7	26.6	13.5	С	18.6	36.5	9.8	D	114%	37%	-27%	
Franklin to West NB	48.2	67.5	6.9	F	48.2	67.5	6.9	F	0%	0%	0%	
West NB to West SB	18.0	26.6	5.1	F	18.0	26.6	5.1	F	0%	0%	0%	
Total	270.3	456.1	8.4	E	188.2	374.0	10.3	D	-30%	-18%	23%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Franklin Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Fayette	15.2	29	7.5	E	27.8	41.6	5.2	F	83%	43%	-31%	
Fayette to Washington	10.4	24.6	9.1	D	9.3	23.5	9.6	D	-11%	-4%	5%	
Washinton to Erie	22.3	39	8.5	E	7.5	24.2	13.8	С	-66%	-38%	62%	
Erie to Genesee	10.0	26.9	10.0	D	15.9	32.8	8.2	E	59%	22%	-18%	
Genesee to Willow	2.7	9.6	11.4	D	4.0	10.9	10.0	D	48%	14%	-12%	
Willow to Herald	13.2	27.8	8.3	E	9.2	23.8	9.7	D	-30%	-14%	17%	
Total	73.8	156.9	8.8	E	73.7	156.8	8.8	E	0%	0%	0%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Franklin Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Websters Landing to Herald	8.1	24.7	13.5	С	15	31.6	10.5	D	85%	28%	-22%	
Herald to Willow	4.5	19.1	12.1	D	1.3	15.9	14.6	С	-71%	-17%	21%	
Willow to Genesee	10.4	17.3	6.3	F	14.8	21.7	5	F	42%	25%	-21%	
Genesee to Erie	17.3	34.2	7.9	Е	7.4	24.3	11.1	D	-57%	-29%	41%	
Erie to Washington	3.2	19.9	16.8	С	2.1	18.8	17.7	С	-34%	-6%	5%	
Washington to Fayette	10.4	24.6	9.1	D	14.4	28.6	7.9	E	38%	16%	-13%	
Total	53.9	139.8	10.7	D	55	140.9	10.7	D	2%	1%	0%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal Travel Arterial			Signal	Travel	Arterial		Signal	Travel	Arterial		
Genesee Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
West to Wallace	14.5	32.9	11.2	D	6.1	24.5	15.1	С	-58%	-26%	35%	
Wallace to Franklin	80.7	96.9	3.3	F	32.2	48.4	6.7	F	-60%	-50%	103%	
Franklin to Clinton	61.0	77.4	4.2	F	14.6	31.0	10.6	D	-76%	-60%	152%	
Clinton to Salina	18.5	34.7	7.4	E	7.8	24.0	10.7	D	-58%	-31%	45%	
Total	174.7	241.9	5.3	F	60.7	127.9	10.0	D	-65%	-47%	89%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Genesee Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Salina to Clinton	3.0	19.2	13.4	С	4.3	20.5	12.5	D	43%	7%	-7%	
Clinton to Franklin	36.2	52.6	6.2	F	25.1	41.5	7.9	Е	-31%	-21%	27%	
Franklin to Wallace	6.2	22.4	14.4	С	4.1	20.3	15.9	С	-34%	-9%	10%	
Total	45.4	94.2	9.6	D	33.5	82.3	11.0	D	-26%	-13%	15%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Harrison Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Almond to Townsend	21.4	39.7	9.2	D	16.0	34.3	10.7	D	-25%	-14%	16%	
Townsend to State	9.9	31.1	13.6	С	6.7	27.9	15.2	С	-32%	-10%	12%	
State to Montgomery	3.7	19.0	12.7	D	2.1	17.4	13.9	С	-43%	-8%	9%	
Montgomery to Warren	3.2	21.5	17.0	С	6.2	24.5	14.9	С	94%	14%	-12%	
Warren to Onondaga	38.7	53.9	4.5	F	20.3	35.5	6.8	F	-48%	-34%	51%	
Total	76.9	165.2	9.9	D	51.3	139.6	11.7	D	-33%	-15%	18%	

		Existing Condition				Optimized Condition				Percent Change		
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Herald Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Franklin	16.3	29.3	7.0	F	9.9	22.9	9.0	Е	-39%	-22%	29%	
Franklin to Clinton	29.4	46.3	5.8	F	20.1	37.0	7.2	Е	-32%	-20%	24%	
Clinton to Salina	9.5	24.8	9.8	D	7.9	23.2	10.5	D	-17%	-6%	7%	
Total	55.2	100.4	7.1	E	37.9	83.1	8.6	Е	-31%	-17%	21%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Signal Travel Arterial				Travel	Arterial		Signal	Travel	Arterial	
Herald Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Salina to Clinton	4.5	19.8	12.3	D	13.5	28.8	8.4	Е	200%	45%	-32%	
Clinton to Franklin	0.0	16.9	15.8	С	0.0	16.9	15.8	С	0%	0%	0%	
Total	4.5	36.7	13.9	С	13.5	45.7	11.2	D	200%	25%	-19%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Jefferson Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Clinton	13.6	25.2	7.3	E	16.9	28.5	6.5	F	24%	13%	-11%	
Clinton to Salina	28.3	43.8	5.6	F	13.9	29.4	8.3	E	-51%	-33%	48%	
Salina to Warren	4.8	21.3	12.3	D	8.9	25.4	10.3	D	85%	19%	-16%	
Warren to Montgomery	6.0	13.1	8.6	E	11.5	18.6	6.0	F	92%	42%	-30%	
Montgomery to State	42.5	56.7	4.0	F	35.4	49.6	4.5	F	-17%	-13%	13%	
Total	95.2	160.1	6.4	F	86.6	151.5	6.8	F	-9%	-5%	6%	

	Existing Condition				Optimized Condition				Percent Change		
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Jefferson Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Montgomery to Warren	5.3	22.2	12.0	D	8.1	25.0	10.7	D	53%	13%	-11%
Warren to Salina	17.3	33.8	7.7	E	12.6	29.1	9.0	Е	-27%	-14%	17%
Salina to Clinton	23.2	38.7	6.3	F	17.7	33.2	7.4	Е	-24%	-14%	17%
Total	45.8	94.7	8.2	Е	38.4	87.3	8.9	Е	-16%	-8%	9%

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
McBride Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Genesee	15.3	27.3	6.9	F	15.9	27.9	6.8	F	4%	2%	-1%	
Genesee to Fayette	17.7	33.0	7.4	E	14.0	29.3	8.3	E	-21%	-11%	12%	
Fayette to Washington	4.6	19.6	12.2	D	15.5	30.5	7.8	E	237%	56%	-36%	
Washington to Water	14.4	28.5	7.9	E	12.6	26.7	8.4	E	-13%	-6%	6%	
Water to Erie	6.9	13.0	7.5	E	10.7	16.8	5.8	F	55%	29%	-23%	
Total	58.9	121.4	8.2	E	68.7	131.2	7.6	E	17%	8%	-7%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
McBride Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
James to Erie	13.1	45.9	19.5	В	19.1	51.9	17.2	С	46%	13%	-12%	
Erie to Water	16.2	22.3	4.4	F	17.9	24.0	4.1	F	10%	8%	-7%	
Water to Washington	16.8	30.9	7.3	E	7.8	21.9	10.2	D	-54%	-29%	40%	
Washington to Fayette	8.7	23.7	10.1	D	12.0	27.0	8.8	Е	38%	14%	-13%	
Fayette to Genesee	25.5	40.8	6.0	F	2.3	17.6	13.8	С	-91%	-57%	130%	
Total	80.3	163.6	10.4	D	59.1	142.4	11.9	D	-26%	-13%	14%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Montgomery Street SB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Erie to Water	12.5	18.7	5.3	F	13.0	19.2	5.1	F	4%	3%	-4%	
Water to Washington	15.2	29.3	7.6	Е	11.5	25.6	8.7	E	-24%	-13%	14%	
Washington to Fayette	15.3	29.3	7.6	Е	17.6	31.6	7.0	E	15%	8%	-8%	
Total	43.0	77.3	7.0	E	42.1	76.4	7.1	E	-2%	-1%	1%	

		Existing Condition					Optimized	Condition		Percent Change		
AM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Montgomery Street SB		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Jefferson to Madison		2.7	22.2	17.5	С	7.7	27.2	14.3	С	185%	23%	-18%
Madison to Harrison		12.9	28.0	10.8	D	6.8	21.9	13.8	С	-47%	-22%	28%
Harrison to Adams		59.0	78.1	4.9	F	59.0	78.1	4.9	F	0%	0%	0%
	Total	74.6	128.3	8.4	E	73.5	127.2	8.4	E	-1%	-1%	0%

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Salina Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Adams	52.5	64.2	2.9	F	52.5	64.2	2.9	F	0%	0%	0%	
Adams to Centro Bus Hub Dr	0.4	3.7	14.0	С	0.4	3.7	14.0	С	0%	0%	0%	
Centro Bus Hub Dr. to Harrsion	26.4	44.9	8.3	E	25.4	43.9	8.4	E	-4%	-2%	1%	
Harrison to Ped Crossing	3.1	19.2	16.8	С	4.0	20.1	16.0	С	29%	5%	-5%	
Ped Crossing Jefferson	13.8	31.3	11.2	D	17.5	35.0	10.0	D	27%	12%	-11%	
Jefferson to Fayette	3.3	23.8	17.2	С	13.5	34.0	12.0	D	309%	43%	-30%	
Fayette to Washington	13.0	27.2	8.3	E	1.3	15.5	14.5	С	-90%	-43%	75%	
Washington to Water	5.7	20.4	11.4	D	2.5	17.2	13.6	С	-56%	-16%	19%	
Water to James	3.7	15.4	12.0	D	15.8	27.5	6.7	F	327%	79%	-44%	
James to Willow	6.4	22.7	11.4	D	3.7	20.0	13.0	D	-42%	-12%	14%	
Willow to Herald	4.3	19.3	12.4	D	4.0	19.0	12.6	D	-7%	-2%	2%	
Total	132.6	292.1	9.7	D	140.6	300.1	9.4	D	6%	3%	-3%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Salina Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
State to Herald	37.8	71.7	12.9	D	18.7	52.6	17.6	С	-51%	-27%	36%	
Herald to Willow	4.7	19.7	12.1	D	2.1	17.1	14.0	С	-55%	-13%	16%	
Willow to Genesee	17.4	33.7	7.7	E	5.6	21.9	11.8	D	-68%	-35%	53%	
Genesee to Water	3.2	14.9	12.4	D	3.8	15.5	12.0	D	19%	4%	-3%	
Water to Washington	19.6	34.3	6.8	F	8.7	23.4	10.0	D	-56%	-32%	47%	
Washington to Fayette	10.1	24.3	9.3	D	19.6	33.8	6.7	F	94%	39%	-28%	
Fayette to Jefferson	2.4	22.9	17.9	С	7.3	27.8	14.7	С	204%	21%	-18%	
Jefferson to Ped Crossing	12.2	29.7	11.8	D	2.6	20.1	17.4	С	-79%	-32%	47%	
Ped Crossing to Onondaga	25.8	41.9	7.7	E	12.0	28.1	11.5	D	-53%	-33%	49%	
Onondaga to Centro Bus Hub Dr	38.6	57.1	6.5	F	38.6	57.1	6.5	F	0%	0%	0%	
Centro Bus Hub Dr to Adams	2.6	5.9	8.8	E	2.6	5.9	8.8	E	0%	0%	0%	
Total	174.4	356.1	10.0	D	121.6	303.3	11.8	D	-30%	-15%	18%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
State Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Adams	32.4	48.7	6.7	F	32.4	48.7	6.7	F	0%	0%	0%	
Adams to Harrison	13.6	32.7	11.7	D	19.0	38.1	10.0	D	40%	17%	-15%	
Harrison to Madison	17.1	32.2	9.4	D	11.3	26.4	11.4	D	-34%	-18%	21%	
Madison to Jefferson	4.2	23.6	16.5	С	2.7	22.1	17.6	С	-36%	-6%	7%	
Jefferson to Genesee	63.5	79.2	3.1	F	28.4	44.1	5.6	F	-55%	-44%	81%	
Genesee to Fayette	15.7	24.8	5.8	F	21.1	30.2	4.8	F	34%	22%	-17%	
Fayette to Washington	18.3	32.8	7.0	E	9.3	23.8	9.7	D	-49%	-27%	39%	
Washington to Water	6.4	20.2	10.9	D	5.8	19.6	11.2	D	-9%	-3%	3%	
Water to Erie	29.0	35.4	2.9	F	28.5	34.9	2.9	F	-2%	-1%	0%	
Total	200.2	329.6	7.1	Е	158.5	287.9	8.1	E	-21%	-13%	14%	

	Existing Condition  Signal Travel Arterial					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
State Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
James to Erie	31.5	53.0	8.1	Е	20.9	42.4	10.1	D	-34%	-20%	25%	
Erie to Water	7.4	13.8	7.3	Е	6.4	12.8	7.9	E	-14%	-7%	8%	
Water to Washington	18.7	32.5	6.8	F	9.0	22.8	9.6	D	-52%	-30%	41%	
Washington to Fayette	5.3	19.8	11.6	D	8.9	23.4	9.8	D	68%	18%	-16%	
Fayette to Onondaga	8.7	17.8	8.1	Е	9.0	18.1	8.0	E	3%	2%	-1%	
Onondaga to Jefferson	4.6	20.3	12.3	D	3.2	18.9	13.2	С	-30%	-7%	7%	
Jefferson to Madison	19.9	39.3	9.9	D	5.8	25.2	15.4	С	-71%	-36%	56%	
Madison to Harrison	3.3	18.4	16.4	С	3.5	18.6	16.2	С	6%	1%	-1%	
Harrison to Adams	55.4	74.5	5.1	F	55.4	74.5	5.1	F	0%	0%	0%	
Total	154.8	289.4	8.5	E	122.1	256.7	9.5	D	-21%	-11%	12%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Townsend Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Adams	38.8	57.1	6.4	F	38.8	57.1	6.4	F	0%	0%	0%	
Adams to Harrison	10.5	29.2	12.8	D	14.0	32.7	11.4	D	33%	12%	-11%	
Harrison to Genesee	7.5	42.6	22.5	В	4.8	39.9	24.0	В	-36%	-6%	7%	
Genesee to Fayette	9.6	18.5	7.6	E	5.8	14.7	9.6	D	-40%	-21%	26%	
Fayette to Washington	6.8	21.3	10.8	D	2.4	16.9	13.6	С	-65%	-21%	26%	
Washington to Water	0.8	14.9	15.0	С	6.0	20.1	11.1	D	650%	35%	-26%	
Water to Erie	2.6	8.9	11.3	D	7.1	13.4	7.5	E	173%	51%	-34%	
Erie to 1690 WB offramp	47.5	54.5	2.0	F	42.2	49.2	2.2	F	-11%	-10%	10%	
690 WB offramp to Burnett	9.3	25.0	10.0	D	8.8	24.5	10.2	D	-5%	-2%	2%	
Total	133.4	272.0	10.1	D	129.9	268.5	10.2	D	-3%	-1%	1%	

		Existing C	Condition			Optimized	Condition	•	Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Townsend Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
James to Burnett	8.3	24.8	13.3	С	8.0	24.5	13.4	С	-4%	-1%	1%	
Burnett to Brown	23.2	38.9	6.4	F	29.5	45.2	5.5	F	27%	16%	-14%	
Brown to Erie	20.1	27.1	4.1	F	11.8	18.8	5.9	F	-41%	-31%	44%	
Erie to Water	2.3	8.6	11.7	D	8.3	14.6	6.9	F	261%	70%	-41%	
Water to Washington	16.8	30.9	7.2	E	2.0	16.1	13.9	С	-88%	-48%	93%	
Washington to Fayette	11.7	26.2	8.8	E	3.4	17.9	12.8	D	-71%	-32%	45%	
Fayette to Genesee	12.2	21.1	6.7	F	3.8	12.7	11.1	D	-69%	-40%	66%	
Genesee to Harrison	13.4	48.5	19.8	В	8.8	43.9	21.8	В	-34%	-9%	10%	
Harrison to Adams	65.1	83.8	4.5	F	65.1	83.8	4.5	F	0%	0%	0%	
Tota	173.1	309.9	8.8	Е	140.7	277.5	9.8	D	-19%	-10%	11%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Warren Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Adams to Harrsion	29.3	48.4	7.9	E	14.0	33.1	11.5	D	-52%	-32%	46%	
Harrison to Madison	22.5	37.6	8.0	E	14.2	29.3	103.0	D	-37%	-22%	1188%	
Madison to Jefferon	35.6	55.0	7.1	E	12.4	31.8	12.2	D	-65%	-42%	72%	
Jefferson to Fayette	14.6	35.1	11.7	D	24.2	44.7	9.2	D	66%	27%	-21%	
Fayette to Washington	10.8	24.8	9.0	E	6.4	20.4	10.9	D	-41%	-18%	21%	
Washington to Water	9.2	24.0	9.8	D	7.6	22.4	10.5	D	-17%	-7%	7%	
Water to Erie	3.1	9.1	10.5	D	4.6	10.6	9.0	D	48%	16%	-14%	
Erie to James	2.4	8.3	11.3	D	6.7	12.6	7.5	E	179%	52%	-34%	
Total	127.5	242.3	8.8	Е	90.1	204.9	10.4	D	-29%	-15%	18%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Washington Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
West to Franklin	15.8	40.4	14.6	С	15.8	40.4	14.6	С	0%	0%	0%	
Franklin to Clinton	10.8	28.5	12.4	D	18.1	35.8	9.9	D	68%	26%	-20%	
Clinton to Salina	18.6	34.2	7.3	E	11.0	26.6	9.3	D	-41%	-22%	27%	
Salina to Warren	17.4	33.7	7.7	E	6.0	22.3	11.6	D	-66%	-34%	51%	
Warren to Montgomery	18.0	31.5	8.6	E	5.0	18.5	14.6	С	-72%	-41%	70%	
Montgomery to State	14.4	32.1	11.0	D	6.2	23.9	14.8	С	-57%	-26%	35%	
State to Townsend	13.3	29.5	11.0	D	16.5	32.7	9.9	D	24%	11%	-10%	
Townsend to McBride	19.6	35.4	8.9	E	6.2	22.0	14.3	С	-68%	-38%	61%	
McBride to Almond	36.1	51.4	5.9	F	9.0	24.3	12.6	D	-75%	-53%	114%	
Total	164.0	316.7	9.5	D	93.8	246.5	12.3	D	-43%	-22%	29%	

	Existing Condition					Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Washinton Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Almond	26.5	41.8	7.3	E	19.3	34.6	8.9	Е	-27%	-17%	22%	
Almond to McBride	21.5	36.8	8.3	E	4.8	20.1	15.2	С	-78%	-45%	83%	
McBride to Townsend	10.7	26.5	11.9	D	28.2	44.0	7.2	Е	164%	66%	-39%	
Townsend to State	17.3	33.5	9.7	D	19.7	35.9	9.0	D	14%	7%	-7%	
State to Montgomery	8.9	26.6	13.3	С	5.2	22.9	15.5	С	-42%	-14%	17%	
Montgomery to Warren	18.1	31.6	8.5	E	18.9	32.4	8.3	Е	4%	3%	-2%	
Warren to Salina	5.4	21.7	11.9	D	4.7	21.0	12.3	D	-13%	-3%	3%	
Salina to Clinton	17.6	33.2	7.5	E	9.6	25.2	9.8	D	-45%	-24%	31%	
Clinton to Franklin	19.3	37.0	9.6	D	9.0	26.7	13.3	С	-53%	-28%	39%	
Franklin to West	52.7	77.3	7.6	E	52.7	77.3	7.6	E	0%	0%	0%	
Total	198.0	366.0	9.1	D	172.1	340.1	9.8	D	-13%	-7%	8%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Water Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Clinton to Salina	17.4	33.7	7.7	E	25.8	42.1	6.2	F	48%	25%	-19%	
Salina to Warren	16.5	32.3	7.8	E	8.6	24.4	10.3	D	-48%	-24%	32%	
Warren to Montgomery	33.2	50.2	5.4	F	1.7	18.7	14.4	С	-95%	-63%	167%	
Montgomery to State	23.2	40.7	8.6	E	7.4	24.9	14	С	-68%	-39%	63%	
State to Townsend	40.1	56.3	5.8	F	22.6	38.8	8.3	E	-44%	-31%	43%	
Townsend to McBride	5.0	20.5	15.1	С	3.2	18.7	16.6	С	-36%	-9%	10%	
McBride to Almond	3.3	18.8	16.5	С	13.2	28.7	10.8	D	300%	53%	-35%	
Total	138.7	252.5	8.2	E	82.5	196.3	10.6	D	-41%	-22%	29%	

		Existing Condition				Optimized	Condition		Percent Change			
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Water Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Crouse to Almond	4.2	42.3	24.6	В	15.5	53.6	19.4	В	269%	27%	-21%	
Almond to McBride	6.2	21.7	14.3	С	4.7	20.2	15.4	С	-24%	-7%	8%	
McBride to Townsend	9.6	25.1	12.4	D	20.7	36.2	8.6	E	116%	44%	-31%	
Townsend to State	26.3	42.5	7.6	E	11.7	27.9	11.6	D	-56%	-34%	53%	
State to Montgomery	21.7	39.2	8.9	E	3.9	21.4	16.3	С	-82%	-45%	83%	
Montgomery to Warren	0.6	17.6	15.3	С	0.1	17.1	15.7	С	-83%	-3%	3%	
Tota	68.6	188.4	13.8	С	56.6	176.4	14.8	С	-17%	-6%	7%	

# **Arterial / Segment Reports**

	Existing Condition					Optimized	Condition		Percent Change			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Adams Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Onondaga to Clinton	3.5	21.3	16.7	С	3.5	21.3	16.7	С	0%	0%	0%	
Clinton to Salina	27.2	41.9	5.6	F	27.2	41.9	5.6	F	0%	0%	0%	
Salina to Warren	3.9	11.1	10.3	D	3.9	11.1	10.3	D	0%	0%	0%	
Warren to Harrison Place	4.4	12.7	10.3	D	4.4	12.7	10.3	D	0%	0%	0%	
Harrison Place to Montgomery	5.8	20.5	11.4	D	5.8	20.5	11.4	D	0%	0%	0%	
Montgomery to State	9.5	24.8	9.8	D	9.5	24.8	9.8	D	0%	0%	0%	
State to Townsend	10.4	26.6	12.2	D	10.4	26.6	12.2	D	0%	0%	0%	
Townsend to McBride	2.1	18.6	17.7	С	2.1	18.6	17.7	С	0%	0%	0%	
Total	66.8	177.5	11.1	D	66.8	177.5	11.1	D	0%	0%	0%	

	Existing Condition				Optimized Condition				Percent Change			
PM Peak	Signal	Signal Travel Arterial			Signal	Travel	Arterial		Signal	Travel	Arterial	
Adams Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
State to Montgomery	1.8	17.1	14.2	С	1.8	17.1	14.2	С	0%	0%	0%	
Montgomery to Harrison Place	3.3	18.0	13.0	D	3.3	18.0	13.0	D	0%	0%	0%	
Harrison Place to Warren	7.7	16.0	8.2	E	7.7	16.0	8.2	Е	0%	0%	0%	
Warren to Salina	28.5	35.7	3.2	F	28.5	35.7	3.2	F	0%	0%	0%	
Salina to Clinton	3.8	18.5	12.6	D	3.8	18.5	12.6	D	0%	0%	0%	
Total	45.1	105.3	9.1	D	45.1	105.3	9.1	D	0%	0%	0%	

	Existing Condition				Optimized Condition Signal Travel Arterial				Percent Change			
PM Peak	Signal	ŭ				Travel	Arterial		Signal	Travel	Arterial	
Almond Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Harrison to Genesee	46.3	77.2	10.3	D	22.8	53.7	14.8	С	-51%	-30%	44%	
Genesee to Fayette	7.4	23.7	10.9	D	7.6	23.9	10.8	D	3%	1%	-1%	
Fayette to Washington	11.8	27.1	9.0	E	4.0	19.3	12.6	D	-66%	-29%	40%	
Washington to Water	19.6	34.1	6.7	F	4.7	19.2	12.0	D	-76%	-44%	79%	
Water to Erie	12.9	19.0	5.1	F	4.9	11.0	8.9	E	-62%	-42%	75%	
Total	98.0	181.1	9.0	E	44.0	127.1	12.8	D	-55%	-30%	42%	

		Existing Condition				Optimized Condition				Percent Change			
PM Peak	Signal Travel Arterial			Signal	Travel	Arterial		Signal	Travel	Arterial			
Almond Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed		
Entry Link to Erie	34.0	51.0	6.7	F	16.0	33.0	10.3	D	-53%	-35%	54%		
Erie to Water	23.1	29.2	3.3	F	9.5	15.6	6.2	F	-59%	-47%	88%		
Water to Washington	0.5	15.0	15.3	С	3.1	17.6	13.1	С	520%	17%	-14%		
Washington to Fayette	30.3	45.6	5.3	F	8.4	23.7	10.2	D	-72%	-48%	92%		
Fayette to Genesee	64.5	80.8	3.2	F	24.5	40.8	6.3	F	-62%	-50%	97%		
Total	152.4	221.6	5.3	F	61.5	130.7	8.9	E	-60%	-41%	68%		

		Existing C	ondition		Optimized Condition					ercent Chan	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Clinton Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Herald	19.4	34.7	7.0	E	16.5	31.8	7.7	E	-15%	-8%	10%
Herald to Genesee	25.8	46.1	10.5	D	8.9	29.2	16.6	С	-66%	-37%	58%
Genesee to Water	0.6	12.9	15.2	С	0.9	13.2	14.8	С	50%	2%	-3%
Water to Washington	10.7	25.7	9.3	D	26.5	41.5	5.8	F	148%	61%	-38%
Washington to Fayette	12.4	26.6	8.5	E	14.4	28.6	7.9	E	16%	8%	-7%
Fayette to Jefferson	14.1	34.6	11.8	D	7.4	27.9	14.7	С	-48%	-19%	25%
Jefferson to Ped Crossing	1.3	24.6	22.8	В	0.9	24.2	23.1	В	-31%	-2%	1%
Ped Crossing to Gifford	10.7	26.0	11.7	D	11.4	26.7	11.4	D	7%	3%	-3%
Gifford to Adams	60.6	75.7	4.0	F	60.6	75.7	4.0	F	0%	0%	0%
Total	155.6	306.9	9.7	D	147.5	298.8	9.9	D	-5%	-3%	2%

	Existing Condition					Optimized	Condition		Percent Change			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Erie Blvd Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Salina to Warren	17.8	33.6	7.5	E	26.3	42.1	6.0	F	48%	25%	-20%	
Warren to Montgomery	16.2	29.8	9.1	D	6.4	20.0	13.6	С	-60%	-33%	49%	
Montgomery to State	31.9	49.4	7.1	E	17.9	35.4	9.9	D	-44%	-28%	39%	
State to Townsend	13.4	29.6	11.0	D	9.1	25.3	12.8	D	-32%	-15%	16%	
Townsend to McBride	18.5	34.0	9.1	D	5.5	21.0	14.8	С	-70%	-38%	63%	
McBride to Almond	0.7	16.5	19.1	В	8.9	24.7	12.8	D	1171%	50%	-33%	
Total	98.5	192.9	9.4	D	74.1	168.5	10.8	D	-25%	-13%	15%	

	Existing Condition Signal Travel Arterial				Optimized Condition				Percent Change			
PM Peak	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		
Erie Blvd Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Crouse to Almond	7.0	45.0	23.0	В	17.0	55.0	18.8	С	143%	22%	-18%	
Almond to McBride	36.9	52.7	6.0	F	15.1	30.9	10.2	D	-59%	-41%	70%	
McBride to Townsend	12.3	27.8	11.2	D	6.5	22.0	14.1	С	-47%	-21%	26%	
Townsend to State	17.6	33.8	9.6	D	12.6	28.8	11.3	D	-28%	-15%	18%	
State to Oswego	7.7	25.2	13.9	С	4.0	21.5	16.2	С	-48%	-15%	17%	
Tota	81.5	184.5	12.6	D	55.2	158.2	14.8	С	-32%	-14%	17%	

	Existing Condition					Optimized	Condition		Percent Change			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Fayette Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to West SB	21.8	39.8	9.1	D	21.8	39.8	9.1	D	0%	0%	0%	
West SB West NB	12.1	20.7	6.6	F	12.1	20.7	6.6	F	0%	0%	0%	
West NB to Franklin	10.7	30.0	15.5	С	10.7	30.0	15.5	С	0%	0%	0%	
Franklin to Clinton	8.7	26.6	13.5	С	5.0	22.9	15.6	С	-43%	-14%	16%	
Clinton to Salina	11.8	27.1	9.0	E	8.3	23.6	10.3	D	-30%	-13%	14%	
Salina to Warren	12.9	29.2	8.8	E	38.3	54.6	4.7	F	197%	87%	-47%	
Warren to Montgomery	4.4	18.0	15.2	С	4.0	17.6	15.5	С	-9%	-2%	2%	
Montgomery to State	21.1	38.3	9.0	D	11.8	29.0	11.9	D	-44%	-24%	32%	
State to Townsend	17.8	34.3	9.6	D	25.7	42.2	7.8	E	44%	23%	-19%	
Townsend to McBride	5.5	21.3	14.8	С	3.2	19.0	16.6	С	-42%	-11%	12%	
McBride to Almond	11.4	26.9	11.5	D	3.3	18.8	16.5	С	-71%	-30%	43%	
Total	138.2	312.2	10.9	D	144.2	318.2	10.7	D	4%	2%	-2%	

	Existing Condition					Optimized	Condition		Percent Change			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Fayette Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Irving to Almond	11.1	40.9	19.8	В	12.4	42.2	19.2	В	12%	3%	-3%	
Almond to McBride	4.4	19.9	15.6	С	5.7	21.2	14.6	С	30%	7%	-6%	
McBride to Townsend	15.7	31.5	10.0	D	18.0	33.8	9.3	D	15%	7%	-7%	
Townsend to State	57.2	73.7	4.5	F	35.8	52.3	6.3	F	-37%	-29%	40%	
State to Montgomery	14.0	31.2	11.1	D	8.1	25.3	13.6	С	-42%	-19%	23%	
Montgomery to Warren	13.0	26.6	10.3	D	23.1	36.7	7.4	E	78%	38%	-28%	
Warren to Salina	5.4	21.7	11.9	D	4.9	21.2	12.2	D	-9%	-2%	3%	
Salina to Clinton	1.9	17.2	14.2	С	1.6	16.9	14.4	С	-16%	-2%	1%	
Clinton to Franklin	17.7	35.6	10.1	D	13.1	31.0	11.5	D	-26%	-13%	14%	
Franklin to West NB	40.2	59.5	7.8	E	40.2	59.5	7.8	E	0%	0%	0%	
West NB to West SB	5.7	14.3	9.5	D	5.7	14.3	9.5	D	0%	0%	0%	
Total	186.3	372.1	10.3	D	168.6	354.4	10.8	D	-10%	-5%	5%	

	Existing Condition				Optimized Condition				Percent Change			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Franklin Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Entry Link to Fayette	27.8	41.6	5.2	F	27.8	41.6	5.2	F	0%	0%	0%	
Fayette to Washington	24.7	38.9	5.8	F	25.5	39.7	5.7	F	3%	2%	-2%	
Washinton to Erie	23.5	40.2	8.3	E	11.8	28.5	11.7	D	-50%	-29%	41%	
Erie to Genesee	14.2	31.1	8.6	E	13.2	30.1	8.9	Е	-7%	-3%	3%	
Genesee to Willow	1.5	8.4	13.0	D	5.8	12.7	8.6	Е	287%	51%	-34%	
Willow to Herald	7.5	22.1	10.5	D	16.1	30.7	7.6	Е	115%	39%	-28%	
Total	99.2	182.3	7.6	E	100.2	183.3	7.6	E	1%	1%	0%	

		Existing Condition				Optimized	Condition		Percent Change			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Franklin Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Websters Landing to Herald	7.0	23.6	14.1	С	22.1	38.7	8.6	Е	216%	64%	-39%	
Herald to Willow	3.2	17.8	13.0	С	3.8	18.4	12.6	D	19%	3%	-3%	
Willow to Genesee	17.3	24.2	4.5	F	11.2	18.1	6.0	F	-35%	-25%	33%	
Genesee to Erie	4.3	21.2	12.7	D	3.3	20.2	13.3	С	-23%	-5%	5%	
Erie to Washington	12.7	29.4	11.3	D	13.9	30.6	10.9	D	9%	4%	-4%	
Washington to Fayette	10.2	24.4	9.2	D	8.4	22.6	10.0	D	-18%	-7%	9%	
Total	54.7	140.6	10.7	D	62.7	148.6	10.1	D	15%	6%	-6%	

	Existing Condition				Optimized Condition				Percent Change			
PM Peak	Signal Travel Arterial				Signal	Travel	Arterial		Signal	Travel	Arterial	
Genesee Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
West to Wallace	5.1	23.5	15.7	С	11.5	29.9	12.3	D	125%	27%	-22%	
Wallace to Franklin	17.6	33.8	9.6	D	13.1	29.3	11.0	D	-26%	-13%	15%	
Franklin to Clinton	44.9	61.3	5.3	F	8.8	25.2	13.0	D	-80%	-59%	145%	
Clinton to Salina	4.4	20.6	12.5	D	28.2	44.4	5.8	F	541%	116%	-54%	
Total	72.0	139.2	9.2	D	61.6	128.8	9.9	D	-14%	-7%	8%	

	Existing Condition				Optimized Condition Signal Travel Arterial				Percent Change		
PM Peak	Signal	Signal Travel Arterial				Travel	Arterial		Signal	Travel	Arterial
Genesee Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Salina to Clinton	14.6	30.8	8.3	E	4.3	20.5	12.5	D	-71%	-33%	51%
Clinton to Franklin	25.4	41.8	7.8	E	8.7	25.1	13.0	С	-66%	-40%	67%
Franklin to Wallace	6.2	22.4	14.4	С	5.7	21.9	14.8	С	-8%	-2%	3%
Total	46.2	95.0	9.6	D	18.7	67.5	13.4	С	-60%	-29%	40%

	Existing Condition				Optimized Condition				Percent Change			
PM Peak	Signal Travel Arterial				Signal	Travel	Arterial		Signal	Travel	Arterial	
Harrison Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Almond to Townsend	16.1	34.4	10.6	D	15.4	33.7	10.9	D	-4%	-2%	3%	
Townsend to State	5.1	26.3	16.1	С	11.5	32.7	13.0	D	125%	24%	-19%	
State to Montgomery	12.1	27.4	8.8	E	6.1	21.4	11.3	D	-50%	-22%	28%	
Montgomery to Warren	8.1	26.4	13.9	С	9.7	28.0	13.1	С	20%	6%	-6%	
Warren to Onondaga	84.4	99.6	2.4	F	49.7	64.9	3.7	F	-41%	-35%	54%	
Total	125.8	214.1	7.7	E	92.4	180.7	9.1	D	-27%	-16%	18%	

		Existing Condition				Optimized Condition Signal Travel Arterial				Percent Change			
PM Peak	Signal	·				Travel	Arterial		Signal	Travel	Arterial		
Herald Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed		
Entry Link to Franklin	14.5	27.5	7.5	E	7.3	20.3	10.1	D	-50%	-26%	35%		
Franklin to Clinton	25.0	41.9	6.4	F	13.6	30.5	8.8	Е	-46%	-27%	38%		
Clinton to Salina	9.6	24.9	9.7	D	18.8	34.1	7.1	Е	96%	37%	-27%		
Total	49.1	94.3	7.6	Е	39.7	84.9	8.4	Е	-19%	-10%	11%		

	Existing Condition					Optimized	Condition		Р	ercent Chang	e
PM Peak	Signal	Signal Travel Arterial				Travel	Arterial		Signal	Travel	Arterial
Herald Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Salina to Clinton	10.7	26.0	9.3	D	17.9	33.2	7.3	Е	67%	28%	-22%
Clinton to Franklin	0.0	16.9	15.8	С	0.0	16.9	15.8	С	0%	0%	0%
Total	10.7	42.9	11.9	D	17.9	50.1	10.2	D	67%	17%	-14%

		Existing Condition				Optimized	Condition		P	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Jefferson Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Clinton	19.2	30.8	6.0	F	14.0	25.6	7.2	E	-27%	-17%	20%
Clinton to Salina	33.4	48.9	5.0	F	16.2	31.7	7.7	Е	-51%	-35%	54%
Salina to Warren	13.1	29.6	8.8	E	15.3	31.8	8.2	Е	17%	7%	-7%
Warren to Montgomery	7.9	15.0	7.5	E	9.4	16.5	6.8	F	19%	10%	-9%
Montgomery to State	16.4	30.6	7.4	E	25.2	39.4	5.7	F	54%	29%	-23%
Total	90.0	154.9	6.6	F	80.1	145.0	7.1	Е	-11%	-6%	8%

		Existing Condition				Optimized	Condition		Р	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Jefferson Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Montgomery to Warren	14.1	31.0	8.6	E	20.8	37.7	7.1	E	48%	22%	-17%
Warren to Salina	29.1	45.6	5.7	F	14.8	31.3	8.3	Е	-49%	-31%	46%
Salina to Clinton	35.1	50.6	4.9	F	14.6	30.1	8.2	E	-58%	-41%	67%
Total	78.3	127.2	6.1	F	50.2	99.1	7.8	Е	-36%	-22%	28%

		Existing Condition				Optimized	Condition		Р	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
McBride Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Genesee	16.9	28.9	6.6	F	15.5	27.5	6.9	F	-8%	-5%	5%
Genesee to Fayette	20.7	36.0	6.8	F	20.0	35.3	6.9	F	-3%	-2%	1%
Fayette to Washington	16.8	31.8	7.5	E	14.2	29.2	8.2	E	-15%	-8%	9%
Washington to Water	24.6	38.7	5.8	F	11.9	26.0	8.6	E	-52%	-33%	48%
Water to Erie	10.4	16.5	5.9	F	16.1	22.2	4.4	F	55%	35%	-25%
Total	89.4	151.9	6.5	F	77.7	140.2	7.1	E	-13%	-8%	9%

	Existing Condition					Optimized	Condition		P	ercent Chang	ge
PM Peak	Signal	Signal Travel Arterial				Travel	Arterial		Signal	Travel	Arterial
McBride Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
James to Erie	6.8	39.6	22.6	В	10.8	43.6	20.5	В	59%	10%	-9%
Erie to Water	17.8	23.9	4.1	F	12.3	18.4	5.3	F	-31%	-23%	29%
Water to Washington	19.3	33.4	6.7	F	8.3	22.4	10.0	D	-57%	-33%	49%
Washington to Fayette	32.5	47.5	5.0	F	10.0	25.0	9.5	D	-69%	-47%	90%
Fayette to Genesee	3.7	19.0	12.8	D	4.9	20.2	12.0	D	32%	6%	-6%
Total	80.1	163.4	10.4	D	46.3	129.6	13.1	С	-42%	-21%	26%

		Existing Condition					Optimized	Condition		Р	ercent Chang	;e
PM Peak		Signal Travel Arterial				Signal	Travel	Arterial		Signal	Travel	Arterial
Montgomery Street SB		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Erie to Water		4.7	10.9	9.0	D	21.9	28.1	3.5	F	366%	158%	-61%
Water to Washington		12.1	26.2	8.5	E	8.0	22.1	10.1	D	-34%	-16%	19%
Washington to Fayette		10.0	24.0	9.2	D	18.4	32.4	6.8	F	84%	35%	-26%
	Total	26.8	61.1	8.9	Е	48.3	82.6	6.6	F	80%	35%	-26%

							I	l				
			Existing C	ondition			   Optimized	Condition		Р	ercent Chang	ge
PM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Montgomery Street SB		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Jefferson to Madison		14.7	34.2	11.4	D	9.1	28.6	13.6	С	-38%	-16%	19%
Madison to Harrison		11.2	26.3	11.5	D	8.4	23.5	12.8	D	-25%	-11%	11%
Harrison to Adams		91.3	84.5	4.5	F	65.4	84.5	4.5	F	-28%	0%	0%
	Total	91.5	145.0	7.4	E	82.9	136.6	7.9	E	-9%	-6%	7%

		Existing C	ondition			Optimized	Condition		Р	ercent Chan	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Salina Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Adams	48.7	60.4	3.1	F	48.7	60.4	3.1	F	0%	0%	0%
Adams to Centro Bus Hub Dr	0.6	3.9	13.3	С	0.6	3.9	13.3	С	0%	0%	0%
Centro Bus Hub Dr. to Harrsion	27.2	45.7	8.1	E	30.2	48.7	7.6	E	11%	7%	-6%
Harrison to Ped Crossing	8.8	24.9	12.9	D	5.5	21.6	14.9	С	-38%	-13%	16%
Ped Crossing Jefferson	14.7	32.2	10.9	D	14.3	31.8	11.0	D	-3%	-1%	1%
Jefferson to Fayette	6.9	27.4	14.9	С	6.5	27.0	15.2	С	-6%	-1%	2%
Fayette to Washington	7.1	21.3	10.6	D	8.9	23.1	9.7	D	25%	8%	-8%
Washington to Water	15.4	30.1	7.7	E	5.9	20.6	11.3	D	-62%	-32%	47%
Water to James	20.1	31.8	5.8	F	26.8	38.5	4.8	F	33%	21%	-17%
James to Willow	5.8	22.1	11.7	D	2.9	19.2	13.5	С	-50%	-13%	15%
Willow to Herald	9.3	24.3	9.8	D	8.1	23.1	10.3	D	-13%	-5%	5%
Total	164.6	324.1	8.7	Е	158.4	317.9	8.9	Е	-4%	-2%	2%

		Existing C		Optimized	Condition		Р	ercent Chan	ge		
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Salina Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
State to Herald	19.7	53.6	17.2	С	18.9	52.8	17.5	С	-4%	-1%	2%
Herald to Willow	7.1	22.1	10.8	D	3.2	18.2	13.1	С	-55%	-18%	21%
Willow to Genesee	6.2	22.5	11.5	D	12.9	29.2	8.9	E	108%	30%	-23%
Genesee to Water	3.9	15.6	11.9	D	4.9	16.6	11.2	D	26%	6%	-6%
Water to Washington	5.1	19.8	11.8	D	10.0	24.7	9.4	D	96%	25%	-20%
Washington to Fayette	9.6	23.8	9.5	D	14.8	29.0	7.8	E	54%	22%	-18%
Fayette to Jefferson	0.5	21.0	19.5	В	6.0	26.5	15.4	С	1100%	26%	-21%
Jefferson to Ped Crossing	10.5	28.0	12.5	D	6.9	24.4	14.3	С	-34%	-13%	14%
Ped Crossing to Onondaga	25.9	42.0	7.7	E	18.7	34.0	9.2	D	-28%	-19%	19%
Onondaga to Centro Bus Hub Dr	33.8	52.3	7.1	E	33.8	52.3	7.1	E	0%	0%	0%
Centro Bus Hub Dr to Adams	1.6	4.9	10.6	D	1.6	4.9	10.6	D	0%	0%	0%
Total	123.9	305.6	11.7	D	131.7	313.4	11.4	D	6%	3%	-3%

		Existing C	ondition			Optimized	Condition		P	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
State Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Adams	24.4	40.7	8.0	E	24.4	40.7	8.0	E	0%	0%	0%
Adams to Harrison	19.7	38.8	9.8	D	15.0	34.1	11.2	D	-24%	-12%	14%
Harrison to Madison	10.6	25.7	11.7	D	16.4	31.5	9.6	D	55%	23%	-18%
Madison to Jefferson	7.3	26.7	14.6	С	5.2	24.6	15.8	С	-29%	-8%	8%
Jefferson to Genesee	43.2	58.9	4.2	F	14.1	29.8	8.4	E	-67%	-49%	100%
Genesee to Fayette	14.0	23.1	6.3	F	20.6	29.7	4.9	F	47%	29%	-22%
Fayette to Washington	34.7	49.2	4.7	F	18.5	33.0	7.0	F	-47%	-33%	49%
Washington to Water	40.6	54.4	4.0	F	3.7	17.5	12.5	D	-91%	-68%	213%
Water to Erie	61.2	67.6	1.5	F	27.3	33.7	3.0	F	-55%	-50%	100%
Total	255.7	385.1	6.1	F	145.2	274.6	8.5	E	-43%	-29%	39%

		Existing C	ondition			Optimized	Condition		P	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
State Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
James to Erie	17.7	39.2	11.0	D	21.5	41.5	10.4	D	21%	6%	-5%
Erie to Water	26.0	32.4	3.1	F	6.4	13.7	7.4	E	-75%	-58%	139%
Water to Washington	18.2	32.0	6.9	F	13.8	25.5	8.6	E	-24%	-20%	25%
Washington to Fayette	8.6	23.1	10.0	D	14.5	32.7	7.0	E	69%	42%	-30%
Fayette to Onondaga	5.7	14.8	9.8	D	9.1	16.3	8.9	E	60%	10%	-9%
Onondaga to Jefferson	27.7	43.4	5.7	F	15.7	21.1	11.8	D	-43%	-51%	107%
Jefferson to Madison	4.2	23.6	16.5	С	19.4	45.3	8.6	E	362%	92%	-48%
Madison to Harrison	25.4	40.5	7.4	Е	15.1	16.6	18.2	С	-41%	-59%	146%
Harrison to Adams	51.2	70.3	5.4	F	19.1	70.3	5.4	F	-63%	0%	0%
Total	184.7	319.3	7.7	E	134.6	283.0	8.6	E	-27%	-11%	12%

		Existing C	ondition			Optimized	Condition		Р	ercent Chan	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Townsend Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Adams	31.6	49.9	7.3	E	31.6	49.9	7.3	E	0%	0%	0%
Adams to Harrison	12.7	31.4	11.9	D	13.3	32.0	11.7	D	5%	2%	-2%
Harrison to Genesee	13.8	48.9	19.6	В	12.7	47.8	20.0	В	-8%	-2%	2%
Genesee to Fayette	15.6	24.5	5.8	F	9.8	18.7	7.5	E	-37%	-24%	29%
Fayette to Washington	4.9	19.4	11.8	D	3.9	18.4	12.5	D	-20%	-5%	6%
Washington to Water	1.5	15.6	14.3	С	2.3	16.4	13.6	С	53%	5%	-5%
Water to Erie	29.9	36.2	2.8	F	24.4	30.7	3.3	F	-18%	-15%	18%
Erie to ∣690 WB offramp	54.4	61.4	1.8	F	23.0	30.0	3.7	F	-58%	-51%	106%
1690 WB offramp to Burnett	3.9	19.6	12.7	D	5.6	21.3	11.7	D	44%	9%	-8%
Total	168.3	306.9	9.0	E	126.6	265.2	10.4	D	-25%	-14%	16%

		Existing C	ondition	•		Optimized	Condition	•	Р	ercent Chan	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Townsend Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
James to Burnett	18.8	35.3	9.3	D	22.7	39.2	8.4	E	21%	11%	-10%
Burnett to Brown	19.6	35.3	7.0	Е	13.9	29.6	8.4	E	-29%	-16%	20%
Brown to Erie	23.1	30.1	3.7	F	28.3	35.3	3.1	F	23%	17%	-16%
Erie to Water	3.1	9.4	10.7	D	2.2	8.5	11.8	D	-29%	-10%	10%
Water to Washington	26.2	40.3	5.5	F	3.0	17.1	13.1	С	-89%	-58%	138%
Washington to Fayette	3.7	18.2	12.6	D	9.3	23.8	9.7	D	151%	31%	-23%
Fayette to Genesee	3.7	12.6	11.2	D	4.1	13.0	10.9	D	11%	3%	-3%
Genesee to Harrison	17.5	52.6	18.2	С	6.3	41.4	23.1	В	-64%	-21%	27%
Harrison to Adams	62.0	80.7	4.6	F	62.0	80.7	4.6	F	0%	0%	0%
Tota	177.7	314.5	8.6	E	151.8	288.6	9.4	D	-15%	-8%	9%

		Existing C	ondition			Optimized	Condition		P	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Warren Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Adams to Harrsion	32.0	51.1	7.5	E	15.2	34.3	11.1	D	-53%	-33%	48%
Harrison to Madison	3.3	18.4	16.4	С	2.4	17.5	17.2	С	-27%	-5%	5%
Madison to Jefferon	19.0	38.4	10.1	D	11.1	30.5	12.7	D	-42%	-21%	26%
Jefferson to Fayette	31.1	51.6	7.9	E	22.1	42.6	9.6	D	-29%	-17%	22%
Fayette to Washington	14.9	28.9	7.7	E	8.3	22.3	10.0	D	-44%	-23%	30%
Washington to Water	32.5	47.3	5.0	F	3.5	18.3	12.9	D	-89%	-61%	158%
Water to Erie	9.5	15.5	6.2	F	2.7	8.7	11.0	D	-72%	-44%	77%
Erie to James	1.6	7.5	12.5	D	15.4	21.3	4.4	F	863%	184%	-65%
Total	143.9	258.7	8.2	E	80.7	195.5	10.9	D	-44%	-24%	33%

		Existing C	ondition			Optimized	Condition		P	ercent Chan	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Washington Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
West to Franklin	15.4	40.0	14.7	С	13.7	38.3	15.4	С	-11%	-4%	5%
Franklin to Clinton	6.3	24.0	14.8	С	4.9	22.6	15.7	С	-22%	-6%	6%
Clinton to Salina	14.0	29.6	8.4	E	10.6	26.2	9.5	D	-24%	-11%	13%
Salina to Warren	19.2	35.5	7.3	E	20.4	36.7	7.1	E	6%	3%	-3%
Warren to Montgomery	3.6	17.1	15.8	С	2.5	16.0	16.9	С	-31%	-6%	7%
Montgomery to State	9.7	27.4	12.9	D	5.9	23.6	15.0	С	-39%	-14%	16%
State to Townsend	24.8	41.0	7.9	E	33.8	50.0	6.5	F	36%	22%	-18%
Townsend to McBride	16.5	32.3	9.8	D	5.7	21.5	14.7	С	-65%	-33%	50%
McBride to Almond	50.5	65.8	4.6	F	4.6	19.9	15.3	С	-91%	-70%	233%
Total	160.0	312.7	9.7	D	102.1	254.8	11.9	D	-36%	-19%	23%
-	-		8	8	-			•	-		

		Existing C	ondition			Optimized	Condition		Р	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Washinton Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Entry Link to Almond	30.7	46.0	6.7	F	19.6	34.9	8.8	E	-36%	-24%	31%
Almond to McBride	5.8	21.1	14.5	С	6.1	21.4	14.3	С	5%	1%	-1%
McBride to Townsend	15.3	31.1	10.1	D	11.6	27.4	11.5	D	-24%	-12%	14%
Townsend to State	10.0	26.2	12.4	D	15.8	32.0	10.1	D	58%	22%	-19%
State to Montgomery	13.5	31.2	11.4	D	7.1	24.8	14.3	С	-47%	-21%	25%
Montgomery to Warren	11.7	25.2	10.7	D	22.0	35.5	7.6	E	88%	41%	-29%
Warren to Salina	22.9	39.2	6.6	F	12.5	28.8	9.0	E	-45%	-27%	36%
Salina to Clinton	10.7	26.3	9.4	D	2.7	18.3	13.6	С	-75%	-30%	45%
Clinton to Franklin	13.4	31.1	11.4	D	14.4	32.1	11.0	D	7%	3%	-4%
Franklin to West	33.0	57.6	10.2	D	33.0	57.6	10.2	D	0%	0%	0%
Total	167.0	335.0	9.9	D	144.8	312.8	10.6	D	-13%	-7%	7%

		Existing Condition				Optimized Condition				Percent Change		
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial	
Water Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	
Clinton to Salina	19.0	35.3	7.3	E	8.4	24.7	10.5	D	-56%	-30%	44%	
Salina to Warren	13.7	29.5	8.5	E	21.2	37	6.8	F	55%	25%	-20%	
Warren to Montgomery	20.5	37.5	7.2	E	5.1	22.1	12.2	D	-75%	-41%	69%	
Montgomery to State	3.6	21.1	16.6	С	9.1	26.6	13.1	С	153%	26%	-21%	
State to Townsend	31.1	47.3	6.8	F	22.7	38.9	8.3	E	-27%	-18%	22%	
Townsend to McBride	18.1	33.6	9.2	D	10.3	25.8	12	D	-43%	-23%	30%	
McBride to Almond	1.0	16.5	18.8	С	10.3	25.8	12	D	930%	56%	-36%	
Total	107.0	220.8	9.4	D	87.1	200.9	10.3	D	-19%	-9%	10%	

		Existing C	Condition			Optimized	Condition		Р	ercent Chang	ge
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial
Water Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed
Crouse to Almond	4.4	42.5	24.5	В	18.3	56.4	18.4	С	316%	33%	-25%
Almond to McBride	5.5	21.0	14.8	С	6.3	21.8	14.2	С	15%	4%	-4%
McBride to Townsend	23.5	39.0	8.0	E	10.7	26.2	11.8	D	-54%	-33%	48%
Townsend to State	6.5	22.7	14.3	С	10.8	27	12	D	66%	19%	-16%
State to Montgomery	20.3	37.8	9.3	D	8.9	26.4	13.2	С	-56%	-30%	42%
Montgomery to Warren	13.7	30.7	8.8	E	0.9	17.9	15	С	-93%	-42%	70%
Total	73.9	193.7	13.4	С	55.9	175.7	14.8	С	-24%	-9%	10%

# **Attachment E**

**Technical Memorandum #2** 

**Technical Analysis of Alternative 1** 





#### Introduction

The Downtown Syracuse Two-Way Feasibility Technical Analysis Project includes development of future scenario alternative analyses for the conversion of one-way streets to two-way operation. The Study Area limits and the one-way streets to be studied for conversion to two-way operation were defined and agreed to during the project Working Group Meeting #2 on June 20, 2013. The existing one-way streets shown in red on the map in Appendix A - One-Way Streets Included in Feasibility Study, agreed-upon for the future scenario alternative analyses are:

- 1. Clinton Street from Marnell Avenue and the I-81 SB off-ramp to W. Adams Street;
- 2. Warren Street from Willow Street to Harrison Street;
- 3. Herald Place from Wallace Street to N. Franklin Street;
- 4. W. Water Street from S. Franklin Street to Warren Street;
- 5. Erie Boulevard E. from S. Salina Street to Montgomery Street;
- 6. W. Washington Street from West Street to mid-block parking facility;
- 7. Market Street from E. Washington Street to E. Water Street;
- 8. McCarthy Avenue from S. State Street to S. Townsend Street;
- 9. E. Jefferson Street from Montgomery Street to S. State Street;
- 10. Montgomery Street from Erie Boulevard E. to E. Adams Street
- 11. Madison Street from S. Warren Street to S. State Street;
- 12. Harrison Street from S. Salina Street to Townsend Street; and,
- 13. E. Adams Street from S. State Street to Townsend Street.

The one-way streets that will not be included in the conversion study shown in purple on the map in Appendix A are:

- 1. Herald Place from West Street to Wallace Street;
- 2. Bank Street from E. Jefferson Street to E. Washington Street;
- 3. E. Onondaga Street from S. Salina Street to Madison Street;
- 4. E. Onondaga Street from Montgomery Street to Warren Street;
- 5. E. Onondaga Street from E. Jefferson Street to S. State Street;
- 6. McCormick Avenue from S. West Street to Granger Street;
- 7. Gifford Street from S. West Street to S. Clinton Street;
- 8. Granger Street from McCormick Avenue to Seymour Street:
- 9. Seymour Street from S. West Street to W. Onondaga Street;
- 10. Harrison Street from Townsend Street to Almond Street/I-81; and
- 11. E. Adams Street from Townsend Street to Almond Street/I-81.

This technical memorandum provides the technical feasibility analysis for Alternative 1, conversion of all the one-way street segments described above as included in the study. This analysis will also be used by the Working Group to determine two additional alternatives to be analyzed. Alternative 1 is the conversion of the vast majority of one-way streets to two-way operations. Alternative 2 is initially



# Technical Memorandum #2 Downtown Syracuse Two-Way Feasibility Technical Analysis



expected to be conversion of select existing one-way streets to two-way operations and Alternative 3 is expected to be conversion of a smaller subset of streets.

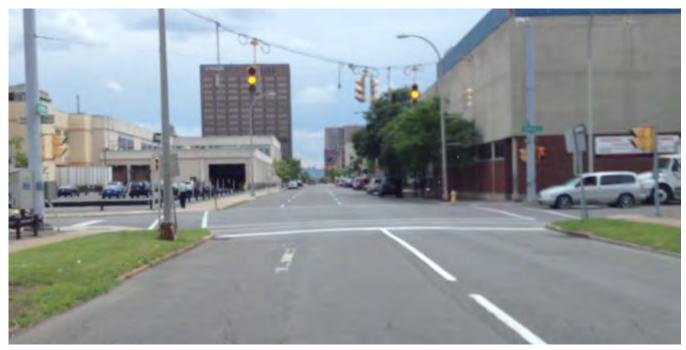
The Working Group for this project includes representatives from involved and interested agencies on both the local and State level with the purpose being to collaboratively guide and refine development of the technical analysis. Based on our discussions with the Working Group for the project during Working Group Meeting #2, the following systematic procedure was used in developing the Synchro7 Alternative 1 models for the morning and evening peak hours:

- Sketch layouts were developed for each one-way street section by block included in Alternative 1.
  Based on the field data provided by SMTC and through field verification, identified fatal flaws to the
  conversion of each two-way street before undertaking the Synchro analysis.
- 2. Necessary modifications were made to the optimized existing peak hour Synchro models for use in developing the Alternative 1 analysis. The optimized morning and evening peak hour Synchro7 models were used as the base models for the Alternative 1 analysis.
- The models were updated to include the roadway geometry for each of the corridors planned to be converted from one way to two way operations, including lane configuration, lane widths, and revised parking lanes.
- 4. Changes to traffic flow volumes were made to estimate the proposed two-way operations, applying adjustments to intersection turning movements at the study area intersections. Input the Alternative 1 traffic volumes into the Synchro models.
- 5. Signal phasing and phase orders were maintained at all intersections along the roadways being converted under Alternative 1. The "new" direction of travel being added at each intersection was assumed to have the same phase number as the existing opposing travel direction.
- 6. The existing 80 second morning signal cycle length and 85 second evening signal cycle length was maintained at all City signals in order to best provide for traffic progression with adjacent interconnect signals outside the Central Business District (CBD).
- 7. The initial optimization run for Alternative 1 included a general CBD wide optimization of splits and offsets at all City signals.
- 8. Timing splits were reviewed on an intersection by intersection basis during both the morning and evening peak hours and adjusted as necessary to balance delays. A system wide optimization run for offsets only was then completed.
- 9. Results were summarized for evaluating the feasibility of implementing Alternative 1 as compared to existing one-way operations and optimized timings.

The analyses and evaluations in this report have been performed using standard traffic engineering methodologies in accordance with the methodologies set forth by the Transportation Research Board (TRB) in the Highway Capacity Manual (HCM). Data used in this technical analysis has been provided by the SMTC, collected from fatal flaw field investigations and field data collection visits.







Photograph #1 – View facing south on Clinton Street approaching Herald Place

# **Alternative 1 Proposed Two-Way Street Typical Sections**

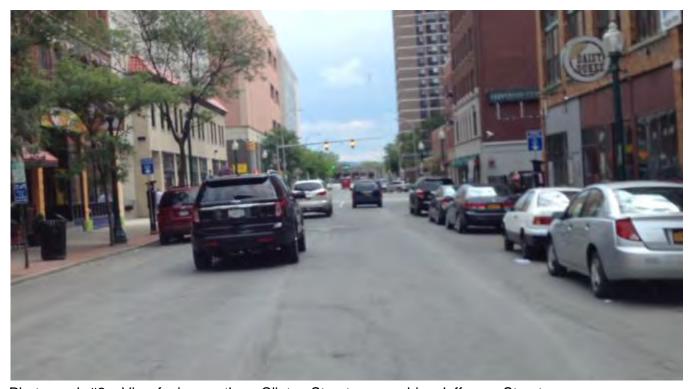
Alternative 1 is the conversion of the vast majority of existing one-way streets to two-way operations. The one-way streets included in Alternative 1 for conversion are shown in red on the map in Appendix A - One-Way Streets Included in Feasibility Study. The objective of this technical analysis is to determine the feasibility of Alternative 1 and to aid with determining the scope of two additional alternatives to be analyzed. The following section of this technical memorandum describes the existing one-way and proposed two-way street sections for each one-way street segment proposed for conversion as part of Alternative 1.





# **Clinton Street**

Clinton Street operates one-way southbound and is classified as an urban minor arterial. The Annual Average Daily Traffic (AADT) on Clinton Street south of Herald Place is approximately 7,500 vehicles per day (vpd). The AADT north of the Adams Street intersection is approximately 2,500 vpd. There are nine traffic signals along this corridor including signals at Herald Place to the north and Adams Street to the south.



Photograph #2 – View facing south on Clinton Street approaching Jefferson Street

The width of Clinton Street varies, with two, three or four travel lanes southbound between Webster's Landing and Adams Street. The number of travel lanes and on-street parking varies by block as shown in Table 1 Clinton Street Sections. Clinton Street has two southbound travel lanes from Webster's Landing and the I-81 southbound off-ramp to Herald Place. In general the street widens to three southbound travel lanes starting at Herald Place with intermittent parking; then narrows from three lanes to two lanes at Fayette Street. There are two southbound travel lanes between Fayette Street and Jefferson Street. The street widens to three travel lanes between Fayette Street and Adams Street.





TABLE 1
Clinton Street Typical Sections
Webster's Landing to Adams Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Southbound	Proposed Section Two-way Traffic
400 N	Webster's Landing to Herald Place	34	Two 17 feet wide SB lanes No parking	Two 17 feet wide SB lanes No parking
300 N	Herald Place to Willow Street	44	Three 12 feet wide SB lanes with 8 feet wide intermittent parking lane west side and 12 feet wide intermittent parking lane east side	2 lanes 11 feet wide SB, 1 lane 14 feet wide NB, parking west 8 feet
200 N	Willow Street to Genesee Street	44	Three 12 feet wide SB lanes with 8 feet wide intermittent parking lane west side and 12 feet wide intermittent parking lane east side	2 lanes 11 feet wide SB, 1 lane 14 feet wide NB, parking west 8 feet
100 N	Genesee Street to Erie Boulevard	36	Three 12 feet wide SB lanes No parking	1 lane 12 feet NB, 2 lanes 12 feet SB, no parking
100 S	Erie Boulevard to Water Street	36	Three 12 feet wide SB lanes No parking	1 lane 12 feet NB, 2 lanes 12 feet SB, no parking
100 S	Water Street to Washington Street	50	Four SB lanes – 12 to 14 feet wide No Parking	1 lane 14 feet NB, 3 lanes 12 feet SB, no parking
200 S	Washington Street to Fayette Street	50	Three SB lanes – 12 to 13 feet wide Parking – 13 feet wide lane, intermittent on west side	2 lanes 12 feet NB, 1 lane 12 feet SB, retain intermittent parking on west side
300 S	Fayette Street to Walton Street	38	Two 11 feet wide SB lanes Parking – 8 feet lanes, both sides	1 lane 11 feet NB, 1 lane 11 feet SB, parking both sides 8 feet wide
400 S	Walton Street to Jefferson Street	38	Two 11 feet wide SB lanes Parking – 8 feet lanes, both sides	1 lane 11 feet NB, 1 lane 11 feet SB, parking both sides 8 feet wide
500 S	Jefferson Street to Dickerson Street	50	Three SB lanes –12 feet wide Parking – 14 feet lane, angled parking on west side	1 lane 12 feet NB, 1 lane 14 feet SB, retain angled parking west 16 feet and 8 feet parallel parking east
600 S	Dickerson Street to Onondaga Street	50	Three SB lanes –12 feet wide Parking northern portion near Dickerson – 14 feet lane, angled parking on west side	1 lane 12 feet NB, 1 lane 14 feet SB, retain angled parking west 16 feet near Dickerson Street and 8 feet parallel parking east
700 S	Onondaga Street to Adams Street	50	Three SB lanes – 14, 12, 16 feet wide 8 feet parking east	1 lane 16 feet NB, 1 lane 12 feet SB, 1 lane 14 feet SB, parking east 8 feet

 ${\sf EB}, {\sf WB}, {\sf NB}, {\sf SB} \ {\sf refer} \ {\sf to} \ {\sf traffic} \ {\sf flow} \ {\sf in} \ {\sf the} \ {\sf eastbound}, \ {\sf westbound}, \ {\sf northbound} \ {\sf and} \ {\sf southbound} \ {\sf directions} \ {\sf respectively}.$ 

In general the proposed two-way street cross-section provides one northbound travel lane and the number of southbound travel lanes vary except between Fayette Street and Washington Street where two northbound travel lanes are proposed. The number of southbound travel lanes varies as shown in Table 1 based on the following parameters: existing curb to curb street widths, alignment of curbs at intersections and retention of existing parking and loading curb lane areas where feasible. The segment





from Webster's Landing to Herald Place will remain one-way southbound due to volume of traffic exiting from I-81. The proposed two-way operation would result in a removal of intermittent parking on the east side of Clinton Street from Herald Place to Genesee Street due to the high volume of southbound traffic in the morning peak hour and the relatively low demand for parking in this area.

#### **Warren Street**

Warren Street operates one-way northbound and is classified as an urban minor arterial. The AADT on Warren Street from Fayette Street to Harrison Street is approximately 3,100 vpd. From Harrison Street to Adams Street the AADT is approximately 2,000 vpd. There are eight traffic signals along this corridor between Willow Street to the north and Salina Street to the south.



Photograph #3 – View facing north on Warren Street approaching Water Street

The street width and provisions for vary along Warren Street with one to four travel lanes northbound between Salina Street and Willow Street. The number of travel lanes and on-street parking varies by block as shown in Table 2 Warren Street Typical Sections. Presently the street operates one-way northbound with parking on both sides of the street south of Water Street. Towards the north more lanes emerge for driving.





TABLE 2
Warren Street Typical Sections
Adams Street to Willow Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Northbound	Proposed Section Two-way Traffic
100 N	Willow Street to James Street	44	Two 12 feet wide NB lanes Parking – 10 feet wide lanes, both sides	One 12 feet wide NB lane, one 12 feet wide SB lane and retain parking both sides.
100 N	James Street to Erie Boulevard	48	Four 12 feet wide NB lanes No parking	One 12 feet wide NB lane, one 12 feet wide SB lane.
	Erie Boulevard to Water Street	38	Three 12-13 feet wide NB lanes No parking	One 11 feet wide NB lane, one 11 feet wide SB lane.
100 S	Water Street to Washington Street	37	Two 10.5 feet wide NB lanes, 8 feet wide parking lanes both sides.	One 11 feet wide NB lane, one 10 feet wide SB lane and 8 feet wide parking lanes both sides.
200 S	Washington Street to Fayette Street	33	One 17 feet wide NB lane and 8 feet wide parking lanes both sides	One 11 feet wide NB lane, one 14 feet wide SB lane and one 8 feet wide parking lane on east side
300 S	Fayette Street to Jefferson Street	33	One 17 feet wide NB lane and 8 feet wide parking lanes both sides	One 12 feet wide NB lane, one 13 feet wide SB lane and one 8 feet wide parking lane on east side
400 S	Jefferson Street to Onondaga Street	34	One 18 feet wide NB lane and 8 feet wide parking lanes both sides	One 12 feet wide NB lane, one 14 feet wide SB lane and one 8 feet wide parking lane on east side
500 S	Onondaga Street to Harrison Street	36	Two 10 feet wide NB lanes and 8 feet wide parking lanes both sides	One 14 feet wide NB lane, one 14 feet wide SB lane and one 8 feet wide parking lane on east side

South of James Street the proposed typical cross-section for two way operation on Warren Street includes one travel lane in each direction with no change to parking on the east side of the street and removal of parking on the west side. Parking and loading/drop-off/pick-up curb lane areas would be retained on the east side. Parking is not feasible on both sides of the street for two-way operation without widening the street. One 11 foot wide travel lane northbound and one 10 foot wide travel lane southbound is proposed between Water Street and Washington Street in order to retain parking on both sides of the street, as wider travel lanes would require removal of parking on one side.

North of James Street parking is expected to be retained on both sides of Warren Street.

#### **Herald Place**

Herald Place operates one-way eastbound and is classified as an urban local street. The Herald Place intersection with Wallace Street is controlled by a yield sign as shown in Photograph #4 below and the intersections at Franklin Street, Clinton Street and Salina Street are all controlled by traffic signals.







Photograph #4 - View facing southeast on Herald Place approaching Wallace Street

Herald Place provides two travel lanes eastbound between Wallace Street and Franklin Street with no parking as shown in Table 3 Herald Place Typical Section. From West Street to Wallace Street the roadway is an exit ramp that continues onto Herald Place. The segment from Wallace Street to Franklin Street is a one-way street eastbound, while the segment from Franklin Street to Salina Street is two-way. Parking is prohibited along the one-way segment and reserved parking and loading/drop-off/pick-up areas are provided along the two-way segment east of Franklin Street.

TABLE 3
Herald Place Typical Section
Wallace Street to Franklin Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section Two-way Traffic
300	Franklin Street to Wallace Street	35	Two 17-18 feet wide EB lanes No parking	One 15 feet wide EB lane, one 12 feet wide WB lane, one 8 feet wide parking lane - north side

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.

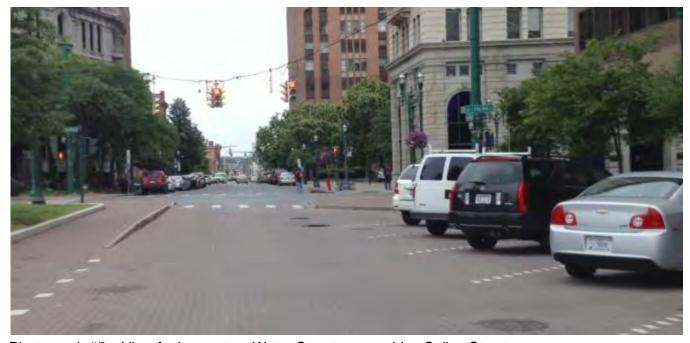




From West Street to Wallace Street the street shall remain a one-way since it is an exit ramp. Wallace Street to Franklin Street will be converted to a two-way street under Alternative 1. Converting this street to two-way is not recommended for analysis under Alternatives 2 and 3 because of the alignment of the exit ramp from West Street and the low volume of traffic expected to use Herald Place in the westbound direction west of Franklin Street. The costs are expected to outweigh the benefits for this one-way street.

#### Water Street - Clinton Street to Warren Street

Water Street operates one-way eastbound and is classified as an urban major collector. The AADT on Water Street from Clinton Street to Warren Street is approximately 2,000 vpd. There are three traffic signals along this corridor between Clinton Street to the west and Warren Street to the east.



Photograph #5 – View facing east on Water Street approaching Salina Street

Water Street provides one travel lane eastbound between Clinton Street and Warren Street. The street width and on-street parking provisions vary as shown in Table 4 Water Street Typical Sections. The existing conditions include angled parking from Clinton Street to Salina Street as shown in Photograph #5. Parking is provided on both sides of the street from Salina Street to Warren Street with parallel parking on the north side and angled parking on the south side.





TABLE 4
Water Street Typical Sections
Clinton Street to Warren Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section Two-way Traffic
100 W	Clinton Street to Salina Street	20*	One 20 feet wide EB lane with angled parking along south side	One 10 feet wide EB lane, one 10 feet wide WB lane and retain angled parking on south side
100 E	Salina Street to Warren Street	31**	One 14 feet wide EB lane with 8 feet parking lane on north side and parking on the south side in conjunction with curb extension	One 12 feet wide EB lane, one 11 feet wide WB lane, one 8 feet wide parking lane on north side and retain parking on south side with curb extension

The proposed two-way Water Street typical cross-section includes one travel lane in each direction with no change to parking between Clinton Street and Warren Street. Ten feet wide travel lanes in each direction are proposed between Clinton Street and Salina Street in the area near the curb extension as a trade-off to removing and/or modification of the recently constructed curb extensions.

#### Water Street - Franklin Street to Clinton Street

Water Street operates one-way westbound and is classified as an urban local street from Franklin Street to Clinton Street. A bump-out on the southeast corner of the intersection at Clinton Street and Water Street narrows the curb to curb width to 20 feet. East of the bump out there is angled parking on the segment from Clinton Street to Salina Street. Water Street provides one travel lane westbound from Clinton Street to Franklin Street with parking provided on both sides of the street as shown in Table 5 Water Street Typical Section. The parking on the north side is parallel to the flow of traffic and on the south side it is angled.

TABLE 5
Water Street Typical Section
Clinton Street to Franklin Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Westbound	Proposed Section Two-way Traffic
200 W	Clinton Street to Franklin Street	42	One 15 feet wide WB lane, one 8 feet wide parking lane north side and angled parking on south side	One 11 feet wide EB lane, one 12 feet wide WB lane and retain angled parking on south side

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.



<sup>\*</sup> Curb extensions/bump-outs reduce the effective curb to curb width to 20 feet for travel lanes.

<sup>\*\*</sup> Curb extension/bump-out on south side at Warren Street reduces curb to curb width to 31 feet.



The proposed two-way Water Street typical cross-section includes one travel lane in each direction, removal of parallel parking on the north side of the street and no change to angled parking on the south side. The proposed removal of parking on the north side of the street is a trade-off to widening the street or realigning/reconfiguring the street segment to the east.

#### **Erie Boulevard**

Erie Boulevard operates one-way eastbound and is classified as an urban principal arterial. The AADT on Erie Boulevard from Salina Street to Montgomery Street is approximately 2,100 vpd. Erie Boulevard is controlled by a traffic signal at the Warren Street and Montgomery Street intersections.



Photograph #6 - View facing east on Erie Boulevard approaching Warren Street

Erie Boulevard provides one travel lane eastbound between Salina Street and Montgomery Street with angled parking on both sides of the street as shown in Photograph #6 and Table 6 Erie Boulevard Typical Sections.





TABLE 6
Erie Boulevard Typical Sections
Salina Street to Montgomery Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section Two-way Traffic
100 E	Salina Street to Warren Street	50	One 12 feet wide EB lane with angled parking on both sides	One 11 feet wide EB lane, one 11 feet wide WB lane, one 8 feet wide parallel parking lane north side and one 19 feet wide angled parking lane south side
200 E	Warren Street to Montgomery Street	50	One 12 feet wide EB lane with angled parking on both sides	One 11 feet wide EB lane, one 11 feet wide WB lane, one 8 feet wide parallel parking lane north side and one 19 feet wide angled parking lane south side

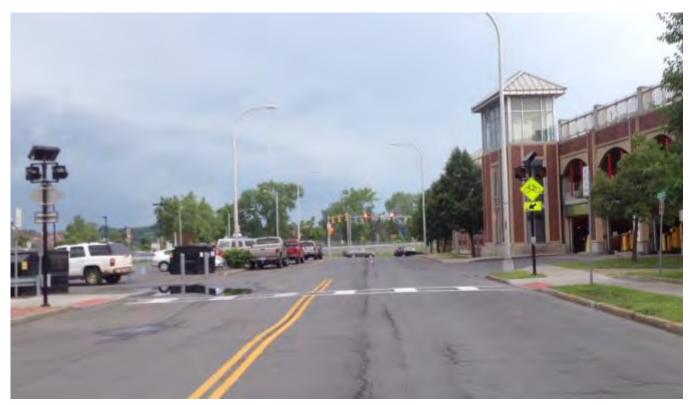
The proposed two-way street cross-section between Salina Street and Montgomery Street includes one travel lane in each direction with the existing angled parking to remain on the south side of the street and converting parking on the north side of the street from angled parking to parallel parking, which will reduce the parking capacity for this two block stretch.

#### **Washington Street**

Washington Street operates one-way westbound and is classified as an urban major collector. The AADT on Washington Street west of Onondaga Creekwalk is approximately 1,900 vpd. The West Street intersection with Washington Street is controlled by a traffic signal.







Photograph #7 – View facing west on Washington Street approaching West Street

Washington Street provides two travel lanes westbound between the mid-block parking facility and West Street with parking allowed on the south side of the street as shown in Photo #7 and Table 7 Washington Street Typical Section. A flared corner on the southwest corner of the intersection of West Street and Washington Street helps to deter motorists from turning right from West Street onto Washington Street.

TABLE 7
Washington Street Typical Section
Onondaga Creekwalk to West Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Westbound	Proposed Section Two-way Traffic
400 W	Onondaga Creekwalk to West Street	40	Two 14 feet wide WB lanes with parking on south side of the street	One 10 feet wide EB lane, two 11 feet wide WB lanes and 8 feet wide parking lanes south side

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.

The proposed two-way typical cross-section west of the Creekwalk includes one 10 feet wide eastbound travel lane, two 11 feet wide westbound lanes and an 8 feet wide parking lane on the south side of the street.





# **Market Street**

Market Street operates one-way northbound and is classified as an urban local street.



Photograph #8 - View facing north on Market Street approaching Water Street

Market Street consists of one travel lane northbound between Water Street and Washington Street and parking lanes on both sides of the street as shown in Photograph #8 and Table 8 Market Street Typical Section. There are no traffic signals along this street.

TABLE 8
Market Street Typical Section
Washington Street to Water Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Northbound	Proposed Section Two-way Traffic
100	Washington Street to Water Street	28	One 12 feet wide NB lane and 8 feet wide parking both sides	One 10 feet wide NB lane, one 10 feet wide SB lane and one 8 feet wide parking lane west side

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.





The proposed two-way typical cross-section includes one lane in each direction, removal of the parking lane on the east side of the street and retention of the parking lane on the west side. Parking is not feasible on both sides of the street for two-way operation without widening the street. Ten feet wide travel lanes are proposed as a trade-off for retaining the parking lane on the west side of the street due to the 28 feet street width.

### **McCarthy Avenue**

McCarthy Avenue operates one-way eastbound and is classified as an urban local street.



Photograph #9 - View facing east on McCarthy Avenue approaching Townsend Street

McCarthy Avenue provides one travel lane eastbound between State Street and Townsend Street with back-in angled parking on the north side as shown in Photograph #9 and Table 9 McCarthy Avenue Typical Section. There are no traffic signals along this street.





TABLE 9
McCarthy Avenue Typical Section
State Street to Townsend Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section One-way Eastbound
100	State Street to Townsend Street	30	One 15 feet wide EB lane and angled parking on north side	No change proposed.

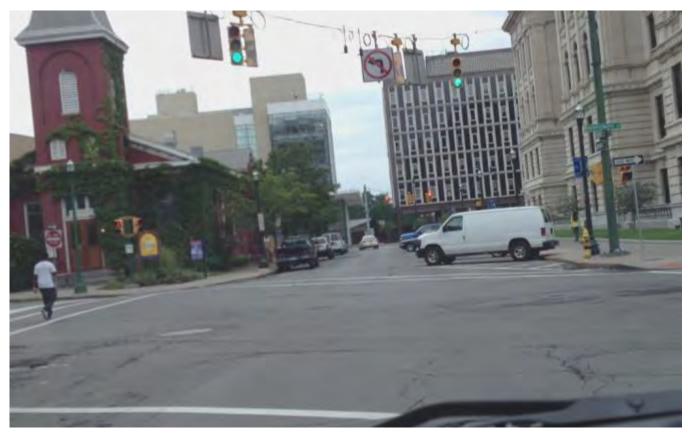
Retaining one-way operation is proposed for this local street and therefore the street is shown in yellow on the on the map in Appendix A - One-Way Streets Included in Feasibility Study. The street segment is short, connecting State and Townsend Streets only and therefore would not be a significant benefit to mobility if two-way operations were implemented. Two-way operations would be a significant impact on parking, an important attribute of this street as evidenced by the high parking demand as shown in Photograph # 9.

#### **Jefferson Street**

Jefferson Street operates one-way eastbound from Montgomery Street to State Street and is classified as an urban major collector. The AADT on Jefferson Street from Montgomery Street to State Street is approximately 1,100 vpd.







Photograph #10 - View facing east on Jefferson Street approaching Montgomery Street

Jefferson Street provides one eastbound travel lane with parking on both sides of the street as shown in Photograph #10 and Table 10 Jefferson Street Typical Section. There are traffic signals at each end of this segment of Jefferson Street between Montgomery Street to the west and State Street to the east.

TABLE 10
Jefferson Street Typical Section
Onondaga Street/Montgomery Street to State Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section Two-way Traffic
300 E	Montgomery Street to State Street	40	One 16 feet wide EB lane, 8 feet wide parallel parking north side and 16 feet wide angled parking south side	One 12 feet wide EB lane, one 12 feet wide WB lane and 8 feet wide parking lanes both sides

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.

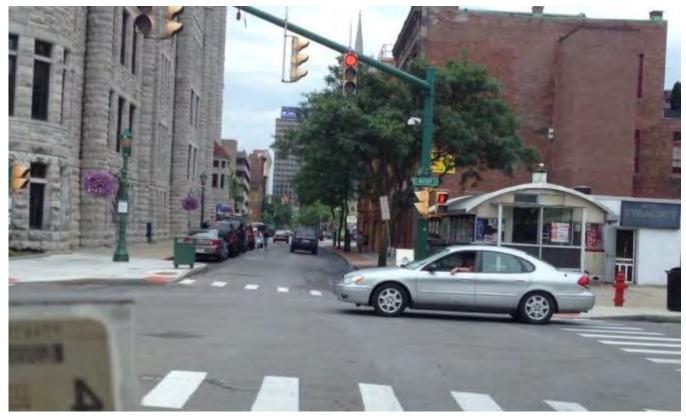




The proposed typical cross-section for two-way operations on this segment of Jefferson Street includes one travel lane in each direction, retention of parallel parking on the north side of the street and conversion of the angled parking on the south side to parallel parking.

#### Montgomery Street - North of Jefferson Street

Montgomery Street operates one-way southbound and is classified as an urban major collector. The AADT on Montgomery Street between Erie Boulevard and Jefferson Street is approximately 2,000 vpd.



Photograph #11 – View facing south on Montgomery Street approaching Water Street

The width of Montgomery Street varies, providing two or three travel lanes southbound between Erie Boulevard and Jefferson Street. The number of travel lanes and on-street parking varies by block as shown in Table 11 Montgomery Street (North) Typical Sections. There are four traffic signals along this corridor between Erie Boulevard to the north and Jefferson Street to the south.





TABLE 11
Montgomery Street (North) Typical Sections
Erie Boulevard to Jefferson Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Southbound	Proposed Section Two-way Traffic
100	Erie Boulevard to Water Street	36	Two 18 feet wide SB lanes No parking	One 11 feet wide SB lane, two NB lanes including a 14 feet wide right turn lane, no parking.
100	Water Street to Washington Street	27	Two 10 feet wide SB lanes with parking on east side	One 9.5 foot wide SB lane, one 9.5 foot wide NB lane and one parking lane on east side
200	Washington Street to Fayette Street	47	Three 10-11 feet wide lanes with 8 feet wide parking lanes both sides	One 10 feet wide SB lane, two 10-11 feet wide NB lanes and 8 feet wide parking both sides
300	Fayette Street to Jefferson Street	38	Two 11 feet wide SB lanes with 8 feet wide parking both sides	One 11 feet wide SB lane, one 11 feet wide NB lane and 8 feet wide parking both sides

The proposed typical cross-section for two-way operations on this stretch of Montgomery Street includes one travel lane in each direction with no change to parking. There are two segments where two northbound travel lanes are proposed from Fayette Street to Washington Street and from Water Street to Erie Street. Narrow lanes of 9.5 and 10.0 feet wide are proposed between Water Street and Fayette Street due to street widths and the curb extension on the south leg of the Montgomery/Washington intersection which restricts the width to 19 feet.

The existing street width of 47 feet is insufficient to provide parallel parking on the west side of the street, two way traffic and angled parking on the east side. The minimum recommended width of angled parking (measured laterally along the width of the street) including the adjacent travel lane is 32-35 feet as shown in Table 14-11 Guidelines for Successful Application of On-Street Parking, Institute of Transportation Engineers (ITE), Traffic Engineering Handbook, 6<sup>th</sup> edition. Elimination of parallel parking on the west side of the street is required to meet minimum angled parking needs based on providing adequate travel lane widths for safe operation of two way traffic and adequate parking space dimensions with proper area for safety of turning/parking maneuvers without impacting traffic flow in the opposing direction of travel. Angled parking on a two way street, especially without proper area for traffic flow and parking operations is a potential safety concern.





## <u>Montgomery Street – South of Jefferson Street</u>

Montgomery Street operates one-way southbound and is classified as an urban major collector. The AADT on Montgomery Street south of Madison Street is approximately 2,100 vpd.



Photograph #12 - View facing south on Montgomery Street approaching Harrison Street

The width of Montgomery Street and parking varies, providing two travel lanes southbound between Jefferson Street and Harrison Street and three travel lanes southbound between Harrison Street and Adams Street. The number of travel lanes and on-street parking varies by block as shown in Table 12 Montgomery Street (South) Typical Sections. There are four traffic signals along this corridor between Jefferson Street to the north and Adams Street to the south.





TABLE 12
Montgomery Street (South) Typical Sections
Jefferson Street to Adams Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Southbound	Proposed Section Two-way Traffic
400	Jefferson Street to Madison Street	42	Two 13 feet wide SB lanes with 8 feet wide parking lanes both sides	One 13 feet wide SB lane, one 13 feet wide NB lane and 8 feet wide parking lanes both sides
500	Madison Street to Harrison Street	46	Two 15 feet wide SB lanes with 8 feet wide parking lanes both sides.	One 15 feet wide SB lane, one 15 feet wide NB lane and 8 feet wide parking lanes both sides
600	Harrison Street to Adams Street	48	Three 12 feet wide SB lanes with parking on the east side. West side parking located on northern portion of segment.	One 14 feet wide SB lane, one 14 feet wide NB lane, one 8 feet wide parking lane west side and one 12 feet wide parking lane east side

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.

The proposed typical cross-section for two-way operations on this stretch of Montgomery Street includes one travel lane in each direction with no change to the existing parking provided on both sides of the street.

The existing street width of 46 feet is insufficient to provide parallel parking on the west side of the street, two way traffic and angled parking on the east side. The minimum recommended width of angled parking (measured laterally along the width of the street) including the adjacent travel lane is 32-35 feet as shown in Table 14-11 Guidelines for Successful Application of On-Street Parking, Institute of Transportation Engineers (ITE), Traffic Engineering Handbook, 6<sup>th</sup> edition. Elimination of parallel parking on the west side of the street is required to meet minimum angled parking needs based on providing adequate travel lane widths for safe operation of two way traffic and adequate parking space dimensions with proper area for safety of turning/parking maneuvers without impacting traffic flow in the opposing direction of travel. Angled parking on a two way street, especially without proper area for traffic flow and parking operations is a potential safety concern.

### **Madison Street**

Madison Street operates one-way eastbound and is classified as an urban local street.







Photograph #13 - View facing east on Madison Street approaching Montgomery Street

Madison Street provides two eastbound travel lanes and parking on both sides as shown in Table 13 Madison Street Typical Sections. There are three traffic signals along this corridor between the Onondaga Street/Warren Street intersection and State Street to the east. Vehicle travel is limited to one eastbound lane at the entrance and exit ramps to the parking garage as depicted in Photograph #13.

TABLE 13
Madison Street Typical Sections
Warren Street to State Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section Two-way Traffic
100	Onondaga Street/Warren Street to Montgomery Street	38	Two 11 feet wide EB lanes with 8 feet wide parking both sides. Parking garage entrance and exit are located on the north side of the street and limit travel to one lane	No change proposed due to traffic flow at the parking garage entrance and exit.
200	Montgomery Street to State Street	48	Two 16 feet wide EB lanes with 8 feet wide parking lanes both sides	No change proposed due to eastbound traffic flow exiting the parking garage from west of Montgomery Street.

 ${\sf EB}, {\sf WB}, {\sf NB}, {\sf SB} \ {\sf refer} \ {\sf to} \ {\sf traffic} \ {\sf flow} \ {\sf in} \ {\sf the} \ {\sf eastbound}, \ {\sf westbound}, \ {\sf northbound} \ {\sf and} \ {\sf southbound} \ {\sf directions} \ {\sf respectively}.$ 





Retaining one-way operation is proposed for this local street and therefore it is shown in yellow on the on the map in Appendix A - One-Way Streets Included in Feasibility Study. No change to one-way operations is suggested between the Onondaga/Warren intersection and Montgomery Street due to the parking garage entrance and exit ramps. The proposed typical cross-section of Madison Street between Montgomery Street and State Street remains one way as it is currently with two eastbound travel lanes and parallel parking on both sides of the street.

The existing street width of 48 feet is insufficient to provide parallel parking on one side of the street, two eastbound travel lanes and angled parking. The minimum recommended width of angled parking (measured laterally along the width of the street) including the adjacent travel lane is 32-35 feet as shown in Table 14-11 Guidelines for Successful Application of On-Street Parking, ITE, Traffic Engineering Handbook, 6<sup>th</sup> edition. Elimination of parallel parking on one side of the street is required to meet minimum angled parking needs based on retention of two travel lanes and safety of turning/parking maneuvers.

### **Harrison Street**

Harrison Street operates one-way westbound and is classified as an urban principal arterial. The AADT on Harrison Street from Salina Street to Almond Street is approximately 8,100 vpd.



Photograph #14 – View facing west on Harrison Street approaching Montgomery Street





Harrison Street provides three travel lanes westbound between State Street and Salina Street and four travel lanes between Townsend Street and State Street. The number of travel lanes and on-street parking provisions vary by block as shown in Table 14 Harrison Street Typical Sections. There are five traffic signals along this corridor between Townsend Street to the east and Salina Street to the west. Parking is provided on the north side of the street from State Street to Montgomery Street and on the south side from Montgomery Street to Warren Street as depicted in Photograph #14.

TABLE 14
Harrison Street Typical Sections
Townsend Street to Salina Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Westbound	Proposed Section Two-way Traffic
100	Salina Street to Warren Street	34	Three 10-13 feet wide WB lanes with no parking either side	One 12 feet wide EB lane, two 11 feet wide WB lanes and no parking either side
200	Warren Street to Montgomery Street	39/44 (bump out)	Three 10-11 feet wide WB lanes with intermittent 8 feet wide parking lane south side	One 12 feet wide EB lane, one 12 feet wide WB lane, one 8 feet wide parking lane south side and one 8-12 feet wide (bump-out) parking lane on the north side
300	Montgomery Street to State Street	48	Three 12 feet wide WB lanes with 12 feet wide parking north side	Two 12 feet wide EB lanes, one 12 feet wide WB lanes and one 12 feet wide parking lane north side
400	State Street to Townsend Street	50	Four 12-13 feet wide WB lanes with no parking	Two 12-13 feet wide EB lanes and two 12-13 feet wide WB lanes. No parking.

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.

The proposed typical cross-section for two-way operations includes two travel lanes in each direction between Townsend Street and State Street, two eastbound lanes and one westbound lane between State Street and Montgomery Street, one travel lane in each direction between Montgomery Street and Warren Street, and one eastbound lane with two westbound lanes between Warren Street and Salina Street. Pavement striping modifications on Onondaga Street are also required in conjunction with implementing two westbound through lanes on Harrison Street in order to provide two lanes of south-westbound travel on Onondaga Street. Addition of parking is proposed along the north side of the street between Montgomery Street and Warren Street.

#### **Adams Street**

Adams Street operates one-way eastbound and is classified as an urban principal arterial. The AADT on Adams Street east of State Street is approximately 16,000 vpd.







Photograph #15 - View facing east on Adams Street approaching Townsend Street

Adams Street provides five eastbound travel lanes between Townsend Street and State Street with no parking as shown in Table 15 Adams Street Typical Section.

TABLE 15
Adams Street Typical Section
State Street to Townsend Street

Block #	Block Description	Street Width (feet)	Existing Section One-way Eastbound	Proposed Section Two-way Traffic
400 E	State Street to Townsend Street	64	Five 12 feet wide EB lanes, 2 feet wide shoulder on each side and no parking	Two 12 feet wide EB lanes, three 12 feet wide WB lanes, 2 feet wide shoulders on both sides and no parking

EB, WB, NB, SB refer to traffic flow in the eastbound, westbound, northbound and southbound directions respectively.



## Technical Memorandum #2 Downtown Syracuse Two-Way Feasibility Technical Analysis



The proposed typical cross-section for two-way operations from Townsend Street to State Street includes two eastbound travel lanes and three westbound travel lanes. Parking would continue to be prohibited along this segment under two-way operations.

## **Technical Analysis Results**

Measures of Effectiveness (MOE's) for Alternative 1 were evaluated by arterial, overall corridor and on a full network basis for both the morning and evening conditions and then compared to the existing and optimized model MOE's to identify the expected changes. Summary tables of MOE's by street and for the overall study area network are provided in Appendix B and the detailed Synchro results are provided in Appendix C. The following MOE's were evaluated:

Network MOE's – Total Delay (hours), Number of Stops, Average Speed (mph), Fuel Consumed (gallons) and Fuel Economy (mpg)

<u>Corridor MOE's</u> – Total Delay (hours), Number of Stops, Average Speed (mph), Fuel Consumed (gallons) and Fuel Economy (mpg)

Arterial MOE's - Signal Delay (seconds), Travel Time (seconds), Arterial Speed (mph), LOS

Tables 16 and 17 summarize the comparison of network MOE's between the Alternative 1 condition and the existing and optimized conditions for the morning and evening peak hours.

The overall network shows significant improvement in all MOE's for Alternative 1 as compared to the existing condition during both the morning and evening peak hours with the developed Alternative 1 signal plans. These improvements during the peak hours range from a 31%-32% reduction in delay, a 14%-16% reduction in number of stops, a 20%-30% increase in operating speeds, an 16%-17% reduction in fuel consumed and a 20%-21% increase in fuel economy.

The benefits to be realized comparing the existing condition with Alternative 1 are generally less than the improvements that could be realized by retaining the existing one-way operation with the implementation of signal optimization only. Comparison of Alternative 1 conversion results to the optimized signal timing and coordination implementation shows a slight degradation in MOE's ranging from a 3%-5% increase in delay, a 3%-4% increase in number of stops, a 0% decrease in operating speeds, a 2%-3% increase in fuel consumed and a 2% decrease in fuel economy.

Intersection Level of Service (LOS) was also reviewed to determine locations where unacceptable LOS is expected for Alternative 1. LOS D or better is considered acceptable and LOS E and F are unacceptable. The following improvements are required to mitigate LOS E or F (indicating expected congestion on the intersection approach):

- Provide two right turn lanes on the westbound Washington Street approach to West Street to alleviate poor levels of service indicative of LOS E and F during peak hours with one right turn lane, and
- 2. Provide two shared through lanes (one shared left/through and one shared through/right) on the westbound Harrison Street approach to Onondaga Street/Salina Street to alleviate the LOS F expected during the PM peak hour with one shared through lane.





During the evening peak hour, the two failing movements noted above contribute the majority of the increase to total delay noted for the network when comparing the Alternative 1 results to the optimized condition. Without the two failing movements, the expected increase in total delay during the evening peak hour would only be 1%-2%, consistent with the level of degradation expected during the morning peak hour.

TABLE 16 Network Results Morning Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Total Delay (Hours)	450	296	312	-138 (-31%)	+16 (+5%)
Stops (#)	44826	36387	37542	-7284 (-16%)	+1155 (+3%)
Average Speed (mph)	10	13	13	+3 (+30%)	0 (0%)
Fuel Consumed (gal)	863	703	723	-140 (-16%)	20 (+3%)
Fuel Economy (mpg)	8.0	9.8	9.6	+1.6 (+20%)	-0.2 (-2%)

TABLE 17 Network Results Evening Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Total Delay (Hours)	497	328	339	-158 (-32%)	+11 (+3%)
Stops (#)	47313	39204	40615	-6698 (-14%)	+1411 (+4%)
Average Speed (mph)	10	12	12	+2 (+20%)	+0 (+0%)
Fuel Consumed (gal)	914	745	763	-151 (-17%)	+18 (+2%)
Fuel Economy (mpg)	7.6	9.4	9.2	+1.6 (+21%)	-0.2 (-2%)





The detailed Measures of Effectiveness (MOE) summary tables for the overall network, corridors and arterials have been included in Appendix B for both the morning and evening peak hour. The tables include comparisons of MOE's between the existing and optimized conditions, the existing and Alternative 1 conditions as well as the optimized and Alternative 1 conditions. The arterial reports include summaries of signal delay, travel time, speed and Level of Service by roadway segment in each direction along the study area roadways. These reports provide average values expected for each vehicle traveling along each arterial segment. The corridor reports include total delay, total number of stops, average speed, fuel consumed and fuel economy by direction along each route. These reports provide total cumulative values for the length of each corridor for the peak hours. The network reports include the same MOE's as the corridor reports with the values being total cumulative statistics for all vehicles traveling within the study area during each peak hour.

As previously discussed, the greatest improvements in MOE's have been found with the optimized condition. While the Alternative 1 condition still yields significant improvements in MOE's over the existing condition, the improvements are generally less than the optimized condition.

The detailed MOE reports from the Synchro7 Alternative 1 model runs have been included in Appendix C. These reports have been migrated into the tables that provide the comparisons between the existing, optimized and Alternative 1 conditions, which are included in Appendix B.

## **Summary and Conclusions**

The overall network results for Alternative 1 indicated that traffic operations will be marginally less effective than the optimized timing with the existing one-way operation. Yet Alternative 1 will be significantly better than the existing traffic operations. The majority of one-way streets can be converted to two-way operations as described under Alternative 1 with acceptable impacts to traffic operations and intersection LOS. The following improvements are required to mitigate locations of expected congestion:

- Provide two right turn lanes on the westbound Washington Street approach to West Street to alleviate poor levels of service indicative of LOS E and F during peak hours with one right turn lane, and
- Provide two shared through lanes (one shared left/through and one shared through/right) on the westbound Harrison Street approach to Onondaga Street/Salina Street to alleviate the LOS F expected during the PM peak hour with one shared through lane.

Implementation of Alternative 1 will have impacts on parking. The following list shows the loss of parking along identified streets:



## Technical Memorandum #2 Downtown Syracuse Two-Way Feasibility Technical Analysis



- 1. Clinton Street from Herald Place to Genesee Street removal of approximately 24 parking spaces on the east side of the street.
- 2. Warren Street from Washington Street to Harrison Street removal of approximately 81 parking spaces on the west side of the street.
- 3. Water Street from Clinton Street to Franklin Street removal of approximately 40 parking spaces on the north side of the street.
- 4. Erie Boulevard from Salina Street to Warren Street removal of approximately 25 parking spaces on the south side of the street.
- 5. Erie Boulevard from Warren Street to Montgomery Street removal of approximately 10 parking spaces due to converting angled parking on the north side of the street to parallel parking.
- 6. Market Street from Washington Street to Water Street removal of approximately 11 parking spaces on the east side of the street.
- 7. Jefferson Street from Montgomery Street to State Street removal of approximately 12 spaces due to converting angled parking on the south side of the street to parallel parking.

However, implementation of Alternative 1 would also increase the number of parking spaces on the identified streets:

- 1. Clinton Street from Jefferson Street to Onondaga Street addition of approximately 30 parking spaced on the east side of the street.
- 2. Herald Place from Franklin Street to Wallace Street addition of approximately 6 parking spaces on the north side of the street
- 3. Harrison Street from Warren Street to Montgomery Street addition of approximately 12 parking spaces on the north side of the street.

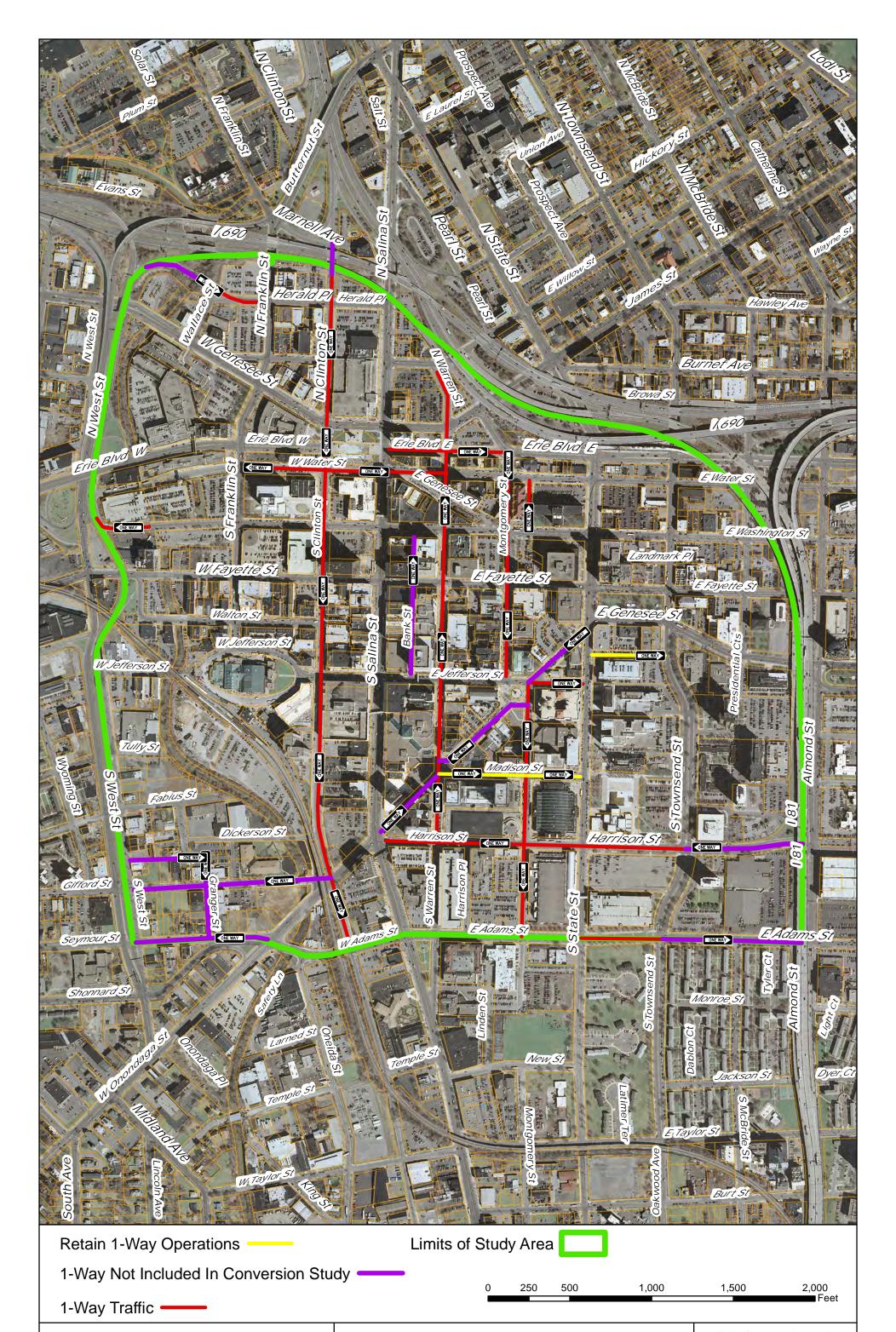
Working Group discussions of the results is recommended to determine the two additional alternatives to be analyzed. Alternative 2 is expected to be defined as the conversion of select existing one-way streets to two-way operations as opposed to essentially most of the streets within the Study Area; and Alternative 3 is expected to be limited to the conversion of a smaller subset of streets. The next Working Group discussion will examine the results detailed in Technical Memorandum #2 and advise on the contents of Alternatives 2 and 3.



## Appendix A

**One-Way Streets Included in Feasibility Study** 





Downtown Syracuse Two-Way Feasibility Technical Analysis October 2013

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC

Bergmann associates architects // engineers // planners

## **Appendix B**

# Measures of Effectiveness Summary Tables Alternative 1



## Network Reports

	Existing	Optimized	Alternative 1	% Change	% Change	% Change
Morning Peak Hour	Condition	Condition	Condition	Existing to Optimized	Existing to Alt 1	Optimized to Alt 1
Total Delay (Hour)	450	296	312	-34%	-31%	5%
Stops (#)	44826	36387	37542	-19%	-16%	3%
Average Speed (mph)	10	13	13	30%	30%	0%
Fuel Consumed (gal)	863	703	723	-19%	-16%	3%
Fuel Economy (mph)	8.0	9.8	9.6	23%	20%	-2%

	Existing	Optimized	Alternative 1	% Change	% Change	% Change
Evening Peak Hour	Condition	Condition	Condition	Existing to Optimized	Existing to Alt 1	Optimized to Alt 1
Total Delay (Hour)	497	328	339	-34%	-32%	3%
Stops (#)	47313	39204	40615	-17%	-14%	4%
Average Speed (mph)	10	12	12	20%	20%	0%
Fuel Consumed (gal)	914	745	763	-18%	-17%	2%
Fuel Economy (mph)	7.6	9.4	9.2	24%	21%	-2%

## **Corridor Total Delay Summary Table Morning Peak Hour**

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Adams Street	33	33	33	0 (0%)	0 (0%)
Almond Street	20	7	7	-13 (-65%)	0 (-0%)
Clinton Street	41	18	20	-21 (-51%)	+2 (+11%)
Erie Boulevard	17	16	14	-3 (-18%)	-2 (-13%)
Fayette Street	35	25	27	-8 (-23%)	+2 (+8%)
Franklin Street	13	12	12	-1 (-8%)	0 (0%)
Genesee Street	48	24	24	-24 (-50%)	0 (0%)
Harrison Street	14	10	17	+3 (+21%)	+7 (+70%)
Herald Street	3	2	3	0 (0%)	+1 (+50%
Jefferson Street	6	5	6	0 (0%)	+1 (+20%)
McBride Street	2	2	2	0 (0%)	0 (0%)
Montgomery Street N	2	2	4	+2 (+100%)	+2 (+100%)
Montgomery Street S	2	2	4	+2 (+100%)	+2 (+100%)
Salina Street	37	27	24	-13 (-35%)	-3 (-11%)
State Street	27	20	20	-7 (-26%)	0 (0%)
Townsend Street	64	27	26	-38 (-59%)	-1 (-4%)
Warren Street	10	6	10	0 (0%)	+4 (+67%)
Washington Street	13	9	10	-3 (-23%)	+1 (+11%)
Water Street	7	3	4	-3 (-43%)	+1 (+33%)

## Corridor Total Delay Summary Table Evening Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Adams Street	19	19	21	+2 (+11%)	+2 (+11%)
Almond Street	26	11	10	-16 (-62%)	-1 (-9%)
Clinton Street	13	12	15	+2 (+15%)	+3 (+25%)
Erie Boulevard	27	18	18	-9 (-33%)	0 (0%)
Fayette Street	32	31	32	0 (0%)	+1 (+3%)
Franklin Street	18	19	18	0 (0%)	-1 (-5%)
Genesee Street	24	19	18	-6 (-25%)	-1 (-5%)
Harrison Street	17	13	43	+26 (+153%)	+30(+231%)
Herald Street	37	5	7	-30 (-81%)	+2 (+40%)
Jefferson Street	7	5	7	0 (0%)	+2 (+40%)
McBride Street	5	4	4	-1 (-20%)	0 (0%)
Montgomery Street N	1	2	3	+2 (+200%)	+1 (+50%)
Montgomery Street S	4	4	6	+2 (+50%)	+2 (+50%)
Salina Street	30	30	25	-5 (-17%)	-5 (-17%)
State Street	95	27	26	-69 (-73%)	-1 (-4%)
Townsend Street	40	27	30	-10 (-25%)	+3 (+11%)
Warren Street	22	12	14	-8 (-36%)	+2 (+17%)
Washington Street	23	19	59	+36 (+157%)	+40(+211%)
Water Street	4	3	5	+1 (+25%)	+2 (+67%)

## Corridor Stops Summary Table Morning Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Adams Street	3085	3085	3506	+421 (+14%)	+421 (+14%)
Almond Street	1450	909	888	-562 (-39%)	-21 (-2%)
Clinton Street	2589	2103	2431	-158 (-6%)	+328 (+16%)
Erie Boulevard	2593	2561	2315	-278 (-11%)	-246 (-10%)
Fayette Street	3703	3210	3214	-489 (-13%)	+4 (0%)
Franklin Street	2044	1577	1585	-459 (-22%)	+8 (+1%)
Genesee Street	3430	2603	2468	-962 (-28%)	-135 (-5%)
Harrison Street	1799	1429	2153	+354 (+20%)	+724 (+51%)
Herald Street	351	281	370	+19 (+5%)	+89 (+32%)
Jefferson Street	842	852	975	+133 (+16%)	+123 (+14%)
McBride Street	378	276	295	-83 (-22%)	+19 (+7%)
Montgomery Street N	419	436	594	+175 (+42%)	+158 (+36%)
Montgomery Street S	242	300	479	+237 (+98%)	+179 (+60%)
Salina Street	4890	3263	2925	-1965 (-40%)	-338 (-10%)
State Street	2904	2657	2564	-340 (-12%)	-93 (-4%)
Townsend Street	3256	2940	2579	-677 (-21%)	-361 (-12%)
Warren Street	1190	1001	1140	-50 (-4%)	+139 (14%)
Washington Street	2170	1368	1469	-701 (-32%)	+101 (7%)
Water Street	797	599	844	+47 (+6%)	+245 (41%)

## Corridor Stops Summary Table Evening Peak Hour

Measures of Effectiveness	Existing Condition	Optimized Condition	Alternative 1 Condition	MOE Change - Existing to Alternative 1	MOE Change - Optimized to Alternative 1
Adams Street	3178	3178	3117	-61 (-2%)	-61 (-2%)
Almond Street	2252	1172	1135	-1117 (-50%)	-37 (-3%)
Clinton Street	1504	1379	2057	+553 (+37%)	+678 (+49%)
Erie Boulevard	3316	2720	2691	-625 (-19%)	-29 (-1%)
Fayette Street	3940	3572	3548	-392 (-10%)	-24 (-1%)
Franklin Street	2454	2605	2143	-311 (-13%)	-462 (-18%)
Genesee Street	3022	2330	2694	-328 (-11%)	+364 (+16%)
Harrison Street	1456	1401	1691	+235 (+16%)	+290 (+21%)
Herald Street	567	571	616	+49 (+9%)	+45 (+8%)
Jefferson Street	896	749	986	+90 (+10%)	+237 (+32%)
McBride Street	555	466	461	-94 (-17%)	-5 (-1%)
Montgomery Street N	318	328	514	+196 (+62%)	+186 (+57%)
Montgomery Street S	349	301	505	+156 (+45%)	+204 (+68%)
Salina Street	3823	3460	2795	-1028 (-27%)	-665 (-19%)
State Street	3884	2791	2823	-1061 (-27%)	+32 (+1%)
Townsend Street	3273	2699	2758	-515 (-16%)	+59 (+2%)
Warren Street	2551	1505	1679	-872 (-34%)	+174 (+12%)
Washington Street	3056	2229	2354	-702 (-23%)	+125 (+6%)
Water Street	561	445	727	+166 (+30%)	+282 (+63%)

		Existing Conditio	n	Opt	timized Condition			Alternative 1		% Change	e - Existina to Opt	imized	% Cha	nge - Existing to <i>i</i>	Alt 1	% Chan	ge - Optimized to	Alt 1
Adams Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	32	1	33	32	1	33	32	1	33	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stops (#)	2961	124	3085	2961	124	3085	3364	142	3506	0%	0%	0%	14%	15%	14%	14%	15%	14%
Average Speed (mph)	13	11	13	13	11	13	12	11	12	0%	0%	0%	-8%	0%	-8%	-8%	0%	-8%
Fuel Consumed (gal)	68	2	70	68	2	70	69	2	72	0%	0%	0%	1%	0%	3%	1%		3%
	10.1	7.8	10.1	10.1	7.8	10.1	9.6	8.4	9.5	0%	0%	0%	-5%	8%	-6%	-5%	0% 8%	-6%
Fuel Economy (mph)	10.1	7.0	10.1	10.1	1.0	10.1	9.0	0.4	9.5	0%	U70	U%	-3%	070	-0%	-3%	0%	-0%
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Almond Street - AM	Northound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
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,	11	10 605	20 1450	477	3 432	909	4	422	/	-64% -44%	-70% -29%	-65% -37%	-64% -45%	-70% -30%	-05%	0%	0%	0%
Stops (#)	845	000	1450				466		888							-2%	-2%	-2%
Average Speed (mph)	1	/	7	13	14	13	13	14	14	86%	100%	86%	86%	100%	100%	0%	0%	8%
Fuel Consumed (gal)	16	14	30	9	9	18	9	8	17	-44%	-36%	-40%	-44%	-43%	-43%	0%	-11%	-6%
Fuel Economy (mph)	5.5	6.4	5.9	9.7	10.4	10.0	9.8	10.7	10.2	76%	63%	69%	78%	67%	73%	1%	3%	2%
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Clinton Street - AM	Northound	Southbound		Northbound	Southbound	All	Northbound	Southbound		Northbound	Southbound		Northbound	Southbound		Northbound		All
Total Delay (Hour)	-	41	41	-	18	18	1	19	20	-	-56%	-56%	-	-54%	-51%	-	6%	11%
Stops (#)	-	2589	2589	-	2103	2103	209	2220	2429	-	-19%	-19%	-	-14%	-6%	-	6%	16%
Average Speed (mph)	-	9	9	-	14	14	17	14	14	-	56%	56%	-	56%	56%	-	0%	0%
Fuel Consumed (gal)	-	64	64	-	45	45	4	46	50	-	-30%	-30%	-	-28%	-22%	-	2%	11%
Fuel Economy (mph)	-	7.6	7.6	-	10.9	10.9	12.4	10.4	10.6	-	43%	43%	-	37%	39%	-	-5%	-3%
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L		Existing Conditio			timized Condition		- · · · · ·	Alternative 1	A 11	Ü	e - Existing to Opt			nge - Existing to			ge - Optimized to	
Erie Boulevard - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	9	7	17	10	6	16	9	5	14	11%	-14%	-6%	0%	-29%	-18%	-10%	-17%	-13%
Stops (#)	1585	1008	2593	1626	935	2561	1396	919	2315	3%	-7%	-1%	-12%	-9%	-11%	-14%	-2%	-10%
Average Speed (mph)	15	14	15	15	15	15	16	16	16	0%	7%	0%	7%	14%	7%	7%	7%	7%
Fuel Consumed (gal)	27	19	46	28	17	46	26	17	43	4%	-11%	0%	-4%	-11%	-7%	-7%	0%	-7%
Fuel Economy (mph)	10.6	10.0	10.4	10.3	10.9	10.5	11.2	11.4	11.3	-3%	9%	1%	6%	14%	9%	9%	5%	8%
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		Existing Conditio			timized Condition		- · · · · ·	Alternative 1	A 11	•	e - Existing to Opt			nge - Existing to		<u> </u>	ge - Optimized to	
Fayette Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	22	12	35	17	9	25	18	9	27	-23%	-25%	-29%	-18%	-25%	-23%	6%	0%	8%
Stops (#)	2708	995	3703	2245	965	3210	2319	895	3214	-17%	-3%	-13%	-14%	-10%	-13%	3%	-7%	0%
Average Speed (mph)	11	10	11	14	12	13	13	12	13	27%	20%	18%	18%	20%	18%	-7%	0%	0%
Fuel Consumed (gal)	48	22	70	41	19	60	43	18	61	-15%	-14%	-14%	-10%	-18%	-13%	5%	-5%	2%
Fuel Economy (mph)	8.5	8.1	8.3	9.8	9.3	9.7	9.5	9.3	9.5	15%	15%	17%	12%	15%	14%	-3%	0%	-2%
	NI.	Existing Conditio			timized Condition		New Italian	Alternative 1	Δ.11	· ·	e - Existing to Opt			nge - Existing to			ge - Optimized to	
Franklin Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	5	8	13	4	7	12	4	8	12	-20%	-13%	-8%	-20%	0%	-8%	0%	14%	0%
Stops (#)	732	1312	2044	722	855	1577	587	998	1585	-1%	-35%	-23%	-20%	-24%	-22%	-19%	17%	1%
Average Speed (mph)	12	15	14	12	16	14	12	14	14	0%	7%	0%	0%	-7%	0%	0%	-13%	0%
Fuel Consumed (gal)	11	23	34	11	20	30	9	21	30	0%	-13%	-12%	-18%	-9%	-12%	-18%	5%	0%
Fuel Economy (mph)	8	10.3	9.5	8.2	11.9	10.6	8	10.9	10.1	2%	16%	12%	0%	6%	6%	-2%	-8%	-5%
							_											
		Existing Conditio			timized Condition			Alternative 1		· ·	e - Existing to Opt			nge - Existing to A			ge - Optimized to	
Genesee Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
	36	12	48	13	11	24	14	10	24	-64%	-8%	-50%	-61%	-17%	-50%	8%	-9%	0%
Total Delay (Hour)			0.100	1205	1000	2603	1222	1245	2468	-40%	4%	-24%	-44%	0%	-28%	-6%	-4%	-5%
Total Delay (Hour) Stops (#)	2179	1251	3430	1305	1298	2003	1223	1245	2408	-40%	4 /0	-24/0	-4470	070	-2070	-076	170	
	2179 7	1251 12	3430 9	1305	1298	14	13	13	13	100%	8%	56%	86%	8%	44%	-7%	0%	-7%
Stops (#)	2179 7 52																	

	1	Existing Condition	n	On	timized Conditior	1	1	Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to /	Alt 1	% Chan	ge - Optimized to	Alt 1
Harrison Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	_	14	14	-	10	10	0	17	17	-	-29%	-29%	-	21%	21%	-	70%	70%
Stops (#)	<u> </u>	1799	1799	_	1429	1429	125	2028	2153	_	-21%	-21%	_	13%	20%	_	42%	51%
Average Speed (mph)	_	14	14	_	17	17	21	13	13	-	21%	21%	_	-7%	-7%	_	-24%	-24%
Fuel Consumed (gal)	<u>-</u>	36	36	_	31	31	3	39	41	_	-14%	-14%	_	8%	14%	_	26%	32%
Fuel Economy (mph)	_	10.6	10.6	_	12.3	12.3	14.4	9.5	9.8	-	16%	16%	-	-10%	-8%	_	-23%	-20%
	1				12.0								1					
		Existing Condition	n	QO	timized Conditior	1		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Herald Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	3	0	3	2	0	2	2	0	3	-33%	0%	-33%	-33%	NA	0%	0%	NA	50%
Stops (#)	317	34	351	239	42	281	324	46	370	-25%	24%	-20%	2%	35%	5%	36%	10%	32%
Average Speed (mph)	7	18	8	10	13	10	9	15	10	43%	-28%	25%	29%	-17%	25%	-10%	15%	0%
Fuel Consumed (gal)	5	1	6	4	1	4	5	1	5	-20%	0%	-33%	0%	0%	-17%	25%	0%	25%
Fuel Economy (mph)	5.4	NA	5.9	7.2	NA	7.4	6.1	NA	6.6	33%	NA	25%	13%	NA	12%	-15%	NA	-11%
3 ( 1 )		l l						l l									l .	
		Existing Condition	n	Ор	timized Conditior	1		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to <i>i</i>	Alt 1	% Chan	ge - Optimized to	Alt 1
Jefferson Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	4	2	6	3	2	5	4	3	6	-25%	0%	-17%	0%	50%	0%	33%	50%	20%
Stops (#)	475	367	842	525	327	852	531	444	975	11%	-11%	1%	12%	21%	16%	1%	36%	14%
Average Speed (mph)	10	11	10	11	12	11	11	11	11	10%	9%	10%	10%	0%	10%	0%	-8%	0%
Fuel Consumed (gal)	8	5	13	8	5	12	8	6	14	0%	0%	-8%	0%	20%	8%	0%	20%	17%
Fuel Economy (mph)	7.3	7.3	7.3	7.4	7.9	7.6	7.6	7.4	7.5	1%	8%	4%	4%	1%	3%	3%	-6%	-1%
				-	•		-				•					•	•	
		Existing Condition	n	Op	timized Conditior	)		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to /	Alt 1	% Chan	ge - Optimized to	Alt 1
McBride Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	1	2	2	1	1	2	1	1	2	0%	-50%	0%	0%	-50%	0%	0%	0%	0%
Stops (#)	86	292	378	100	176	276	119	176	295	16%	-40%	-27%	38%	-40%	-22%	19%	0%	7%
Average Speed (mph)	11	8	9	10	9	9	10	9	9	-9%	13%	0%	-9%	13%	0%	0%	0%	0%
Fuel Consumed (gal)	1	4	5	2	3	4	2	3	5	100%	-25%	-20%	100%	-25%	0%	0%	0%	25%
Fuel Economy (mph)	8.0	5.2	6.0	7.1	6.8	6.9	6.6	6.8	6.7	-11%	31%	15%	-18%	31%	12%	-7%	0%	-3%
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		Existing Condition	n	Ор	timized Conditior	)		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to <i>i</i>	Alt 1	% Chan	ge - Optimized to	Alt 1
Montgomery Street North - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	2	2	-	2	2	1	2	4	-	0%	0%	-	0%	100%	-	0%	100%
Stops (#)	-	419	419	-	436	436	195	399	594	-	4%	4%	-	-5%	42%	-	-8%	36%
Average Speed (mph)	-	11	11	-	11	11	11	11	11	-	0%	0%	-	0%	0%	-	0%	0%
Fuel Consumed (gal)	-	6	6	-	6	6	3	6	8	-	0%	0%	-	0%	33%	-	0%	33%
Fuel Economy (mph)	-	7.3	7.3	-	7.2	7.2	7.4	7.1	7.2	-	-1%	-1%	-	-3%	-1%	-	-1%	0%
		Existing Condition			timized Condition			Alternative 1	A 11		e - Existing to Opt			nge - Existing to			ge - Optimized to	
Montgomery Street South - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	2	2	-	2	2	1	3	4	-	0%	0%	-	50%	100%	-	50%	100%
Stops (#)	-	237	242	-	295	300	77	399	479	-	24%	24%	-	68%	98%	-	35%	60%
Average Speed (mph)	-	15	15	-	15	15	15	10	11	-	0%	0%	-	-33%	-27%	-	-33%	-27%
Fuel Consumed (gal)	-	5	5	-	5	5	1	7	8	-	0%	0%	-	40%	60%	-	40%	60%
Fuel Economy (mph)	-	10.8	10.7	-	10	9.9	10.8	7.6	8.2	-	-7%	-7%	-	-30%	-23%	-	-24%	-17%
	_	51U 0 W					T	A11 11 1		0, 0			1 2/2:		VII. 4	2/ 2/	0.11.1.7.	A11.4
	Northbound	Existing Condition			timized Condition		Northbarra	Alternative 1	Λ11	· ·	e - Existing to Opt			nge - Existing to			ge - Optimized to	
0.11. 01. 1.11		Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
		9.				27	10	14	24	10%	-35%	-27%	0%	-46%	-35%	-9%	-18%	-11%
Total Delay (Hour)	10	26	37	11	17	27												
Total Delay (Hour) Stops (#)	10 1277	3613	4890	1140	2123	3263	1009	1916	2925	-11%	-41%	-33%	-21%	-47%	-40%	-11%	-10%	-10%
Stops (#) Average Speed (mph)	10 1277 12	3613 13	4890 12	1140 11	2123 16	3263 14	1009 11	1916 16	2925 15	-11% -8%	-41% 23%	-33% 17%	-21% -8%	-47% 23%	-40% 25%	-11% 0%	-10% 0%	7%
Total Delay (Hour) Stops (#)	10 1277	3613	4890	1140	2123	3263	1009	1916	2925	-11%	-41%	-33%	-21%	-47%	-40%	-11%	-10%	

		<b>Existing Condition</b>	١	Op:	timized Condition			Alternative 1		% Change	e - Existing to Opti	mized	% Chai	nge - Existing to A	lt 1	% Chang	ge - Optimized to	Alt 1
State Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	12	15	27	9	11	20	9	11	20	-25%	-27%	-26%	-25%	-27%	-26%	0%	0%	0%
Stops (#)	1181	1723	2904	1130	1527	2657	1196	1368	2564	-4%	-11%	-9%	1%	-21%	-12%	6%	-10%	-4%
Average Speed (mph)	8	11	9	10	12	11	10	13	11	25%	9%	22%	25%	18%	22%	0%	8%	0%
Fuel Consumed (gal)	21	30	51	18	27	45	19	25	45	-14%	-10%	-12%	-10%	-17%	-12%	6%	-7%	0%
Fuel Economy (mph)	6.3	8.0	7.3	7.3	9.0	8.3	7.2	9.4	8.4	16%	13%	14%	14%	18%	15%	-1%	4%	1%

		<b>Existing Condition</b>	า	Opt	timized Condition			Alternative 1		% Change	e - Existing to Opti	mized	% Chai	nge - Existing to A	lt 1	% Chang	ge - Optimized to	Alt 1
Townsend Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	6	59	64	5	21	27	5	21	26	-17%	-64%	-58%	-17%	-64%	-59%	0%	0%	-4%
Stops (#)	585	2671	3256	662	2278	2940	675	1904	2579	13%	-15%	-10%	15%	-29%	-21%	2%	-16%	-12%
Average Speed (mph)	16	6	7	16	12	13	16	13	13	0%	100%	86%	0%	117%	86%	0%	8%	0%
Fuel Consumed (gal)	15	76	91	15	46	61	15	44	59	0%	-39%	-33%	0%	-42%	-35%	0%	-4%	-3%
Fuel Economy (mph)	12.2	5.8	6.8	12.1	9.5	10.1	12	10.2	10.6	-1%	64%	49%	-2%	76%	56%	-1%	7%	5%

		<b>Existing Condition</b>		Opt	timized Condition			Alternative 1		% Change	- Existing to Opti	mized	% Char	nge - Existing to Al	t 1	% Chang	je - Optimized to	Alt 1
Warren Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	10	-	10	6	-	6	8	2	10	-40%	-	-40%	-20%	-	0%	33%	-	67%
Stops (#)	1190	-	1190	1001	-	1001	934	206	1140	-16%	-	-16%	-22%	-	-4%	-7%	-	14%
Average Speed (mph)	11	-	11	14	-	14	11	13	11	27%	-	27%	0%	-	0%	-21%	-	-21%
Fuel Consumed (gal)	20	-	20	17	-	17	16	4	20	-15%	1	-15%	-20%	-	0%	-6%	ı	18%
Fuel Economy (mph)	7.8	-	7.8	9.5	-	9.5	7.8	9.8	8.3	22%	-	22%	0%	-	6%	-18%	-	-13%

		<b>Existing Conditio</b>	n	Op	timized Condition	1		Alternative 1		% Change	e - Existing to Opt	mized	% Cha	nge - Existing to <i>F</i>	Alt 1	% Chan	ge - Optimized to	Alt 1
Washington Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	7	6	13	4	5	9	4	6	10	-43%	-17%	-31%	-43%	0%	-23%	0%	20%	11%
Stops (#)	11.1	1069	2170	608	760	1368	636	833	1469	5377%	-29%	-37%	5630%	-22%	-32%	5%	10%	7%
Average Speed (mph)	11	12	11	16	13	14	14	12	13	45%	8%	27%	27%	0%	18%	-13%	-8%	-7%
Fuel Consumed (gal)	16	15	31	11	13	24	12	13	25	-31%	-13%	-23%	-25%	-13%	-19%	9%	0%	4%
Fuel Economy (mph)	7.4	7.9	7.6	10.8	9.4	10	10.2	8.4	9.3	46%	19%	32%	38%	6%	22%	-6%	-11%	-7%

		<b>Existing Condition</b>		Ор	timized Condition			Alternative 1		% Change	e - Existing to Opti	imized	% Cha	nge - Existing to A	lt 1	% Chan	ge - Optimized to	Alt 1
Water Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	5	1	7	3	1	3	3	2	4	-40%	0%	-57%	-40%	100%	-43%	0%	100%	33%
Stops (#)	596	201	797	466	133	599	518	326	844	-22%	-34%	-25%	-13%	62%	6%	11%	145%	41%
Average Speed (mph)	9	14	10	15	18	15	14	15	14	67%	29%	50%	56%	7%	40%	-7%	-17%	-7%
Fuel Consumed (gal)	10	3	14	8	2	10	8	5	13	-20%	-33%	-29%	-20%	67%	-7%	0%	150%	30%
Fuel Economy (mph)	7.2	9.4	7.8	9.9	12.1	10.4	9.5	9.6	9.5	38%	29%	33%	32%	2%	22%	-4%	-21%	-9%

	<u> </u>	Existing Conditio	n	Ont	timized Conditior	<u> </u>	1	Alternative 1		% Change	e - Existing to Opti	mized	% Char	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Δlt 1
Adams Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	15	A	19	15	A A	19	17	A	21	0%	0%	0%	13%	0%	11%	13%	0%	11%
Stops (#)	2649	529	3178	2649	529	3178	2536	581	3117	0%	0%	0%	-4%	10%	-2%	-4%	10%	-2%
Average Speed (mph)	16	10	15	16	10	15	15	10	14	0%	0%	0%	-6%	0%	-7%	-6%	0%	-7%
Fuel Consumed (gal)	46	8	54	46	8	54	46	9	55	0%	0%	0%	0%	13%	2%	0%	13%	2%
Fuel Economy (mph)	10.9	6.9	10.3	10.9	6.9	10.3	10.4	7.1	9.9	0%	0%	0%	-5%	3%	-4%	-5%	3%	-4%
r der Economy (mpn)	10.7	0.7	10.3	10.9	0.7	10.3	10.4	7.1	7.7	070	070	070	-570	370	-4 /0	-576	370	-4 /0
		Existing Conditio	n	On	timized Conditior	1	1	Alternative 1		% Change	e - Existing to Opti	mized	% Char	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Almond Street - PM	Northound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	12	14	26	5	6	11	5	5	10	-58%	-57%	-58%	-58%	-64%	-62%	0%	-17%	-9%
Stops (#)	1231	1021	2252	595	577	1172	566	569	1135	-52%	-43%	-48%	-54%	-44%	-50%	-5%	-1%	-3%
Average Speed (mph)	7	6	6	12	11	12	12	12	12	71%	83%	100%	71%	100%	100%	0%	9%	0%
Fuel Consumed (gal)	20	20	40	11	11	23	11	11	22	-45%	-45%	-43%	-45%	-45%	-45%	0%	0%	-4%
Fuel Economy (mph)	5.2	5.0	5.1	9	8.8	8.9	9.3	9	9.2	73%	76%	75%	79%	80%	80%	3%	2%	3%
r dor Eddnorny (mpn)	0.2	0.0	0.1	<u>'</u>	0.0	0.7	7.0	,	7.2	7070	7070	7070	7770	3070	0070	070	270	070
		Existing Conditio	n	Opt	timized Conditior	1		Alternative 1		% Change	e - Existing to Opti	mized	% Char	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Clinton Street - PM	Northound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	13	13	-	12	12	3	12	15	-	-8%	-8%	-	-8%	15%	-	0%	25%
Stops (#)	-	1504	1504	_	1379	1379	427	1630	2057	-	-8%	-8%	-	8%	37%	_	18%	49%
Average Speed (mph)	-	13	13	-	14	14	13	14	14	-	8%	8%	-	8%	8%	-	0%	0%
Fuel Consumed (gal)	-	31	31	-	30	30	7	31	38	-	-3%	-3%	-	0%	23%	-	3%	27%
Fuel Economy (mph)	-	10.2	10.2	_	10.7	10.7	8.8	10.2	10.0	-	5%	5%	-	0%	-2%	-	-5%	-7%
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		Existing Conditio	n	Opt	timized Conditior	1		Alternative 1		% Change	e - Existing to Opti	mized	% Char	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Erie Boulevard - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	13	14	27	9	9	18	9	9	18	-31%	-36%	-33%	-31%	-36%	-33%	0%	0%	0%
Stops (#)	1534	1782	3316	1407	1313	2720	1397	1294	2691	-8%	-26%	-18%	-9%	-27%	-19%	-1%	-1%	-1%
Average Speed (mph)	12	14	13	15	17	16	15	17	16	25%	21%	23%	25%	21%	23%	0%	0%	0%
Fuel Consumed (gal)	29	35	63	25	29	53	25	29	54	-14%	-17%	-16%	-14%	-17%	-14%	0%	0%	2%
Fuel Economy (mph)	8.9	10.3	9.7	10.3	12.5	11.5	10.3	12.6	11.6	16%	21%	19%	16%	22%	20%	0%	1%	1%
		1					•	<u>'</u>		•	<u>'</u>		•				<u>'</u>	
		<b>Existing Conditio</b>	n	Opt	timized Conditior	1		Alternative 1		% Change	e - Existing to Opti	mized	% Char	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Fayette Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	15	18	32	15	17	31	15	17	32	0%	-6%	-3%	0%	-6%	0%	0%	0%	3%
Stops (#)	2087	1853	3940	1815	1757	3572	1810	1738	3548	-13%	-5%	-9%	-13%	-6%	-10%	0%	-1%	-1%
Average Speed (mph)	12	12	12	12	12	12	12	12	12	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	35	38	72	33	36	70	33	36	69	-6%	-5%	-3%	-6%	-5%	-4%	0%	0%	-1%
Fuel Economy (mph)	8.7	9.3	9.0	9.1	9.7	9.4	9.1	9.5	9.3	5%	4%	4%	5%	2%	3%	0%	-2%	-1%
		Existing Conditio			timized Conditior			Alternative 1			e - Existing to Opti			nge - Existing to A			ge - Optimized to	
Franklin Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	14	4	18	15	4	19	15	4	18	7%	0%	6%	7%	0%	0%	0%	0%	-5%
Stops (#)	1889	565	2454	1973	632	2605	1649	494	2143	4%	12%	6%	-13%	-13%	-13%	-16%	-22%	-18%
Average Speed (mph)	10	15	11	10	14	11	9	14	11	0%	-7%	0%	-10%	-7%	0%	-10%	0%	0%
Fuel Consumed (gal)	30	10	40	31	11	42	28	10	38	3%	10%	5%	-7%	0%	-5%	-10%	-9%	-10%
Fuel Economy (mph)	7.2	10.5	8.1	7	9.8	7.7	7.1	10.7	8	-3%	-7%	-5%	-1%	2%	-1%	1%	9%	4%
	•						•			1								
	<u> </u>	Existing Conditio			timized Condition			Alternative 1	A.11	- U	e - Existing to Opti			nge - Existing to A			ge - Optimized to	
Genesee Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
TT   15   /11   \	11	13	24	9	10	19	9	10	18	-18%	-23%	-21%	-18%	-23%	-25%	0%	0%	-5%
Total Delay (Hour)		17/7	3022	1150	1180	2330	1321	1373	2694	-8%	-33%	-23%	5%	-22%	-11%	15%	16%	16%
Stops (#)	1255	1767																+
Stops (#) Average Speed (mph)	12	13	13	13	15	15	14	16	15	8%	15%	15%	17%	23%	15%	8%	7%	0%
Stops (#)																		0% 2% -3%

	1	Existing Condition	<u> </u>	On	timized Conditior	<u> </u>	1	Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to A	\lt 1	% Chan	ge - Optimized to	Alt 1
Harrison Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	-	17	17		13	13	1	12	13	_	-24%	-24%		-29%	-24%	-	-8%	0%
Stops (#)	_	1456	1456	_	1401	1401	196	1491	1687	_	-4%	-4%	_	2%	16%	_	6%	20%
Average Speed (mph)	_	10	10	_	12	12	18	12	13	_	20%	20%	_	20%	30%	_	0%	8%
Fuel Consumed (gal)	_	32	32	_	29	29	3	27	31	_	-9%	-9%	_	-16%	-3%	_	-7%	7%
Fuel Economy (mph)	-	8.6	8.6	_	9.5	9.5	11.4	9.3	9.5	_	10%	10%		8%	10%	_	-2%	0%
r der zeerlering (impri)		0.0	0.0		7.0	7.0		7.0	7.0		1070	1070		070	1070		270	070
		Existing Condition	1	Op	timized Conditior	1	1	Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Herald Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	27	0	37	5	1	5	6	0	7	-81%	0%	-86%	-78%	NA	-81%	20%	-100%	40%
Stops (#)	518	49	567	510	61	571	555	61	616	-2%	24%	1%	7%	24%	9%	9%	0%	8%
Average Speed (mph)	2	14	2	7	12	8	6	14	7	250%	-14%	300%	200%	0%	250%	-14%	17%	-13%
Fuel Consumed (gal)	24	1	25	8	1	9	9	1	11	-67%	0%	-64%	-63%	0%	-56%	13%	0%	22%
Fuel Economy (mph)	1.8	NA	2.2	5.5	9.2	5.9	4.8	10.1	5.4	206%	NA	168%	167%	NA	145%	-13%	10%	-8%
		Existing Condition	n	On	timized Conditior	1	1	Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Jefferson Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	3	4	7	3	2	5	3	3	7	0%	-50%	-29%	0%	-25%	0%	0%	50%	40%
Stops (#)	457	439	896	430	319	749	527	459	986	-6%	-27%	-16%	15%	5%	10%	23%	44%	32%
Average Speed (mph)	10	7	8	10	10	10	10	9	10	0%	43%	25%	0%	29%	25%	0%	-10%	0%
Fuel Consumed (gal)	7	7	14	6	5	11	8	7	15	-14%	-29%	-21%	14%	0%	7%	33%	40%	36%
Fuel Economy (mph)	6.8	5.5	6.1	7.2	7.3	7.3	7	6.7	6.9	6%	33%	20%	3%	22%	13%	-3%	-8%	-5%
3 \ 1 /	<u> </u>			<u>.</u>	ı		<u>.</u>	<u>.</u>		<u> </u>	J.			<u>I</u>		<u>.</u>		
		Existing Condition	1	QD	timized Conditior	1		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
McBride Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	4	1	5	4	1	4	4	1	4	0%	0%	-20%	0%	0%	-20%	0%	0%	0%
Stops (#)	416	139	555	377	89	466	371	90	461	-9%	-36%	-16%	-11%	-35%	-17%	-2%	1%	-1%
Average Speed (mph)	8	8	8	8	11	9	8	11	9	0%	38%	13%	0%	38%	13%	0%	0%	0%
Fuel Consumed (gal)	7	2	9	7	2	8	6	2	8	0%	0%	-11%	-14%	0%	-11%	-14%	0%	0%
Fuel Economy (mph)	6.0	6	6.0	6.4	8.3	6.8	6.5	8.4	6.9	7%	38%	13%	8%	40%	15%	2%	1%	1%
	-			-			-	•		-			==					
		Existing Condition	n	Op	timized Conditior	1		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to <i>I</i>	Alt 1	% Chan	ge - Optimized to	Alt 1
Montgomery Street North - PM	Northound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	1	1	-	2	2	2	1	3	-	100%	100%	-	0%	200%	-	-50%	50%
Stops (#)	-	318	318	-	328	328	220	294	514	-	3%	3%	-	-8%	62%	-	-10%	57%
Average Speed (mph)	-	14	14	-	11	11	10	12	11	-	-21%	-21%	-	-14%	-21%	-	9%	0%
Fuel Consumed (gal)	-	4	4	-	4	7	4	4	8	-	0%	75%	-	0%	100%	-	0%	14%
Fuel Economy (mph)	-	8.3	8.3	-	7.4	7.4	7.9	7.9	7.9	-	-11%	-11%	-	-5%	-5%	-	7%	7%
		Existing Condition	n		timized Conditior	1		Alternative 1			e - Existing to Opt	imized		nge - Existing to A	Alt 1	% Chan	ge - Optimized to	Alt 1
Montgomery Street South - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	4	4	-	4	4	1	6	6	-	0%	0%	-	50%	50%	-	50%	50%
Stops (#)	-	349	349	-	301	301	89	416	505	-	-14%	-14%	-	19%	45%	-	38%	68%
Average Speed (mph)	-	9	9	-	10	10	15	8	9	-	11%	11%	-	-11%	0%	-	-20%	-10%
Fuel Consumed (gal)	-	8	8	-	7	7	2	9	11	-	-13%	-13%	-	13%	38%	-	29%	57%
Fuel Economy (mph)	-	7.7	7.7	-	8.3	8.4	10.6	6.7	7.3	-	8%	9%	-	-13%	-5%	-	-19%	-13%
		Existing Condition	n		timized Conditior	1		Alternative 1			e - Existing to Opt	imized		nge - Existing to <i>I</i>	Alt 1		ge - Optimized to	Alt 1
	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Salina Street - PM			30	17	13	30	14	11	25	-6%	0%	0%	-22%	-15%	-17%	-18%	-15%	-17%
Salina Street - PM Total Delay (Hour)	18	13		17														1
	18 2094	13 1729	3823	1727	1733	3460	1437	1358	2795	-18%	0%	-9%	-31%	-21%	-27%	-17%	-22%	-19%
<u> </u>								1358 15	2795 13	-18% 0%	0% -7%	-9% 0%	-31% 9%	-21% 0%	-27% 0%	-17% 9%	-22% 7%	-19% 0%
Total Delay (Hour) Stops (#)	2094	1729	3823	1727	1733	3460	1437	+										

		Existing Condition	n	Opt	timized Conditior	1		Alternative 1		% Change	e - Existing to Opt	imized	% Cha	nge - Existing to <i>F</i>	Alt 1	% Chang	ge - Optimized to	Alt 1
State Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	80	15	95	15	12	27	15	11	26	-81%	-20%	-72%	-81%	-27%	-73%	0%	-8%	-4%
Stops (#)	2316	1568	3884	1551	1240	2791	1518	1305	2823	-33%	-21%	-28%	-34%	-17%	-27%	-2%	5%	1%
Average Speed (mph)	2	9	4	10	10	10	10	11	10	400%	11%	150%	400%	22%	150%	0%	10%	0%
Fuel Consumed (gal)	80	28	108	28	23	51	28	23	51	-65%	-18%	-53%	-65%	-18%	-53%	0%	0%	0%
Fuel Economy (mph)	2.6	6.9	3.7	7.4	8.2	7.8	7.6	8.0	7.8	185%	19%	111%	192%	16%	111%	3%	-2%	0%

		<b>Existing Conditio</b>	n	Opt	timized Conditior	1		Alternative 1		% Change	- Existing to Opt	imized	% Cha	nge - Existing to A	lt 1	% Chang	ge - Optimized to	Alt 1
Townsend Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	21	19	40	11	16	27	11	18	30	-48%	-16%	-33%	-48%	-5%	-25%	0%	13%	11%
Stops (#)	1421	1852	3273	1361	1338	2699	1307	1451	2758	-4%	-28%	-18%	-8%	-22%	-16%	-4%	8%	2%
Average Speed (mph)	9	10	10	14	11	13	14	11	12	56%	10%	30%	56%	10%	20%	0%	0%	-8%
Fuel Consumed (gal)	35	36	71	27	31	58	27	34	61	-23%	-14%	-18%	-23%	-6%	-14%	0%	10%	5%
Fuel Economy (mph)	8.2	8.1	8.1	10.5	9.4	9.9	10.4	9	9.6	28%	16%	22%	27%	11%	19%	-1%	-4%	-3%

		<b>Existing Condition</b>		Op:	timized Condition			Alternative 1		% Change	- Existing to Opt	imized	% Char	nge - Existing to Al	t 1	% Chang	ge - Optimized to	Alt 1
Warren Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	22	-	22	12	-	12	12	2	14	-45%	-	-45%	-45%	-	-36%	0%	-	17%
Stops (#)	2551	-	2551	1505	-	1505	1436	250	1686	-41%	-	-41%	-44%	-	-34%	-5%	-	12%
Average Speed (mph)	9	-	9	13	-	13	12	15	12	44%	-	44%	33%	-	33%	-8%	-	-8%
Fuel Consumed (gal)	42	-	42	29	-	29	27	4	31	-31%	-	-31%	-36%	-	-26%	-7%	-	7%
Fuel Economy (mph)	6.8	-	6.8	9.9	-	9.9	9.1	10.2	9.2	46%	-	46%	34%	-	35%	-8%	-	-7%

	<b>Existing Condition</b>		Op:	timized Condition	1		Alternative 1		% Change	e - Existing to Opt	imized	% Chai	nge - Existing to A	lt 1	% Chan	ge - Optimized to	Alt 1
Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
6	17	23	5	14	19	6	15	21	-17%	-18%	-17%	0%	-12%	-9%	20%	7%	11%
913	2143	3056	628	1601	2229	745	1692	2437	-31%	-25%	-27%	-18%	-21%	-20%	19%	6%	9%
12	12	12	15	13	13	13	12	12	25%	8%	8%	8%	0%	0%	-13%	-8%	-8%
15	37	52	12	33	45	14	33	47	-20%	-11%	-13%	-7%	-11%	-10%	17%	0%	4%
8.8	8.6	8.7	10.8	9.8	10.1	9.7	9.3	9.4	23%	14%	16%	10%	8%	8%	-10%	-5%	-7%
	Eastbound  6  913  12  15	Eastbound         Westbound           6         17           913         2143           12         12           15         37	6     17     23       913     2143     3056       12     12     12       15     37     52	Eastbound         Westbound         All         Eastbound           6         17         23         5           913         2143         3056         628           12         12         12         15           15         37         52         12	Eastbound         Westbound         All         Eastbound         Westbound           6         17         23         5         14           913         2143         3056         628         1601           12         12         12         15         13           15         37         52         12         33	Eastbound         Westbound         All         Eastbound         Westbound         All           6         17         23         5         14         19           913         2143         3056         628         1601         2229           12         12         12         15         13         13           15         37         52         12         33         45	Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound           6         17         23         5         14         19         6           913         2143         3056         628         1601         2229         745           12         12         12         15         13         13         13           15         37         52         12         33         45         14	Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound         Westbound           6         17         23         5         14         19         6         15           913         2143         3056         628         1601         2229         745         1692           12         12         12         15         13         13         13         12           15         37         52         12         33         45         14         33	Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound         Westbound         All           6         17         23         5         14         19         6         15         21           913         2143         3056         628         1601         2229         745         1692         2437           12         12         12         15         13         13         13         12         12           15         37         52         12         33         45         14         33         47	Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound           6         17         23         5         14         19         6         15         21         -17%           913         2143         3056         628         1601         2229         745         1692         2437         -31%           12         12         12         15         13         13         13         12         12         25%           15         37         52         12         33         45         14         33         47         -20%	Eastbound         Westbound         All         Eastbound         All         Eastbound         All         21         21         21	Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound         Westbound         All         Eastbound         Westbound         All           6         17         23         5         14         19         6         15         21         -17%         -18%         -17%           913         2143         3056         628         1601         2229         745         1692         2437         -31%         -25%         -27%           12         12         12         15         13         13         13         12         12         25%         8%         8%           15         37         52         12         33         45         14         33         47         -20%         -11%         -13%	Eastbound         Westbound         All         Eastbound         Ow           913         2143         3056         628         1601         2229         745         1692         2437         -31%         -25%         -27%         -18%           12         12         12         15         13         13         13         12         12         25%         8%         8%         8%           15         37         52         12         33         45         14         33         47         -20%         -11%         -13%         -7%	Eastbound         Westbound         All         Eastbound         All         Eastbound         All         Eastbound         All         East	Eastbound         Westbound         All           6         17         23         5         14         19         6         15         21         -17%         -18%         -17%         0%         -12%         -9%           913         2143         3056         628         1601         2229         745         1692         2437         -31%         -25%         -27%         -18%         -21%         -20%           12         12         12         15         13         13         13         12         12         25%         8%         8%         8%         0%         0%           15         37         52         12         33         45         14         33         47         -20%         -11%         -13%         -7%         -11%         -10%	Eastbound         Westbound         All         Eastbound         All         Eastbou	Eastbound         Westbound         All         Eastbound         All         Eastbound         Westbound         All         Eastbound <t< td=""></t<>

		<b>Existing Conditio</b>	n	Ор	timized Conditior	1		Alternative 1		% Change	e - Existing to Opt	imized	% Chai	nge - Existing to <i>F</i>	Alt 1	% Chang	ge - Optimized to	Alt 1
Water Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	3	2	4	2	1	3	3	3	5	-33%	-50%	-25%	0%	50%	25%	50%	200%	67%
Stops (#)	324	237	561	269	176	445	337	390	727	-17%	-26%	-21%	4%	65%	30%	25%	122%	63%
Average Speed (mph)	12	16	13	13	17	15	12	14	13	8%	6%	15%	0%	-13%	0%	-8%	-18%	-13%
Fuel Consumed (gal)	6	5	11	5	4	9	6	7	13	-17%	-20%	-18%	0%	40%	18%	20%	75%	44%
Fuel Economy (mph)	8.8	11.4	9.9	10	13	11.3	8.9	10.2	9.6	14%	14%	14%	1%	-11%	-3%	-11%	-22%	-15%

## Arterial / Segment Reports

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Ch	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Adams Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Onondaga to Clinton	5.3	22.5	15.3	С	5.3	22.5	15.3	С	10.9	28.1	12.3	D	0%	0%	0%	106%	25%	-20%	106%	25%	-20%
Clinton to Salina	54.7	69.7	3.4	F	54.7	69.7	3.4	F	49.2	64.2	3.7	F	0%	0%	0%	-10%	-8%	9%	-10%	-8%	9%
Salina to Warren	7.8	15.0	7.6	Е	7.8	15.0	7.6	E	6.3	13.5	8.5	E	0%	0%	0%	-19%	-10%	12%	-19%	-10%	12%
Warren to Harrison Place	0.8	9.1	14.4	С	8.0	9.1	14.4	С	8.0	9.1	14.4	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Harrison Place to Montgomery	1.1	15.8	14.8	С	1.1	15.8	14.8	С	3.0	17.7	13.2	С	0%	0%	0%	173%	12%	-11%	173%	12%	-11%
Montgomery to State	2.8	18.1	13.4	С	2.8	18.1	13.4	С	1.3	16.6	14.6	С	0%	0%	0%	-54%	-8%	9%	-54%	-8%	9%
State to Townsend	11.2	27.4	11.8	D	11.2	27.4	11.8	D	16.1	32.3	10.0	D	0%	0%	0%	44%	18%	-15%	44%	18%	-15%
Townsend to McBride	1.3	17.8	18.5	С	1.3	17.8	18.5	С	1.4	17.9	18.4	С	0%	0%	0%	8%	1%	-1%	8%	1%	-1%
Total	85.0	195.4	10.0	D	85.0	195.4	10.0	D	89.0	199.4	9.8	D	0%	0%	0%	5%	2%	-2%	5%	2%	-2%

		Existing C	ondition			Optimized	Condition			Alterna	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Adams Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Townsend to State	-	-	-	-	-	-	-	-	0.3	16.5	19.6	В	-	-	-	-	-	-	-	-	-
State to Montgomery	0.5	15.8	15.3	С	0.5	15.8	15.3	С	3.1	18.4	13.2	С	0%	0%	0%	520%	16%	-14%	520%	16%	-14%
Montgomery to Harrison Place	0.4	15.1	15.4	С	0.4	15.1	15.4	С	0.1	14.8	15.8	С	0%	0%	0%	-75%	-2%	3%	-75%	-2%	3%
Harrison Place to Warren	5.3	13.6	9.6	D	5.3	13.6	9.6	D	5.6	13.9	9.4	D	0%	0%	0%	6%	2%	-2%	6%	2%	-2%
Warren to Salina	31.7	38.9	2.9	F	31.7	38.9	2.9	F	31.8	39.0	2.9	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Salina to Clinton	7.4	22.4	10.7	D	7.4	22.4	10.7	D	9.8	24.8	9.6	D	0%	0%	0%	32%	11%	-10%	32%	11%	-10%
Total	45.3	105.8	9.1	D	45.3	105.8	9.1	D	50.7	127.4	10.1	D	0%	0%	0%	12%	20%	11%	12%	20%	11%

		Existing C	Condition			Optimized	Condition			Alterna	ative 1		% Chang	e - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Time	е
Almond Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Harrison to Genesee	46.7	77.6	10.3	D	18.1	49.0	16.2	С	18.1	49.0	16.2	С	-61%	-37%	57%	-61%	-37%	57%	0%	0%	0%
Genesee to Fayette	5.7	22	11.7	D	5.9	22.2	11.6	D	3.9	20.2	12.8	D	4%	1%	-1%	-32%	-8%	9%	-34%	-9%	10%
Fayette to Washington	5.3	20.6	11.8	D	4.1	19.4	12.5	D	4.3	19.6	12.4	D	-23%	-6%	6%	-19%	-5%	5%	5%	1%	-1%
Washington to Water	33.3	47.8	4.8	F	5.1	19.6	11.7	D	4.0	18.5	12.4	D	-85%	-59%	144%	-88%	-61%	158%	-22%	-6%	6%
Water to Erie	17.8	23.9	4.1	F	1.9	8.0	12.2	D	4.9	11.0	8.9	E	-89%	-67%	198%	-72%	-54%	117%	158%	38%	-27%
Tota	I 108.8	191.9	8.5	E	35.1	118.2	13.7	С	35.2	118.3	13.7	С	-68%	-38%	61%	-68%	-38%	61%	0%	0%	0%

		Existing	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Almond Street Southbound	Delay (s	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Erie	54.2	71.2	4.8	F	11.4	28.4	12.0	D	11.4	28.4	12.0	D	-79%	-60%	150%	-79%	-60%	150%	0%	0%	0%
Erie to Water	16.2	22.3	4.4	F	6.5	12.6	7.7	E	5.4	11.5	8.5	E	-60%	-43%	75%	-67%	-48%	93%	-17%	-9%	10%
Water to Washington	0.4	14.9	15.4	С	4.0	18.5	12.4	D	3.6	18.1	12.7	D	900%	24%	-19%	800%	21%	-18%	-10%	-2%	2%
Washington to Fayette	5.1	20.4	11.9	D	6.2	21.5	11.3	D	5.4	20.7	11.7	D	22%	5%	-5%	6%	1%	-2%	-13%	-4%	4%
Fayette to Genesee	45.4	61.7	4.2	F	16.7	33.0	7.8	E	16.2	32.5	7.9	E	-63%	-47%	86%	-64%	-47%	88%	-3%	-2%	1%
То	tal 121.3	190.5	6.1	F	44.8	114.0	10.3	D	42.0	111.2	10.5	D	-63%	-40%	69%	-65%	-42%	72%	-6%	-2%	2%

			Existing Co	ondition			Optimized	Condition			Alterna	ative 1		% Chang	je - Existing to O	ptimized	% Cha	ange - Existing to	Alt 1	% Char	ge - Optimized t	to Alt 1
AM Peak Cl	inton	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Street Northbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Onondaga		-	-	-	-	-	-	-	-	10.3	24.3	11.5	D	-	-	-	-	-	-	-	-	-
Onondaga to Ped Crossing		-	-	-	-	-	-	-	-	25.3	40.6	7.5	E	-	-	-	-	-	-	-	-	-
Ped Crossing to Jefferson		-	-	-	-	-	-	-	-	0.5	23.8	23.5	В	-	-	-	-	-	-	-	-	-
Jefferson to Fayette		-	-	-	-	-	-	-	-	1.7	22.2	18.4	С	-	-	-	-	-	-	-	-	-
Fayette to Washington		-	-	-	-	-	-	-	-	6.9	21.1	10.7	D	-	-	-	-	-	-	-	-	-
Washington to Water		-	-	-	-	-	-	-	-	1.8	16.8	14.2	С	-	-	-	-	-	-	-	-	-
Water to Genesee		-	-	-	-	-	-	-	-	9.5	21.8	9.0	E	-	-	-	-	-	-	-	-	-
Genesee to Harold		-	-	-	-	-	-	-	-	0.0	20.3	23.9	В	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	56.0	190.9	14.1	С	-	-	-	-	-	-	-	-	-

			Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	je - Existing to O	ptimized	% Cha	ange - Existing t	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak Clir	inton	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	.e
Street Southbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Herald		71.4	86.7	2.8	F	15.5	30.8	7.9	E	13.0	28.3	8.6	E	-78%	-64%	182%	-82%	-67%	207%	-16%	-8%	9%
Herald to Genesee		46.9	67.2	7.2	E	23.9	44.2	11.0	D	31.5	51.8	9.4	D	-49%	-34%	53%	-33%	-23%	31%	32%	17%	-15%
Genesee to Water		0.6	12.9	15.2	С	0.6	12.9	15.2	С	1.5	13.8	14.2	С	0%	0%	0%	150%	7%	-7%	150%	7%	-7%
Water to Washington		9.7	24.7	9.7	D	6.3	21.3	11.2	D	6.5	21.5	11.1	D	-35%	-14%	15%	-33%	-13%	14%	3%	1%	-1%
Washington to Fayette		6.0	20.2	11.1	D	12.0	26.2	8.6	E	13.6	27.8	8.1	E	100%	30%	-23%	127%	38%	-27%	13%	6%	-6%
Fayette to Jefferson		5.9	26.4	15.5	С	4.0	24.5	16.7	С	4.9	25.4	16.1	С	-32%	-7%	8%	-17%	-4%	4%	23%	4%	-4%
Jefferson to Ped Crossing		1.1	24.4	22.9	В	1.0	24.3	23.0	В	2.5	25.8	21.7	В	-9%	0%	0%	127%	6%	-5%	150%	6%	-6%
Ped Crossing to Gifford		28.5	43.8	7.0	F	9.2	24.5	12.5	D	10.0	25.3	12.1	D	-68%	-44%	79%	-65%	-42%	73%	9%	3%	-3%
Gifford to Adams		60.4	74.4	3.8	F	60.4	74.4	3.8	F	58.8	72.8	3.8	F	0%	0%	0%	-3%	-2%	0%	-3%	-2%	0%
T	otal	230.5	380.7	7.7	E	132.9	283.1	10.4	D	142.3	292.5	10.1	D	-42%	-26%	35%	-38%	-23%	31%	7%	3%	-3%

			Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Chang	je - Optimize	d to Alt 1
AM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Tim	e
Erie Blvd Eastbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Warren		7.8	23.6	10.6	D	10.0	25.8	9.7	D	11.1	26.9	9.3	D	28%	9%	-8%	42%	14%	-12%	11%	4%	-4%
Warren to Montgomery		8.7	22.3	12.2	D	6.8	20.4	13.3	С	7.0	20.6	13.2	С	-22%	-9%	9%	-20%	-8%	8%	3%	1%	-1%
Montgomery to State		24.8	42.3	8.3	Е	19.0	36.5	9.6	D	16.5	34.0	10.3	D	-23%	-14%	16%	-33%	-20%	24%	-13%	-7%	7%
State to Townsend		16.5	32.7	9.9	D	14.8	31.0	10.5	D	14.8	31.0	10.5	D	-10%	-5%	6%	-10%	-5%	6%	0%	0%	0%
Townsend to McBride		12.3	27.8	11.2	D	10.7	26.2	11.8	D	7.0	22.5	13.8	С	-13%	-6%	5%	-43%	-19%	23%	-35%	-14%	17%
McBride to Almond		0.1	15.9	19.8	В	12.4	28.2	11.2	D	5.9	21.7	14.5	С	12300%	77%	-43%	5800%	36%	-27%	-52%	-23%	29%
	Total	70.2	164.6	11.1	D	73.7	168.1	10.8	D	62.3	156.7	11.6	D	5%	2%	-3%	-11%	-5%	5%	-15%	-7%	7%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	)ptimized	% Cha	ange - Existing t	o Alt 1	% Chang	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		1	Travel Tim	ie
Erie Blvd Westbound	Delay (s	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond	2.6	40.6	25.5	Α	14.0	52.0	19.9	В	13.1	51.1	20.3	В	438%	28%	-22%	404%	26%	-20%	-6%	-2%	2%
Almond to McBride	15.0	30.8	10.2	D	8.8	24.6	12.8	D	5.8	21.6	14.6	С	-41%	-20%	25%	-61%	-30%	43%	-34%	-12%	14%
McBride to Townsend	34.1	49.5	6.3	F	15.2	30.7	10.1	D	23.9	39.4	7.9	E	-55%	-38%	60%	-30%	-20%	25%	57%	28%	-22%
Townsend to State	20.8	37.0	8.8	E	10.3	26.5	12.2	D	3.4	19.6	16.6	С	-50%	-28%	39%	-84%	-47%	89%	-67%	-26%	36%
State to Oswego	16.5	34.0	10.3	D	20.7	38.2	9.1	D	14.2	31.7	11.0	D	25%	12%	-12%	-14%	-7%	7%	-31%	-17%	21%
Oswego to Warren	-	-	-	-	-	-	-	-	7.3	20.9	13.0	С	-	-	-	-	-	=	-	-	=
To	al 89.0	192.0	12.2	D	69.0	172.0	13.6	С	67.7	184.3	14.1	С	-22%	-10%	11%	-24%	-4%	16%	-2%	7%	4%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Ch	ange - Existing to	Alt 1	% Chai	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Fayette Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to West SB	39.9	57.9	6.2	F	39.9	57.9	6.2	F	39.9	57.9	6.2	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
West SB West NB	4.1	12.7	10.7	D	4.1	12.7	10.7	D	4.2	12.8	10.6	D	0%	0%	0%	2%	1%	-1%	2%	1%	-1%
West NB to Franklin	20.7	40.0	11.6	D	8.9	28.2	16.4	С	8.9	28.2	16.4	С	-57%	-30%	41%	-57%	-30%	41%	0%	0%	0%
Franklin to Clinton	9.0	26.9	13.3	С	8.3	26.2	13.7	С	24.6	42.5	8.4	E	-8%	-3%	3%	173%	58%	-37%	196%	62%	-39%
Clinton to Salina	24.1	39.4	6.2	F	6.1	21.4	11.4	D	4.1	19.4	12.5	D	-75%	-46%	84%	-83%	-51%	102%	-33%	-9%	10%
Salina to Warren	7.7	24.0	10.7	D	12.0	28.3	9.1	D	8.5	24.8	10.4	D	56%	18%	-15%	10%	3%	-3%	-29%	-12%	14%
Warren to Montgomery	3.2	16.8	16.2	С	3.3	16.9	16.1	С	8.2	21.8	12.5	D	3%	1%	-1%	156%	30%	-23%	148%	29%	-22%
Montgomery to State	16.8	34.0	10.1	D	8.8	26.0	13.3	С	8.4	25.6	13.5	С	-48%	-24%	32%	-50%	-25%	34%	-5%	-2%	2%
State to Townsend	21.4	37.9	8.7	E	15.6	32.1	10.3	D	11.5	28.0	11.8	D	-27%	-15%	18%	-46%	-26%	36%	-26%	-13%	15%
Townsend to McBride	14.3	30.1	10.5	D	3.9	19.7	16.0	С	3.4	19.2	16.4	С	-73%	-35%	52%	-76%	-36%	56%	-13%	-3%	2%
McBride to Almond	2.5	18.0	17.2	С	5.6	21.1	14.7	С	6.4	21.9	14.2	С	124%	17%	-15%	156%	22%	-17%	14%	4%	-3%
Total	163.7	337.7	10.0	D	116.5	290.5	11.7	D	128.1	302.1	11.2	D	-29%	-14%	17%	-22%	-11%	12%	10%	4%	-4%

		Existing C	Condition			Optimized	l Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	inge - Existing to	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	е
Fayette Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Irving to Almond	10.1	39.9	20.3	В	7.6	37.4	21.7	В	7.8	37.6	21.6	В	-25%	-6%	7%	-23%	-6%	6%	3%	1%	0%
Almond to McBride	2.9	18.4	16.9	С	5.5	21.0	14.8	С	6.1	21.6	14.4	С	90%	14%	-12%	110%	17%	-15%	11%	3%	-3%
McBride to Townsend	23.7	39.5	8	E	22.9	38.7	8.1	E	21.7	37.5	8.4	E	-3%	-2%	1%	-8%	-5%	5%	-5%	-3%	4%
Townsend to State	109.8	126.3	2.6	F	42.3	58.8	5.6	F	28.3	44.8	7.4	E	-61%	-53%	115%	-74%	-65%	185%	-33%	-24%	32%
State to Montgomery	12.8	30.0	11.5	D	8.9	26.1	13.2	С	16.7	33.9	10.2	D	-30%	-13%	15%	30%	13%	-11%	88%	30%	-23%
Montgomery to Warren	3.9	17.5	15.6	С	5.0	18.6	14.7	С	4.8	18.4	14.8	С	28%	6%	-6%	23%	5%	-5%	-4%	-1%	1%
Warren to Salina	8.2	24.5	10.5	D	5.3	21.6	11.9	D	3.4	19.7	13.1	С	-35%	-12%	13%	-59%	-20%	25%	-36%	-9%	10%
Salina to Clinton	24	39.3	6.2	F	5.9	21.2	11.5	D	22.7	38.0	6.4	F	-75%	-46%	85%	-5%	-3%	3%	285%	79%	-44%
Clinton to Franklin	8.7	26.6	13.5	С	18.6	36.5	9.8	D	12.0	29.9	12.0	D	114%	37%	-27%	38%	12%	-11%	-35%	-18%	22%
Franklin to West NB	48.2	67.5	6.9	F	48.2	67.5	6.9	F	48.2	67.5	6.9	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to West SB	18.0	26.6	5.1	F	18.0	26.6	5.1	F	18.0	26.6	5.1	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	270.3	456.1	8.4	E	188.2	374.0	10.3	D	189.7	375.5	10.2	D	-30%	-18%	23%	-30%	-18%	21%	1%	0%	-1%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	ptimized	% Ch	ange - Existing t	o Alt 1	% Chai	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Franklin Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Fayette	15.2	29	7.5	E	27.8	41.6	5.2	F	27.8	41.6	5.2	F	83%	43%	-31%	83%	43%	-31%	0%	0%	0%
Fayette to Washington	10.4	24.6	9.1	D	9.3	23.5	9.6	D	3.6	17.8	12.6	D	-11%	-4%	5%	-65%	-28%	38%	-61%	-24%	31%
Washinton to Erie	22.3	39	8.5	E	7.5	24.2	13.8	С	9.8	26.5	12.6	D	-66%	-38%	62%	-56%	-32%	48%	31%	10%	-9%
Erie to Genesee	10.0	26.9	10.0	D	15.9	32.8	8.2	E	16.7	33.6	8.0	E	59%	22%	-18%	67%	25%	-20%	5%	2%	-2%
Genesee to Willow	2.7	9.6	11.4	D	4.0	10.9	10.0	D	5.2	12.1	9.0	D	48%	14%	-12%	93%	26%	-21%	30%	11%	-10%
Willow to Herald	13.2	27.8	8.3	E	9.2	23.8	9.7	D	11.8	26.4	8.8	E	-30%	-14%	17%	-11%	-5%	6%	28%	11%	-9%
Total	73.8	156.9	8.8	E	73.7	156.8	8.8	E	74.9	158.0	8.8	E	0%	0%	0%	1%	1%	0%	2%	1%	0%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	je - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Time	е
Franklin Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Websters Landing to Herald	8.1	24.7	13.5	С	15	31.6	10.5	D	18.9	35.5	9.4	D	85%	28%	-22%	133%	44%	-30%	26%	12%	-10%
Herald to Willow	4.5	19.1	12.1	D	1.3	15.9	14.6	С	1.2	15.8	14.7	С	-71%	-17%	21%	-73%	-17%	21%	-8%	-1%	1%
Willow to Genesee	10.4	17.3	6.3	F	14.8	21.7	5	F	16.3	23.2	4.7	F	42%	25%	-21%	57%	34%	-25%	10%	7%	-6%
Genesee to Erie	17.3	34.2	7.9	E	7.4	24.3	11.1	D	7.4	24.3	11.1	D	-57%	-29%	41%	-57%	-29%	41%	0%	0%	0%
Erie to Washington	3.2	19.9	16.8	С	2.1	18.8	17.7	С	2.1	18.8	17.7	С	-34%	-6%	5%	-34%	-6%	5%	0%	0%	0%
Washington to Fayette	10.4	24.6	9.1	D	14.4	28.6	7.9	E	17.8	32	7	E	38%	16%	-13%	71%	30%	-23%	24%	12%	-11%
Total	53.9	139.8	10.7	D	55	140.9	10.7	D	63.7	149.6	10	D	2%	1%	0%	18%	7%	-7%	16%	6%	-7%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	je - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Genesee Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Wallace	14.5	32.9	11.2	D	6.1	24.5	15.1	С	6.0	24.4	15.1	С	-58%	-26%	35%	-59%	-26%	35%	-2%	0%	0%
Wallace to Franklin	80.7	96.9	3.3	F	32.2	48.4	6.7	F	13.8	30.0	10.8	D	-60%	-50%	103%	-83%	-69%	227%	-57%	-38%	61%
Franklin to Clinton	61.0	77.4	4.2	F	14.6	31.0	10.6	D	41.7	58.1	5.6	F	-76%	-60%	152%	-32%	-25%	33%	186%	87%	-47%
Clinton to Salina	18.5	34.7	7.4	E	7.8	24.0	10.7	D	5.0	21.2	12.1	D	-58%	-31%	45%	-73%	-39%	64%	-36%	-12%	13%
Total	174.7	241.9	5.3	F	60.7	127.9	10.0	D	66.5	133.7	9.5	D	-65%	-47%	89%	-62%	-45%	79%	10%	5%	-5%

		Existing C	ondition			Optimized	Condition			Alterna	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	inge - Existing to	o Alt 1	% Char	ge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Genesee Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	3.0	19.2	13.4	С	4.3	20.5	12.5	D	6.9	23.1	11.1	D	43%	7%	-7%	130%	20%	-17%	60%	13%	-11%
Clinton to Franklin	36.2	52.6	6.2	F	25.1	41.5	7.9	E	11.0	27.4	11.9	D	-31%	-21%	27%	-70%	-48%	92%	-56%	-34%	51%
Franklin to Wallace	6.2	22.4	14.4	С	4.1	20.3	15.9	С	6.9	23.1	14.0	С	-34%	-9%	10%	11%	3%	-3%	68%	14%	-12%
Total	45.4	94.2	9.6	D	33.5	82.3	11.0	D	24.8	73.6	12.3	D	-26%	-13%	15%	-45%	-22%	28%	-26%	-11%	12%

		Existing C	ondition			Optimized	Condition			Alterna	ative 1		% Chang	je - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Time	е
Harrison Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Warren	-	-	-	-	-	-	-	-	13.0	28.2	8.6	E	-	-	-	-	•	-	-	-	-
Warren to Montgomery	-	-	-	-	-	-	1	•	0.3	18.6	19.7	В	-	=	-	-	ı	-	-	-	-
Montgomery to State	-	-	-	-	-	-	1	•	1.8	17.1	14.2	С	-	=	-	-	ı	-	-	-	-
State to Townsend	-	-	-	-	-	-	1	•	11.8	33.0	12.9	D	-	=	-	-	ı	-	-	-	-
Total	-	-	-	-	-	-	-	-	26.9	96.9	13.1	С	-	-	-	-	ı	-	-	-	-

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Cha	ange - Existing t	o Alt 1	% Chai	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Time			Travel Time	
Harrison Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Almond to Townsend	21.4	39.7	9.2	D	16.0	34.3	10.7	D	15.4	33.7	10.9	D	-25%	-14%	16%	-28%	-15%	18%	-4%	-2%	2%
Townsend to State	9.9	31.1	13.6	С	6.7	27.9	15.2	С	17.4	38.6	11.0	D	-32%	-10%	12%	76%	24%	-19%	160%	38%	-28%
State to Montgomery	3.7	19.0	12.7	D	2.1	17.4	13.9	С	16.8	32.1	7.5	E	-43%	-8%	9%	354%	69%	-41%	700%	84%	-46%
Montgomery to Warren	3.2	21.5	17.0	С	6.2	24.5	14.9	С	14.7	33.0	11.1	D	94%	14%	-12%	359%	53%	-35%	137%	35%	-26%
Warren to Onondaga	38.7	53.9	4.5	F	20.3	35.5	6.8	F	18.6	33.8	7.1	E	-48%	-34%	51%	-52%	-37%	58%	-8%	-5%	4%
Tota	76.9	165.2	9.9	D	51.3	139.6	11.7	D	82.9	171.2	9.6	D	-33%	-15%	18%	8%	4%	-3%	62%	23%	-18%

		Existing (	Condition			Optimized	l Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Ch	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Herald Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Franklin	16.3	29.3	7.0	F	9.9	22.9	9.0	E	16.9	29.9	6.9	F	-39%	-22%	29%	4%	2%	-1%	71%	31%	-23%
Franklin to Clinton	29.4	46.3	5.8	F	20.1	37.0	7.2	E	33.4	50.3	5.3	F	-32%	-20%	24%	14%	9%	-9%	66%	36%	-26%
Clinton to Salina	9.5	24.8	9.8	D	7.9	23.2	10.5	D	6.8	22.1	11.0	D	-17%	-6%	7%	-28%	-11%	12%	-14%	-5%	5%
Tot	al 55.2	100.4	7.1	E	37.9	83.1	8.6	E	57.1	102.3	7.0	F	-31%	-17%	21%	3%	2%	-1%	51%	23%	-19%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Chan	ge - Optimize	ed to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Tim	е
Herald Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	4.5	19.8	12.3	D	13.5	28.8	8.4	E	14.2	29.5	8.2	E	200%	45%	-32%	216%	49%	-33%	5%	2%	-2%
Clinton to Franklin	0.0	16.9	15.8	С	0.0	16.9	15.8	С	2.2	19.1	14.0	С	0%	0%	0%	NA	13%	-11%	NA	13%	-11%
Total	4.5	36.7	13.9	С	13.5	45.7	11.2	D	16.4	48.6	10.5	D	200%	25%	-19%	264%	32%	-24%	21%	6%	-6%

		Existing (	Condition			Optimized	d Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Jefferson Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Clinton	13.6	25.2	7.3	E	16.9	28.5	6.5	F	24.2	35.8	5.1	F	24%	13%	-11%	78%	42%	-30%	43%	26%	-22%
Clinton to Salina	28.3	43.8	5.6	F	13.9	29.4	8.3	E	12.4	27.9	8.8	E	-51%	-33%	48%	-56%	-36%	57%	-11%	-5%	6%
Salina to Warren	4.8	21.3	12.3	D	8.9	25.4	10.3	D	9.7	26.2	10.0	D	85%	19%	-16%	102%	23%	-19%	9%	3%	-3%
Warren to Montgomery	6.0	13.1	8.6	E	11.5	18.6	6.0	F	11.6	18.7	6.0	F	92%	42%	-30%	93%	43%	-30%	1%	1%	0%
Montgomery to State	42.5	56.7	4.0	F	35.4	49.6	4.5	F	31.2	45.4	5.0	F	-17%	-13%	13%	-27%	-20%	25%	-12%	-8%	11%
Tot	al 95.2	160.1	6.4	F	86.6	151.5	6.8	F	89.1	154.0	6.7	F	-9%	-5%	6%	-6%	-4%	5%	3%	2%	-1%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existinç	g to Alt 1	% Chan	ge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Tim	ie	T	ravel Tim	ne		Travel Time	
Jefferson Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Onondaga	-	-	-	-	-	-	-	-	11.2	25.4	8.9	E	-	-	-	=	-	-	-	-	-
Onondaga to Warren	5.3	22.2	12.0	D	8.1	25.0	10.7	D	8.9	25.8	10.4	D	53%	13%	-11%	68%	16%	-13%	10%	3%	-3%
Warren to Salina	17.3	33.8	7.7	E	12.6	29.1	9.0	E	13.8	30.3	8.6	E	-27%	-14%	17%	-20%	-10%	12%	10%	4%	-4%
Salina to Clinton	23.2	38.7	6.3	F	17.7	33.2	7.4	E	21.3	36.8	6.7	F	-24%	-14%	17%	-8%	-5%	6%	20%	11%	-9%
Total	45.8	94.7	8.2	E	38.4	87.3	8.9	E	55.2	118.3	8.4	E	-16%	-8%	9%	21%	25%	2%	44%	36%	-6%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to (	Optimized	% Cha	inge - Existing t	o Alt 1	% Chan	ge - Optimize	ed to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Tim	е
McBride Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Spee
Entry Link to Genesee	15.3	27.3	6.9	F	15.9	27.9	6.8	F	17.1	29.1	6.5	F	4%	2%	-1%	12%	7%	-6%	8%	4%	-4%
Genesee to Fayette	17.7	33.0	7.4	E	14.0	29.3	8.3	E	15.4	30.7	7.9	E	-21%	-11%	12%	-13%	-7%	7%	10%	5%	-5%
ayette to Washington	4.6	19.6	12.2	D	15.5	30.5	7.8	E	13.2	28.2	8.5	E	237%	56%	-36%	187%	44%	-30%	-15%	-8%	9%
Washington to Water	14.4	28.5	7.9	E	12.6	26.7	8.4	E	11.7	25.8	8.7	E	-13%	-6%	6%	-19%	-9%	10%	-7%	-3%	4%
Water to Erie	6.9	13.0	7.5	E	10.7	16.8	5.8	F	13.2	19.3	5.1	F	55%	29%	-23%	91%	48%	-32%	23%	15%	-12%
Total	58.9	121.4	8.2	E	68.7	131.2	7.6	E	70.6	133.1	7.5	E	17%	8%	-7%	20%	10%	-9%	3%	1%	-1%
															•						•
		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to (	Optimized	% Cha	ınge - Existing t	o Alt 1	% Chan	ge - Optimize	ed to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Tim	e

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	je - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	Travel Time	ıe e
McBride Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Erie	13.1	45.9	19.5	В	19.1	51.9	17.2	С	19.1	51.9	17.2	С	46%	13%	-12%	46%	13%	-12%	0%	0%	0%
Erie to Water	16.2	22.3	4.4	F	17.9	24.0	4.1	F	16.1	22.2	4.4	F	10%	8%	-7%	-1%	0%	0%	-10%	-8%	7%
Water to Washington	16.8	30.9	7.3	E	7.8	21.9	10.2	D	7.2	21.3	10.5	D	-54%	-29%	40%	-57%	-31%	44%	-8%	-3%	3%
Washington to Fayette	8.7	23.7	10.1	D	12.0	27.0	8.8	E	12.4	27.4	8.7	E	38%	14%	-13%	43%	16%	-14%	3%	1%	-1%
Fayette to Genesee	25.5	40.8	6.0	F	2.3	17.6	13.8	С	6.2	21.5	11.3	D	-91%	-57%	130%	-76%	-47%	88%	170%	22%	-18%
Tota	I 80.3	163.6	10.4	D	59.1	142.4	11.9	D	61.0	144.3	11.8	D	-26%	-13%	14%	-24%	-12%	13%	3%	1%	-1%

			Existing C	Condition			Optimized	l Condition			Altern	ative 1		% Chang	ge - Existing to C	ptimized	% Ch	ange - Existing t	o Alt 1	% Chang	e - Optimize	d to Alt 1
AM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		Т	ravel Tim	е
Montgomery Street NB		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Fayette		-	-	-	-	-	-	-	-	15.3	35.8	11.4	D	-	-	-	-	-	-	-	-	-
Fayette to Washington		-	-	-	-	-	-	-	-	9.7	23.7	9.3	D	-	-	-	-	-	-	-	-	-
Washington to Water		-	-	-	-	-	-	-	-	22.9	37.0	6.0	F	-	-	-	-	-	-	-	-	-
Water to Erie		-	-	-	-	-	-	-	-	9.1	15.3	6.4	F	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	57.0	111.8	8.5	E	-	-	-	-	-	-	-	-	-

			Existing C	ondition			Optimized	Condition			Alterna	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Montgomery Street SB		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Erie to Water		12.5	18.7	5.3	F	13.0	19.2	5.1	F	12.5	18.7	5.3	F	4%	3%	-4%	0%	0%	0%	-4%	-3%	4%
Water to Washington		15.2	29.3	7.6	E	11.5	25.6	8.7	Ε	13.0	27.1	8.3	E	-24%	-13%	14%	-14%	-8%	9%	13%	6%	-5%
Washington to Fayette		15.3	29.3	7.6	E	17.6	31.6	7.0	E	19.7	33.7	6.6	F	15%	8%	-8%	29%	15%	-13%	12%	7%	-6%
	Total	43.0	77.3	7.0	E	42.1	76.4	7.1	Ε	45.2	79.5	6.8	F	-2%	-1%	1%	5%	3%	-3%	7%	4%	-4%

		Existing C	ondition			Optimized	l Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Montgomery Street NB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	0.0	13.8	15.9	С	0.0	13.8	15.9	С	0.0	13.8	15.9	С	-	-	-	-	1	-	-	ı	-
Adams to Harrison	-	-	-	-	-	-	-	-	17.6	36.7	10.4	D	-	-	-	-	-	-	-	-	-
Harrison to Madison	-	-	-	-	-	-	-	-	6.1	21.2	14.2	С	-	-	-	-	-	-	-	-	-
Madison to Jefferson	-	•	-	-	-	1	-	-	0.0	19.5	20.0	В	-	-	-	-	1	-	-	ı	-
Total	-	-	-	-	-	-	-	-	23.7	91.2	14.2	С	-	-	-	-	-	-	-	-	-

		Existing C	Condition			Optimized	Condition			Alterna	ative 1		% Chang	ge - Existing to C	ptimized	% Cha	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Montgomery Street SB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Madison	2.7	22.2	17.5	С	7.7	27.2	14.3	С	9.7	29.2	13.3	С	185%	23%	-18%	259%	32%	-24%	26%	7%	-7%
Madison to Harrison	12.9	28.0	10.8	D	6.8	21.9	13.8	С	22.5	37.6	8.0	E	-47%	-22%	28%	74%	34%	-26%	231%	72%	-42%
Harrison to Adams	59.0	78.1	4.9	F	59.0	78.1	4.9	F	0.0	19.1	20.0	В	0%	0%	0%	-100%	-76%	308%	-100%	-76%	308%
Tota	T4.6	128.3	8.4	E	73.5	127.2	8.4	E	32.2	85.9	12.5	D	-1%	-1%	0%	-57%	-33%	49%	-56%	-32%	49%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	ıe e
Salina Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	52.5	64.2	2.9	F	52.5	64.2	2.9	F	52.5	64.2	2.9	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adams to Centro Hub	0.4	3.7	14.0	С	0.4	3.7	14.0	С	0.4	3.7	14.0	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Centro Hub to Harrsion	26.4	44.9	8.3	E	25.4	43.9	8.4	E	24.5	43.0	8.6	E	-4%	-2%	1%	-7%	-4%	4%	-4%	-2%	2%
Harrison to Ped Crossing	3.1	19.2	16.8	С	4.0	20.1	16.0	С	4.7	20.8	15.5	С	29%	5%	-5%	52%	8%	-8%	18%	3%	-3%
Ped Crossing Jefferson	13.8	31.3	11.2	D	17.5	35.0	10.0	D	15.4	32.9	10.6	D	27%	12%	-11%	12%	5%	-5%	-12%	-6%	6%
Jefferson to Fayette	3.3	23.8	17.2	С	13.5	34.0	12.0	D	11.1	31.6	12.9	D	309%	43%	-30%	236%	33%	-25%	-18%	-7%	8%
Fayette to Washington	13.0	27.2	8.3	E	1.3	15.5	14.5	С	0.9	15.1	14.9	С	-90%	-43%	75%	-93%	-44%	80%	-31%	-3%	3%
Washington to Water	5.7	20.4	11.4	D	2.5	17.2	13.6	С	5.3	20.0	11.7	D	-56%	-16%	19%	-7%	-2%	3%	112%	16%	-14%
Water to James	3.7	15.4	12.0	D	15.8	27.5	6.7	F	11.4	23.1	8.0	E	327%	79%	-44%	208%	50%	-33%	-28%	-16%	19%
James to Willow	6.4	22.7	11.4	D	3.7	20.0	13.0	D	6.5	22.8	11.4	D	-42%	-12%	14%	2%	0%	0%	76%	14%	-12%
Willow to Herald	4.3	19.3	12.4	D	4.0	19.0	12.6	D	2.9	17.9	13.3	С	-7%	-2%	2%	-33%	-7%	7%	-28%	-6%	6%
Tota	132.6	292.1	9.7	D	140.6	300.1	9.4	D	135.6	295.1	9.6	D	6%	3%	-3%	2%	1%	-1%	-4%	-2%	2%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Cha	ange - Existing to	Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Salina Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Herald	37.8	71.7	12.9	D	18.7	52.6	17.6	С	18.7	52.6	17.6	С	-51%	-27%	36%	-51%	-27%	36%	0%	0%	0%
Herald to Willow	4.7	19.7	12.1	D	2.1	17.1	14.0	С	2.5	17.5	13.6	С	-55%	-13%	16%	-47%	-11%	12%	19%	2%	-3%
Willow to Genesee	17.4	33.7	7.7	Е	5.6	21.9	11.8	D	9.3	25.6	10.1	D	-68%	-35%	53%	-47%	-24%	31%	66%	17%	-14%
Genesee to Water	3.2	14.9	12.4	D	3.8	15.5	12.0	D	3.5	15.2	12.2	D	19%	4%	-3%	9%	2%	-2%	-8%	-2%	2%
Water to Washington	19.6	34.3	6.8	F	8.7	23.4	10.0	D	7.5	22.2	10.5	D	-56%	-32%	47%	-62%	-35%	54%	-14%	-5%	5%
Washington to Fayette	10.1	24.3	9.3	D	19.6	33.8	6.7	F	22.2	36.4	6.2	F	94%	39%	-28%	120%	50%	-33%	13%	8%	-7%
Fayette to Jefferson	2.4	22.9	17.9	С	7.3	27.8	14.7	С	2.2	22.7	18.0	С	204%	21%	-18%	-8%	-1%	1%	-70%	-18%	22%
Jefferson to Ped Crossing	12.2	29.7	11.8	D	2.6	20.1	17.4	С	2.8	20.3	17.2	С	-79%	-32%	47%	-77%	-32%	46%	8%	1%	-1%
Ped Crossing to Onondaga	25.8	41.9	7.7	E	12.0	28.1	11.5	D	9.9	26.0	12.4	D	-53%	-33%	49%	-62%	-38%	61%	-18%	-7%	8%
Onondaga to Centro Hub	38.6	57.1	6.5	F	38.6	57.1	6.5	F	37.4	55.9	6.6	F	0%	0%	0%	-3%	-2%	2%	-3%	-2%	2%
Centro Hub to Adams	2.6	5.9	8.8	Е	2.6	5.9	8.8	Е	3.0	6.3	8.2	E	0%	0%	0%	15%	7%	-7%	15%	7%	-7%
Total	174.4	356.1	10.0	D	121.6	303.3	11.8	D	119.0	300.7	11.9	D	-30%	-15%	18%	-32%	-16%	19%	-2%	-1%	1%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to O	ptimized	% Ch	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
State Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	32.4	48.7	6.7	F	32.4	48.7	6.7	F	34.8	51.1	6.4	F	0%	0%	0%	7%	5%	-4%	7%	5%	-4%
Adams to Harrison	13.6	32.7	11.7	D	19.0	38.1	10.0	D	21.8	40.9	9.3	D	40%	17%	-15%	60%	25%	-21%	15%	7%	-7%
Harrison to Madison	17.1	32.2	9.4	D	11.3	26.4	11.4	D	12.1	27.2	11.1	D	-34%	-18%	21%	-29%	-16%	18%	7%	3%	-3%
Madison to Jefferson	4.2	23.6	16.5	С	2.7	22.1	17.6	С	2.7	22.1	17.6	С	-36%	-6%	7%	-36%	-6%	7%	0%	0%	0%
Jefferson to Genesee	63.5	79.2	3.1	F	28.4	44.1	5.6	F	26.3	42.0	5.9	F	-55%	-44%	81%	-59%	-47%	90%	-7%	-5%	5%
Genesee to Fayette	15.7	24.8	5.8	F	21.1	30.2	4.8	F	32.0	41.1	3.5	F	34%	22%	-17%	104%	66%	-40%	52%	36%	-27%
Fayette to Washington	18.3	32.8	7.0	E	9.3	23.8	9.7	D	8.3	22.8	10.1	D	-49%	-27%	39%	-55%	-30%	44%	-11%	-4%	4%
Washington to Water	6.4	20.2	10.9	D	5.8	19.6	11.2	D	5.5	19.3	11.4	D	-9%	-3%	3%	-14%	-4%	5%	-5%	-2%	2%
Water to Erie	29.0	35.4	2.9	F	28.5	34.9	2.9	F	23.1	29.5	3.4	F	-2%	-1%	0%	-20%	-17%	17%	-19%	-15%	17%
To	otal 200.2	329.6	7.1	E	158.5	287.9	8.1	Ē	166.6	296.0	7.9	E	-21%	-13%	14%	-17%	-10%	11%	5%	3%	-2%

			Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	)ptimized	% Cha	ange - Existing t	o Alt 1	% Chai	nge - Optimized	to Alt 1
AM Peak	State	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	, I
Street Southbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Erie		31.5	53.0	8.1	E	20.9	42.4	10.1	D	25.6	47.1	9.1	D	-34%	-20%	25%	-19%	-11%	12%	22%	11%	-10%
Erie to Water		7.4	13.8	7.3	E	6.4	12.8	7.9	E	7.5	13.9	7.3	Е	-14%	-7%	8%	1%	1%	0%	17%	9%	-8%
Water to Washington		18.7	32.5	6.8	F	9.0	22.8	9.6	D	9.1	22.9	9.6	D	-52%	-30%	41%	-51%	-30%	41%	1%	0%	0%
Washington to Fayette		5.3	19.8	11.6	D	8.9	23.4	9.8	D	5.8	20.3	11.4	D	68%	18%	-16%	9%	3%	-2%	-35%	-13%	16%
Fayette to Onondaga		8.7	17.8	8.1	E	9.0	18.1	8.0	E	1.8	10.9	13.3	С	3%	2%	-1%	-79%	-39%	64%	-80%	-40%	66%
Onondaga to Jefferson		4.6	20.3	12.3	D	3.2	18.9	13.2	С	7.4	23.1	10.8	D	-30%	-7%	7%	61%	14%	-12%	131%	22%	-18%
Jefferson to Madison		19.9	39.3	9.9	D	5.8	25.2	15.4	С	7.1	26.5	14.7	С	-71%	-36%	56%	-64%	-33%	48%	22%	5%	-5%
Madison to Harrison		3.3	18.4	16.4	С	3.5	18.6	16.2	С	10.4	25.5	11.8	D	6%	1%	-1%	215%	39%	-28%	197%	37%	-27%
Harrison to Adams	·	55.4	74.5	5.1	F	55.4	74.5	5.1	F	57.5	76.6	5.0	F	0%	0%	0%	4%	3%	-2%	4%	3%	-2%
	Total	154.8	289.4	8.5	E	122.1	256.7	9.5	D	132.2	266.8	9.2	D	-21%	-11%	12%	-15%	-8%	8%	8%	4%	-3%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	je - Existing to C	)ptimized	% Cha	ange - Existing t	to Alt 1	% Change	e - <mark>Optimiz</mark> e	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	ıe e
Townsend Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	38.8	57.1	6.4	F	38.8	57.1	6.4	F	42.0	60.3	6.1	F	0%	0%	0%	8%	6%	-5%	8%	6%	-5%
Adams to Harrison	10.5	29.2	12.8	D	14.0	32.7	11.4	D	18.7	37.4	10.0	D	33%	12%	-11%	78%	28%	-22%	34%	14%	-12%
Harrison to Genesee	7.5	42.6	22.5	В	4.8	39.9	24.0	В	5.3	40.4	23.7	В	-36%	-6%	7%	-29%	-5%	5%	10%	1%	-1%
Genesee to Fayette	9.6	18.5	7.6	E	5.8	14.7	9.6	D	6.3	15.2	9.3	D	-40%	-21%	26%	-34%	-18%	22%	9%	3%	-3%
Fayette to Washington	6.8	21.3	10.8	D	2.4	16.9	13.6	С	3.1	17.6	13.1	С	-65%	-21%	26%	-54%	-17%	21%	29%	4%	-4%
Washington to Water	0.8	14.9	15.0	С	6.0	20.1	11.1	D	2.9	17.0	13.2	С	650%	35%	-26%	263%	14%	-12%	-52%	-15%	19%
Water to Erie	2.6	8.9	11.3	D	7.1	13.4	7.5	E	1.9	8.2	12.2	D	173%	51%	-34%	-27%	-8%	8%	-73%	-39%	63%
Erie to 1690 WB offramp	47.5	54.5	2.0	F	42.2	49.2	2.2	F	40.7	47.7	2.3	F	-11%	-10%	10%	-14%	-12%	15%	-4%	-3%	5%
1690 WB offramp to Burnett	9.3	25.0	10.0	D	8.8	24.5	10.2	D	7.9	23.6	10.5	D	-5%	-2%	2%	-15%	-6%	5%	-10%	-4%	3%
Total	133.4	272.0	10.1	D	129.9	268.5	10.2	D	128.8	267.4	10.3	D	-3%	-1%	1%	-3%	-2%	2%	-1%	0%	1%

		Existing (	Condition			Optimized	l Condition			Altern	ative 1		% Chang	ge - Existing to C	)ptimized	% Ch	ange - Existing t	o Alt 1	% Chang	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	е
Townsend Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Burnett	8.3	24.8	13.3	С	8.0	24.5	13.4	С	7.2	23.7	13.9	С	-4%	-1%	1%	-13%	-4%	5%	-10%	-3%	4%
Burnett to Brown	23.2	38.9	6.4	F	29.5	45.2	5.5	F	31.2	46.9	5.3	F	27%	16%	-14%	34%	21%	-17%	6%	4%	-4%
Brown to Erie	20.1	27.1	4.1	F	11.8	18.8	5.9	F	10.0	17.0	6.5	F	-41%	-31%	44%	-50%	-37%	59%	-15%	-10%	10%
Erie to Water	2.3	8.6	11.7	D	8.3	14.6	6.9	F	2.9	9.2	10.9	D	261%	70%	-41%	26%	7%	-7%	-65%	-37%	58%
Water to Washington	16.8	30.9	7.2	E	2.0	16.1	13.9	С	2.0	16.1	13.9	С	-88%	-48%	93%	-88%	-48%	93%	0%	0%	0%
Washington to Fayette	11.7	26.2	8.8	E	3.4	17.9	12.8	D	4.7	19.2	12.0	D	-71%	-32%	45%	-60%	-27%	36%	38%	7%	-6%
Fayette to Genesee	12.2	21.1	6.7	F	3.8	12.7	11.1	D	4.8	13.7	10.3	D	-69%	-40%	66%	-61%	-35%	54%	26%	8%	-7%
Genesee to Harrison	13.4	48.5	19.8	В	8.8	43.9	21.8	В	11.5	46.6	20.6	В	-34%	-9%	10%	-14%	-4%	4%	31%	6%	-6%
Harrison to Adams	65.1	83.8	4.5	F	65.1	83.8	4.5	F	67.3	86.0	4.3	F	0%	0%	0%	3%	3%	-4%	3%	3%	-4%
To	al 173.1	309.9	8.8	E	140.7	277.5	9.8	D	141.6	278.4	9.8	D	-19%	-10%	11%	-18%	-10%	11%	1%	0%	0%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	je - Existing to C	Optimized	% Cha	ange - Existing t	o Alt 1	% Chang	e - <mark>Optimiz</mark> e	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	ıe e
Warren Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Harrsion	29.3	48.4	7.9	E	14.0	33.1	11.5	D	30.8	49.9	7.6	E	-52%	-32%	46%	5%	3%	-4%	120%	51%	-34%
Harrison to Madison	22.5	37.6	8.0	E	14.2	29.3	10.3	D	13.4	28.5	10.6	D	-37%	-22%	29%	-40%	-24%	33%	-6%	-3%	3%
Madison to Jefferon	35.6	55.0	7.1	E	12.4	31.8	12.2	D	21.2	40.5	9.6	D	-65%	-42%	72%	-40%	-26%	35%	71%	27%	-21%
Jefferson to Fayette	14.6	35.1	11.7	D	24.2	44.7	9.2	D	22.2	42.7	9.6	D	66%	27%	-21%	52%	22%	-18%	-8%	-4%	4%
Fayette to Washington	10.8	24.8	9.0	E	6.4	20.4	10.9	D	6.7	20.7	10.7	D	-41%	-18%	21%	-38%	-17%	19%	5%	1%	-2%
Washington to Water	9.2	24.0	9.8	D	7.6	22.4	10.5	D	9.5	24.3	9.7	D	-17%	-7%	7%	3%	1%	-1%	25%	8%	-8%
Water to Erie	3.1	9.1	10.5	D	4.6	10.6	9.0	D	10.2	16.2	5.9	F	48%	16%	-14%	229%	78%	-44%	122%	53%	-34%
Erie to James	2.4	8.3	11.3	D	6.7	12.6	7.5	E	14.7	20.6	4.6	F	179%	52%	-34%	513%	148%	-59%	119%	63%	-39%
Tota	al 127.5	242.3	8.8	E	90.1	204.9	10.4	D	128.6	243.4	8.7	E	-29%	-15%	18%	1%	0%	-1%	43%	19%	-16%

		Existing (	Condition			Optimized	l Condition			Altern	ative 1		% Chanç	ge - Existing to O	ptimized	% Ch	ange - Existing to	o Alt 1	% Char	ige - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Warren Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to James	-	-	-	-	-	-	-	-	18.8	30.6	6.1	F	-	-	-	-	-	-	-	-	-
James to Erie	-	-	-	-	-	-	-	-	9.0	14.9	6.3	F	-	-	-	-	-	-	-	-	-
Erie to Water	-	-	-	-	-	-	-	-	14.7	20.7	4.6	F	-	-	-	-	-	-	-	-	-
Water to Washington	-	-	-	-	-	-	-	-	11.7	26.5	8.9	E	-	-	-	-	-	-	-	-	-
Washington to Fayette	-	-	-	-	-	-	-	-	12.7	26.7	8.3	E	-	-	-	-	-	-	-	-	-
Fayette to Jefferson	-	-	-	-	-	-	-	-	3.8	24.3	16.8	С	-	-	-	-	-	-	-	-	-
Jefferson to Onondaga	-	-	-	-	-	-	-	-	2.5	21.9	17.7	С	-	-	-	-	-	-	-	-	-
Onondaga to Harrison	-	-	-	-	-	-	-	-	22.3	37.4	8.1	E	-	-	-	-	-	-	-	-	-
То	tal -	-	-	-	-	-	-	-	95.5	203.0	9.5	D	-	-	-	-	-	-	-	-	-

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	ptimized	% Ch	ange - Existing t	o Alt 1	% Change	e - Optimize	d to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	ie
Washington Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Franklin	15.8	40.4	14.6	С	15.8	40.4	14.6	С	17.7	42.3	13.9	С	0%	0%	0%	12%	5%	-5%	12%	5%	-5%
Franklin to Clinton	10.8	28.5	12.4	D	18.1	35.8	9.9	D	27.0	44.7	7.9	E	68%	26%	-20%	150%	57%	-36%	49%	25%	-20%
Clinton to Salina	18.6	34.2	7.3	E	11.0	26.6	9.3	D	11.2	26.8	9.3	D	-41%	-22%	27%	-40%	-22%	27%	2%	1%	0%
Salina to Warren	17.4	33.7	7.7	E	6.0	22.3	11.6	D	5.8	22.1	11.7	D	-66%	-34%	51%	-67%	-34%	52%	-3%	-1%	1%
Warren to Montgomery	18.0	31.5	8.6	E	5.0	18.5	14.6	С	8.9	22.4	12.1	D	-72%	-41%	70%	-51%	-29%	41%	78%	21%	-17%
Montgomery to State	14.4	32.1	11.0	D	6.2	23.9	14.8	С	7.6	25.3	14.0	С	-57%	-26%	35%	-47%	-21%	27%	23%	6%	-5%
State to Townsend	13.3	29.5	11.0	D	16.5	32.7	9.9	D	10.6	26.8	12.1	D	24%	11%	-10%	-20%	-9%	10%	-36%	-18%	22%
Townsend to McBride	19.6	35.4	8.9	E	6.2	22.0	14.3	С	6.6	22.4	14.1	С	-68%	-38%	61%	-66%	-37%	58%	6%	2%	-1%
McBride to Almond	36.1	51.4	5.9	F	9.0	24.3	12.6	D	9.3	24.6	12.4	D	-75%	-53%	114%	-74%	-52%	110%	3%	1%	-2%
Total	164.0	316.7	9.5	D	93.8	246.5	12.3	D	104.7	257.4	11.7	D	-43%	-22%	29%	-36%	-19%	23%	12%	4%	-5%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	ptimized	% Cha	ange - Existing t	o Alt 1	% Chan	ige - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Washinton Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Almond	26.5	41.8	7.3	E	19.3	34.6	8.9	E	20.1	35.4	8.7	E	-27%	-17%	22%	-24%	-15%	19%	4%	2%	-2%
Almond to McBride	21.5	36.8	8.3	E	4.8	20.1	15.2	С	5.6	20.9	14.6	С	-78%	-45%	83%	-74%	-43%	76%	17%	4%	-4%
McBride to Townsend	10.7	26.5	11.9	D	28.2	44.0	7.2	E	28.4	44.2	7.1	Е	164%	66%	-39%	165%	67%	-40%	1%	0%	-1%
Townsend to State	17.3	33.5	9.7	D	19.7	35.9	9.0	D	25.3	41.5	7.8	E	14%	7%	-7%	46%	24%	-20%	28%	16%	-13%
State to Montgomery	8.9	26.6	13.3	С	5.2	22.9	15.5	С	5.8	23.5	15.1	С	-42%	-14%	17%	-35%	-12%	14%	12%	3%	-3%
Montgomery to Warren	18.1	31.6	8.5	E	18.9	32.4	8.3	E	17.7	31.2	8.7	Е	4%	3%	-2%	-2%	-1%	2%	-6%	-4%	5%
Warren to Salina	5.4	21.7	11.9	D	4.7	21.0	12.3	D	12.6	28.9	9.0	Е	-13%	-3%	3%	133%	33%	-24%	168%	38%	-27%
Salina to Clinton	17.6	33.2	7.5	E	9.6	25.2	9.8	D	13.4	29.0	8.6	E	-45%	-24%	31%	-24%	-13%	15%	40%	15%	-12%
Clinton to Franklin	19.3	37.0	9.6	D	9.0	26.7	13.3	С	11.9	29.6	12.0	D	-53%	-28%	39%	-38%	-20%	25%	32%	11%	-10%
Franklin to West	52.7	77.3	7.6	Е	52.7	77.3	7.6	E	53.1	77.7	7.6	Е	0%	0%	0%	1%	1%	0%	1%	1%	0%
Tot	al 198.0	366.0	9.1	D	172.1	340.1	9.8	D	193.9	361.9	9.2	D	-13%	-7%	8%	-2%	-1%	1%	13%	6%	-6%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	ptimized	% Cha	ange - Existing t	o Alt 1	% Char	ige - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Water Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Franklin to Clinton	-	-	-	-	-	-	-	-	26.1	44	8.1	E	-	-	-	-	-	-	-	-	-
Clinton to Salina	17.4	33.7	7.7	E	25.8	42.1	6.2	F	24.5	40.8	6.4	F	48%	25%	-19%	41%	21%	-17%	-5%	-3%	3%
Salina to Warren	16.5	32.3	7.8	E	8.6	24.4	10.3	D	10.1	25.9	9.7	D	-48%	-24%	32%	-39%	-20%	24%	17%	6%	-6%
Warren to Montgomery	33.2	50.2	5.4	F	1.7	18.7	14.4	С	3.5	20.5	13.1	С	-95%	-63%	167%	-89%	-59%	143%	106%	10%	-9%
Montgomery to State	23.2	40.7	8.6	E	7.4	24.9	14	С	11.7	29.2	12	D	-68%	-39%	63%	-50%	-28%	40%	58%	17%	-14%
State to Townsend	40.1	56.3	5.8	F	22.6	38.8	8.3	E	17.6	33.8	9.6	D	-44%	-31%	43%	-56%	-40%	66%	-22%	-13%	16%
Townsend to McBride	5.0	20.5	15.1	С	3.2	18.7	16.6	С	3.2	18.7	16.6	С	-36%	-9%	10%	-36%	-9%	10%	0%	0%	0%
McBride to Almond	3.3	18.8	16.5	С	13.2	28.7	10.8	D	12.4	27.9	11.1	D	300%	53%	-35%	276%	48%	-33%	-6%	-3%	3%
Total	138.7	252.5	8.2	E	82.5	196.3	10.6	D	109.1	240.8	10.1	D	-41%	-22%	29%	-21%	-5%	23%	32%	23%	-5%

		Existing (	Condition	•		Optimized	d Condition	•		Alterr	native 1		% Chang	ge - Existing to O	ptimized	% Char	nge - Existing	to Alt 1	% Chang	ge - Optimized	to Alt 1
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time		1	Travel Time	е		Travel Time	٤
Water Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond	4.2	42.3	24.6	В	15.5	53.6	19.4	В	16.1	54.2	19.2	В	269%	27%	-21%	283%	28%	-22%	4%	1%	-1%
Almond to McBride	6.2	21.7	14.3	С	4.7	20.2	15.4	С	5.2	20.7	15	С	-24%	-7%	8%	-16%	-5%	5%	11%	2%	-3%
McBride to Townsend	9.6	25.1	12.4	D	20.7	36.2	8.6	E	21.3	36.8	8.4	Е	116%	44%	-31%	122%	47%	-32%	3%	2%	-2%
Townsend to State	26.3	42.5	7.6	E	11.7	27.9	11.6	D	13.1	29.3	11.1	D	-56%	-34%	53%	-50%	-31%	46%	12%	5%	-4%
State to Montgomery	21.7	39.2	8.9	E	3.9	21.4	16.3	С	11.3	28.8	12.1	D	-82%	-45%	83%	-48%	-27%	36%	190%	35%	-26%
Montgomery to Warren	0.6	17.6	15.3	С	0.1	17.1	15.7	С	5.8	22.8	11.8	D	-83%	-3%	3%	867%	30%	-23%	5700%	33%	-25%
Warren to Salina	-	-	-	-	-	-	-	-	8.9	24.7	10.2	D	-	-	-	-	-	-	-	-	-
Salina to Clinton	-	-	-	-	-	-	-	-	19.5	35.8	7.2	E	-	=	-	-	-	-	-	-	-
Т	otal 68.6	188.4	13.8	С	56.6	176.4	14.8	С	101.2	253.1	12.3	D	-17%	-6%	7%	48%	34%	-11%	79%	43%	-17%

## Arterial / Segment Reports

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change -	Existing to	Optimized	% Chang	ge - Existing	to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		Tr	avel Tim	ne	T	ravel Time	9		Travel Tim	е
Adams Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Onondaga to Clinton	3.5	21.3	16.7	С	3.5	21.3	16.7	С	5.4	23.2	15.3	С	0%	0%	0%	54%	9%	-8%	54%	9%	-8%
Clinton to Salina	27.2	41.9	5.6	F	27.2	41.9	5.6	F	25	39.7	5.9	F	0%	0%	0%	-8%	-5%	5%	-8%	-5%	5%
Salina to Warren	3.9	11.1	10.3	D	3.9	11.1	10.3	D	1.4	8.6	13.3	С	0%	0%	0%	-64%	-23%	29%	-64%	-23%	29%
Warren to Harrison Place	4.4	12.7	10.3	D	4.4	12.7	10.3	D	4.2	12.5	10.5	D	0%	0%	0%	-5%	-2%	2%	-5%	-2%	2%
Harrison Place to Montgomery	5.8	20.5	11.4	D	5.8	20.5	11.4	D	13.2	27.9	8.4	E	0%	0%	0%	128%	36%	-26%	128%	36%	-26%
Montgomery to State	9.5	24.8	9.8	D	9.5	24.8	9.8	D	3.1	18.4	13.2	С	0%	0%	0%	-67%	-26%	35%	-67%	-26%	35%
State to Townsend	10.4	26.6	12.2	D	10.4	26.6	12.2	D	19.8	36	9	E	0%	0%	0%	90%	35%	-26%	90%	35%	-26%
Townsend to McBride	2.1	18.6	17.7	С	2.1	18.6	17.7	С	2.3	18.8	17.6	С	0%	0%	0%	10%	1%	-1%	10%	1%	-1%
Total	66.8	177.5	11.1	D	66.8	177.5	11.1	D	74.4	185.1	10.6	D	0%	0%	0%	11%	4%	-5%	11%	4%	-5%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	e - Existing to O	ptimized	% Cha	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Adams Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Townsend to State	-	-	-	-	-	-	-	-	7	23.2	14	С	-	-	-	-	-	-	-	-	-
State to Montgomery	1.8	17.1	14.2	С	1.8	17.1	14.2	С	6.9	22.2	10.9	D	0%	0%	0%	283%	30%	-23%	283%	30%	-23%
Montgomery to Harrison Place	3.3	18.0	13.0	D	3.3	18.0	13.0	D	2.8	17.5	13.3	С	0%	0%	0%	-15%	-3%	2%	-15%	-3%	2%
Harrison Place to Warren	7.7	16.0	8.2	E	7.7	16.0	8.2	E	7.8	16.1	8.1	E	0%	0%	0%	1%	1%	-1%	1%	1%	-1%
Warren to Salina	28.5	35.7	3.2	F	28.5	35.7	3.2	F	28	35.2	3.3	F	0%	0%	0%	-2%	-1%	3%	-2%	-1%	3%
Salina to Clinton	3.8	18.5	12.6	D	3.8	18.5	12.6	D	5.3	20	11.7	D	0%	0%	0%	39%	8%	-7%	39%	8%	-7%
Total	45.1	105.3	9.1	D	45.1	105.3	9.1	D	57.8	134.2	9.5	D	0%	0%	0%	28%	27%	4%	28%	27%	4%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Cha	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Time			Travel Time			Travel Time	
Almond Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Harrison to Genesee	46.3	77.2	10.3	D	22.8	53.7	14.8	С	21.8	52.7	15.1	С	-51%	-30%	44%	-53%	-32%	47%	-4%	-2%	2%
Genesee to Fayette	7.4	23.7	10.9	D	7.6	23.9	10.8	D	7.3	23.6	10.9	D	3%	1%	-1%	-1%	0%	0%	-4%	-1%	1%
Fayette to Washington	11.8	27.1	9.0	E	4.0	19.3	12.6	D	3.6	18.9	12.8	D	-66%	-29%	40%	-69%	-30%	42%	-10%	-2%	2%
Washington to Water	19.6	34.1	6.7	F	4.7	19.2	12.0	D	4.1	18.6	12.4	D	-76%	-44%	79%	-79%	-45%	85%	-13%	-3%	3%
Water to Erie	12.9	19.0	5.1	F	4.9	11.0	8.9	E	4.3	10.4	9.4	D	-62%	-42%	75%	-67%	-45%	84%	-12%	-5%	6%
Tota	ıl 98.0	181.1	9.0	E	44.0	127.1	12.8	D	41.1	124.2	13.1	С	-55%	-30%	42%	-58%	-31%	46%	-7%	-2%	2%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Cha	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Time			Travel Time			Travel Time	
Almond Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Erie	34.0	51.0	6.7	F	16.0	33.0	10.3	D	16	33	10.3	D	-53%	-35%	54%	-53%	-35%	54%	0%	0%	0%
Erie to Water	23.1	29.2	3.3	F	9.5	15.6	6.2	F	9.1	15.2	6.4	F	-59%	-47%	88%	-61%	-48%	94%	-4%	-3%	3%
Water to Washington	0.5	15.0	15.3	С	3.1	17.6	13.1	С	2.7	17.2	13.4	С	520%	17%	-14%	440%	15%	-12%	-13%	-2%	2%
Washington to Fayette	30.3	45.6	5.3	F	8.4	23.7	10.2	D	8.3	23.6	10.3	D	-72%	-48%	92%	-73%	-48%	94%	-1%	0%	1%
Fayette to Genesee	64.5	80.8	3.2	F	24.5	40.8	6.3	F	23.2	39.5	6.5	F	-62%	-50%	97%	-64%	-51%	103%	-5%	-3%	3%
Total	152.4	221.6	5.3	F	61.5	130.7	8.9	E	59.3	128.5	9.1	D	-60%	-41%	68%	-61%	-42%	72%	-4%	-2%	2%

			Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Ch	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak Cli	inton	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Time			Travel Time	
Street Northbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Onondaga		-	-	-	-	-	-	-	-	12	27.1	11.2	D	-	-	-	-	=	-	-	-	-
Onondaga to Ped Crossing		-	-	-	-	-	-	-	-	22.3	37.6	8.1	E	-	-	-	-	-	-	-	-	-
Ped Crossing to Jefferson		-	-	-	-	-	-	-	-	26.7	50	11.2	D	-	-	-	-	-	-	-	-	-
Jefferson to Fayette		-	-	-	-	-	-	-	-	7	27.5	14.9	С	-	-	-	-	-	-	-	-	-
Fayette to Washington		-	-	-	-	-	-	-	-	8.1	22.3	10.1	D	-	-	-	-	=	=	-	-	-
Washington to Water		-	•	-		-	-	•	-	2	17	14	С	-	-	-	=	=	-	-	-	-
Water to Genesee		-	-	-	-	-	-	-	-	25.5	37.8	5.2	F	-	-	-	-	=	-	-	-	=
Genesee to Herald		-	-	-	-	-	-	-	-	0	20.3	23.9	В	-	-	-	-	=	-	-	-	-
_	Total	-	-	-	-	-	-	-	-	103.6	239.6	11.4	D	-	-	-	-	-	-	-	-	-

			Existing C	ondition			Optimized	Condition			Alterna	ative 1		% Change	- Existing to O	ptimized	% Ch	ange - Existing to	Alt 1	% Char	ige - Optimize	d to Alt 1
PM Peak Cli	nton	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time			Travel Time			Travel Time	е
Street Southbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Herald		19.4	34.7	7.0	E	16.5	31.8	7.7	E	15.3	30.6	8	E	-15%	-8%	10%	-21%	-12%	14%	-7%	-4%	4%
Herald to Genesee		25.8	46.1	10.5	D	8.9	29.2	16.6	С	13.4	33.7	14.4	С	-66%	-37%	58%	-48%	-27%	37%	51%	15%	-13%
Genesee to Water		0.6	12.9	15.2	С	0.9	13.2	14.8	С	1.4	13.7	14.3	С	50%	2%	-3%	133%	6%	-6%	56%	4%	-3%
Water to Washington		10.7	25.7	9.3	D	26.5	41.5	5.8	F	20.2	35.2	6.8	F	148%	61%	-38%	89%	37%	-27%	-24%	-15%	17%
Washington to Fayette		12.4	26.6	8.5	E	14.4	28.6	7.9	E	11.7	25.9	8.7	E	16%	8%	-7%	-6%	-3%	2%	-19%	-9%	10%
Fayette to Jefferson		14.1	34.6	11.8	D	7.4	27.9	14.7	С	7.1	27.6	14.8	С	-48%	-19%	25%	-50%	-20%	25%	-4%	-1%	1%
Jefferson to Ped Crossing		1.3	24.6	22.8	В	0.9	24.2	23.1	В	3.1	26.4	21.2	В	-31%	-2%	1%	138%	7%	-7%	244%	9%	-8%
Ped Crossing to Gifford		10.7	26.0	11.7	D	11.4	26.7	11.4	D	17.1	32.4	9.4	D	7%	3%	-3%	60%	25%	-20%	50%	21%	-18%
Gifford to Adams		60.6	75.7	4.0	F	60.6	75.7	4.0	F	58.8	73.9	4.1	F	0%	0%	0%	-3%	-2%	2%	-3%	-2%	2%
Т	otal	155.6	306.9	9.7	D	147.5	298.8	9.9	D	148.1	299.4	9.9	D	-5%	-3%	2%	-5%	-2%	2%	0%	0%	0%

			Existing (	Condition			Optimized	Condition			Alterr	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existing	to Alt 1	% Char	nge - Optimize	d to Alt 1
PM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	e	T	ravel Tim	е		Travel Tim	ie
Erie Blvd Eastbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Warren		17.8	33.6	7.5	E	26.3	42.1	6.0	F	22.5	38.3	6.6	F	48%	25%	-20%	26%	14%	-12%	-14%	-9%	10%
Warren to Montgomery		16.2	29.8	9.1	D	6.4	20.0	13.6	С	15	28.6	9.5	D	-60%	-33%	49%	-7%	-4%	4%	134%	43%	-30%
Montgomery to State		31.9	49.4	7.1	E	17.9	35.4	9.9	D	15.6	33.1	10.5	D	-44%	-28%	39%	-51%	-33%	48%	-13%	-6%	6%
State to Townsend		13.4	29.6	11.0	D	9.1	25.3	12.8	D	8.2	24.4	13.3	С	-32%	-15%	16%	-39%	-18%	21%	-10%	-4%	4%
Townsend to McBride		18.5	34.0	9.1	D	5.5	21.0	14.8	С	5.4	20.9	14.8	С	-70%	-38%	63%	-71%	-39%	63%	-2%	0%	0%
McBride to Almond		0.7	16.5	19.1	В	8.9	24.7	12.8	D	8.6	24.4	12.9	D	1171%	50%	-33%	1129%	48%	-32%	-3%	-1%	1%
	Total	98.5	192.9	9.4	D	74.1	168.5	10.8	D	75.3	169.7	10.7	D	-25%	-13%	15%	-24%	-12%	14%	2%	1%	-1%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Cha	ange - Existing t	o Alt 1	% Cha	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Time			Travel Time			Travel Time	
Erie Blvd Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond	7.0	45.0	23.0	В	17.0	55.0	18.8	С	17	55	18.8	С	143%	22%	-18%	143%	22%	-18%	0%	0%	0%
Almond to McBride	36.9	52.7	6.0	F	15.1	30.9	10.2	D	16.2	32	9.8	D	-59%	-41%	70%	-56%	-39%	63%	7%	4%	-4%
McBride to Townsend	12.3	27.8	11.2	D	6.5	22.0	14.1	С	4.7	20.2	15.4	С	-47%	-21%	26%	-62%	-27%	38%	-28%	-8%	9%
Townsend to State	17.6	33.8	9.6	D	12.6	28.8	11.3	D	10.6	26.8	12.1	D	-28%	-15%	18%	-40%	-21%	26%	-16%	-7%	7%
State to Oswego	7.7	25.2	13.9	С	4.0	21.5	16.2	С	8.3	25.8	13.5	С	-48%	-15%	17%	8%	2%	-3%	108%	20%	-17%
Oswego to Warren	-	-	-	-	-	-	-	-	20.6	34.2	8	E	=	-	-	-	-	-	=	=	-
Total	81.5	184.5	12.6	D	55.2	158.2	14.8	С	77.4	194	13.4	С	-32%	-14%	17%	-5%	5%	6%	40%	23%	-9%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existing	to Alt 1	% Char	nge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Tim	ne	T	Travel Tim	ie		Travel Tim	е
Fayette Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to West SB	21.8	39.8	9.1	D	21.8	39.8	9.1	D	21.8	39.8	9.1	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
West SB West NB	12.1	20.7	6.6	F	12.1	20.7	6.6	F	12.1	20.7	6.6	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to Franklin	10.7	30.0	15.5	С	10.7	30.0	15.5	С	10.7	30	15.5	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Franklin to Clinton	8.7	26.6	13.5	С	5.0	22.9	15.6	С	13.2	31.1	11.5	D	-43%	-14%	16%	52%	17%	-15%	164%	36%	-26%
Clinton to Salina	11.8	27.1	9.0	E	8.3	23.6	10.3	D	6.2	21.5	11.3	D	-30%	-13%	14%	-47%	-21%	26%	-25%	-9%	10%
Salina to Warren	12.9	29.2	8.8	E	38.3	54.6	4.7	F	32.3	48.6	5.3	F	197%	87%	-47%	150%	66%	-40%	-16%	-11%	13%
Warren to Montgomery	4.4	18.0	15.2	С	4.0	17.6	15.5	С	5.1	18.7	14.6	С	-9%	-2%	2%	16%	4%	-4%	28%	6%	-6%
Montgomery to State	21.1	38.3	9.0	D	11.8	29.0	11.9	D	9.3	26.5	13	С	-44%	-24%	32%	-56%	-31%	44%	-21%	-9%	9%
State to Townsend	17.8	34.3	9.6	D	25.7	42.2	7.8	E	29.3	45.8	7.2	E	44%	23%	-19%	65%	34%	-25%	14%	9%	-8%
Townsend to McBride	5.5	21.3	14.8	С	3.2	19.0	16.6	С	4.2	20	15.8	С	-42%	-11%	12%	-24%	-6%	7%	31%	5%	-5%
McBride to Almond	11.4	26.9	11.5	D	3.3	18.8	16.5	С	3.6	19.1	16.2	С	-71%	-30%	43%	-68%	-29%	41%	9%	2%	-2%
Total	138.2	312.2	10.9	D	144.2	318.2	10.7	D	147.8	321.8	10.5	D	4%	2%	-2%	7%	3%	-4%	2%	1%	-2%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to O	ptimized	% Cha	ange - Existing t	o Alt 1	% Chai	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Time			Travel Time			Travel Time	
Fayette Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Irving to Almond	11.1	40.9	19.8	В	12.4	42.2	19.2	В	13	42.8	19	С	12%	3%	-3%	17%	5%	-4%	5%	1%	-1%
Almond to McBride	4.4	19.9	15.6	С	5.7	21.2	14.6	С	6.5	22	14.1	С	30%	7%	-6%	48%	11%	-10%	14%	4%	-3%
McBride to Townsend	15.7	31.5	10.0	D	18.0	33.8	9.3	D	12.8	28.6	11	D	15%	7%	-7%	-18%	-9%	10%	-29%	-15%	18%
Townsend to State	57.2	73.7	4.5	F	35.8	52.3	6.3	F	31.2	47.7	6.9	F	-37%	-29%	40%	-45%	-35%	53%	-13%	-9%	10%
State to Montgomery	14.0	31.2	11.1	D	8.1	25.3	13.6	С	19.7	36.9	9.3	D	-42%	-19%	23%	41%	18%	-16%	143%	46%	-32%
Montgomery to Warren	13.0	26.6	10.3	D	23.1	36.7	7.4	E	15.3	28.9	9.4	D	78%	38%	-28%	18%	9%	-9%	-34%	-21%	27%
Warren to Salina	5.4	21.7	11.9	D	4.9	21.2	12.2	D	3.9	20.2	12.8	D	-9%	-2%	3%	-28%	-7%	8%	-20%	-5%	5%
Salina to Clinton	1.9	17.2	14.2	С	1.6	16.9	14.4	С	7.6	22.9	10.6	D	-16%	-2%	1%	300%	33%	-25%	375%	36%	-26%
Clinton to Franklin	17.7	35.6	10.1	D	13.1	31.0	11.5	D	13.1	31	11.5	D	-26%	-13%	14%	-26%	-13%	14%	0%	0%	0%
Franklin to West NB	40.2	59.5	7.8	E	40.2	59.5	7.8	E	40.4	59.7	7.8	E	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to West SB	5.7	14.3	9.5	D	5.7	14.3	9.5	D	5.6	14.2	9.6	D	0%	0%	0%	-2%	-1%	1%	-2%	-1%	1%
Total	186.3	372.1	10.3	D	168.6	354.4	10.8	D	169.1	354.9	10.8	D	-10%	-5%	5%	-9%	-5%	5%	0%	0%	0%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to (	Optimized	% Cha	ange - Existing t	o Alt 1	% Chai	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Time	<b>!</b>		Travel Time			Travel Time	
Franklin Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Fayette	27.8	41.6	5.2	F	27.8	41.6	5.2	F	27.8	41.6	5.2	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fayette to Washington	24.7	38.9	5.8	F	25.5	39.7	5.7	F	20.1	34.3	6.6	F	3%	2%	-2%	-19%	-12%	14%	-21%	-14%	16%
Washinton to Erie	23.5	40.2	8.3	E	11.8	28.5	11.7	D	12.4	29.1	11.5	D	-50%	-29%	41%	-47%	-28%	39%	5%	2%	-2%
Erie to Genesee	14.2	31.1	8.6	E	13.2	30.1	8.9	E	17.6	34.5	7.8	E	-7%	-3%	3%	24%	11%	-9%	33%	15%	-12%
Genesee to Willow	1.5	8.4	13.0	D	5.8	12.7	8.6	E	2.4	9.3	11.7	D	287%	51%	-34%	60%	11%	-10%	-59%	-27%	36%
Willow to Herald	7.5	22.1	10.5	D	16.1	30.7	7.6	E	23.3	37.9	6.1	F	115%	39%	-28%	211%	71%	-42%	45%	23%	-20%
Tota	1 99.2	182.3	7.6	E	100.2	183.3	7.6	E	103.6	186.7	7.4	E	1%	1%	0%	4%	2%	-3%	3%	2%	-3%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Change -	Existing to	Optimized	% Chan	ge - Existing	to Alt 1	% Chan	ige - Optimize	ed to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	e	T	Travel Tim	е		Travel Tim	e
Franklin Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Websters Landing to Herald	7.0	23.6	14.1	С	22.1	38.7	8.6	E	24.2	40.8	8.2	E	216%	64%	-39%	246%	73%	-42%	10%	5%	-5%
Herald to Willow	3.2	17.8	13.0	С	3.8	18.4	12.6	D	3.1	17.7	13.1	С	19%	3%	-3%	-3%	-1%	1%	-18%	-4%	4%
Willow to Genesee	17.3	24.2	4.5	F	11.2	18.1	6.0	F	9.3	16.2	6.7	F	-35%	-25%	33%	-46%	-33%	49%	-17%	-10%	12%
Genesee to Erie	4.3	21.2	12.7	D	3.3	20.2	13.3	С	1.8	18.7	14.4	С	-23%	-5%	5%	-58%	-12%	13%	-45%	-7%	8%
Erie to Washington	12.7	29.4	11.3	D	13.9	30.6	10.9	D	11.8	28.5	11.7	D	9%	4%	-4%	-7%	-3%	4%	-15%	-7%	7%
Washington to Fayette	10.2	24.4	9.2	D	8.4	22.6	10.0	D	9.8	24	9.4	D	-18%	-7%	9%	-4%	-2%	2%	17%	6%	-6%
Tota	54.7	140.6	10.7	D	62.7	148.6	10.1	D	60	145.9	10.3	D	15%	6%	-6%	10%	4%	-4%	-4%	-2%	2%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existinç	to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е	T	ravel Tim	ne		Travel Time	е
Genesee Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Wallace	5.1	23.5	15.7	С	11.5	29.9	12.3	D	10.6	29	12.7	D	125%	27%	-22%	108%	23%	-19%	-8%	-3%	3%
Wallace to Franklin	17.6	33.8	9.6	D	13.1	29.3	11.0	D	10.8	27	12	D	-26%	-13%	15%	-39%	-20%	25%	-18%	-8%	9%
Franklin to Clinton	44.9	61.3	5.3	F	8.8	25.2	13.0	D	15.1	31.5	10.4	D	-80%	-59%	145%	-66%	-49%	96%	72%	25%	-20%
Clinton to Salina	4.4	20.6	12.5	D	28.2	44.4	5.8	F	19.5	35.7	7.2	E	541%	116%	-54%	343%	73%	-42%	-31%	-20%	24%
Total	72.0	139.2	9.2	D	61.6	128.8	9.9	D	56	123.2	10.4	D	-14%	-7%	8%	-22%	-11%	13%	-9%	-4%	5%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Chang	ge - Existing to C	ptimized	% Cha	ange - Existing to	Alt 1	% Char	ige - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Genesee Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	14.6	30.8	8.3	E	4.3	20.5	12.5	D	9.2	25.4	10.1	D	-71%	-33%	51%	-37%	-18%	22%	114%	24%	-19%
Clinton to Franklin	25.4	41.8	7.8	E	8.7	25.1	13.0	С	8.4	24.8	13.2	С	-66%	-40%	67%	-67%	-41%	69%	-3%	-1%	2%
Franklin to Wallace	6.2	22.4	14.4	С	5.7	21.9	14.8	С	6.5	22.7	14.2	С	-8%	-2%	3%	5%	1%	-1%	14%	4%	-4%
Total	46.2	95.0	9.6	D	18.7	67.5	13.4	С	24.1	72.9	12.4	D	-60%	-29%	40%	-48%	-23%	29%	29%	8%	-7%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	e - Existing to C	)ptimized	% Cha	ange - Existing to	o Alt 1	% Chai	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Harrison Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Warren	-	-	-	1	-	-	-	-	14.1	29.3	8.2	E	-	-	=	-	•	-	-	-	-
Warren to Montgomery	-	-	-	ı	-	-	-	-	8.1	26.4	13.9	С	-	=	=	-	ı	-	-	=	=
Montgomery to State	-	-	-	ı	-	-	-	-	1.3	16.6	14.6	С	-	=	=	-	ı	-	-	=	=
State to Townsend	-	-	-	ı	-	-	-	-	17.2	38.4	11	D	-	=	=	-	ı	-	-	=	=
Total	-	-	-	ī	-	-	-	-	40.7	110.7	11.5	D	-	-	-	-	ī	-	-	-	-

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to O	ptimized	% Ch	ange - Existing to	Alt 1	% Chai	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time			Travel Time			Travel Time	)
Harrison Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Almond to Townsend	16.1	34.4	10.6	D	15.4	33.7	10.9	D	14.8	33.1	11.1	D	-4%	-2%	3%	-8%	-4%	5%	-4%	-2%	2%
Townsend to State	5.1	26.3	16.1	С	11.5	32.7	13.0	D	9.6	30.8	13.8	С	125%	24%	-19%	88%	17%	-14%	-17%	-6%	6%
State to Montgomery	12.1	27.4	8.8	E	6.1	21.4	11.3	D	14.4	29.7	8.1	E	-50%	-22%	28%	19%	8%	-8%	136%	39%	-28%
Montgomery to Warren	8.1	26.4	13.9	С	9.7	28.0	13.1	С	18.1	36.4	10.1	D	20%	6%	-6%	123%	38%	-27%	87%	30%	-23%
Warren to Onondaga	84.4	99.6	2.4	F	49.7	64.9	3.7	F	21.1	36.3	6.6	F	-41%	-35%	54%	-75%	-64%	175%	-58%	-44%	78%
Total	125.8	214.1	7.7	E	92.4	180.7	9.1	D	78	166.3	9.9	D	-27%	-16%	18%	-38%	-22%	29%	-16%	-8%	9%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chang	ge - Existing	to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е	T	ravel Tim	ne		Travel Time	Э
Herald Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Franklin	14.5	27.5	7.5	E	7.3	20.3	10.1	D	33.8	46.8	4.4	F	-50%	-26%	35%	133%	70%	-41%	363%	131%	-56%
Franklin to Clinton	25.0	41.9	6.4	F	13.6	30.5	8.8	E	16.6	33.5	8	Е	-46%	-27%	38%	-34%	-20%	25%	22%	10%	-9%
Clinton to Salina	9.6	24.9	9.7	D	18.8	34.1	7.1	E	13	28.3	8.6	Е	96%	37%	-27%	35%	14%	-11%	-31%	-17%	21%
Tota	l 49.1	94.3	7.6	E	39.7	84.9	8.4	E	63.4	108.6	6.6	F	-19%	-10%	11%	29%	15%	-13%	60%	28%	-21%

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	Existing to	Optimized	% Chang	ge - Existing	to Alt 1	% Char	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ie	T	ravel Tim	е		Travel Tim	е
Herald Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	10.7	26.0	9.3	D	17.9	33.2	7.3	E	14.6	29.9	8.1	E	67%	28%	-22%	36%	15%	-13%	-18%	-10%	11%
Clinton to Franklin	0.0	16.9	15.8	С	0.0	16.9	15.8	С	3.5	20.4	13.1	С	0%	0%	0%	NA	21%	-17%	NA	21%	-17%
Total	10.7	42.9	11.9	D	17.9	50.1	10.2	D	18.1	50.3	10.1	D	67%	17%	-14%	69%	17%	-15%	1%	0%	-1%

		Existing	Condition			Optimized	d Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existing	to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	e	T	ravel Tim	ne		Travel Tim	е
Jefferson Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Clinton	19.2	30.8	6.0	F	14.0	25.6	7.2	Е	24.1	35.7	5.2	F	-27%	-17%	20%	26%	16%	-13%	72%	39%	-28%
Clinton to Salina	33.4	48.9	5.0	F	16.2	31.7	7.7	E	16.5	32	7.7	E	-51%	-35%	54%	-51%	-35%	54%	2%	1%	0%
Salina to Warren	13.1	29.6	8.8	E	15.3	31.8	8.2	E	16.9	33.4	7.8	E	17%	7%	-7%	29%	13%	-11%	10%	5%	-5%
Warren to Montgomery	7.9	15.0	7.5	E	9.4	16.5	6.8	F	9.4	16.5	6.8	F	19%	10%	-9%	19%	10%	-9%	0%	0%	0%
Montgomery to State	16.4	30.6	7.4	E	25.2	39.4	5.7	F	23.6	37.8	6	F	54%	29%	-23%	44%	24%	-19%	-6%	-4%	5%
To	tal 90.0	154.9	6.6	F	80.1	145.0	7.1	E	90.5	155.4	6.6	F	-11%	-6%	8%	1%	0%	0%	13%	7%	-7%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change -	<ul> <li>Existing to</li> </ul>	Optimized	% Chang	ge - Existing	g to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е	T	ravel Tim	ne		Travel Tim	е
Jefferson Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Onondaga	-	-	-	-	-	-	-	-	5.2	19.4	11.6	D	-	-	-	=	-	-	-	-	-
Onodaga to Warren	14.1	31.0	8.6	E	20.8	37.7	7.1	E	22.1	39	6.9	F	48%	22%	-17%	57%	26%	-20%	6%	3%	-3%
Warren to Salina	29.1	45.6	5.7	F	14.8	31.3	8.3	E	16.2	32.7	8	E	-49%	-31%	46%	-44%	-28%	40%	9%	4%	-4%
Salina to Clinton	35.1	50.6	4.9	F	14.6	30.1	8.2	E	20.8	36.3	6.8	F	-58%	-41%	67%	-41%	-28%	39%	42%	21%	-17%
Total	78.3	127.2	6.1	F	50.2	99.1	7.8	E	64.3	127.4	7.8	E	-36%	-22%	28%	-18%	0%	28%	28%	29%	0%

		Fulation 0	N		T	0	1.0 1111		ı	A 14			0/ 01	Eulatia a ta C	No. 41	0/ 01-	Folklows	- 111 1	0/ 01		1.1. 1.1.1
DM Dook	C'ana a l	Existing C			C'ana a l		d Condition		C! I	Altern		ı	% Chang	ge - Existing to C	•	% Cha	ange - Existing t			e - Optimized	
PM Peak McBride Street Northbound	Signal	Travel	Arterial	1.00	Signal	Travel	Arterial	1.00	Signal	Travel	Arterial	1.00	Ciamal Dalay (a)	Travel Time		Cianal Dalay (a)	Travel Time			ravel Time	
	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS F	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	3	(s)	·	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Genesee	16.9	28.9	6.6	F	15.5	27.5	6.9	'	16.1	28.1	6.7	F	-8%	-5%	5%	-5%	-3%	2%	4%	2%	-3%
Genesee to Fayette	20.7	36.0	6.8	F	20.0	35.3	6.9	F	18.8	34.1	7.1	Ŀ	-3%	-2%	1%	-9%	-5%	4%	-6%	-3%	3%
Fayette to Washington	16.8	31.8	7.5	E	14.2	29.2	8.2	E	12.9	27.9	8.6	E	-15%	-8%	9%	-23%	-12%	15%	-9%	-4%	5%
Washington to Water	24.6	38.7	5.8	F	11.9	26.0	8.6	<u>E</u>	10.8	24.9	9	D	-52%	-33%	48%	-56%	-36%	55%	-9%	-4%	5%
Water to Erie	10.4	16.5	5.9	F	16.1	22.2	4.4	F	15.8	21.9	4.5	F	55%	35%	-25%	52%	33% -10%	-24%	-2%	-1%	2%
Total	89.4	151.9	6.5	F	77.7	140.2	7.1	E	74.4	136.9	7.3	Ē	-13%	-8%	9%	-17%	-10%	12%	-4%	-2%	3%
		Existing C	ondition			Ontimizor	d Condition			Alterna	ativo 1		% Chanc	ge - Existing to C	Intimized	9/ Chr	ange - Existing t	o Alt 1	% Change	e - Optimized	N to Alt 1
PM Peak	Cianal				Cianal				Cianal			ĺ	// CHAIL	, ,		/0 CH2	3	T AIL I	Ŭ		
McBride Street Southbound	Signal	Travel	Arterial	100	Signal	Travel	Arterial	100	Signal	Travel	Arterial	100	Cianal Dalay (a)	Travel Time		Cianal Dalay (a)	Travel Time	Artarial Casad		ravel Time	
	Delay (s)	Time (s)	Speed 22.6	LOS B	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS B	Signal Delay (s) 59%	(s) 10%	Arterial Speed	<u> </u>	(s) 10%		Signal Delay (s)	(s)	Arterial Speed
James to Erie	6.8	39.6		B F	10.8	43.6 18.4	20.5	B F	10.7 11	43.5	20.5	Б		-23%	-9% 20%	57% -38%	-28%	-9% 39%	-1%	-7%	0%
Erie to Water	17.8	23.9	4.1	F F	12.3		5.3 10.0	•		17.1	5.7	D D	-31% -57%	-23%	29% 49%	-38% -55%	-28% -32%	39% 46%	-11%		8%
Water to Washington Washington to Fayette	19.3 32.5	33.4 47.5	6.7 5.0	F F	8.3 10.0	22.4 25.0	9.5	D D	8.7 8	22.8	9.8 10.4	D D	-5 <i>1</i> %	-33% -47%	90%	-55% -75%	-32% -52%	108%	5% -20%	2% -8%	-2% 9%
3	32.5	19.0	12.8	D F	4.9	20.2	12.0	D D	5.3	20.6	11.8	D D	-69% 32%	-4 <i>1</i> % 6%	-6%	-75% 43%	-52% 8%	-8%	-20%	-8% 2%	-2%
Fayette to Genesee  Total	80.1	163.4	10.4	D D	4.9	129.6	13.1	C.	43.7	127	13.4	C	-42%	-21%	26%	-45%	-22%	29%	-6%	-2%	2%
Total	00.1	103.4	10.4	U	40.3	129.0	13.1	C	43.7	127	13.4	C	-42/0	-21/0	2070	-4370	-22/0	29/0	-0 /0	-Z /0	2 /0
		Fylotina C	`anditian			Ontimizac	l Candition			Altara	ativo 1		0/ Chans	ge - Existing to C	ntimizad	0/ Cha	anga Eviating t	o Alt 1	0/ Chang	e - Optimized	J + 0 A J + 1
PM Peak	Ciana al	Existing C			Ciana al		Condition		Cimpal	Altern		1	% Chang	, ,		% CH	ange - Existing t	1			
Montgomery Street NB	Signal	Travel	Arterial	100	Signal	Travel	Arterial	100	Signal	Travel	Arterial	100	Cianal Dalay (a)	Travel Time		Cianal Dalay (a)	Travel Time			ravel Time	
<u> </u>	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS D	Signal Delay (s)	(s)	· ·	Signal Delay (s)	(s)	Arteriai Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Fayette	-	-	-	-	-	-	-	-	17.9 7.7	38.4	10.7 10.2	D D	-	-	-	-	-	-	-	-	-
Fayette to Wasgington Wasgington to Water	-	-	-	-	-	-	-	-	4.3	21.7 18.4	12.2	D D	-	-	-	-	-	-	-	-	-
Water to Erie	-	-	-	-	-	-	-	<u> </u>	21.6	27.8	3.5		-	-	-	-	-	-	-	-	-
Total	<del>                                     </del>	-	_	-	<del>                                     </del>	-	-	-	51.5	106.3	0 0	F E	-	-	-	-	-	-	-	-	-
Total	-		-		_	-	-		51.5	100.5	7	L			-		-	-	-	-	-
		Existing C	Condition			Ontimized	d Condition			Altern	ative 1		% Chanc	ge - Existing to C	Ontimized	% Cha	ange - Existing t	o Alt 1	% Chang	e - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		70 0114119	Travel Time	1	70 0110	Travel Time	1		ravel Time	
Montgomery Street SB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Erie to Water	4.7	10.9	9.0	D	21.9	28.1	3.5	F	10.5	16.7	5.9	F	366%	158%	-61%	123%	53%	-34%	-52%	-41%	69%
Water to Washington	12.1	26.2	8.5	F	8.0	22.1	10.1		9.8	23.9	9.4	D.	-34%	-16%	19%	-19%	-9%	11%	23%	8%	-7%
Washington to Fayette	10.0	24.0	9.2	D	18.4	32.4	6.8	F	16.7	30.7	7.2	F	84%	35%	-26%	67%	28%	-22%	-9%	-5%	6%
Total	26.8	61.1	8.9	F	48.3	82.6	6.6	' F	37	71.3	7.6	F	80%	35%	-26%	38%	17%	-15%	-23%	-14%	15%
Total	20.0	01.1	0.7		10.5	02.0	0.0	•	37	71.5	7.0	-	0070	3370	2070	3070	1770	1070	2370	1170	1070
	1	Existing C	Condition		T T	Optimized	d Condition			Alterna	ative 1		% Chanc	ge - Existing to C	)ptimized	% Cha	ange - Existing t	o Alt 1	% Change	e - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			ravel Time	
	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)		Arterial Speed	Signal Delay (s)	(s)		Signal Delay (s)	(s)	Arterial Speed
Montgomery Street NB	0.0	13.8	15.9	C	0.0	13.8	15.9	C	0	13.8	15.9	C	-	-	-	-	-	-	-	-	-
Montgomery Street NB Entry Link to Adams	U.U		. 5. 7			. 5.0	-	-	12.6	31.7	12	D	_	-	-	_	-	-	-	_	-
Entry Link to Adams	-	-	-	-	-	-								•	1		•				1
Entry Link to Adams Adams to Harrison		-	-	-	-	-	-	-			14.8	С	-	-	-	-	-	-	-	-	-
Entry Link to Adams Adams to Harrison Harrison to Madison			-	- - -		-	-		5.2	20.3	14.8 20	C B	-	-	-	-	-	-	-	-	-
Entry Link to Adams Adams to Harrison	-	-	-	- - -	-	-	-	-	5.2		14.8 20 15.1	C B C							-	-	

Alternative 1

Arterial

Speed

12.1

9.6

20

13

LOS

D

D

В

D

Signal Delay (s)

-38%

-25%

0%

-9%

Travel

Time (s)

32.2

31.3

19.1

82.6

Signal

Delay (s)

12.7

16.2

0

28.9

LOS

С

D

F

% Change - Existing to Optimized

Travel Time

(s)

-16%

-11%

0%

-6%

Arterial Speed Signal Delay (s)

-14%

45%

-100%

-68%

19%

11%

0%

7%

% Change - Existing to Alt 1

Travel Time

(s)

-6%

19%

-77%

-43%

Arterial Speed Signal Delay (s)

6%

-17%

344%

76%

40%

93%

-100%

-65%

% Change - Optimized to Alt 1

Travel Time

(s)

13%

33%

-77%

-40%

**Arterial Speed** 

-11%

-25%

344%

65%

**Existing Condition** 

Arterial

Speed

11.4

11.5

4.5

7.4

Travel

Time (s)

34.2

26.3

84.5

145.0

Signal

Delay (s)

14.7

11.2

65.4

91.3

Total

PM Peak

Montgomery Street SB

Jefferson to Madison

Madison to Harrison

Harrison to Adams

Optimized Condition

Arterial

Speed

13.6

12.8

4.5

7.9

Travel

Time (s)

28.6

23.5

84.5

136.6

Signal

Delay (s)

9.1

8.4

65.4

82.9

LOS

D

D

Ε

		Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to (	Optimized	% Cha	ange - Existing to	Alt 1	% Cha	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		1	Travel Time	9		Travel Time			Travel Time	
Salina Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	48.7	60.4	3.1	F	48.7	60.4	3.1	F	49.2	60.9	3.1	F	0%	0%	0%	1%	1%	0%	1%	1%	0%
Adams to Centro Hub	0.6	3.9	13.3	С	0.6	3.9	13.3	С	0.6	3.9	13.3	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Centro Hub to Harrsion	27.2	45.7	8.1	E	30.2	48.7	7.6	E	28.5	47	7.9	Е	11%	7%	-6%	5%	3%	-2%	-6%	-3%	4%
Harrison to Ped Crossing	8.8	24.9	12.9	D	5.5	21.6	14.9	С	5.7	21.8	14.8	С	-38%	-13%	16%	-35%	-12%	15%	4%	1%	-1%
Ped Crossing Jefferson	14.7	32.2	10.9	D	14.3	31.8	11.0	D	6.5	24	14.6	С	-3%	-1%	1%	-56%	-25%	34%	-55%	-25%	33%
Jefferson to Fayette	6.9	27.4	14.9	С	6.5	27.0	15.2	С	8.7	29.2	14	С	-6%	-1%	2%	26%	7%	-6%	34%	8%	-8%
Fayette to Washington	7.1	21.3	10.6	D	8.9	23.1	9.7	D	5.1	19.3	11.7	D	25%	8%	-8%	-28%	-9%	10%	-43%	-16%	21%
Washington to Water	15.4	30.1	7.7	E	5.9	20.6	11.3	D	7	21.7	10.7	D	-62%	-32%	47%	-55%	-28%	39%	19%	5%	-5%
Water to James	20.1	31.8	5.8	F	26.8	38.5	4.8	F	18.8	30.5	6.1	F	33%	21%	-17%	-6%	-4%	5%	-30%	-21%	27%
James to Willow	5.8	22.1	11.7	D	2.9	19.2	13.5	С	6.2	22.5	11.5	D	-50%	-13%	15%	7%	2%	-2%	114%	17%	-15%
Willow to Herald	9.3	24.3	9.8	D	8.1	23.1	10.3	D	7.8	22.8	10.5	D	-13%	-5%	5%	-16%	-6%	7%	-4%	-1%	2%
Total	164.6	324.1	8.7	E	158.4	317.9	8.9	E	144.1	303.6	9.3	D	-4%	-2%	2%	-12%	-6%	7%	-9%	-4%	4%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existing	to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ne	T	ravel Tim	ie		Travel Time	Э
Salina Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	<b>Arterial Speed</b>
State to Herald	19.7	53.6	17.2	С	18.9	52.8	17.5	С	18.9	52.8	17.5	С	-4%	-1%	2%	-4%	-1%	2%	0%	0%	0%
Herald to Willow	7.1	22.1	10.8	D	3.2	18.2	13.1	С	2.9	17.9	13.3	С	-55%	-18%	21%	-59%	-19%	23%	-9%	-2%	2%
Willow to Genesee	6.2	22.5	11.5	D	12.9	29.2	8.9	E	12.1	28.4	9.1	D	108%	30%	-23%	95%	26%	-21%	-6%	-3%	2%
Genesee to Water	3.9	15.6	11.9	D	4.9	16.6	11.2	D	7.1	18.8	9.9	D	26%	6%	-6%	82%	21%	-17%	45%	13%	-12%
Water to Washington	5.1	19.8	11.8	D	10.0	24.7	9.4	D	10.6	25.3	9.2	D	96%	25%	-20%	108%	28%	-22%	6%	2%	-2%
Washington to Fayette	9.6	23.8	9.5	D	14.8	29.0	7.8	E	19.7	33.9	6.6	F	54%	22%	-18%	105%	42%	-31%	33%	17%	-15%
Fayette to Jefferson	0.5	21.0	19.5	В	6.0	26.5	15.4	С	6.2	26.7	15.3	С	1100%	26%	-21%	1140%	27%	-22%	3%	1%	-1%
Jefferson to Ped Crossing	10.5	28.0	12.5	D	6.9	24.4	14.3	С	16.6	34.1	10.3	D	-34%	-13%	14%	58%	22%	-18%	141%	40%	-28%
Ped Crossing to Onondaga	25.9	42.0	7.7	E	18.7	34.8	9.2	D	3.7	19.8	16.3	С	-28%	-17%	19%	-86%	-53%	112%	-80%	-43%	77%
Onondaga to Centro Hub	33.8	52.3	7.1	E	33.8	52.3	7.1	E	33	51.5	7.2	E	0%	0%	0%	-2%	-2%	1%	-2%	-2%	1%
Centro Hub to Adams	1.6	4.9	10.6	D	1.6	4.9	10.6	D	2	5.3	9.8	D	0%	0%	0%	25%	8%	-8%	25%	8%	-8%
Total	123.9	305.6	11.7	D	131.7	313.4	11.4	D	132.8	314.5	11.3	D	6%	3%	-3%	7%	3%	-3%	1%	0%	-1%

		Existing (	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Ch	ange - Existing to	o Alt 1	% Char	nge - Optimized	l to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time	!		Travel Time			Travel Time	2
State Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	24.4	40.7	8.0	Е	24.4	40.7	8.0	E	25.5	41.8	7.8	E	0%	0%	0%	5%	3%	-3%	5%	3%	-3%
Adams to Harrison	19.7	38.8	9.8	D	15.0	34.1	11.2	D	20.3	39.4	9.7	D	-24%	-12%	14%	3%	2%	-1%	35%	16%	-13%
Harrison to Madison	10.6	25.7	11.7	D	16.4	31.5	9.6	D	16.8	31.9	9.4	D	55%	23%	-18%	58%	24%	-20%	2%	1%	-2%
Madison to Jefferson	7.3	26.7	14.6	С	5.2	24.6	15.8	С	5.2	24.6	15.8	С	-29%	-8%	8%	-29%	-8%	8%	0%	0%	0%
Jefferson to Genesee	43.2	58.9	4.2	F	14.1	29.8	8.4	E	15	30.7	8.1	E	-67%	-49%	100%	-65%	-48%	93%	6%	3%	-4%
Genesee to Fayette	14.0	23.1	6.3	F	20.6	29.7	4.9	F	19.8	28.9	5	F	47%	29%	-22%	41%	25%	-21%	-4%	-3%	2%
Fayette to Washington	34.7	49.2	4.7	F	18.5	33.0	7.0	F	14.1	28.6	8.1	E	-47%	-33%	49%	-59%	-42%	72%	-24%	-13%	16%
Washington to Water	40.6	54.4	4.0	F	3.7	17.5	12.5	D	5.4	19.2	11.4	D	-91%	-68%	213%	-87%	-65%	185%	46%	10%	-9%
Water to Erie	61.2	67.6	1.5	F	27.3	33.7	3.0	F	26.1	32.5	3.1	F	-55%	-50%	100%	-57%	-52%	107%	-4%	-4%	3%
To	tal 255.7	385.1	6.1	F	145.2	274.6	8.5	E	148.2	277.6	8.4	E	-43%	-29%	39%	-42%	-28%	38%	2%	1%	-1%

			Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Ch	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	State	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time			Travel Time			Travel Time	
Street Southbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Erie		17.7	39.2	11.0	D	20.0	41.5	10.4	D	19.5	41	10.5	D	13%	6%	-5%	10%	5%	-5%	-3%	-1%	1%
Erie to Water		26.0	32.4	3.1	F	7.3	13.7	7.4	E	8.8	15.2	6.6	F	-72%	-58%	139%	-66%	-53%	113%	21%	11%	-11%
Water to Washington		18.2	32.0	6.9	F	11.7	25.5	8.6	E	10.4	24.2	9.1	D	-36%	-20%	25%	-43%	-24%	32%	-11%	-5%	6%
Washington to Fayette		8.6	23.1	10.0	D	18.2	32.7	7.0	E	19.4	33.9	6.8	F	112%	42%	-30%	126%	47%	-32%	7%	4%	-3%
Fayette to Onondaga		5.7	14.8	9.8	D	7.2	16.3	8.9	E	5.5	14.6	9.9	D	26%	10%	-9%	-4%	-1%	1%	-24%	-10%	11%
Onondaga to Jefferson		27.7	43.4	5.7	F	5.4	21.1	11.8	D	12.4	28.1	8.9	E	-81%	-51%	107%	-55%	-35%	56%	130%	33%	-25%
Jefferson to Madison		4.2	23.6	16.5	С	25.9	45.3	8.6	E	15.3	34.7	11.2	D	517%	92%	-48%	264%	47%	-32%	-41%	-23%	30%
Madison to Harrison		25.4	40.5	7.4	E	1.5	16.6	18.2	С	6.6	21.7	13.9	С	-94%	-59%	146%	-74%	-46%	88%	340%	31%	-24%
Harrison to Adams		51.2	70.3	5.4	F	51.2	70.3	5.4	F	54.5	73.6	5.2	F	0%	0%	0%	6%	5%	-4%	6%	5%	-4%
	Total	184.7	319.3	7.7	E	148.4	283.0	8.6	E	152.4	287	8.5	E	-20%	-11%	12%	-17%	-10%	10%	3%	1%	-1%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to (	Optimized	% Ch	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time	)		Travel Time			Travel Time	
Townsend Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	31.6	49.9	7.3	Е	31.6	49.9	7.3	E	42.5	60.8	6	F	0%	0%	0%	34%	22%	-18%	34%	22%	-18%
Adams to Harrison	12.7	31.4	11.9	D	13.3	32.0	11.7	D	14.9	33.6	11.1	D	5%	2%	-2%	17%	7%	-7%	12%	5%	-5%
Harrison to Genesee	13.8	48.9	19.6	В	12.7	47.8	20.0	В	14	49.1	19.5	В	-8%	-2%	2%	1%	0%	-1%	10%	3%	-3%
Genesee to Fayette	15.6	24.5	5.8	F	9.8	18.7	7.5	E	5.9	14.8	9.5	D	-37%	-24%	29%	-62%	-40%	64%	-40%	-21%	27%
Fayette to Washington	4.9	19.4	11.8	D	3.9	18.4	12.5	D	3.3	17.8	12.9	D	-20%	-5%	6%	-33%	-8%	9%	-15%	-3%	3%
Washington to Water	1.5	15.6	14.3	С	2.3	16.4	13.6	С	3.1	17.2	13	С	53%	5%	-5%	107%	10%	-9%	35%	5%	-4%
Water to Erie	29.9	36.2	2.8	F	24.4	30.7	3.3	F	26.6	32.9	3	F	-18%	-15%	18%	-11%	-9%	7%	9%	7%	-9%
Erie to 1690 WB offramp	54.4	61.4	1.8	F	23.0	30.0	3.7	F	20.5	27.5	4	F	-58%	-51%	106%	-62%	-55%	122%	-11%	-8%	8%
1690 WB offramp to Burnett	3.9	19.6	12.7	D	5.6	21.3	11.7	D	5.3	21	11.9	D	44%	9%	-8%	36%	7%	-6%	-5%	-1%	2%
Total	168.3	306.9	9.0	E	126.6	265.2	10.4	D	136.1	274.7	10	D	-25%	-14%	16%	-19%	-10%	11%	8%	4%	-4%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Ch	ange - Existing t	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time			Travel Time			Travel Time	
Townsend Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Burnett	18.8	35.3	9.3	D	22.7	39.2	8.4	E	21.8	38.3	8.6	E	21%	11%	-10%	16%	8%	-8%	-4%	-2%	2%
Burnett to Brown	19.6	35.3	7.0	E	13.9	29.6	8.4	Е	14.4	30.1	8.3	Е	-29%	-16%	20%	-27%	-15%	19%	4%	2%	-1%
Brown to Erie	23.1	30.1	3.7	F	28.3	35.3	3.1	F	25.6	32.6	3.4	F	23%	17%	-16%	11%	8%	-8%	-10%	-8%	10%
Erie to Water	3.1	9.4	10.7	D	2.2	8.5	11.8	D	1.9	8.2	12.2	D	-29%	-10%	10%	-39%	-13%	14%	-14%	-4%	3%
Water to Washington	26.2	40.3	5.5	F	3.0	17.1	13.1	С	3	17.1	13.1	С	-89%	-58%	138%	-89%	-58%	138%	0%	0%	0%
Washington to Fayette	3.7	18.2	12.6	D	9.3	23.8	9.7	D	10.6	25.1	9.2	D	151%	31%	-23%	186%	38%	-27%	14%	5%	-5%
Fayette to Genesee	3.7	12.6	11.2	D	4.1	13.0	10.9	D	5.2	14.1	10	D	11%	3%	-3%	41%	12%	-11%	27%	8%	-8%
Genesee to Harrison	17.5	52.6	18.2	С	6.3	41.4	23.1	В	6.8	41.9	22.9	В	-64%	-21%	27%	-61%	-20%	26%	8%	1%	-1%
Harrison to Adams	62.0	80.7	4.6	F	62.0	80.7	4.6	F	63.6	82.3	4.5	F	0%	0%	0%	3%	2%	-2%	3%	2%	-2%
Total	177.7	314.5	8.6	E	151.8	288.6	9.4	D	152.9	289.7	9.4	D	-15%	-8%	9%	-14%	-8%	9%	1%	0%	0%

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Ch	ange - Existing to	o Alt 1	% Char	nge - Optimized	to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Time			Travel Time	
Warren Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Harrsion	32.0	51.1	7.5	E	15.2	34.3	11.1	D	41.1	60.2	6.3	F	-53%	-33%	48%	28%	18%	-16%	170%	76%	-43%
Harrison to Madison	3.3	18.4	16.4	С	2.4	17.5	17.2	С	8.1	23.2	13	D	-27%	-5%	5%	145%	26%	-21%	238%	33%	-24%
Madison to Jefferon	19.0	38.4	10.1	D	11.1	30.5	12.7	D	8.4	27.8	14	С	-42%	-21%	26%	-56%	-28%	39%	-24%	-9%	10%
Jefferson to Fayette	31.1	51.6	7.9	E	22.1	42.6	9.6	D	22.6	43.1	9.5	D	-29%	-17%	22%	-27%	-16%	20%	2%	1%	-1%
Fayette to Washington	14.9	28.9	7.7	E	8.3	22.3	10.0	D	6.7	20.7	10.7	D	-44%	-23%	30%	-55%	-28%	39%	-19%	-7%	7%
Washington to Water	32.5	47.3	5.0	F	3.5	18.3	12.9	D	4.4	19.2	12.3	D	-89%	-61%	158%	-86%	-59%	146%	26%	5%	-5%
Water to Erie	9.5	15.5	6.2	F	2.7	8.7	11.0	D	3.9	9.9	9.6	D	-72%	-44%	77%	-59%	-36%	55%	44%	14%	-13%
Erie to James	1.6	7.5	12.5	D	15.4	21.3	4.4	F	13.5	19.4	4.9	F	863%	184%	-65%	744%	159%	-61%	-12%	-9%	11%
Tota	143.9	258.7	8.2	E	80.7	195.5	10.9	D	108.7	223.5	9.5	D	-44%	-24%	33%	-24%	-14%	16%	35%	14%	-13%

		Existing (	Condition			Optimized	Condition			Alterr	native 1		% Change	- Existing to	Optimized	% Chan	ge - Existinç	to Alt 1	% Chan	ge - Optimize	ed to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ne	T	ravel Tim	ne		Travel Tim	e
Warren Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to James	-	-	-	-	-	-	-	-	12.4	24.2	7.7	E	-	-	-	-	-	-	-	-	-
James to Erie	-	-	-	-	-	-	-	-	7.1	13	7.2	E	-	-	-	-	-	-	-	-	-
Erie to Water	-	-	-	-	-	-	-	-	7.6	13.6	7	E	-	-	-	-	-	-	-	-	-
Water to Washington	-	-	-	-	-	-	-	-	2.7	17.5	13.4	С	-	-	-	-	-	-	-	-	-
Washington to Fayette	-	-	-	-	-	-	-	-	5.1	19.1	11.6	D	-	-	-	-	-	-	-	-	-
Fayett to Jefferson	-	-	-	-	-	-	-	-	3.4	23.9	17.1	С	-	-	-	-	-	-	-	-	-
Jefferson to Onondaga	-	-	-	-	-	-	-	-	25.3	44.7	8.7	E	-	-	-	-	-	-	-	-	-
Onondaga to Harrison	-	-	-	-	-	-	-	-	7.2	22.3	13.5	С	-	-	-	-	-	-	-	-	-
То	tal -	-	-	-	-	-	-	-	70.8	178.3	10.8	D	-	-	-	-	-	-	-	-	-

		Existing C	Condition			Optimized	Condition			Altern	ative 1		% Change	- Existing to C	Optimized	% Ch	ange - Existing to	o Alt 1	% Char	nge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Time			Travel Tim	е
Washington Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Franklin	15.4	40.0	14.7	С	13.7	38.3	15.4	С	18.3	42.9	13.7	С	-11%	-4%	5%	19%	7%	-7%	34%	12%	-11%
Franklin to Clinton	6.3	24.0	14.8	С	4.9	22.6	15.7	С	9	26.7	13.3	С	-22%	-6%	6%	43%	11%	-10%	84%	18%	-15%
Clinton to Salina	14.0	29.6	8.4	E	10.6	26.2	9.5	D	11.8	27.4	9.1	D	-24%	-11%	13%	-16%	-7%	8%	11%	5%	-4%
Salina to Warren	19.2	35.5	7.3	E	20.4	36.7	7.1	Е	27	43.3	6	F	6%	3%	-3%	41%	22%	-18%	32%	18%	-15%
Warren to Montgomery	3.6	17.1	15.8	С	2.5	16.0	16.9	С	4.2	17.7	15.3	С	-31%	-6%	7%	17%	4%	-3%	68%	11%	-9%
Montgomery to State	9.7	27.4	12.9	D	5.9	23.6	15.0	С	10.7	28.4	12.5	D	-39%	-14%	16%	10%	4%	-3%	81%	20%	-17%
State to Townsend	24.8	41.0	7.9	E	33.8	50.0	6.5	F	32.5	48.7	6.7	F	36%	22%	-18%	31%	19%	-15%	-4%	-3%	3%
Townsend to McBride	16.5	32.3	9.8	D	5.7	21.5	14.7	С	5.4	21.2	14.9	С	-65%	-33%	50%	-67%	-34%	52%	-5%	-1%	1%
McBride to Almond	50.5	65.8	4.6	F	4.6	19.9	15.3	С	7.5	22.8	13.4	С	-91%	-70%	233%	-85%	-65%	191%	63%	15%	-12%
Total	160.0	312.7	9.7	D	102.1	254.8	11.9	D	126.4	279.1	10.8	D	-36%	-19%	23%	-21%	-11%	11%	24%	10%	-9%

	I	Existing (	Condition		I	Ontimizos	Condition		I	Altern	ativa 1		0/ Chango	Evicting to C	ntimizad	0/ Ch	ange - Existing to	ο ΛI+ 1	0/ Char	nge - Optimize	d to Alt 1
		Existing	Jonanion			Optimized	Condition			Aitein	ative i		% Change	- Existing to C		% CII	<u> </u>	JAILI	% CHAI	ige - Optimize	d to Ait i
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		]	Travel Time			Travel Time			Travel Time	е
Washinton Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Almond	30.7	46.0	6.7	F	19.6	34.9	8.8	E	21.1	36.4	8.4	Е	-36%	-24%	31%	-31%	-21%	25%	8%	4%	-5%
Almond to McBride	5.8	21.1	14.5	С	6.1	21.4	14.3	С	6	21.3	14.3	С	5%	1%	-1%	3%	1%	-1%	-2%	0%	0%
McBride to Townsend	15.3	31.1	10.1	D	11.6	27.4	11.5	D	12.4	28.2	11.2	D	-24%	-12%	14%	-19%	-9%	11%	7%	3%	-3%
Townsend to State	10.0	26.2	12.4	D	15.8	32.0	10.1	D	17.4	33.6	9.6	D	58%	22%	-19%	74%	28%	-23%	10%	5%	-5%
State to Montgomery	13.5	31.2	11.4	D	7.1	24.8	14.3	С	13.6	31.3	11.3	D	-47%	-21%	25%	1%	0%	-1%	92%	26%	-21%
Montgomery to Warren	11.7	25.2	10.7	D	22.0	35.5	7.6	E	24.7	38.2	7.1	Е	88%	41%	-29%	111%	52%	-34%	12%	8%	-7%
Warren to Salina	22.9	39.2	6.6	F	12.5	28.8	9.0	E	13.1	29.4	8.8	Е	-45%	-27%	36%	-43%	-25%	33%	5%	2%	-2%
Salina to Clinton	10.7	26.3	9.4	D	2.7	18.3	13.6	С	8.2	23.8	10.4	D	-75%	-30%	45%	-23%	-10%	11%	204%	30%	-24%
Clinton to Franklin	13.4	31.1	11.4	D	14.4	32.1	11.0	D	8.5	26.2	13.5	С	7%	3%	-4%	-37%	-16%	18%	-41%	-18%	23%
Franklin to West	33.0	57.6	10.2	D	33.0	57.6	10.2	D	34.3	58.9	10	D	0%	0%	0%	4%	2%	-2%	4%	2%	-2%
Total	167.0	335.0	9.9	D	144.8	312.8	10.6	D	159.3	327.3	10.2	D	-13%	-7%	7%	-5%	-2%	3%	10%	5%	-4%

		Existing (	Condition	•		Optimized	Condition	•		Altern	native 1		% Change	- Existing to	Optimized	% Chan	ge - Existing	to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е	Т	ravel Tim	ie		Travel Tim	е
Water Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Franklin to Clinton	-	-	-	-	-	-	-	-	28.1	46	7.8	E	-	-	-	-	-	-	-	-	-
Clinton to Salina	19.0	35.3	7.3	E	8.4	24.7	10.5	D	19.2	35.5	7.3	E	-56%	-30%	44%	1%	1%	0%	129%	44%	-30%
Salina to Warren	13.7	29.5	8.5	E	21.2	37	6.8	F	23.1	38.9	6.5	F	55%	25%	-20%	69%	32%	-24%	9%	5%	-4%
Warren to Montgomery	20.5	37.5	7.2	E	5.1	22.1	12.2	D	9.1	26.1	10.3	D	-75%	-41%	69%	-56%	-30%	43%	78%	18%	-16%
Montgomery to State	3.6	21.1	16.6	С	9.1	26.6	13.1	С	10	27.5	12.7	D	153%	26%	-21%	178%	30%	-23%	10%	3%	-3%
State to Townsend	31.1	47.3	6.8	F	22.7	38.9	8.3	E	25.7	41.9	7.7	Е	-27%	-18%	22%	-17%	-11%	13%	13%	8%	-7%
Townsend to McBride	18.1	33.6	9.2	D	10.3	25.8	12	D	9.4	24.9	12.5	D	-43%	-23%	30%	-48%	-26%	36%	-9%	-3%	4%
McBride to Almond	1.0	16.5	18.8	С	10.3	25.8	12	D	12.8	28.3	11	D	930%	56%	-36%	1180%	72%	-41%	24%	10%	-8%
Tota	ıl 107.0	220.8	9.4	D	87.1	200.9	10.3	D	137.4	269.1	9	D	-19%	-9%	10%	28%	22%	-4%	58%	34%	-13%

			Existing C	ondition			Optimized	Condition			Altern	ative 1		% Change	- Existing to	Optimized	% Chan	ge - Existing	g to Alt 1	% Chan	ge - Optimize	d to Alt 1
PM Peak	Sig	gnal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Tim	е	1	Travel Tim	ne		Travel Tim	е
Water Street Westbound	Dela	ay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond	4	.4	42.5	24.5	В	18.3	56.4	18.4	С	19	57.1	18.2	С	316%	33%	-25%	332%	34%	-26%	4%	1%	-1%
Almond to McBride	5	5.5	21.0	14.8	С	6.3	21.8	14.2	С	7.1	22.6	13.7	С	15%	4%	-4%	29%	8%	-7%	13%	4%	-4%
McBride to Townsend	23	3.5	39.0	8.0	E	10.7	26.2	11.8	D	11.8	27.3	11.4	D	-54%	-33%	48%	-50%	-30%	43%	10%	4%	-3%
Townsend to State	6	.5	22.7	14.3	С	10.8	27	12	D	11.2	27.4	11.8	D	66%	19%	-16%	72%	21%	-17%	4%	1%	-2%
State to Montgomery	20	0.3	37.8	9.3	D	8.9	26.4	13.2	С	14.5	32	10.9	D	-56%	-30%	42%	-29%	-15%	17%	63%	21%	-17%
Montgomery to Warren	13	3.7	30.7	8.8	E	0.9	17.9	15	С	8.3	25.3	10.6	D	-93%	-42%	70%	-39%	-18%	20%	822%	41%	-29%
Warren to Salina		-	-	-	-	-	-	-	-	15.9	31.7	7.9	E	-	-	-	-	-	-	-	-	-
Salina to Clinton		-	-	-	-	-	-	-	-	27.5	43.8	5.9	F	-	-	-	-	-	=	-	-	-
	Total 73	3.9	193.7	13.4	С	55.9	175.7	14.8	С	115.3	267.2	11.7	D	-24%	-9%	10%	56%	38%	-13%	106%	52%	-21%

# **Appendix C**

# Detailed Synchro MOE Results Alternative 1



Arterial Level of Service: EB ADAMS ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.2	10.9	28.1	0.10	12.3	D
SALINA ST	IV	30	15.0	49.2	64.2	0.07	3.7	F
Warren	IV	30	7.2	6.3	13.5	0.03	8.5	Ε
Harrison Place	IV	30	8.3	0.8	9.1	0.04	14.4	С
MONTGOMERY ST 2	IV	30	14.7	3.0	17.7	0.06	13.2	С
STATE ST	IV	30	15.3	1.3	16.6	0.07	14.6	С
TOWNSEND ST	IV	30	16.2	16.1	32.3	0.09	10.0	D
McBride	IV	30	16.5	1.4	17.9	0.09	18.4	С
Total	IV		110.4	89.0	199.4	0.54	9.8	D

#### Arterial Level of Service: WB ADAMS ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
STATE ST	IV	30	16.2	0.3	16.5	0.09	19.6	В
MONTGOMERY ST 2	IV	30	15.3	3.1	18.4	0.07	13.2	С
Harrison Place	IV	30	14.7	0.1	14.8	0.06	15.8	С
Warren	IV	30	8.3	5.6	13.9	0.04	9.4	D
SALINA ST	IV	30	7.2	31.8	39.0	0.03	2.9	F
CLINTON ST	IV	30	15.0	9.8	24.8	0.07	9.6	D
Total	IV		76.7	50.7	127.4	0.36	10.1	D

#### Arterial Level of Service: NB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	30.9	18.1	49.0	0.22	16.2	С
FAYETTE ST	IV	30	16.3	3.9	20.2	0.07	12.8	D
WASHINGTON ST	IV	30	15.3	4.3	19.6	0.07	12.4	D
WATER ST	IV	30	14.5	4.0	18.5	0.06	12.4	D
ERIE BLVD	IV	30	6.1	4.9	11.0	0.03	8.9	<u>E</u>
Total	IV	•	83 1	35.2	118.3	0.45	13 7	С

#### Arterial Level of Service: SB ALMOND ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ERIE BLVD	IV	30	17.0	11.4	28.4	0.09	12.0	D
WATER ST	IV	30	6.1	5.4	11.5	0.03	8.5	Ē
WASHINGTON ST	IV	30	14.5	3.6	18.1	0.06	12.7	D
FAYETTE ST	IV	30	15.3	5.4	20.7	0.07	11.7	D
GENESEE ST	IV	30	16.3	16.2	32.5	0.07	7.9	Ε
Total	IV		69.2	42.0	111.2	0.32	10.5	D

Arterial	l evel of	Servi	ce: NR	CLIN.	TON ST
Altelial		OCIVI	CC. IND	$\mathcal{O}$	

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.0	10.3	24.3	0.08	11.5	D
PED CROSSING	IV	30	15.3	25.3	40.6	0.08	7.5	Ε
JEFFERSON ST	IV	30	23.3	0.5	23.8	0.16	23.5	В
FAYETTE ST	IV	30	20.5	1.7	22.2	0.11	18.4	С
WASHINGTON ST	IV	30	14.2	6.9	21.1	0.06	10.7	D
WATER ST	IV	30	15.0	1.8	16.8	0.07	14.2	С
GENESEE ST	IV	30	12.3	9.5	21.8	0.05	9.0	Ε
HERALD ST	IV	30	20.3	0.0	20.3	0.14	23.9	В
Total	IV		134.9	56.0	190.9	0.75	14.1	С

#### Arterial Level of Service: SB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	15.3	13.0	28.3	0.07	8.6	E
GENESEE ST	IV	30	20.3	31.5	51.8	0.14	9.4	D
WATER ST	IV	30	12.3	1.5	13.8	0.05	14.2	С
WASHINGTON ST	IV	30	15.0	6.5	21.5	0.07	11.1	D
FAYETTE ST	IV	30	14.2	13.6	27.8	0.06	8.1	Ε
JEFFERSON ST	IV	30	20.5	4.9	25.4	0.11	16.1	С
PED CROSSING	IV	30	23.3	2.5	25.8	0.16	21.7	В
GIFFORD ST	IV	30	15.3	10.0	25.3	0.08	12.1	D
ADAMS ST	IV	30	14.0	58.8	72.8	0.08	3.8	<u> </u>
Total	IV		150.2	142.3	292.5	0.82	10.1	D

#### Arterial Level of Service: EB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WARREN ST	IV	30	15.8	11.1	26.9	0.07	9.3	D
MONTGOMERY ST	IV	30	13.6	7.0	20.6	0.08	13.2	С
STATE ST	IV	30	17.5	16.5	34.0	0.10	10.3	D
TOWNSEND ST	IV	30	16.2	14.8	31.0	0.09	10.5	D
MCBRIDE ST	IV	30	15.5	7.0	22.5	0.09	13.8	С
ALMOND ST	IV	30	15.8	5.9	21.7	0.09	14.5	С
Total	IV		94.4	62.3	156.7	0.51	11.6	D

#### Arterial Level of Service: WB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	38.0	13.1	51.1	0.29	20.3	В
MCBRIDE ST	IV	30	15.8	5.8	21.6	0.09	14.6	С
TOWNSEND ST	IV	30	15.5	23.9	39.4	0.09	7.9	Ε
STATE ST	IV	30	16.2	3.4	19.6	0.09	16.6	С
Oswego Street	IV	30	17.5	14.2	31.7	0.10	11.0	D
WARREN ST	IV	30	13.6	7.3	20.9	0.08	13.0	С
Total	IV		116.6	67.7	184.3	0.72	14.1	С

#### Arterial Level of Service: EB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
West St.	IV	30	18.0	39.9	57.9	0.10	6.2	F
West St.	IV	30	8.6	4.2	12.8	0.04	10.6	D
FRANKLIN ST	IV	30	19.3	8.9	28.2	0.13	16.4	С
CLINTON ST	IV	30	17.9	24.6	42.5	0.10	8.4	Ε
SALINA ST	IV	30	15.3	4.1	19.4	0.07	12.5	D
WARREN ST	IV	30	16.3	8.5	24.8	0.07	10.4	D
MONTGOMERY ST	IV	30	13.6	8.2	21.8	0.08	12.5	D
STATE ST	IV	30	17.2	8.4	25.6	0.10	13.5	С
TOWNSEND ST	IV	30	16.5	11.5	28.0	0.09	11.8	D
MCBRIDE ST	IV	30	15.8	3.4	19.2	0.09	16.4	С
ALMOND ST	IV	30	15.5	6.4	21.9	0.09	14.2	С
Total	IV	-	174.0	128.1	302.1	0.94	11.2	D

#### Arterial Level of Service: WB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	29.8	7.8	37.6	0.23	21.6	В
MCBRIDE ST	IV	30	15.5	6.1	21.6	0.09	14.4	С
TOWNSEND ST	IV	30	15.8	21.7	37.5	0.09	8.4	Ε
STATE ST	IV	30	16.5	28.3	44.8	0.09	7.4	Ε
MONTGOMERY ST	IV	30	17.2	16.7	33.9	0.10	10.2	D
WARREN ST	IV	30	13.6	4.8	18.4	0.08	14.8	С
SALINA ST	IV	30	16.3	3.4	19.7	0.07	13.1	С
CLINTON ST	IV	30	15.3	22.7	38.0	0.07	6.4	F
FRANKLIN ST	IV	30	17.9	12.0	29.9	0.10	12.0	D
West St.	IV	30	19.3	48.2	67.5	0.13	6.9	F
West St.	IV	30	8.6	18.0	26.6	0.04	5.1	<u> </u>
Total	IV		185.8	189.7	375.5	1.07	10.2	D

Arterial Level of Service: NB F	FRANKLIN ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	13.8	27.8	41.6	0.06	5.2	F
WASHINGTON ST	IV	30	14.2	3.6	17.8	0.06	12.6	D
ERIE BLVD	IV	30	16.7	9.8	26.5	0.09	12.6	D
GENESEE ST	IV	30	16.9	16.7	33.6	0.07	8.0	Ε
WILLOW ST	IV	30	6.9	5.2	12.1	0.03	9.0	D
HERALD ST	IV	30	14.6	11.8	26.4	0.06	8.8	Ε
Total	IV		83.1	74.9	158.0	0.39	8.8	F

#### Arterial Level of Service: SB FRANKLIN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	16.6	18.9	35.5	0.09	9.4	D
WILLOW ST	IV	30	14.6	1.2	15.8	0.06	14.7	С
GENESEE ST	IV	30	6.9	16.3	23.2	0.03	4.7	F
ERIE BLVD	IV	30	16.9	7.4	24.3	0.07	11.1	D
WASHINGTON ST	IV	30	16.7	2.1	18.8	0.09	17.7	С
FAYETTE ST	IV	30	14.2	17.8	32.0	0.06	7.0	<u>E</u>
Total	IV		85.9	63.7	149.6	0.42	10.0	D

#### Arterial Level of Service: EB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WALLACE ST	IV	30	18.4	6.0	24.4	0.10	15.1	С
FRANKLIN ST	IV	30	16.2	13.8	30.0	0.09	10.8	D
CLINTON ST	IV	30	16.4	41.7	58.1	0.09	5.6	F
SALINA ST	IV	30	16.2	5.0	21.2	0.07	12.1	D
Total	IV		67.2	66.5	133.7	0.35	9.5	D

#### Arterial Level of Service: WB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
CLINTON ST	IV	30	16.2	6.9	23.1	0.07	11.1	D
FRANKLIN ST	IV	30	16.4	11.0	27.4	0.09	11.9	D
WALLACE ST	IV	30	16.2	6.9	23.1	0.09	14.0	С
Total	IV	_	48.8	24.8	73.6	0.25	12.3	D

Arterial Level of	Dervice							1/2/2014
Arterial Level of	Service: EB	HARRISOI	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WARREN ST	IV	30	15.2	13.0	28.2	0.07	8.6	E
MONTGOMERY ST 2	IV	30	18.3	0.3	18.6	0.10	19.7	В
STATE ST	IV	30	15.3	1.8	17.1	0.07	14.2	С
TOWNSEND ST	IV	30	21.2	11.8	33.0	0.12	12.9	D
Total	IV		70.0	26.9	96.9	0.35	13.1	С
Arterial Level of	Service: WE	HARRISO	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
TOWNSEND ST	IV	30	18.3	15.4	33.7	0.10	10.9	D
STATE ST	IV	30	21.2	17.4	38.6	0.12	11.0	D
MONTGOMERY ST 2	IV	30	15.3	16.8	32.1	0.07	7.5	Ε
WARREN ST	IV	30	18.3	14.7	33.0	0.10	11.1	D
ONONDAGA ST	IV	30	15.2	18.6	33.8	0.07	7.1	<u>E</u>
Total	IV		88.3	82.9	171.2	0.46	9.6	D
Arterial Level of	Service: EB	HERALD S	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	13.0	16.9	29.9	0.06	6.9	F
CLINTON ST	IV	30	16.9	33.4	50.3	0.07	5.3	F
SALINA ST	IV	30	15.3	6.8	22.1	0.07	11.0	D
Total	IV		45.2	57.1	102.3	0.20	7.0	F
Arterial Level of	Service: WE	HERALD	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	15.3	14.2	29.5	0.07	8.2	E
FRANKLIN ST	IV	30	16.9	2.2	19.1	0.07	14.0	С
Total	IV		32.2	16.4	48.6	0.14	10.5	D
Arterial Level of	Service: EB	JEFFERS(	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	11.6	24.2	35.8	0.05	5.1	F
SALINA ST	IV	30	15.5	12.4	27.9	0.07	8.8	Е
WARREN ST	IV	30	16.5	9.7	26.2	0.07	10.0	D
MONTGOMERY ST 2	IV	30	7.1	11.6	18.7	0.03	6.0	F
CTATE CT	11.7	20	112	21.2	4 🗆 4	0.07	ГΛ	

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STATE ST

Total

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Arterial	l evel of	Service:	WR	JEFFERSON S	T;
	LC / CI ()I	OGIVICE.	vv		, ,

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ONONDAGA ST	IV	30	14.2	11.2	25.4	0.06	8.9	E
WARREN ST	IV	30	16.9	8.9	25.8	0.07	10.4	D
SALINA ST	IV	30	16.5	13.8	30.3	0.07	8.6	Е
CLINTON ST	IV	30	15.5	21.3	36.8	0.07	6.7	F
Total	IV		63.1	55.2	118.3	0.28	8.4	E

#### Arterial Level of Service: NB MCBRIDE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
GENESEE ST	IV	30	12.0	17.1	29.1	0.05	6.5	F
FAYETTE ST	IV	30	15.3	15.4	30.7	0.03	7.9	E
WASHINGTON ST	IV	30	15.0	13.2	28.2	0.07	8.5	E
WATER ST	IV	30	14.1	11.7	25.8	0.06	8.7	Е
ERIE BLVD	IV	30	6.1	13.2	19.3	0.03	5.1	F
Total	IV		62.5	70.6	133.1	0.28	7.5	E

#### Arterial Level of Service: SB MCBRIDE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	32.8	19.1	51.9	0.25	17.2	С
WATER ST	IV	30	6.1	16.1	22.2	0.03	4.4	F
WASHINGTON ST	IV	30	14.1	7.2	21.3	0.06	10.5	D
FAYETTE ST	IV	30	15.0	12.4	27.4	0.07	8.7	Ε
GENESEE ST	IV	30	15.3	6.2	21.5	0.07	11.3	D
Total	IV		83.3	61.0	144.3	0.47	11.8	D

#### Arterial Level of Service: NB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	20.5	15.3	35.8	0.11	11.4	D
WASHINGTON ST	IV	30	14.0	9.7	23.7	0.06	9.3	D
WATER ST	IV	30	14.1	22.9	37.0	0.06	6.0	F
ERIE BLVD	IV	30	6.2	9.1	15.3	0.03	6.4	<u> </u>
Total	IV		54.8	57.0	111.8	0.26	8.5	E

Arterial	Level of	Service:	SB	MONT	<b>IGOMERY</b>	ST
		OGIVICE.	$\omega$		IODIVILIA	91

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WATER ST	IV	30	6.2	12.5	18.7	0.03	5.3	F
WASHINGTON ST	IV	30	14.1	13.0	27.1	0.06	8.3	Ε
FAYETTE ST	IV	30	14.0	19.7	33.7	0.06	6.6	<u> </u>
Total	IV		34 3	45.2	79.5	0.15	6.8	F

#### Arterial Level of Service: NB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	13.8	0.0	13.8	0.06	15.9	С
HARRISON ST	IV	30	19.1	17.6	36.7	0.11	10.4	D
MADISON ST	IV	30	15.1	6.1	21.2	0.08	14.2	С
JEFFERSON ST	IV	30	19.5	0.0	19.5	0.11	20.0	В
Total	IV		67.5	23.7	91.2	0.36	14.2	С

#### Arterial Level of Service: SB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
MADISON ST	IV	30	19.5	9.7	29.2	0.11	13.3	С
HARRISON ST	IV	30	15.1	22.5	37.6	0.08	8.0	Ε
ADAMS ST	IV	30	19.1	0.0	19.1	0.11	20.0	В
Total	IV		53.7	32.2	85.9	0.30	12.5	D

#### Arterial Level of Service: NB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	11.7	52.5	64.2	0.05	2.9	F
Centro Bus Hub Drive	IV	30	3.3	0.4	3.7	0.01	14.0	С
HARRISON ST	IV	30	18.5	24.5	43.0	0.10	8.6	Ε
PED CROSS	IV	30	16.1	4.7	20.8	0.09	15.5	С
JEFFERSON ST	IV	30	17.5	15.4	32.9	0.10	10.6	D
FAYETTE ST	IV	30	20.5	11.1	31.6	0.11	12.9	D
WASHINGTON ST	IV	30	14.2	0.9	15.1	0.06	14.9	С
WATER ST	IV	30	14.7	5.3	20.0	0.06	11.7	D
JAMES ST	IV	30	11.7	11.4	23.1	0.05	8.0	Ε
WILLOW ST	IV	30	16.3	6.5	22.8	0.07	11.4	D
HERALD ST	IV	30	15.0	2.9	17.9	0.07	13.3	С
Total	IV		159.5	135.6	295.1	0.79	9.6	D

Arterial	ا مىما	of Sen	vice: SI	R SAL	ΙΝΙΔ	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	33.9	18.7	52.6	0.26	17.6	С
WILLOW ST	IV	30	15.0	2.5	17.5	0.07	13.6	С
GENESEE ST	IV	30	16.3	9.3	25.6	0.07	10.1	D
WATER ST	IV	30	11.7	3.5	15.2	0.05	12.2	D
WASHINGTON ST	IV	30	14.7	7.5	22.2	0.06	10.5	D
FAYETTE ST	IV	30	14.2	22.2	36.4	0.06	6.2	F
JEFFERSON ST	IV	30	20.5	2.2	22.7	0.11	18.0	С
PED CROSS	IV	30	17.5	2.8	20.3	0.10	17.2	С
ONONDAGA ST	IV	30	16.1	9.9	26.0	0.09	12.4	D
Centro Bus Hub Drive	IV	30	18.5	37.4	55.9	0.10	6.6	F
ADAMS ST	IV	30	3.3	3.0	6.3	0.01	8.2	<u>E</u>
Total	IV		181.7	119.0	300.7	0.99	11.9	D

#### Arterial Level of Service: NB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	16.3	34.8	51.1	0.09	6.4	F
HARRISON ST	IV	30	19.1	21.8	40.9	0.11	9.3	D
MADISON ST	IV	30	15.1	12.1	27.2	0.08	11.1	D
JEFFERSON ST	IV	30	19.4	2.7	22.1	0.11	17.6	С
GENESEE ST	IV	30	15.7	26.3	42.0	0.07	5.9	F
FAYETTE ST	IV	30	9.1	32.0	41.1	0.04	3.5	F
WASHINGTON ST	IV	30	14.5	8.3	22.8	0.06	10.1	D
WATER ST	IV	30	13.8	5.5	19.3	0.06	11.4	D
ERIE BLVD	IV	30	6.4	23.1	29.5	0.03	3.4	<u> </u>
Total	IV		129.4	166.6	296.0	0.65	7.9	E

#### Arterial Level of Service: SB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	21.5	25.6	47.1	0.12	9.1	D
WATER ST	IV	30	6.4	7.5	13.9	0.03	7.3	Ε
WASHINGTON ST	IV	30	13.8	9.1	22.9	0.06	9.6	D
FAYETTE ST	IV	30	14.5	5.8	20.3	0.06	11.4	D
ONONDAGA ST	IV	30	9.1	1.8	10.9	0.04	13.3	С
JEFFERSON ST	IV	30	15.7	7.4	23.1	0.07	10.8	D
MADISON ST	IV	30	19.4	7.1	26.5	0.11	14.7	С
HARRISON ST	IV	30	15.1	10.4	25.5	0.08	11.8	D
ADAMS ST	IV	30	19.1	57.5	76.6	0.11	5.0	<u> </u>
Total	IV		134.6	132.2	266.8	0.68	9.2	D

Arterial	l evel d	f Serv	rice: NR	TOWI	NSFND	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	18.3	42.0	60.3	0.10	6.1	F
HARRISON ST	IV	30	18.7	18.7	37.4	0.10	10.0	D
GENESEE ST	IV	30	35.1	5.3	40.4	0.27	23.7	В
FAYETTE ST	IV	30	8.9	6.3	15.2	0.04	9.3	D
WASHINGTON ST	IV	30	14.5	3.1	17.6	0.06	13.1	С
WATER ST	IV	30	14.1	2.9	17.0	0.06	13.2	С
ERIE BLVD	IV	30	6.3	1.9	8.2	0.03	12.2	D
1690WBOFFRAMP	IV	30	7.0	40.7	47.7	0.03	2.3	F
BURNETT AVE	IV	30	15.7	7.9	23.6	0.07	10.5	<u>D</u>
Total	IV		138.6	128.8	267.4	0.76	10.3	D

#### Arterial Level of Service: SB TOWNSEND ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
BURNETT AVE	IV	30	16.5	7.2	23.7	0.09	13.9	C
BROWN ST	IV	30	15.7	31.2	46.9	0.07	5.3	F
ERIE BLVD	IV	30	7.0	10.0	17.0	0.03	6.5	F
WATER ST	IV	30	6.3	2.9	9.2	0.03	10.9	D
WASHINGTON ST	IV	30	14.1	2.0	16.1	0.06	13.9	С
FAYETTE ST	IV	30	14.5	4.7	19.2	0.06	12.0	D
GENESEE ST	IV	30	8.9	4.8	13.7	0.04	10.3	D
HARRISON ST	IV	30	35.1	11.5	46.6	0.27	20.6	В
ADAMS ST	IV	30	18.7	67.3	86.0	0.10	4.3	F
Total	IV		136.8	141.6	278.4	0.75	9.8	D

#### Arterial Level of Service: NB WARREN ST

-	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HARRISON ST	IV	30	19.1	30.8	49.9	0.11	7.6	E
MADISON ST	IV	30	15.1	13.4	28.5	0.08	10.6	D
JEFFERSON ST	IV	30	19.4	21.1	40.5	0.11	9.6	D
FAYETTE ST	IV	30	20.5	22.2	42.7	0.11	9.6	D
WASHINGTON ST	IV	30	14.0	6.7	20.7	0.06	10.7	D
WATER ST	IV	30	14.8	9.5	24.3	0.07	9.7	D
ERIE BLVD	IV	30	6.0	10.2	16.2	0.03	5.9	F
JAMES ST	IV	30	5.9	14.7	20.6	0.03	4.6	<u> </u>
Total	IV		114.8	128.6	243.4	0.59	8.7	E

Arterial	l evel o	f Service	SR W	ARREN ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
JAMES ST	IV	30	11.8	18.8	30.6	0.05	6.1	F
ERIE BLVD	IV	30	5.9	9.0	14.9	0.03	6.3	F
WATER ST	IV	30	6.0	14.7	20.7	0.03	4.6	F
WASHINGTON ST	IV	30	14.8	11.7	26.5	0.07	8.9	Е
FAYETTE ST	IV	30	14.0	12.7	26.7	0.06	8.3	Ε
JEFFERSON ST	IV	30	20.5	3.8	24.3	0.11	16.8	С
ONONDAGA ST	IV	30	19.4	2.5	21.9	0.11	17.7	С
HARRISON ST	IV	30	15.1	22.3	37.4	0.08	8.1	<u>E</u>
Total	IV		107.5	95.5	203.0	0.54	9.5	D

#### Arterial Level of Service: EB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	24.6	17.7	42.3	0.16	13.9	С
CLINTON ST	IV	30	17.7	27.0	44.7	0.10	7.9	Ε
SALINA ST	IV	30	15.6	11.2	26.8	0.07	9.3	D
WARREN ST	IV	30	16.3	5.8	22.1	0.07	11.7	D
MONTGOMERY ST	IV	30	13.5	8.9	22.4	0.08	12.1	D
STATE ST	IV	30	17.7	7.6	25.3	0.10	14.0	С
TOWNSEND ST	IV	30	16.2	10.6	26.8	0.09	12.1	D
MCBRIDE ST	IV	30	15.8	6.6	22.4	0.09	14.1	С
ALMOND ST	IV	30	15.3	9.3	24.6	0.08	12.4	D
Total	IV		152.7	104.7	257.4	0.84	11.7	D

#### Arterial Level of Service: WB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	15.3	20.1	35.4	0.09	8.7	E
MCBRIDE ST	IV	30	15.3	5.6	20.9	0.08	14.6	С
TOWNSEND ST	IV	30	15.8	28.4	44.2	0.09	7.1	E
STATE ST	IV	30	16.2	25.3	41.5	0.09	7.8	E
MONTGOMERY ST	IV	30	17.7	5.8	23.5	0.10	15.1	С
WARREN ST	IV	30	13.5	17.7	31.2	0.08	8.7	E
SALINA ST	IV	30	16.3	12.6	28.9	0.07	9.0	E
CLINTON ST	IV	30	15.6	13.4	29.0	0.07	8.6	E
FRANKLIN ST	IV	30	17.7	11.9	29.6	0.10	12.0	D
West St.	IV	30	24.6	53.1	77.7	0.16	7.6	<u>E</u>
Total	IV		168.0	193.9	361.9	0.92	9.2	D

# Arterial Level of Service: EB WATER ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.9	26.1	44.0	0.10	8.1	E
SALINA ST	IV	30	16.3	24.5	40.8	0.07	6.4	F
WARREN ST	IV	30	15.8	10.1	25.9	0.07	9.7	D
MONTGOMERY ST	IV	30	17.0	3.5	20.5	0.07	13.1	С
STATE ST	IV	30	17.5	11.7	29.2	0.10	12.0	D
TOWNSEND ST	IV	30	16.2	17.6	33.8	0.09	9.6	D
MCBRIDE ST	IV	30	15.5	3.2	18.7	0.09	16.6	С
ALMOND ST	IV	30	15.5	12.4	27.9	0.09	11.1	D
Total	IV		131.7	109.1	240.8	0.68	10.1	D

#### Arterial Level of Service: WB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ALMOND ST	IV	30	38.1	16.1	54.2	0.29	19.2	В
MCBRIDE ST	IV	30	15.5	5.2	20.7	0.09	15.0	С
TOWNSEND ST	IV	30	15.5	21.3	36.8	0.09	8.4	Е
STATE ST	IV	30	16.2	13.1	29.3	0.09	11.1	D
MONTGOMERY ST	IV	30	17.5	11.3	28.8	0.10	12.1	D
WARREN ST	IV	30	17.0	5.8	22.8	0.07	11.8	D
SALINA ST	IV	30	15.8	8.9	24.7	0.07	10.2	D
CLINTON ST	IV	30	16.3	19.5	35.8	0.07	7.2	E
Total	IV		151.9	101.2	253.1	0.86	12.3	D

ADAMS ST			
Direction	EB	WB	All
Total Delay (hr)	32	1	33
Stops (#)	3364	142	3506
Average Speed (mph)	12	11	12
Total Travel Time (hr)	54	2	56
Distance Traveled (mi)	664	21	685
Fuel Consumed (gal)	69	2	72
Fuel Economy (mpg)	9.6	8.4	9.5
Unserved Vehicles (#)	8	0	8
Vehicles in dilemma zone (#)	0	0	0
Performance Index	41.2	1.5	42.7
ALMOND ST			
Direction	NB	SB	All
Total Delay (hr)	4	3	7
Stops (#)	466	422	888
Average Speed (mph)	13	14	14
Total Travel Time (hr)	7	6	13
Distance Traveled (mi)	88	90	177
Fuel Consumed (gal)	9	8	17
Fuel Economy (mpg)	9.8	10.7	10.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	5.1	4.4	9.5
CLINTON ST			
Direction	NB	SB	All
Total Delay (hr)	1	19	20
Stops (#)	209	2220	2429
Average Speed (mph)	17	14	14
Total Travel Time (hr)	3	35	38
Distance Traveled (mi)	54	477	531
Fuel Consumed (gal)	4	46	50
Fuel Economy (mpg)	12.4	10.4	10.6
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	1.9	25.2	27.1
1 offormation much	1.7	20.2	27.1

ERIE BLVD			
Direction	EB	WB	All
Total Delay (hr)	9	5	14
Stops (#)	1396	919	2315
Average Speed (mph)	16	16	16
Total Travel Time (hr)	18	12	30
Distance Traveled (mi)	293	195	488
Fuel Consumed (gal)	26	17	43
Fuel Economy (mpg)	11.2	11.4	11.3
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	12.6	8.0	20.6
FAYETTE ST			
Direction	EB	WB	All
Total Delay (hr)	18	9	27
Stops (#)	2319	895	3214
Average Speed (mph)	13	12	13
Total Travel Time (hr)	32	14	46
Distance Traveled (mi)	409	168	577
Fuel Consumed (gal)	43	18	61
Fuel Economy (mpg)	9.5	9.3	9.5
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	24.4	11.0	35.5
FRANKLIN ST			
Direction	NB	SB	All
Total Delay (hr)	4	8	12
Stops (#)	587	998	1585
Average Speed (mph)	12	14	14
Total Travel Time (hr)	6	16	22
Distance Traveled (mi)	72	231	303
Fuel Consumed (gal)	9	21	30
Fuel Economy (mpg)	8.0	10.9	10.1
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	5.4	11.1	16.5
	0.1		

GENESEE ST				
Direction	EB	WB	All	
Total Delay (hr)	14	10	24	
Stops (#)	1223	1245	2468	
Average Speed (mph)	13	13	13	
Total Travel Time (hr)	26	19	44	
Distance Traveled (mi)	345	251	596	
Fuel Consumed (gal)	31	25	56	
Fuel Economy (mpg)	11.0	10.1	10.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	17.6	13.7	31.3	
HARRISON ST				
Direction	EB	WB	All	
Total Delay (hr)	EB		AII 17	
Stops (#)	125	2028	2153	
Average Speed (mph)	21	13	13	
Total Travel Time (hr)	2	29	31	
Distance Traveled (mi)	37	368	405	
Fuel Consumed (gal)	3	39	403	
Fuel Economy (mpg)	14.4	9.5	9.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	0.8	22.4	23.2	
HERALD ST				
-		IMP.	A.II	
Direction	EB	WB	All	
Total Delay (hr)	2	0	3	
Stops (#)	324	46	370	
Average Speed (mph)	9	15	10	
Total Travel Time (hr)	3	1	4	
Distance Traveled (mi)	28	8	36	
Fuel Consumed (gal)	5	1	5	
Fuel Economy (mpg)	6.1	NA	6.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	3.2	0.4	3.6	

JEFFERSON ST				
Direction	EB	WB	All	
Total Delay (hr)	4	3	6	
Stops (#)	531	444	975	
Average Speed (mph)	11	11	11	
Total Travel Time (hr)	6	4	10	
Distance Traveled (mi)	63	46	109	
Fuel Consumed (gal)	8	6	14	
Fuel Economy (mpg)	7.6	7.4	7.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.3	3.8	9.0	
MCBRIDE ST				
Direction	NB	SB	All	
Total Delay (hr)	1	1	2	
Stops (#)	119	176	295	
Average Speed (mph)	10	9	9	
Total Travel Time (hr)	1	2	3	
Distance Traveled (mi)	11	19	30	
Fuel Consumed (gal)	2	3	5	
Fuel Economy (mpg)	6.6	6.8	6.7	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.1	1.9	3.1	
MONTGOMERY ST				
Direction	NB	SB	All	
Total Delay (hr)	1	2	4	
Stops (#)	195	399	594	
Average Speed (mph)	11	11	11	
Total Travel Time (hr)	2	4	6	
Distance Traveled (mi)	21	40	61	
Fuel Consumed (gal)	3	6	8	
Fuel Economy (mpg)	7.4	7.1	7.2	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.8	3.6	5.3	

MONTGOMERY ST 2			
Direction	NB	SB	All
Total Delay (hr)	1	3	4
Stops (#)	77	399	476
Average Speed (mph)	15	10	11
Total Travel Time (hr)	1	5	6
Distance Traveled (mi)	16	52	68
Fuel Consumed (gal)	1	7	8
Fuel Economy (mpg)	10.8	7.6	8.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	0.7	4.5	5.3
SALINA ST			
Direction	NB	SB	All
Total Delay (hr)	10	14	24
Stops (#)	1009	1916	2925
Average Speed (mph)	11	16	15
Total Travel Time (hr)	15	32	47
Distance Traveled (mi)	165	519	684
Fuel Consumed (gal)	19	43	62
Fuel Economy (mpg)	8.5	12.2	11.0
Unserved Vehicles (#)	0.5	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	12.4	19.7	32.1
STATE ST			
Direction	NB	SB	All
Total Delay (hr)	9	11	20
Stops (#)	1196	1368	2564
Average Speed (mph)	10	13	11
Total Travel Time (hr)	14	19	33
Distance Traveled (mi)	137	238	375
Fuel Consumed (gal)	19	25	45
Fuel Economy (mpg)	7.2	9.4	8.4
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	12.7	14.9	27.6
1 OHOTHURIO HINGA	14.7	17.7	21.0

TOWNSEND ST			
Direction	NB	SB	All
Total Delay (hr)	5	21	26
Stops (#)	675	1904	2579
Average Speed (mph)	16	13	13
Total Travel Time (hr)	12	36	47
Distance Traveled (mi)	183	449	632
Fuel Consumed (gal)	15	44	59
Fuel Economy (mpg)	12.0	10.2	10.6
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	7.3	25.8	33.2
WARREN ST			
Direction	NB	SB	All
Total Delay (hr)	8	2	10
Stops (#)	934	206	1140
Average Speed (mph)	11	13	11
Total Travel Time (hr)	12	3	15
Distance Traveled (mi)	125	43	168
Fuel Consumed (gal)	16	4	20
Fuel Economy (mpg)	7.8	9.8	8.3
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	10.3	2.6	12.9
WASHINGTON ST			
Direction	EB	WB	All
Total Delay (hr)	4	6	10
Stops (#)	636	833	1469
Average Speed (mph)	14	12	13
Total Travel Time (hr)	8	9	18
Distance Traveled (mi)	120	112	232
Fuel Consumed (gal)	12	13	25
Fuel Economy (mpg)	10.2	8.4	9.3
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	6.2	7.9	14.1
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Performance Index

WATER ST				
Direction	EB	WB	All	
Total Delay (hr)	3	2	4	
Stops (#)	518	326	844	
Average Speed (mph)	14	15	14	
Total Travel Time (hr)	6	3	9	
Distance Traveled (mi)	78	46	124	
Fuel Consumed (gal)	8	5	13	
Fuel Economy (mpg)	9.5	9.6	9.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	4.4	2.4	6.8	
Zone CBD Totals				
Number of Intersections	82			
Total Delay (hr)	312			
Stops (#)	37542			
Average Speed (mph)	13			
Total Travel Time (hr)	543			
Distance Traveled (mi)	6943			
Fuel Consumed (gal)	723			
Fuel Economy (mpg)	9.6			
Unserved Vehicles (#)	8			
Vehicles in dilemma zone (#)	14			

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Arterial L	evel	∩f	Service:	FR	ADAMS	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.8	5.4	23.2	0.10	15.3	С
SALINA ST	IV	30	14.7	25.0	39.7	0.06	5.9	F
Warren	IV	30	7.2	1.4	8.6	0.03	13.3	С
Harrison Place	IV	30	8.3	4.2	12.5	0.04	10.5	D
MONTGOMERY ST 2	IV	30	14.7	13.2	27.9	0.06	8.4	Ε
STATE ST	IV	30	15.3	3.1	18.4	0.07	13.2	С
TOWNSEND ST	IV	30	16.2	19.8	36.0	0.09	9.0	Ε
McBride	IV	30	16.5	2.3	18.8	0.09	17.6	С
Total	IV		110.7	74.4	185.1	0.55	10.6	D

#### Arterial Level of Service: WB ADAMS ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
STATE ST	IV	30	16.2	7.0	23.2	0.09	14.0	С
MONTGOMERY ST 2	IV	30	15.3	6.9	22.2	0.07	10.9	D
Harrison Place	IV	30	14.7	2.8	17.5	0.06	13.3	С
Warren	IV	30	8.3	7.8	16.1	0.04	8.1	Ε
SALINA ST	IV	30	7.2	28.0	35.2	0.03	3.3	F
CLINTON ST	IV	30	14.7	5.3	20.0	0.06	11.7	D
Total	IV		76.4	57.8	134.2	0.36	9.5	D

#### Arterial Level of Service: NB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	30.9	21.8	52.7	0.22	15.1	С
FAYETTE ST	IV	30	16.3	7.3	23.6	0.07	10.9	D
WASHINGTON ST	IV	30	15.3	3.6	18.9	0.07	12.8	D
WATER ST	IV	30	14.5	4.1	18.6	0.06	12.4	D
ERIE BLVD	IV	30	6.1	4.3	10.4	0.03	9.4	D
Total	IV		83.1	41.1	124.2	0.45	13.1	С

#### Arterial Level of Service: SB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	17.0	16.0	33.0	0.09	10.3	D
WATER ST	IV	30	6.1	9.1	15.2	0.03	6.4	F
WASHINGTON ST	IV	30	14.5	2.7	17.2	0.06	13.4	С
FAYETTE ST	IV	30	15.3	8.3	23.6	0.07	10.3	D
GENESEE ST	IV	30	16.3	23.2	39.5	0.07	6.5	F
Total	IV		69.2	59.3	128.5	0.32	9.1	D

Arterial	l evel of	Service.	<b>NB CLIN</b>	TON ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	15.1	12.0	27.1	0.08	11.2	D
PED CROSSING	IV	30	15.3	22.3	37.6	0.08	8.1	Ε
JEFFERSON ST	IV	30	23.3	26.7	50.0	0.16	11.2	D
FAYETTE ST	IV	30	20.5	7.0	27.5	0.11	14.9	С
WASHINGTON ST	IV	30	14.2	8.1	22.3	0.06	10.1	D
WATER ST	IV	30	15.0	2.0	17.0	0.07	14.0	С
GENESEE ST	IV	30	12.3	25.5	37.8	0.05	5.2	F
HERALD ST	IV	30	20.3	0.0	20.3	0.14	23.9	В
Total	IV		136.0	103.6	239 6	0.76	11 4	D

#### Arterial Level of Service: SB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	15.3	15.3	30.6	0.07	8.0	E
GENESEE ST	IV	30	20.3	13.4	33.7	0.14	14.4	С
WATER ST	IV	30	12.3	1.4	13.7	0.05	14.3	С
WASHINGTON ST	IV	30	15.0	20.2	35.2	0.07	6.8	F
FAYETTE ST	IV	30	14.2	11.7	25.9	0.06	8.7	Ε
JEFFERSON ST	IV	30	20.5	7.1	27.6	0.11	14.8	С
PED CROSSING	IV	30	23.3	3.1	26.4	0.16	21.2	В
GIFFORD ST	IV	30	15.3	17.1	32.4	0.08	9.4	D
ADAMS ST	IV	30	15.1	58.8	73.9	0.08	4.1	F
Total	IV		151.3	148.1	299.4	0.82	9.9	D

#### Arterial Level of Service: EB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WARREN ST	IV	30	15.8	22.5	38.3	0.07	6.6	F
MONTGOMERY ST	IV	30	13.6	15.0	28.6	0.08	9.5	D
STATE ST	IV	30	17.5	15.6	33.1	0.10	10.5	D
TOWNSEND ST	IV	30	16.2	8.2	24.4	0.09	13.3	С
MCBRIDE ST	IV	30	15.5	5.4	20.9	0.09	14.8	С
ALMOND ST	IV	30	15.8	8.6	24.4	0.09	12.9	<u>D</u>
Total	IV		94.4	75.3	169.7	0.51	10.7	D

#### Arterial Level of Service: WB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	38.0	17.0	55.0	0.29	18.8	С
MCBRIDE ST	IV	30	15.8	16.2	32.0	0.09	9.8	D
TOWNSEND ST	IV	30	15.5	4.7	20.2	0.09	15.4	С
STATE ST	IV	30	16.2	10.6	26.8	0.09	12.1	D
Oswego Street	IV	30	17.5	8.3	25.8	0.10	13.5	С
WARREN ST	IV	30	13.6	20.6	34.2	0.08	8.0	Ε
Total	IV		116.6	77.4	194.0	0.72	13.4	C

# Arterial Level of Service: EB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
West St.	IV	30	18.0	21.8	39.8	0.10	9.1	D
West St.	IV	30	8.6	12.1	20.7	0.04	6.6	F
FRANKLIN ST	IV	30	19.3	10.7	30.0	0.13	15.5	С
CLINTON ST	IV	30	17.9	13.2	31.1	0.10	11.5	D
SALINA ST	IV	30	15.3	6.2	21.5	0.07	11.3	D
WARREN ST	IV	30	16.3	32.3	48.6	0.07	5.3	F
MONTGOMERY ST	IV	30	13.6	5.1	18.7	0.08	14.6	С
STATE ST	IV	30	17.2	9.3	26.5	0.10	13.0	С
TOWNSEND ST	IV	30	16.5	29.3	45.8	0.09	7.2	Ε
MCBRIDE ST	IV	30	15.8	4.2	20.0	0.09	15.8	С
ALMOND ST	IV	30	15.5	3.6	19.1	0.09	16.2	С
Total	IV	-	174.0	147.8	321.8	0.94	10.5	D

#### Arterial Level of Service: WB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	29.8	13.0	42.8	0.23	19.0	С
MCBRIDE ST	IV	30	15.5	6.5	22.0	0.09	14.1	С
TOWNSEND ST	IV	30	15.8	12.8	28.6	0.09	11.0	D
STATE ST	IV	30	16.5	31.2	47.7	0.09	6.9	F
MONTGOMERY ST	IV	30	17.2	19.7	36.9	0.10	9.3	D
WARREN ST	IV	30	13.6	15.3	28.9	0.08	9.4	D
SALINA ST	IV	30	16.3	3.9	20.2	0.07	12.8	D
CLINTON ST	IV	30	15.3	7.6	22.9	0.07	10.6	D
FRANKLIN ST	IV	30	17.9	13.1	31.0	0.10	11.5	D
West St.	IV	30	19.3	40.4	59.7	0.13	7.8	Ε
West St.	IV	30	8.6	5.6	14.2	0.04	9.6	D
Total	IV		185.8	169.1	354.9	1.07	10.8	D

Arterial Level of Service: NB FRANKLIN ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	13.8	27.8	41.6	0.06	5.2	F
WASHINGTON ST	IV	30	14.2	20.1	34.3	0.06	6.6	F
ERIE BLVD	IV	30	16.7	12.4	29.1	0.09	11.5	D
GENESEE ST	IV	30	16.9	17.6	34.5	0.07	7.8	Ε
WILLOW ST	IV	30	6.9	2.4	9.3	0.03	11.7	D
HERALD ST	IV	30	14.6	23.3	37.9	0.06	6.1	F
Total	IV		83.1	103.6	186.7	0.39	7.4	F

#### Arterial Level of Service: SB FRANKLIN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	16.6	24.2	40.8	0.09	8.2	E
WILLOW ST	IV	30	14.6	3.1	17.7	0.06	13.1	С
GENESEE ST	IV	30	6.9	9.3	16.2	0.03	6.7	F
ERIE BLVD	IV	30	16.9	1.8	18.7	0.07	14.4	С
WASHINGTON ST	IV	30	16.7	11.8	28.5	0.09	11.7	D
FAYETTE ST	IV	30	14.2	9.8	24.0	0.06	9.4	<u>D</u>
Total	IV		85.9	60.0	145.9	0.42	10.3	D

#### Arterial Level of Service: EB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WALLACE ST	IV	30	18.4	10.6	29.0	0.10	12.7	D
FRANKLIN ST	IV	30	16.2	10.8	27.0	0.09	12.0	D
CLINTON ST	IV	30	16.4	15.1	31.5	0.09	10.4	D
SALINA ST	IV	30	16.2	19.5	35.7	0.07	7.2	<u>E</u>
Total	IV		67.2	56.0	123.2	0.35	10.4	D

#### Arterial Level of Service: WB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
CLINTON ST	IV	30	16.2	9.2	25.4	0.07	10.1	D
FRANKLIN ST	IV	30	16.4	8.4	24.8	0.09	13.2	С
WALLACE ST	IV	30	16.2	6.5	22.7	0.09	14.2	С
Total	IV	_	48.8	24.1	72.9	0.25	12.4	D

Arterial Level of	OCIVICO							1/2/2014
Arterial Level of	Service: EB	HARRISOI	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WARREN ST	IV	30	15.2	14.1	29.3	0.07	8.2	E
MONTGOMERY ST 2	IV	30	18.3	8.1	26.4	0.10	13.9	C
STATE ST	IV	30	15.3	1.3	16.6	0.07	14.6	C
TOWNSEND ST	IV	30	21.2	17.2	38.4	0.12	11.0	D
Total	IV		70.0	40.7	110.7	0.35	11.5	D
Arterial Level of	Service: WE	HARRISO	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
TOWNSEND ST	IV	30	18.3	14.8	33.1	0.10	11.1	D
STATE ST	IV	30	21.2	9.6	30.8	0.12	13.8	С
MONTGOMERY ST 2	IV	30	15.3	14.4	29.7	0.07	8.1	Ε
WARREN ST	IV	30	18.3	18.1	36.4	0.10	10.1	D
ONONDAGA ST	IV	30	15.2	21.1	36.3	0.07	6.6	F
Total	IV		88.3	78.0	166.3	0.46	9.9	D
Arterial Level of	Service: EB	HERALD S	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	13.0	33.8	46.8	0.06	4.4	F
CLINTON ST	IV	30	16.9	16.6	33.5	0.07	8.0	E
SALINA ST	IV	30	15.3	13.0	28.3	0.07	8.6	E
Total	IV		45.2	63.4	108.6	0.20	6.6	F
Arterial Level of	Service: WE	HERALD	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	15.3	14.6	29.9	0.07	8.1	E
FRANKLIN ST	IV	30	16.9	3.5	20.4	0.07	13.1	C
Total	IV		32.2	18.1	50.3	0.14	10.1	D
Arterial Level of	Service: EB	JEFFERSO	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	11.6	24.1	35.7	0.05	5.2	F
SALINA ST	IV	30	15.5	16.5	32.0	0.07	7.7	Е
WARREN ST	IV	30	16.5	16.9	33.4	0.07	7.8	Е
MONTGOMERY ST 2	IV	30	7.1	9.4	16.5	0.03	6.8	F
CTATE CT	11.7	20	440	22 /	27.0	0.07		

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Arterial	l evel of	Service:	WR	JEFFERSON S	T;
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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ONONDAGA ST	IV	30	14.2	5.2	19.4	0.06	11.6	D
WARREN ST	IV	30	16.9	22.1	39.0	0.07	6.9	F
SALINA ST	IV	30	16.5	16.2	32.7	0.07	8.0	Ε
CLINTON ST	IV	30	15.5	20.8	36.3	0.07	6.8	F
Total	IV		63.1	64.3	127.4	0.28	7.8	E

#### Arterial Level of Service: NB MCBRIDE ST

Cross Street	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	12.0	16.1	28.1	0.05	6.7	F
FAYETTE ST	IV	30	15.3	18.8	34.1	0.07	7.1	Ε
WASHINGTON ST	IV	30	15.0	12.9	27.9	0.07	8.6	Ε
WATER ST	IV	30	14.1	10.8	24.9	0.06	9.0	D
ERIE BLVD	IV	30	6.1	15.8	21.9	0.03	4.5	F
Total	IV	-	62.5	74.4	136.9	0.28	7.3	E

#### Arterial Level of Service: SB MCBRIDE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	32.8	10.7	43.5	0.25	20.5	В
WATER ST	IV	30	6.1	11.0	17.1	0.03	5.7	F
WASHINGTON ST	IV	30	14.1	8.7	22.8	0.06	9.8	D
FAYETTE ST	IV	30	15.0	8.0	23.0	0.07	10.4	D
GENESEE ST	IV	30	15.3	5.3	20.6	0.07	11.8	D
Total	IV	•	83.3	43.7	127.0	0.47	13.4	С

#### Arterial Level of Service: NB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	20.5	17.9	38.4	0.11	10.7	D
WASHINGTON ST	IV	30	14.0	7.7	21.7	0.06	10.2	D
WATER ST	IV	30	14.1	4.3	18.4	0.06	12.2	D
ERIE BLVD	IV	30	6.2	21.6	27.8	0.03	3.5	F
Total	IV		54.8	51.5	106.3	0.26	9.0	E

Arterial	Level of	Service:	SB	MONT	<b>IGOMERY</b>	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WATER ST	IV	30	6.2	10.5	16.7	0.03	5.9	F
WASHINGTON ST	IV	30	14.1	9.8	23.9	0.06	9.4	D
FAYETTE ST	IV	30	14.0	16.7	30.7	0.06	7.2	Ε
Total	IV		34.3	37.0	71.3	0.15	7.6	F

#### Arterial Level of Service: NB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	13.8	0.0	13.8	0.06	15.9	С
HARRISON ST	IV	30	19.1	12.6	31.7	0.11	12.0	D
MADISON ST	IV	30	15.1	5.2	20.3	0.08	14.8	С
JEFFERSON ST	IV	30	19.5	0.0	19.5	0.11	20.0	В
Total	IV		67.5	17.8	85.3	0.36	15.1	С

#### Arterial Level of Service: SB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
MADISON ST	IV	30	19.5	12.7	32.2	0.11	12.1	D
HARRISON ST	IV	30	15.1	16.2	31.3	0.08	9.6	D
ADAMS ST	IV	30	19.1	0.0	19.1	0.11	20.0	В
Total	IV		53.7	28.9	82.6	0.30	13.0	D

#### Arterial Level of Service: NB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	11.7	49.2	60.9	0.05	3.1	F
Centro Bus Hub Drive	IV	30	3.3	0.6	3.9	0.01	13.3	С
HARRISON ST	IV	30	18.5	28.5	47.0	0.10	7.9	Е
PED CROSS	IV	30	16.1	5.7	21.8	0.09	14.8	С
JEFFERSON ST	IV	30	17.5	6.5	24.0	0.10	14.6	С
FAYETTE ST	IV	30	20.5	8.7	29.2	0.11	14.0	С
WASHINGTON ST	IV	30	14.2	5.1	19.3	0.06	11.7	D
WATER ST	IV	30	14.7	7.0	21.7	0.06	10.7	D
JAMES ST	IV	30	11.7	18.8	30.5	0.05	6.1	F
WILLOW ST	IV	30	16.3	6.2	22.5	0.07	11.5	D
HERALD ST	IV	30	15.0	7.8	22.8	0.07	10.5	D
Total	IV		159.5	144.1	303.6	0.79	9.3	D

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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	33.9	18.9	52.8	0.26	17.5	С
WILLOW ST	IV	30	15.0	2.9	17.9	0.07	13.3	С
GENESEE ST	IV	30	16.3	12.1	28.4	0.07	9.1	D
WATER ST	IV	30	11.7	7.1	18.8	0.05	9.9	D
WASHINGTON ST	IV	30	14.7	10.6	25.3	0.06	9.2	D
FAYETTE ST	IV	30	14.2	19.7	33.9	0.06	6.6	F
JEFFERSON ST	IV	30	20.5	6.2	26.7	0.11	15.3	С
PED CROSS	IV	30	17.5	16.6	34.1	0.10	10.3	D
ONONDAGA ST	IV	30	16.1	3.7	19.8	0.09	16.3	С
Centro Bus Hub Drive	IV	30	18.5	33.0	51.5	0.10	7.2	Ε
ADAMS ST	IV	30	3.3	2.0	5.3	0.01	9.8	D
Total	IV	_	181.7	132.8	314.5	0.99	11.3	D

#### Arterial Level of Service: NB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	16.3	25.5	41.8	0.09	7.8	E
HARRISON ST	IV	30	19.1	20.3	39.4	0.11	9.7	D
MADISON ST	IV	30	15.1	16.8	31.9	0.08	9.4	D
JEFFERSON ST	IV	30	19.4	5.2	24.6	0.11	15.8	С
GENESEE ST	IV	30	15.7	15.0	30.7	0.07	8.1	Е
FAYETTE ST	IV	30	9.1	19.8	28.9	0.04	5.0	F
WASHINGTON ST	IV	30	14.5	14.1	28.6	0.06	8.1	Ε
WATER ST	IV	30	13.8	5.4	19.2	0.06	11.4	D
ERIE BLVD	IV	30	6.4	26.1	32.5	0.03	3.1	<u> </u>
Total	IV		129.4	148.2	277.6	0.65	8.4	E

#### Arterial Level of Service: SB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	21.5	19.5	41.0	0.12	10.5	D
WATER ST	IV	30	6.4	8.8	15.2	0.03	6.6	F
WASHINGTON ST	IV	30	13.8	10.4	24.2	0.06	9.1	D
FAYETTE ST	IV	30	14.5	19.4	33.9	0.06	6.8	F
ONONDAGA ST	IV	30	9.1	5.5	14.6	0.04	9.9	D
JEFFERSON ST	IV	30	15.7	12.4	28.1	0.07	8.9	Ε
MADISON ST	IV	30	19.4	15.3	34.7	0.11	11.2	D
HARRISON ST	IV	30	15.1	6.6	21.7	0.08	13.9	С
ADAMS ST	IV	30	19.1	54.5	73.6	0.11	5.2	<u> </u>
Total	IV		134.6	152.4	287.0	0.68	8.5	E

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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	18.3	42.5	60.8	0.10	6.0	F
HARRISON ST	IV	30	18.7	14.9	33.6	0.10	11.1	D
GENESEE ST	IV	30	35.1	14.0	49.1	0.27	19.5	В
FAYETTE ST	IV	30	8.9	5.9	14.8	0.04	9.5	D
WASHINGTON ST	IV	30	14.5	3.3	17.8	0.06	12.9	D
WATER ST	IV	30	14.1	3.1	17.2	0.06	13.0	С
ERIE BLVD	IV	30	6.3	26.6	32.9	0.03	3.0	F
1690WBOFFRAMP	IV	30	7.0	20.5	27.5	0.03	4.0	F
BURNETT AVE	IV	30	15.7	5.3	21.0	0.07	11.9	D
Total	IV		138.6	136.1	274.7	0.76	10.0	D

#### Arterial Level of Service: SB TOWNSEND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
BURNETT AVE	IV	30	16.5	21.8	38.3	0.09	8.6	E
BROWN ST	IV	30	15.7	14.4	30.1	0.07	8.3	Ε
ERIE BLVD	IV	30	7.0	25.6	32.6	0.03	3.4	F
WATER ST	IV	30	6.3	1.9	8.2	0.03	12.2	D
WASHINGTON ST	IV	30	14.1	3.0	17.1	0.06	13.1	С
FAYETTE ST	IV	30	14.5	10.6	25.1	0.06	9.2	D
GENESEE ST	IV	30	8.9	5.2	14.1	0.04	10.0	D
HARRISON ST	IV	30	35.1	6.8	41.9	0.27	22.9	В
ADAMS ST	IV	30	18.7	63.6	82.3	0.10	4.5	F
Total	IV	-	136.8	152.9	289.7	0.75	9.4	D

#### Arterial Level of Service: NB WARREN ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
HARRISON ST	IV	30	19.1	41.1	60.2	0.11	6.3	F
MADISON ST	IV	30	15.1	8.1	23.2	0.08	13.0	D
JEFFERSON ST	IV	30	19.4	8.4	27.8	0.11	14.0	С
FAYETTE ST	IV	30	20.5	22.6	43.1	0.11	9.5	D
WASHINGTON ST	IV	30	14.0	6.7	20.7	0.06	10.7	D
WATER ST	IV	30	14.8	4.4	19.2	0.07	12.3	D
ERIE BLVD	IV	30	6.0	3.9	9.9	0.03	9.6	D
JAMES ST	IV	30	5.9	13.5	19.4	0.03	4.9	<u> </u>
Total	IV		114.8	108.7	223.5	0.59	9.5	D

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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
JAMES ST	IV	30	11.8	12.4	24.2	0.05	7.7	E
ERIE BLVD	IV	30	5.9	7.1	13.0	0.03	7.2	Е
WATER ST	IV	30	6.0	7.6	13.6	0.03	7.0	Е
WASHINGTON ST	IV	30	14.8	2.7	17.5	0.07	13.4	С
FAYETTE ST	IV	30	14.0	5.1	19.1	0.06	11.6	D
JEFFERSON ST	IV	30	20.5	3.4	23.9	0.11	17.1	С
ONONDAGA ST	IV	30	19.4	25.3	44.7	0.11	8.7	Е
HARRISON ST	IV	30	15.1	7.2	22.3	0.08	13.5	С
Total	IV		107.5	70.8	178.3	0.54	10.8	D

#### Arterial Level of Service: EB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	24.6	18.3	42.9	0.16	13.7	С
CLINTON ST	IV	30	17.7	9.0	26.7	0.10	13.3	С
SALINA ST	IV	30	15.6	11.8	27.4	0.07	9.1	D
WARREN ST	IV	30	16.3	27.0	43.3	0.07	6.0	F
MONTGOMERY ST	IV	30	13.5	4.2	17.7	0.08	15.3	С
STATE ST	IV	30	17.7	10.7	28.4	0.10	12.5	D
TOWNSEND ST	IV	30	16.2	32.5	48.7	0.09	6.7	F
MCBRIDE ST	IV	30	15.8	5.4	21.2	0.09	14.9	С
ALMOND ST	IV	30	15.3	7.5	22.8	0.08	13.4	<u>C</u>
Total	IV		152.7	126.4	279.1	0.84	10.8	D

#### Arterial Level of Service: WB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	15.3	21.1	36.4	0.09	8.4	E
MCBRIDE ST	IV	30	15.3	6.0	21.3	0.08	14.3	С
TOWNSEND ST	IV	30	15.8	12.4	28.2	0.09	11.2	D
STATE ST	IV	30	16.2	17.4	33.6	0.09	9.6	D
MONTGOMERY ST	IV	30	17.7	13.6	31.3	0.10	11.3	D
WARREN ST	IV	30	13.5	24.7	38.2	0.08	7.1	Ε
SALINA ST	IV	30	16.3	13.1	29.4	0.07	8.8	Ε
CLINTON ST	IV	30	15.6	8.2	23.8	0.07	10.4	D
FRANKLIN ST	IV	30	17.7	8.5	26.2	0.10	13.5	С
West St.	IV	30	24.6	34.3	58.9	0.16	10.0	D
Total	IV		168.0	159.3	327.3	0.92	10.2	D

# Arterial Level of Service: EB WATER ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.9	28.1	46.0	0.10	7.8	E
SALINA ST	IV	30	16.3	19.2	35.5	0.07	7.3	Ε
WARREN ST	IV	30	15.8	23.1	38.9	0.07	6.5	F
MONTGOMERY ST	IV	30	17.0	9.1	26.1	0.07	10.3	D
STATE ST	IV	30	17.5	10.0	27.5	0.10	12.7	D
TOWNSEND ST	IV	30	16.2	25.7	41.9	0.09	7.7	Ε
MCBRIDE ST	IV	30	15.5	9.4	24.9	0.09	12.5	D
ALMOND ST	IV	30	15.5	12.8	28.3	0.09	11.0	D
Total	IV		131.7	137.4	269.1	0.68	9.0	D

#### Arterial Level of Service: WB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ALMOND ST	IV	30	38.1	19.0	57.1	0.29	18.2	С
MCBRIDE ST	IV	30	15.5	7.1	22.6	0.09	13.7	С
TOWNSEND ST	IV	30	15.5	11.8	27.3	0.09	11.4	D
STATE ST	IV	30	16.2	11.2	27.4	0.09	11.8	D
MONTGOMERY ST	IV	30	17.5	14.5	32.0	0.10	10.9	D
WARREN ST	IV	30	17.0	8.3	25.3	0.07	10.6	D
SALINA ST	IV	30	15.8	15.9	31.7	0.07	7.9	Ε
CLINTON ST	IV	30	16.3	27.5	43.8	0.07	5.9	F
Total	IV		151.9	115.3	267.2	0.86	11.7	D

ADAMS ST			
Direction	EB	WB	All
Total Delay (hr)	17	4	21
Stops (#)	2536	581	3117
Average Speed (mph)	15	10	14
Total Travel Time (hr)	33	6	39
Distance Traveled (mi)	479	63	542
Fuel Consumed (gal)	46	9	55
Fuel Economy (mpg)	10.4	7.1	9.9
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	23.9	5.8	29.8
ALMOND ST			
Direction	NB	SB	All
Total Delay (hr)	5	5	10
Stops (#)	566	569	1135
Average Speed (mph)	12	12	12
Total Travel Time (hr)	8	9	17
Distance Traveled (mi)	102	101	203
Fuel Consumed (gal)	11	11	22
Fuel Economy (mpg)	9.3	9.0	9.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	6.5	6.9	13.4
CLINTON ST			
Direction	NB	SB	All
Total Delay (hr)	3	12	15
Stops (#)	427	1630	2057
Average Speed (mph)	13	14	14
Total Travel Time (hr)	5	23	28
Distance Traveled (mi)	59	320	379
Fuel Consumed (gal)	7	31	38
Fuel Economy (mpg)	8.8	10.2	10.0
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	3.9	17.0	20.9
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ERIE BLVD			
Direction	EB	WB	All
Total Delay (hr)	9	9	18
Stops (#)	1397	1294	2691
Average Speed (mph)	15	17	16
Total Travel Time (hr)	17	21	39
Distance Traveled (mi)	255	365	620
Fuel Consumed (gal)	25	29	54
Fuel Economy (mpg)	10.3	12.6	11.6
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	12.8	12.7	25.5
FAYETTE ST			
Direction	EB	WB	All
Total Delay (hr)	15	17	32
Stops (#)	1810	1738	3548
Average Speed (mph)	12	12	12
Total Travel Time (hr)	25	28	53
Distance Traveled (mi)	301	343	645
Fuel Consumed (gal)	33	36	69
Fuel Economy (mpg)	9.1	9.5	9.3
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	19.8	21.7	41.4
FRANKLIN ST			
Direction	NB	SB	All
Total Delay (hr)	15	4	18
Stops (#)	1649	494	2143
Average Speed (mph)	9	14	11
Total Travel Time (hr)	21	7	29
Distance Traveled (mi)	199	105	305
Fuel Consumed (gal)	28	10	38
Fuel Economy (mpg)	7.1	10.7	8.0
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	19.2	5.2	24.4
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GENESEE ST				
Direction	EB	WB	All	
Total Delay (hr)	9	10	18	
Stops (#)	1321	1373	2694	
Average Speed (mph)	14	16	15	
Total Travel Time (hr)	16	20	36	
Distance Traveled (mi)	222	315	537	
Fuel Consumed (gal)	23	28	50	
Fuel Economy (mpg)	9.8	11.4	10.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.2	13.6	25.8	
HARRISON ST				
Direction	EB	WB	All	
Total Delay (hr)	1	12	13	
Stops (#)	196	1491	1687	
Average Speed (mph)	18	12	13	
Total Travel Time (hr)	2	20	22	
Distance Traveled (mi)	37	254	291	
Fuel Consumed (gal)	3	27	31	
Fuel Economy (mpg)	11.4	9.3	9.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.4	16.1	17.5	
HERALD ST				
Direction	EB	WB	All	
Total Delay (hr)	6	0	7	
Stops (#)	555	61	616	
Average Speed (mph)	6	14	7	
Total Travel Time (hr)	8	1	8	
Distance Traveled (mi)	45	12	57	
Fuel Consumed (gal)	9	1	11	
Fuel Economy (mpg)	4.8	10.1	5.4	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	7.6	0.7	8.3	

JEFFERSON ST			
Direction	EB	WB	All
Total Delay (hr)	3	3	7
Stops (#)	527	459	986
Average Speed (mph)	10	9	10
Total Travel Time (hr)	5	5	10
Distance Traveled (mi)	53	47	100
Fuel Consumed (gal)	8	7	15
Fuel Economy (mpg)	7.0	6.7	6.9
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	4.9	4.6	9.5
MCBRIDE ST			
Direction	NB	SB	All
Total Delay (hr)	4	1	4
Stops (#)	371	90	461
Average Speed (mph)	8	11	9
Total Travel Time (hr)	5	1	6
Distance Traveled (mi)	42	13	55
Fuel Consumed (gal)	6	2	8
Fuel Economy (mpg)	6.5	8.4	6.9
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	4.6	0.9	5.5
MONTGOMERY ST			
Direction	NB	SB	All
Total Delay (hr)	2	1	3
Stops (#)	220	294	514
Average Speed (mph)	10	12	11
Total Travel Time (hr)	3	3	5
Distance Traveled (mi)	30	32	62
Fuel Consumed (gal)	4	4	8
Fuel Economy (mpg)	7.9	7.9	7.9
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	2.5	2.3	4.8
. ss.manoo maon	2.0	2.0	1.0

MONTGOMERY ST 2			
Direction	NB	SB	All
Total Delay (hr)	1	6	6
Stops (#)	89	416	505
Average Speed (mph)	15	8	9
Total Travel Time (hr)	1	8	9
Distance Traveled (mi)	16	62	78
Fuel Consumed (gal)	2	9	11
Fuel Economy (mpg)	10.6	6.7	7.3
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	0.8	7.1	7.9
SALINA ST			
Direction	NB	SB	All
Total Delay (hr)	14	11	25
Stops (#)	1437	1358	2795
Average Speed (mph)	12	15	13
Total Travel Time (hr)	23	21	45
Distance Traveled (mi)	273	316	588
Fuel Consumed (gal)	30	28	58
Fuel Economy (mpg)	9.2	11.1	10.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	18.2	14.5	32.7
STATE ST			
Direction	NB	SB	All
Total Delay (hr)	15	11	26
Stops (#)	1518	1305	2823
Average Speed (mph)	10	11	10
Total Travel Time (hr)	22	17	39
Distance Traveled (mi)	212	182	394
Fuel Consumed (gal)	28	23	51
Fuel Economy (mpg)	7.6	8.0	7.8
Unserved Vehicles (#)	0	0.0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	19.0	14.7	33.6
1 Offerfillation fillage	17.0	17.7	33.0

TOWNSEND ST			
Direction	NB	SB	All
Total Delay (hr)	11	18	30
Stops (#)	1307	1451	2758
Average Speed (mph)	14	11	12
Total Travel Time (hr)	21	28	49
Distance Traveled (mi)	282	304	587
Fuel Consumed (gal)	27	34	61
Fuel Economy (mpg)	10.4	9.0	9.6
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	14.9	22.3	37.2
WARREN ST			
Direction	NB	SB	All
Total Delay (hr)	12	2	14
Stops (#)	1436	250	1686
Average Speed (mph)	12	15	12
Total Travel Time (hr)	20	3	23
Distance Traveled (mi)	244	44	288
Fuel Consumed (gal)	27	4	31
Fuel Economy (mpg)	9.1	10.2	9.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	16.2	2.2	18.4
WASHINGTON ST			
Direction	EB	WB	All
Total Delay (hr)	6	15	21
Stops (#)	745	1692	2437
Average Speed (mph)	13	12	12
Total Travel Time (hr)	10	25	36
Distance Traveled (mi)	135	309	444
Fuel Consumed (gal)	14	33	47
Fuel Economy (mpg)	9.7	9.3	9.4
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	7.9	19.7	27.6
	***		_,

Performance Index

WATER ST				
Direction	EB	WB	All	
Total Delay (hr)	3	3	5	
Stops (#)	337	390	727	
Average Speed (mph)	12	14	13	
Total Travel Time (hr)	5	5	10	
Distance Traveled (mi)	55	72	127	
Fuel Consumed (gal)	6	7	13	
Fuel Economy (mpg)	8.9	10.2	9.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	3.7	3.7	7.5	
Zone CBD Totals				
Number of Intersections	82			
Total Delay (hr)	339			
Stops (#)	40615			
Average Speed (mph)	12			
Total Travel Time (hr)	573			
Distance Traveled (mi)	7008			
Fuel Consumed (gal)	763			
Fuel Economy (mpg)	9.2			
Unserved Vehicles (#)	0			
Vehicles in dilemma zone (#)	25			

452.3

# **Attachment F**

**Technical Memorandum #3** 

**Technical Analysis of Alternatives 2 and 2B** 





#### Introduction

The purpose of Technical Memorandum #3 is to summarize the technical feasibility analysis of Alternatives 2 and 2B. The technical analysis of alternatives is also evaluated as compared to the optimized existing one-way analysis, as Technical Memorandum #2 has shown the optimized condition provides the greatest benefit to Measures of Effectiveness (MOE's) compared to existing and Alternative 1 conditions. Evaluation of these alternatives will aid decision making and help to determine the preferred alternative on which the development of the future phased Action Plan will be based.

The Downtown Syracuse Two-Way Feasibility Technical Analysis Project includes development of future scenario alternative analyses for the conversion of one-way streets to two-way operation. The Study Area limits and the one-way streets to be studied for conversion to two-way operation (also considered Alternative 1) were defined and agreed to during the project Working Group Meeting #2 on June 20, 2013 and presented in Technical Memorandum #2 (See map in Appendix A – One-Way Streets Included in the Feasibility Study).

The one-way streets to be converted to two-way operation under Alternatives 2 and 2B were defined and agreed to during the project Working Group Meeting #3 on December 6, 2013. The one-way streets converted under Alternative 2 are:

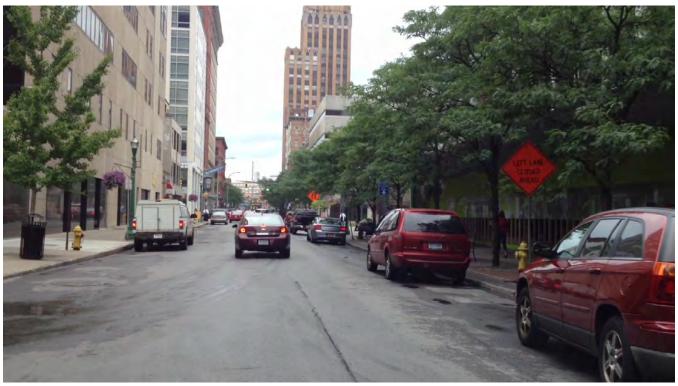
- 1. Clinton Street from Herald Place to W. Adams Street;
- 2. Montgomery Street from Erie Boulevard E. to E. Adams Street;
- 3. Warren Street from Willow Street to Harrison Street;
- 4. E. Jefferson Street from Montgomery Street to S. State Street.

Alternative 2B includes all the one-way street conversions under Alternative 2 except the conversion of Warren Street to two-way operation is limited to the segment from Willow Street to Washington Street. The existing one-way streets to be converted to two-way operation for the future scenario Alternative 2B analyses are:

- 1. Clinton Street from Herald Place to W. Adams Street;
- 2. Montgomery Street from Erie Boulevard E. to E. Adams Street;
- 3. Warren Street from Willow Street to Washington Street;
- 4. E. Jefferson Street from Montgomery Street to S. State Street.

This technical memorandum provides the technical feasibility analysis for Alternatives 2 and 2B, following the systematic procedure used for Alternative 1, as described in Technical Memorandum #2.





Photograph #1 – View facing north on Warren Street approaching Fayette Street

#### Alternative 2 Proposed Two-Way Street Typical Sections

Alternative 2 is the conversion of the existing one-way streets to two-way operations on Clinton, Warren, Montgomery and Jefferson Streets, as described in the introduction of this memorandum. The objective of this technical analysis is to determine the feasibility of Alternative 2. Under Alternative 2 the proposed modifications to Clinton, Warren, Montgomery and Jefferson Streets are the same as proposed under Alternative 1, described in Technical Memorandum #2.





## **Alternative 2B Proposed Two-Way Street Typical Sections**

Alternative 2B is the conversion of the same existing one-way streets to two-way operations as proposed under Alternative 2 except the conversion of Warren Street to two-way operation is limited to the segment from Willow Street to Washington Street, as described in the introduction of this memorandum. The objective of the technical analysis is to determine the feasibility of Alternative 2B and compare expected traffic operation MOE's to the optimized existing one-way condition.

### **Technical Analysis Results**

Measures of Effectiveness (MOE's) for Alternatives 2 and 2B were evaluated by arterial, overall corridor and on a full network basis for both the morning and evening conditions and then compared to the optimized model MOE's to identify expected changes. Summary tables of MOE's by street and for the overall study area network are provided in Appendix B and the detailed Synchro results are provided for: Alternative 2 in Appendix C and Alternative 2B in Appendix D. The following MOE's were evaluated:

<u>Network MOE's</u> – Total Delay (hours), Number of Stops, Average Speed (mph), Fuel Consumed (gallons) and Fuel Economy (mpg)

<u>Corridor MOE's</u> – Total Delay (hours), Number of Stops, Average Speed (mph), Fuel Consumed (gallons) and Fuel Economy (mpg)

Arterial MOE's - Signal Delay (seconds), Travel Time (seconds), Arterial Speed (mph), LOS

Tables 1 and 2 summarize the comparison of network MOE's between optimized one-way conditions and Alternatives 2 and 2B for the morning and evening peak hours.

The overall network shows Alternative 2B is marginally more effective than Alternative 2. This is shown in Appendix B, and Tables 1 and 2 by comparing each Alternative to the optimized condition. The increased delay experienced under Alternative 2 compared to the optimized condition is approximately 1%-2%, whereas delay for Alternative 2B exhibits nearly the same amount of delay in the AM peak hour and exhibits 1% less delay during the PM peak hour than the optimized condition.

The number of stops increase 1%-3% for the peak hours under Alternative 2 and increase less than 1% for Alternative 2B during the AM peak hour when compared to the optimized condition. The number of stops during the PM peak hour are expected to decrease approximately 1% under Alternative 2B as compared to the optimized one-way condition.

The average speed is expected to remain the same as optimized under Alternative 2, and increases under Alternative 2B from 12 mph to 13 mph during the PM peak hour. The change in fuel consumption increases by 1%-2% under Alternative 2 and almost no change is expected under Alternative 2B. Fuel economy is expected to decrease 1% under Alternative 2 and no change is expected under Alternative 2B when compared to the optimized condition.

Therefore, the optimized one-way and Alternative 2B conditions are expected to provide the most effective MOE's and the least impact to parking. The difference between Alternative 2 and 2B is that Alternative 2B proposed conditions retain one-way (northbound) operations on Warren Street south of



## Technical Memorandum #3 Downtown Syracuse Two-Way Feasibility Technical Analysis



Washington Street to continue to provide parking on both sides of the street. Alternative 2 is slightly less effective based on the comparison of MOE's which are summarized in tables that are arranged in order of increasing detail in Appendix B. The level of detail in Appendix B begins with the network results, followed by results for each corridor, then by direction and finally the arterial report MOE's are provided in detail by segment.

Intersection Level of Service (LOS) was also reviewed to determine locations if unacceptable LOS could be expected for Alternatives 2 and 2B. LOS D or better are considered acceptable while LOS E and F are considered unacceptable. All individual movement and overall intersection LOS's are expected to be indicative of LOS D or better within the CBD.

TABLE 1 Network Results Morning Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2	MOE Change - Optimized to Alternative 2B
Total Delay (Hours)	296	302	297	+6 (+2%)	+1 (+0%)
Stops (#)	36387	37645	36573	+1258 (+3%)	+186 (+1%)
Average Speed (mph)	13	13	13	0 (0%)	0 (0%)
Fuel Consumed (gal)	703	716	706	+13 (+2%)	+3 (+0%)
Fuel Economy (mpg)	9.8	9.7	9.8	-0.1 (-1%)	0 (0%)





TABLE 2 Network Results Evening Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2	MOE Change - Optimized to Alternative 2B
Total Delay (Hours)	328	332	324	+4 (+1%)	-4 (-1%)
Stops (#)	39204	39413	38857	+209 (+1%)	-347 (-1%)
Average Speed (mph)	12	12	13	0 (0%)	+1 (+8%)
Fuel Consumed (gal)	745	750	742	+5 (+1%)	-3 (-0%)
Fuel Economy (mpg)	9.4	9.3	9.4	-0.1 (-1%)	0 (0%)

The detailed MOE summary tables for the overall network, corridors and arterials have been included in Appendix B for both the morning and evening peak hour. The tables include comparisons of MOE's between the optimized and Alternative 2 conditions, the optimized and Alternative 2B conditions as well as the Alternative 2 and Alternative 2B conditions. The arterial reports include summaries of signal delay, travel time, speed and Level of Service (LOS) by roadway segment in each direction along the study area roadways. These reports provide average values expected for each vehicle traveling along each arterial segment. The corridor reports include total delay, total number of stops, average speed, fuel consumed and fuel economy by direction along each route. These reports provide total cumulative values for the length of each corridor for the peak hours. The network reports include the same MOE's as the corridor reports with the values being total cumulative statistics for all vehicles traveling within the study area during each peak hour.

As previously discussed, the greatest improvements in MOE's have been found with the optimized and Alternative 2B conditions. While the Alternative 2 condition still yields improvements in MOE's over the Alternative 1 condition, the improvements are generally less than the Alternative 2B and optimized conditions.

The detailed MOE reports from the Synchro7 Alternative 2 model runs have been included in Appendix C and Appendix D contains the model runs for Alternative 2B. The MOE reports have been migrated into the tables that provide the comparisons between the optimized, Alternative 2 and Alternative 2B conditions, which are included in Appendix B.



## Technical Memorandum #3 Downtown Syracuse Two-Way Feasibility Technical Analysis



## **Summary and Conclusions**

The overall network results for Alternative 2 indicate traffic operations will be marginally less effective than Alternative 2B and the optimized timing condition with existing one-way operation. Yet Alternative 2 would be a marginal improvement compared to Alternative 1 and a considerable improvement over existing traffic operations. All of the one-way streets to be converted to two-way operations as described under Alternatives 2 and 2B are expected to experience acceptable impacts to traffic operations and intersection LOS.

The overall network results for Alternative 2B indicate traffic operations will be marginally less effective than the optimized timing with the existing one-way operation during the AM peak hour. Yet during the PM peak hour Alternative 2B will be marginally more effective than optimized timing with one-way operation and Alternative 1 and significantly better than the existing traffic operations. All of the one-way streets to be converted to two-way operations as described under Alternative 2 and 2B are expected to experience acceptable impacts to traffic operations and intersection LOS.

Implementation of Alternative 2 will have impacts on parking. The following list shows the estimated parking impacts along identified streets:

- 1. Clinton Street from Herald Place to Genesee Street removal of approximately 24 parking spaces on the east side of the street.
- 2. Warren Street from Washington Street to Harrison Street removal of approximately 81 parking spaces on the west side of the street.
- 3. Jefferson Street from Montgomery Street to State Street removal of approximately 12 spaces due to converting angled parking on the south side of the street to parallel parking.
- 4. Clinton Street from Jefferson Street to Onondaga Street addition of approximately 30 parking spaced on the east side of the street.

Implementation of Alternative 2B will have the same impacts on parking for Clinton Street and Jefferson Street as Alternative 2 except on Warren Street where the retention of one-way (northbound) operations south of Washington Street would allow parking both sides of the street would retain 81 additional parking spaces.

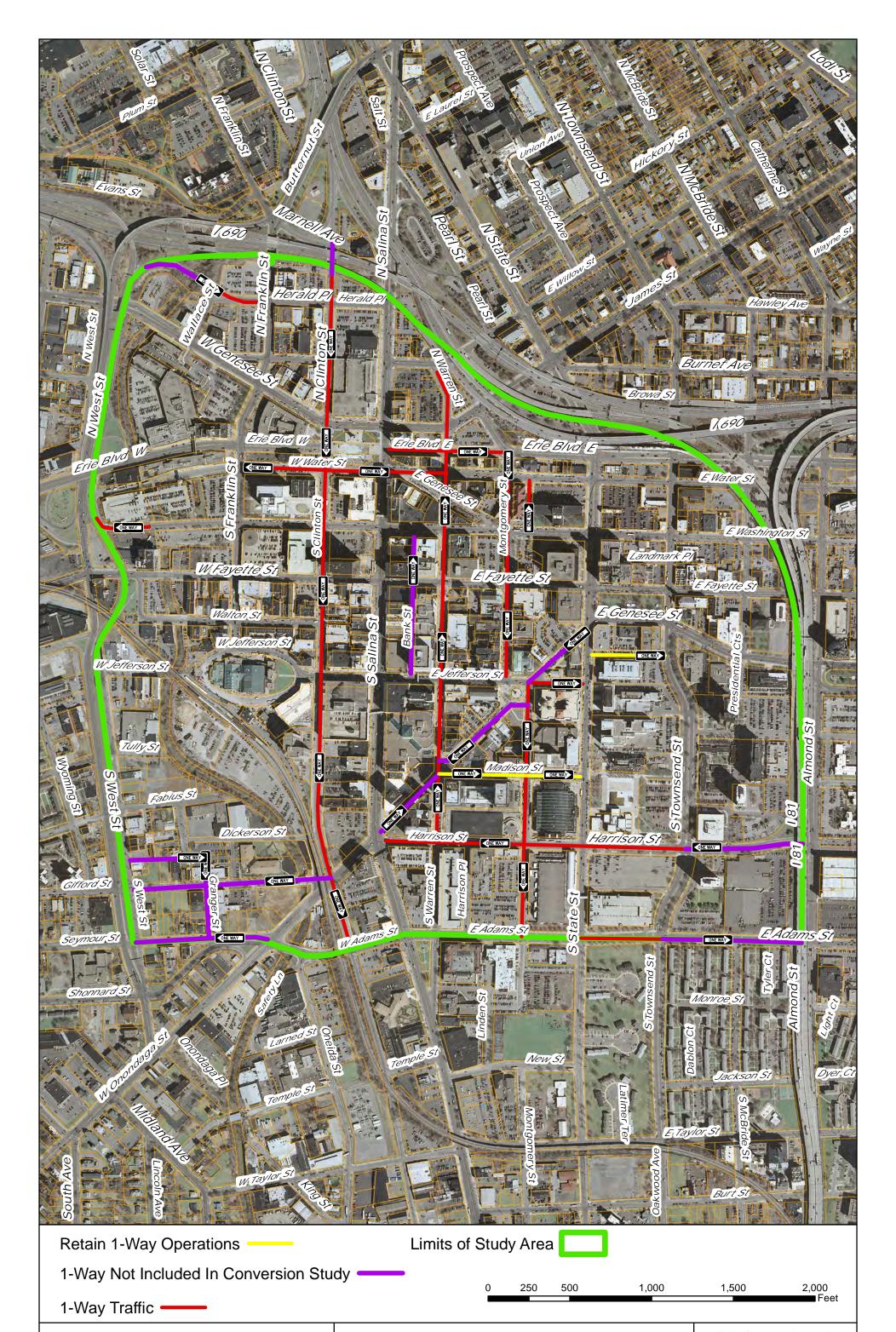
The operations under the optimized one-way and Alternative 2B conditions are expected to provide the most effective MOE's and the least impact to parking. Alternative 2 is slightly less effective yet marginally more effective than Alternative 1. The next Working Group discussion will examine the results detailed in Technical Memorandum #3 and advise on the preferred alternative on which to base develop of the future action plan.



# Appendix A

**One-Way Streets Included in Feasibility Study** 





Downtown Syracuse Two-Way Feasibility Technical Analysis October 2013

Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC

Bergmann associates architects // engineers // planners

# **Appendix B**

# Measures of Effectiveness Summary Tables Alternatives 2 and 2B



## Network Reports

	Optimized	Alternative 2	Alternative 2B	% Change	% Change	% Change
Morning Peak Hour	Condition	Condition	Condition	Optimized to Alt 2	Optimized to Alt 2B	Alt 2 to Alt 2B
Total Delay (Hour)	296	302	297	2%	0%	-2%
Stops (#)	36387	37645	36573	3%	1%	-3%
Average Speed (mph)	13	13	13	0%	0%	0%
Fuel Consumed (gal)	703	716	706	2%	0%	-1%
Fuel Economy (mph)	9.8	9.7	9.8	-1%	0%	1%

	Optimized	Alternative 2	Alternative 2B	% Change	% Change	% Change
Evening Peak Hour	Condition	Condition	Condition	Optimized to Alt 2	Optimized to Alt 2B	Alt 2 to Alt 2B
Total Delay (Hour)	328	332	324	1%	-1%	-2%
Stops (#)	39204	39413	38857	1%	-1%	-1%
Average Speed (mph)	12	12	13	0%	8%	8%
Fuel Consumed (gal)	745	750	742	1%	0%	-1%
Fuel Economy (mph)	9.4	9.3	9.4	-1%	0%	1%

# Corridor Total Delay Summary Table Morning Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2		native 2B Change - Ch ndition Optimized to Optin		Cha Optim	OE nge - ized to ative 2B
Adams Street	33	33	32	0	(0%)	-1	(-3%)		
Almond Street	7	7	7	0	(0%)	0	(0%)		
Clinton Street	18	22	22	+4	(+22%)	+4	(+22%)		
Erie Boulevard	16	13	13	-3	(-19%)	-3	(-19%)		
Fayette Street	25	27	27	+2	(+8%)	+2	(+8%)		
Franklin Street	12	11	11	-1	(-8%)	-1	(-8%)		
Genesee Street	24	27	25	+3	(+13%)	+1	(+4%)		
Harrison Street	10	11	10	+1	(10%)	0	(0%)		
Herald Street	2	2	2	0	(0%)	0	(0%		
Jefferson Street	5	6	6	+1	(+20%)	+1	(+20%)		
McBride Street	2	2	2	0	(0%)	0	(0%)		
Montgomery Street N	2	3	4	+1	(+50%)	+2	(+100%)		
Montgomery Street S	2	4	2	+2	(+100%)	0	(0%)		
Salina Street	27	24	26	-3	(-11%)	-1	(-4%)		
State Street	20	21	21	+1	(+5%)	+1	(+5%)		
Townsend Street	27	24	25	-3	(-11%)	-2	(-7%)		
Warren Street	6	7	5	+1	(+17%)	-1	(-17%)		
Washington Street	9	9	9	0	(0%)	0	(0%)		
Water Street	3	4	3	+1	(+33%)	0	(0%)		

# Corridor Total Delay Summary Table Evening Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	Cha Optim	OE nge - ized to ative 2	Chai Optim	DE nge - ized to tive 2B
Adams Street	19	18	19	-1	(-5%)	0	(0%)
Almond Street	11	11	10	0	(0%)	-1	(-9%)
Clinton Street	12	13	14	+1	(+8%)	+2	(+17%)
Erie Boulevard	18	17	17	-1	(-6%)	-1	(-6%)
Fayette Street	31	32	31	+1	(+3%)	0	(0%)
Franklin Street	19	18	16	-1	(-5%)	-3	(-16%)
Genesee Street	19	22	19	+3	(+16%)	0	(0%)
Harrison Street	13	13	12	0	(0%)	-1	(-8%)
Herald Street	5	5	5	0	(0%)	0	(0%)
Jefferson Street	5	6	6	+1	(+20%)	+1	(+20%)
McBride Street	4	4	4	0	(0%)	0	(0%)
Montgomery Street N	2	3	3	+1	(+50%)	+1	(+50%)
Montgomery Street S	4	8	5	+4	(+100%)	+1	(+25%)
Salina Street	30	25	28	-5	(-17%)	-2	(-7%)
State Street	27	27	26	0	(0%)	-1	(-4%)
Townsend Street	27	26	26	-1	(-4%)	-1	(-4%)
Warren Street	12	14	11	+2	(+17%)	-1	(-8%)
Washington Street	19	20	20	+1	(+5%)	+1	(+5%)
Water Street	3	4	4	+1	(+33%)	+1	(+33%)

# Corridor Stops Summary Table Morning Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	Cha Optim	OE nge - ized to ative 2	Chai Optim	DE nge - ized to ative 2B
Adams Street	3085	3537	3418	+452	(+15%)	+333	(+11%)
Almond Street	909	905	862	-4	(-0%)	-47	(-5%)
Clinton Street	2103	2480	2569	+377	(+18%)	+466	(+22%)
Erie Boulevard	2561	2201	2237	-360	(-14%)	-324	(-13%)
Fayette Street	3210	3169	3298	-41	(-1%)	+88	(+3%)
Franklin Street	1577	1548	1471	-29	(-2%)	-106	(-7%)
Genesee Street	2603	3079	2695	+476	(+18%)	92	(4%)
Harrison Street	1429	1702	1491	+273	(+19%)	+62	(+4%)
Herald Street	281	286	311	+5	(+2%)	+30	(+11%)
Jefferson Street	852	997	992	+145	(+17%)	+140	(+16%)
McBride Street	276	335	296	+59	(+21%)	+20	(+7%)
Montgomery Street N	436	545	584	+109	(+25%)	+148	(+34%)
Montgomery Street S	300	510	304	+210	(+70%)	+4	(+1%)
Salina Street	3263	3092	3116	-171	(-5%)	-147	(-5%)
State Street	2657	2738	2624	+81	(+3%)	-33	(-1%)
Townsend Street	2940	2470	2751	-470	(-16%)	-189	(-6%)
Warren Street	1001	1007	785	+6	(+1%)	-216	(-22%)
Washington Street	1368	1412	1274	+44	(+3%)	-94	(-7%)
Water Street	599	659	645	+60	(+10%)	+46	(+8%)

# Corridor Stops Summary Table Evening Peak Hour

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	Cha Optim	OE nge - ized to ative 2	Chai Optim	DE nge - ized to tive 2B
Adams Street	3178	2914	3006	-264	(-8%)	-172	(-5%)
Almond Street	1172	1182	1147	+10	(+1%)	-25	(-2%)
Clinton Street	1379	1666	1739	+287	(+21%)	+360	(+26%)
Erie Boulevard	2720	2567	2565	-153	(-6%)	-155	(-6%)
Fayette Street	3572	3512	3579	-60	(-2%)	+7	(0%)
Franklin Street	2605	2180	1999	-425	(-16%)	-606	(-23%)
Genesee Street	2330	2929	2747	+599	(+26%)	+417	(+18%)
Harrison Street	1401	1296	1293	-105	(-7%)	-108	(-8%)
Herald Street	571	541	540	-30	(-5%)	-31	(-5%)
Jefferson Street	749	1000	1006	+251	(+34%)	+257	(+34%)
McBride Street	466	469	465	+3	(+1%)	-1	(0%)
Montgomery Street N	328	604	501	+276	(+84%)	+173	(+53%)
Montgomery Street S	301	521	409	+220	(+73%)	+108	(+36%)
Salina Street	3460	3029	3253	-431	(-12%)	-207	(-6%)
State Street	2791	2795	2653	+4	(+0%)	-138	(-5%)
Townsend Street	2699	2519	2635	-180	(-7%)	-64	(-2%)
Warren Street	1505	1666	1300	+161	(+11%)	-205	(-14%)
Washington Street	2229	2213	2324	-16	(-1%)	+95	(+4%)
Water Street	445	519	513	+74	(+17%)	+68	(+15%)

	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	ge - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	i 2B
Adams Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	32	1	33	31	1	33	31	1	32	-3%	0%	0%	-3%	0%	-3%	0%	0%	-3%
Stops (#)	2961	124	3085	3385	152	3537	3283	135	3418	14%	23%	15%	11%	9%	11%	-3%	-11%	-3%
Average Speed (mph)	13	11	13	13	10	13	13	10	13	0%	-9%	0%	0%	-9%	0%	0%	0%	0%
Fuel Consumed (gal)	68	2	70	70	2	72	69	2	71	3%	0%	3%	1%	0%	1%	-1%	0%	-1%
Fuel Economy (mph)	10.1	7.8	10.1	9.8	7.2	9.7	10	7.6	9.9	-3%	-8%	-4%	-1%	-3%	-2%	2%	6%	2%
raci Economy (mpn)	10.1	7.0	10.1	7.0	7.2	7.7	10	7.0	7.7	070	070	170	170	070	270	270	070	
	On	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Δlt 2	% Chanc	ge - Optimized to	Δlt 2R	% Ch	ange - Alt 2 to Alt	t 2R
Almond Street - AM	Northbound	Southbound	All	Northbound	Southbound	I All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	I All	Northbound	Southbound	I All
Total Delay (Hour)	A A	3	7 111	A A	2	7111	A A	3	7111	0%	ļ	0%	<u> </u>	0%	0%	0%	0%	0%
	477	432	909	4 4 7 7	418	905	438	424	862		0% -3%		0% -8%			-10%		-5%
Stops (#)		432 14		487 13				14	14	2%	-3% 7%	0%		-2%	-5%		1%	
Average Speed (mph)	13	9	13		15	14	13			0%		8%	0%	0%	8%	0%	-7%	0%
Fuel Consumed (gal)	9	,	18	9	8	17	9	9	17	0%	-11%	-6%	0%	0%	-6%	0%	13%	0%
Fuel Economy (mph)	9.7	10.4	10.0	9.6	10.8	10.1	10.1	10.5	10.3	-1%	4%	1%	4%	1%	3%	5%	-3%	2%
	_			1			1											
		timized Condition		N	Alternative 2	***		Alternaitve 2B	A 1:		ge - Optimized to		,	ge - Optimized to			ange - Alt 2 to Alt	
Clinton Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	18	18	1	21	22	1	21	22	-	17%	22%	-	17%	22%	0%	0%	0%
Stops (#)	-	2103	2103	188	2292	2480	222	2347	2569	-	9%	18%	-	12%	22%	18%	2%	4%
Average Speed (mph)	-	14	14	19	13	13	18	13	13	-	-7%	-7%	-	-7%	-7%	-5%	0%	0%
Fuel Consumed (gal)	-	45	45	4	48	52	4	48	52	-	7%	16%	-	7%	16%	0%	0%	0%
Fuel Economy (mph)	-	10.9	10.9	13.3	10	10.2	12.4	9.9	10.1	-	-8%	-6%	-	-9%	-7%	-7%	-1%	-1%
	<del>-</del>			-						-			-			-		•
	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	ge - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Erie Boulevard - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	10	6	16	9	5	13	8	5	13	-10%	-17%	-19%	-20%	-17%	-19%	-11%	0%	0%
Stops (#)	1626	935	2561	1389	812	2201	1380	857	2237	-15%	-13%	-14%	-15%	-8%	-13%	-1%	6%	2%
Average Speed (mph)	15	15	15	16	17	16	17	17	17	7%	13%	7%	13%	13%	13%	6%	0%	6%
Fuel Consumed (gal)	28	17	46	26	16	42	25	16	41	-7%	-6%	-9%	-11%	-6%	-11%	-4%	0%	-2%
Fuel Economy (mph)	10.3	10.9	10.5	11.2	12.1	11.5	11.5	11.7	11.5	9%	11%	10%	12%	7%	10%	3%	-3%	0%
															1 1 1 1 1			
	On	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Δlt 2	% Chanc	ge - Optimized to	Δlt 2R	% Ch	ange - Alt 2 to Alt	t 2R
Fayette Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	l All
Total Delay (Hour)	17	Q	25	18	O	27	18	9	27	6%	ļ		6%		8%		0%	
Stops (#)	2245	965	3210	2257	912	3169	2376	922	3298	1%	0% -5%	8% -1%	6%	0% -4%	3%	0% 5%	1%	0% 4%
													-7%					1
Average Speed (mph)	14	12	13	13	12	13	13	12 19	13	-7%	0%	0%		0%	0%	0%	0%	0%
Fuel Consumed (gal)	41	19	60	42	19	61	43		62	2%	0%	2%	5%	0%	3%	2%	0%	2%
Fuel Economy (mph)	9.8	9.3	9.7	9.6	9.4	9.6	9.5	9.4	9.4	-2%	1%	-1%	-3%	1%	-3%	-1%	0%	-2%
					A11 11 0			AU 11 0D		0/ 01	0 11 1 11	A11.0	0/ 01	0 11 1 11	All OD	0/ 01	A11 O 1 A11	
		timized Condition		NI - odlala - cos d	Alternative 2	A 11	Niti-li	Alternaitve 2B	A 11		ge - Optimized to		, and the second	ge - Optimized to			ange - Alt 2 to Alt	
Franklin Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	4	7	12	4	8	11	4	8	11	0%	14%	-8%	0%	14%	-8%	0%	0%	0%
Stops (#)	722	855	1577	599	949	1548	571	900	1471	-17%	11%	-2%	-21%	5%	-7%	-5%	-5%	-5%
Average Speed (mph)	12	16	14	12	15	14	12	15	14	0%	-6%	0%	0%	-6%	0%	0%	0%	0%
Fuel Consumed (gal)	11	20	30	9	20	29	9	20	29	-18%	0%	-3%	-18%	0%	-3%	0%	0%	0%
Fuel Economy (mph)	8.2	11.9	10.6	8.2	11.4	10.5	8.4	11.5	10.6	0%	-4%	-1%	2%	-3%	0%	2%	1%	1%
	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	ge - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	i 2B
Genesee Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	13	11	24	17	10	27	15	10	25	31%	-9%	13%	15%	-9%	4%	-12%	0%	-7%
		1298	2603	1779	1300	3079	1442	1253	2695	36%	0%	18%	10%	-3%	4%	-19%	-4%	-12%
	1305		2000	.,,,	.500							-7%	-7%	0%	-7%		-7%	0%
Stops (#)	1305 14		14	12	14	13	13	1.3	1.3	-   4 %	0.70					0.70	- / /0	
Stops (#) Average Speed (mph)	14	13	14 56	12 36	14 25	13	13 33	13 25	13 58	-14% 16%	8% 0%					8% -8%		
Stops (#)			14 56 10.6	12 36 9.5	14 25 10.3	13 61 9.8	13 33 10.5	25 10.2	58 10.3	16% -14%	0% 4%	9%	6%	0%	4%	-8% 11%	-7 % 0% -1%	-5% 5%

	Op	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to A	Alt 2	% Chang	e - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Harrison Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	-	10	10	-	11	11	-	10	10	-	10%	10%	-	0%	0%	-	-9%	-9%
Stops (#)	-	1429	1429	-	1702	1702	-	1491	1491	-	19%	19%	-	4%	4%	-	-12%	-12%
Average Speed (mph)	-	17	17	-	16	16	-	16	16	-	-6%	-6%	-	-6%	-6%	-	0%	0%
Fuel Consumed (gal)	-	31	31	-	33	33	-	31	31	-	6%	6%	-	0%	0%	-	-6%	-6%
Fuel Economy (mph)	-	12.3	12.3	-	11.4	11.4	-	11.9	11.9	-	-7%	-7%	-	-3%	-3%	-	4%	4%
	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B	% Cha	ange - Alt 2 to Alt	2B
Herald Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	2	0	2	2	0	2	2	0	2	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stops (#)	239	42	281	252	34	286	271	40	311	5%	-19%	2%	13%	-5%	11%	8%	18%	9%
Average Speed (mph)	10	13	10	9	16	10	9	17	10	-10%	23%	0%	-10%	31%	0%	0%	6%	0%
Fuel Consumed (gal)	4	1	4	4	1	5	4	1	5	0%	0%	25%	0%	0%	25%	0%	0%	0%
Fuel Economy (mph)	7.2	NA	7.4	6.8	NA	7.5	6.5	NA	7.1	-6%	NA	1%	-10%	NA	-4%	-4%	NA	-5%
								•					-		•			
	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B	% Cha	ange - Alt 2 to Alt	2B
Jefferson Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	3	2	5	4	3	6	4	3	6	33%	50%	20%	33%	50%	20%	0%	0%	0%
Stops (#)	525	327	852	518	479	997	518	474	992	-1%	46%	17%	-1%	45%	16%	0%	-1%	-1%
Average Speed (mph)	11	12	11	11	11	11	11	11	11	0%	-8%	0%	0%	-8%	0%	0%	0%	0%
Fuel Consumed (gal)	8	5	12	8	7	15	8	7	15	0%	40%	25%	0%	40%	25%	0%	0%	0%
Fuel Economy (mph)	7.4	7.9	7.6	7.8	7.4	7.6	7.7	7.4	7.6	5%	-6%	0%	4%	-6%	0%	-1%	0%	0%
																		•
	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B	% Cha	ange - Alt 2 to Alt	2B
McBride Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	1	1	2	1	1	2	1	1	2	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stops (#)	100	176	276	136	199	335	120	176	296	36%	13%	21%	20%	0%	7%	-12%	-12%	-12%
Average Speed (mph)	10	9	9	9	9	9	9	9	9	-10%	0%	0%	-10%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	2	3	4	2	3	5	2	3	5	0%	0%	25%	0%	0%	25%	0%	0%	0%
Fuel Economy (mph)	7.1	6.8	6.9	5.9	6.5	6.3	6.5	6.8	6.7	-17%	-4%	-9%	-8%	0%	-3%	10%	5%	6%
	_			-			_			-			-			-		,
	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B	% Cha	ange - Alt 2 to Alt	2B
Montgomery Street North - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	2	2	1	2	3	1	3	4	-	0%	50%	=	50%	100%	0%	50%	33%
Stops (#)	-	436	436	134	411	545	145	439	584	-	-6%	25%	-	1%	34%	8%	7%	7%
Average Speed (mph)	-	11	11	13	11	12	12	10	11	-	0%	9%	-	-9%	0%	-8%	-9%	-8%
Fuel Consumed (gal)	-	6	6	2	6	8	2	6	8	-	0%	33%	-	0%	33%	0%	0%	0%
Fuel Economy (mph)	-	7.2	7.2	9.2	7.2	7.8	8.7	6.8	7.3	-	0%	8%	-	-6%	1%	-5%	-6%	-6%
		timized Condition			Alternative 2			Alternaitve 2B			ge - Optimized to <i>F</i>	Alt 2		e - Optimized to	Alt 2B		ange - Alt 2 to Alt	2B
Montgomery Street South - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	2	2	0	4	4	0	2	2	-	100%	100%	-	0%	0%	0%	-50%	-50%
Stops (#)	-	295	300	66	444	510	68	236	304	-	51%	70%	-	-20%	1%	3%	-47%	-40%
Average Speed (mph)	-	15	15	16	10	11	15	14	14	-	-33%	-27%	-	-7%	-7%	-6%	40%	27%
Fuel Consumed (gal)	-	5	5	1	8	9	1	5	6	-	60%	80%	-	0%	20%	0%	-38%	-33%
Fuel Economy (mph)	-	10	9.9	10.5	8	8.3	10.2	10.3	10.3	-	-20%	-16%	-	3%	4%	-3%	29%	24%
		timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to A	Alt 2		e - Optimized to	Alt 2B		ange - Alt 2 to Alt	2B
IO II OL L ANA	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Salina Street - AM		17	27	9	15	24	9	17	26	-18%	-12%	-11%	-18%	0%	-4%	0%	13%	8%
Total Delay (Hour)	11				0.1.05	3092	1010	2106	3116	-13%	-1%	-5%	-11%	-1%	-5%	2%	0%	1%
Total Delay (Hour) Stops (#)	11 1140	2123	3263	987	2105	3092	1010	2100	0110	1370	170							
Total Delay (Hour) Stops (#) Average Speed (mph)	1140 11	2123 16	14	11	2105 16	15	11	16	14	0%	0%	7%	0%	0%	0%	0%	0%	-7%
Total Delay (Hour) Stops (#)	1140	2123																

	Op	timized Conditio	n		Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Cha	ange - Alt 2 to Alt	2B
State Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	9	11	20	8	12	21	9	12	21	-11%	9%	5%	0%	9%	5%	13%	0%	0%
Stops (#)	1130	1527	2657	1214	1524	2738	1248	1376	2624	7%	0%	3%	10%	-10%	-1%	3%	-10%	-4%
Average Speed (mph)	10	12	11	11	12	11	10	12	11	10%	0%	0%	0%	0%	0%	-9%	0%	0%
Fuel Consumed (gal)	18	27	45	18	28	46	19	26	45	0%	4%	2%	6%	-4%	0%	6%	-7%	-2%
Fuel Economy (mph)	7.3	9.0	8.3	7.3	8.9	8.3	7.1	9.4	8.4	0%	-1%	0%	-3%	4%	1%	-3%	6%	1%
	0.5	otimized Conditio	<u> </u>	1	Alternative 2		Ī	Alternaitve 2B		0/ Chan	ge - Optimized to	Al+ O	0/ Chana	je - Optimized to	Alt OD	0/ Ch	anga Alt 2 ta Alt	- AD
Taxasaa al Charach ANA	Northbound			Northbound		ΔII			Λ.ΙΙ	1	0 1			, I			0	
Townsend Street - AM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound				All
Total Delay (Hour)	5	21	27	5	19	24	6	19	25	0%	-10%	-11%	20%	-10%				4%
Stops (#)	662	2278	2940	665	1805	2470	741	2010	2751	0%	-21%	-16%	12%	-12%				11%
Average Speed (mph)	16	12	13	16	13	14	15	13	14	0%	8%	8%	-6%	8%				0%
Fuel Consumed (gal)	15	46	61	15	42	57	16	43	59	0%	-9%	-7%	7%	-7%				4%
Fuel Economy (mph)	12.1	9.5	10.1	12.1	10.4	10.8	11.5	10.2	10.5	0%	9%	7%	-5%	7%	4%	-5%	-2%	-3%
	<b>O</b> r	otimized Conditio	n	T	Alternative 2		T	Alternaitye 2B		% Chan	ge - Optimized to	Δlt 2	% Chanc	e - Optimized to	Alt 2R	% Ch	ange - Alt 2 to Alt	2B
Warren Street - AM	Northbound	Southbound	l All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound			<b>J</b>	l All
Total Delay (Hour)	6	-	6	6	1	7	5	0	5	0%	-	17%	-17%	-				-29%
Stops (#)	1001	-	1001	835	172	1007	725	60	785	-17%	_	1%	-28%					-22%
Average Speed (mph)	14	-	14	13	14	13	14	9	14	-7%	_	-7%	0%	-				8%
Fuel Consumed (gal)	17	-	17	14	3	17	13	1	13	-18%	_	0%	-24%			1		-24%
Fuel Economy (mph)	9.5		9.5	8.9	10.3	9.2	10	NA	9.7	-6%	-	-3%	5%	-				5%
ruer Economy (mpm)	9.5	-	9.0	0.9	10.3	9.2	10	IVA	9.1	-070	-	-3/0	576	-	2 /0	12 /0	IVA	376
	Op	timized Conditio	n		Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Cha	ange - Alt 2 to Alt	2B
Washington Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	4	5	9	4	5	9	4	5	9	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stops (#)	608	760	1368	581	831	1412	566	708	1274	-4%	9%	3%	-7%	-7%	-7%	-3%	-15%	-10%
Average Speed (mph)	16	13	14	15	13	14	15	13	14	-6%	0%	0%	-6%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	11	13	24	11	13	24	11	13	23	0%	0%	0%	0%	0%	-4%	0%	0%	-4%
Fuel Economy (mph)	10.8	9.4	10	10.7	8.9	9.7	10.9	9.5	10.1	-1%	-5%	-3%	1%	1%	1%	2%	7%	4%
,		1		<u>.</u>	ı		<u> </u>	<u>I</u>		<u> </u>			<u> </u>	<u> </u>		<u>.</u>		
		timized Conditio			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2		je - Optimized to	Alt 2B		ange - Alt 2 to Alt	2B
Water Street - AM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	3	1	3	3	1	4	3	1	3	0%	0%	33%	0%	0%	All         Northbound         Southbound           -7%         20%         0%           -6%         11%         11%           8%         -6%         0%           -3%         7%         2%           4%         -5%         -2%           All         Northbound         Southbound           -17%         -100%         -           -2%         -13%         -65%         -           0%         8%         -36%         -           -24%         -7%         -67%         -           2%         12%         NA         NA    Alt 2B  ### Change - Alt 2 to Alt 2B  ### All Eastbound Westbound  ### Own Own  ### Own	-25%		
Stops (#)	466	133	599	466	193	659	468	177	645	0%	45%	10%	0%	33%	8%	0%	-8%	-2%
Average Speed (mph)	15	18	15	14	17	15	15	17	15	-7%	-6%	0%	0%	-6%	0%	7%	0%	0%
Fuel Consumed (nal)	Q	2	10	ρ	2	11	Q	2	10	Λ%	50%	10%	0%	50%	Λ%	Λ%	0%	0%

8

9.9

Fuel Consumed (gal)

Fuel Economy (mph)

2

12.1

10

10.4

8

9.8

3

10.7

11

10.1

8

9.9

3

11

10

10.2

0%

-1%

50%

-12%

10%

-3%

0%

0%

50%

-9%

0%

-2%

0%

1%

0%

3%

-9%

1%

	On	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Adams Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	15	4	19	14	4	18	15	4	19	-7%	0%	-5%	0%	0%	0%	7%	0%	6%
Stops (#)	2649	529	3178	2353	561	2914	2435	571	3006	-11%	6%	-8%	-8%	8%	-5%	3%	2%	3%
Average Speed (mph)	16	10	15	16	10	15	16	10	15	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	46	8	54	44	8	52	45	8	53	-4%	0%	-4%	-2%	0%	-2%	2%	0%	2%
Fuel Economy (mph)	10.9	6.9	10.3	11.2	6.7	10.5	11.2	6.7	10.5	3%	-3%	2%	3%	-3%	2%	0%	0%	0%
r der zeerlerity (impri)	10.7	0.7	10.0	11.2	0.7	10.0	11.2	0.7	10.0	070	070	270	070	0.70	270	070	070	070
	Op	timized Condition		1	Alternative 2			Alternaitye 2B		% Chan	ge - Optimized to	Alt 2	% Chang	e - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Almond Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	5	6	11	5	5	11	5	5	10	0%	-17%	0%	0%	-17%	-9%	0%	0%	-9%
Stops (#)	595	577	1172	594	588	1182	559	588	1147	0%	2%	1%	-6%	2%	-2%	-6%	0%	-3%
Average Speed (mph)	12	11	12	12	11	12	12	12	12	0%	0%	0%	0%	9%	0%	0%	9%	0%
Fuel Consumed (gal)	11	11	23	11	11	23	11	11	22	0%	0%	0%	0%	0%	-4%	0%	0%	-4%
Fuel Economy (mph)	9	8.8	8.9	9.1	8.8	9.0	9.4	9	9.2	1%	0%	1%	4%	2%	3%	3%	2%	2%
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	Op	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Clinton Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	12	12	2	12	13	2	13	14	-	0%	8%	-	8%	17%	0%	8%	8%
Stops (#)	-	1379	1379	219	1447	1666	238	1501	1739	-	5%	21%	-	9%	26%	9%	4%	4%
Average Speed (mph)	-	14	14	17	14	14	15	14	14	-	0%	0%	-	0%	0%	-12%	0%	0%
Fuel Consumed (gal)	-	30	30	5	30	35	5	31	36	-	0%	17%	-	3%	20%	0%	3%	3%
Fuel Economy (mph)	-	10.7	10.7	12.3	10.7	10.9	11.5	10.4	10.6	-	0%	2%	-	-3%	-1%	-7%	-3%	-3%
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	Op	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Erie Boulevard - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	9	9	18	9	8	17	9	8	17	0%	-11%	-6%	0%	-11%	-6%	0%	0%	0%
Stops (#)	1407	1313	2720	1375	1192	2567	1362	1203	2565	-2%	-9%	-6%	-3%	-8%	-6%	-1%	1%	0%
Average Speed (mph)	15	17	16	15	18	16	15	18	16	0%	6%	0%	0%	6%	0%	0%	0%	0%
Fuel Consumed (gal)	25	29	53	25	27	52	24	27	52	0%	-7%	-2%	-4%	-7%	-2%	-4%	0%	0%
Fuel Economy (mph)	10.3	12.5	11.5	10.4	13	11.8	10.4	13	11.8	1%	4%	3%	1%	4%	3%	0%	0%	0%
-				•	•	•		•	•		•		•	•		•	•	
	Op	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Fayette Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	15	17	31	15	17	32	15	17	31	0%	0%	3%	0%	0%	0%	0%	0%	-3%
Stops (#)	1815	1757	3572	1794	1718	3512	1790	1789	3579	-1%	-2%	-2%	-1%	2%	0%	0%	4%	2%
Average Speed (mph)	12	12	12	12	12	12	12	12	12	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	33	36	70	33	36	70	33	37	70	0%	0%	0%	0%	3%	0%	0%	3%	0%
Fuel Economy (mph)	9.1	9.7	9.4	9.1	9.6	9.4	9.1	9.6	9.4	0%	-1%	0%	0%	-1%	0%	0%	0%	0%
						•			•			•						
	Op:	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Franklin Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	15	4	19	14	4	18	13	4	16	-7%	0%	-5%	-13%	0%	-16%	-7%	0%	-11%
Stops (#)	1973	632	2605	1688	492	2180	1510	489	1999	-14%	-22%	-16%	-23%	-23%	-23%	-11%	-1%	-8%
Average Speed (mph)	10	14	11	10	14	11	10	15	12	0%	0%	0%	0%	7%	9%	0%	7%	9%
Fuel Consumed (gal)	31	11	42	28	10	38	26	10	36	-10%	-9%	-10%	-16%	-9%	-14%	-7%	0%	-5%
Fuel Economy (mph)	7	9.8	7.7	7.3	10.7	8.2	7.8	10.9	8.6	4%	9%	6%	11%	11%	12%	7%	2%	5%
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	Ор	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Genesee Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	9	10	19	11	11	22	9	10	19	22%	10%	16%	0%	0%	0%	-18%	-9%	-14%
Stops (#)	1150	1180	2330	1400	1529	2929	1350	1397	2747	22%	30%	26%	17%	18%	18%	-4%	-9%	-6%
Average Speed (mph)	13	15	15	12	15	14	14	15	14	-8%	0%	-7%	8%	0%	-7%	17%	0%	0%
Fuel Consumed (gal)	22	27	49	25	30	54	23	28	52	14%	11%	10%	5%	4%	6%	-8%	-7%	-4%
Fuel Economy (mph)	9.9	11.8	10.9	9	10.7	9.9	9.6	11.2	10.5	-9%	-9%	-9%	-3%	-5%	-4%	7%	5%	6%
				-	•	•	-	•	*		•	•	+	•	•		•	

	Op	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to A	Alt 2	% Chang	e - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt 2	2B
Harrison Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	-	13	13	-	13	13	-	12	12	-	0%	0%	-	-8%	-8%	-	-8%	-8%
Stops (#)	-	1401	1401	-	1296	1296	-	1293	1293	-	-7%	-7%	-	-8%	-8%	-	0%	0%
Average Speed (mph)	-	12	12	-	12	12	-	12	12	-	0%	0%	-	0%	0%	-	0%	0%
Fuel Consumed (gal)	-	29	29	-	27	27	-	27	27	-	-7%	-7%	-	-7%	-7%	-	0%	0%
Fuel Economy (mph)	-	9.5	9.5	-	9.6	9.6	-	9.7	9.7	-	1%	1%	-	2%	2%	-	1%	1%
	•				•		•	•		•				•			•	
	Op:	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt 2	2B
Herald Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	5	1	5	4	0	5	4	0	5	-20%	0%	0%	-20%	NA	0%	0%	0%	0%
Stops (#)	510	61	571	481	60	541	486	54	540	-6%	-2%	-5%	-5%	-11%	-5%	1%	-10%	0%
Average Speed (mph)	7	12	8	8	13	9	8	14	9	14%	8%	13%	14%	17%	13%	0%	8%	0%
Fuel Consumed (gal)	8	1	9	8	1	9	8	1	9	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Economy (mph)	5.5	9.2	5.9	6.1	9.5	6.5	5.9	10.8	6.6	11%	NA	10%	7%	NA	12%	-3%	14%	2%
	Op:	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt :	2B
Jefferson Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	3	2	5	3	3	6	3	3	6	0%	50%	20%	0%	50%	20%	0%	0%	0%
Stops (#)	430	319	749	526	474	1000	529	477	1006	22%	49%	34%	23%	50%	34%	1%	1%	1%
Average Speed (mph)	10	10	10	11	11	11	11	10	10	10%	10%	10%	10%	0%	0%	0%	-9%	-9%
Fuel Consumed (gal)	6	5	11	7	7	14	8	7	15	17%	40%	27%	33%	40%	36%	14%	0%	7%
Fuel Economy (mph)	7.2	7.3	7.3	7.3	7.3	7.3	7.2	7.1	7.1	1%	0%	0%	0%	-3%	-3%	-1%	-3%	-3%
	Op:	timized Condition			Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to <i>F</i>	Alt 2	% Chang	e - Optimized to	Alt 2B		ange - Alt 2 to Alt :	2B
McBride Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	4	1	4	4	1	4	4	1	4	0%	0%	0%	0%	0%	0%	0%	0%	0%
Stops (#)	377	89	466	372	97	469	371	94	465	-1%	9%	1%	-2%	6%	0%	0%	-3%	-1%
Average Speed (mph)	8	11	9	8	11	9	8	11	9	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	7	2	8	6	2	8	6	2	8	-14%	0%	0%	-14%	0%	0%	0%	0%	0%
Fuel Economy (mph)	6.4	8.3	6.8	6.5	8.1	6.8	6.5	8.1	6.8	2%	-2%	0%	2%	-2%	0%	0%	0%	0%
										-								
		timized Condition			Alternative 2			Alternaitve 2B			ge - Optimized to <i>F</i>		J	e - Optimized to			ange - Alt 2 to Alt :	
Montgomery Street North - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	2	2	2	2	3	2	2	3	-	0%	50%	-	0%	50%	0%	0%	0%
Stops (#)	-	328	328	286	318	604	199	302	501	-	-3%	84%	=	-8%	53%	-30%	-5%	-17%
Average Speed (mph)	-	11	11	11	12	11	11	12	11	-	9%	0%	-	9%	0%	0%	0%	0%
Fuel Consumed (gal)	-	4	7	4	4	8	4	4	8	-	0%	14%	-	0%	14%	0%	0%	0%
Fuel Economy (mph)	-	7.4	7.4	7.4	7.5	7.5	8.2	7.7	7.9	-	1%	1%	-	4%	7%	11%	3%	5%
				ı			T									1		
		timized Condition	A II	NI	Alternative 2	A II		Alternaitve 2B	A II		ge - Optimized to A		·	e - Optimized to			ange - Alt 2 to Alt	
Montgomery Street South - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	-	4	4	0	8	8	0	5	5	-	100%	100%	-	25%	25%	0%	-38%	-38%
Stops (#)	-	301	301	80	441	521	62	347	409	-	47%	73%	-	15%	36%	-23%	-21%	-21%
Average Speed (mph)	-	10	10	14	7	8	15	9	10	-	-30%	-20%	-	-10%	0%	7%	29%	25%
Fuel Consumed (gal)	-	/	/	0.1	11	12	1 10.2	8	9	-	57%	71%	-	14%	29%	0%	-27%	-25%
Fuel Economy (mph)	-	8.3	8.4	9.1	6.7	6.9	10.2	7.6	7.9	-	-19%	-18%	-	-8%	-6%	12%	13%	14%
	0	timeles d'Osmalitism			Altamatica 2		1	Altamattus 2D		0/ Ch a.a	Ontineined to /	A I A O	0/ 01-22-2	. Outinal and to	ALL OD	0/ Ch	Alt O to Alt	20
Calina Ctract DNA	Northbound	timized Condition	All	Northbound	Alternative 2 Southbound	ΛII		Alternaitve 2B	ΛΙΙ		ge - Optimized to <i>F</i> Southbound	AIT 2 All	J	e - Optimized to	AIT ZB		ange - Alt 2 to Alt 2	ZB All
Salina Street - PM		Southbound				All	Northbound	Southbound	All	Northbound			Northbound	Southbound		Northbound	Southbound	
Total Delay (Hour)	17	13	30	14	10	25	14	14	28	-18%	-23%	-17%	-18%	8%	-7%	0%	40%	12%
Stops (#)	1727	1733	3460	1686	1343	3029	1548	1705	3253	-2%	-23%	-12%	-10%	-2%	-6%	-8%	27%	7%
Average Speed (mph)	11 2E	14	13	12	15	13	12	14	13	9%	7%	0%	9%	0%	0%	0%	-7%	0%
Fuel Consumed (gal)	35	34	69	31	28	59	30	35	65	-11%	-18%	-14%	-14%	3%	-6%	-3%	25%	10%
Fuel Economy (mph)	8.9	10.6	9.8	8.8	11.3	10	9	10.5	9.8	-1%	7%	2%	1%	-1%	0%	2%	-7%	-2%

	Op	timized Conditio	n		Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
State Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	15	12	27	14	12	27	14	12	26	-7%	0%	0%	-7%	0%	-4%	0%	0%	-4%
Stops (#)	1551	1240	2791	1447	1348	2795	1422	1231	2653	-7%	9%	0%	-8%	-1%	-5%	-2%	-9%	-5%
Average Speed (mph)	10	10	10	10	10	10	10	10	10	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	28	23	51	27	25	52	26	24	50	-4%	9%	2%	-7%	4%	-2%	-4%	-4%	-4%
Fuel Economy (mph)	7.4	8.2	7.8	7.7	8.0	7.8	7.8	8.2	8	4%	-2%	0%	5%	0%	3%	1%	2%	3%
	Or	otimized Conditio	n		Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	ΛIt 2	% Chanc	ge - Optimized to	ΛIt 2R	% Ch	ange - Alt 2 to Alt	2B
Townsend Street - PM	Northbound	Southbound	l All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	11	16	27	10	16	26	11	16	26	-9%	0%	-4%	0%	0%	-4%	10%	0%	0%
Stops (#)	1361	1338	2699	1126	1393	2519	1284	1351	2635	-17%	4%	-4%	-6%	1%	-4%	14%	-3%	5%
Average Speed (mph)	14	11	13	14	1373	13	14	11	13	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fuel Consumed (gal)	27	31	58	25	31	57	27	31	58	-7%	0%	-2%	0%	0%	0%	8%	0%	2%
Fuel Economy (mph)	10.5	9.4	9.9	11.1	9.2	10.1	10.6	9.4	10	6%	-2%	2%	1%	0%	1%	-5%	2%	-1%
i dei Economy (mpn)	10.5	7.4	7.7	11.1	7.2	10.1	10.0	7.4	10	070	-2 /0	2 70	1 70	070	1 70	-576	2 /0	- 1 /0
	Op	timized Conditio	n		Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Warren Street - PM	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All	Northbound	Southbound	All
Total Delay (Hour)	12	-	12	13	1	14	10	0	10	8%	-	17%	-17%	-	-17%	-23%	-100%	-29%
Stops (#)	1505	-	1505	1485	181	1666	1270	30	1300	-1%	-	11%	-16%	-	-14%	-14%	-83%	-22%
Average Speed (mph)	13	-	13	12	17	12	13	11	13	-8%	-	-8%	0%	=	0%	8%	-35%	8%
Fuel Consumed (gal)	29	-	29	28	3	31	25	0	25	-3%	-	7%	-14%	=	-14%	-11%	-100%	-19%
Fuel Economy (mph)	9.9	-	9.9	8.8	11.5	9.1	9.9	NA	9.9	-11%	-	-8%	0%	-	0%	13%	NA	9%
	Or	otimized Conditio	n	1	Alternative 2			Alternaitye 2B		% Chan	ge - Optimized to	Δlt 2	% Chanc	ge - Optimized to	Alt 2R	% Ch:	ange - Alt 2 to Alt	· 2B
Washington Street - PM	Eastbound	Westbound	l All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	5	14	19	5	15	20	5	15	20	0%	7%	5%	0%	7%	5%	0%	0%	0%
Stops (#)	628	1601	2229	648	1565	2213	690	1634	2324	3%	-2%	-1%	10%	2%	4%	6%	4%	5%
Average Speed (mph)	15	13	13	14	12	13	14	12	13	-7%	-8%	0%	-7%	-8%	0%	0%	0%	0%
Fuel Consumed (gal)	12	33	45	13	33	46	13	33	46	8%	0%	2%	8%	0%	2%	0%	0%	0%
Fuel Economy (mph)	10.8	9.8	10.1	10.5	9.7	9.9	10.2	9.6	9.8	-3%	-1%	-2%	-6%	-2%	-3%	-3%	-1%	-1%
ruoi Esenomy (mpn)	10.0	7.0	10.1	10.0	7	7.7	10.2	7.0	7.0	070	170	270	070	270	070	070	170	170
	Op	timized Conditio	n		Alternative 2			Alternaitve 2B		% Chan	ge - Optimized to	Alt 2	% Chang	je - Optimized to	Alt 2B	% Ch	ange - Alt 2 to Alt	2B
Water Street - PM	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All	Eastbound	Westbound	All
Total Delay (Hour)	2	1	3	2	2	4	2	2	4	0%	100%	33%	0%	100%	33%	0%	0%	0%
Stops (#)	269	176	445	294	225	519	286	227	513	9%	28%	17%	6%	29%	15%	-3%	1%	-1%
Average Speed (mph)	13	17	15	13	17	14	13	17	15	0%	0%	-7%	0%	0%	0%	0%	0%	7%
Fuel Consumed (nal)	5	1	0	6	5	10	5	5	10	20%	25%	11%	Λ%	25%	11%	17%	0%	Λ%

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13

5

10

Fuel Consumed (gal)

Fuel Economy (mph)

9

11.3

6

9.5

5

12

10

10.7

5

9.6

5

12

10

10.7

20%

-5%

25%

-8%

11%

-5%

0%

-4%

25%

-8%

11%

-5%

-17%

1%

0%

0%

0%

0%

## Arterial / Segment Reports

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Ch	ange - Alt 2 t	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ne		Travel Time			Travel Tim	е
Adams Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Onondaga to Clinton	5.3	22.5	15.3	С	10.9	28.1	12.3	С	10.9	28.1	12.3	С	106%	25%	-20%	106%	25%	-20%	0%	0%	0%
Clinton to Salina	54.7	69.7	3.4	F	47.5	62.5	3.8	F	47.5	62.5	3.8	F	-13%	-10%	12%	-13%	-10%	12%	0%	0%	0%
Salina to Warren	7.8	15.0	7.6	E	6.8	14.0	8.2	E	7.9	15.1	7.6	E	-13%	-7%	8%	1%	1%	0%	16%	8%	-7%
Warren to Harrison Place	0.8	9.1	14.4	С	0.8	9.1	14.4	С	0.8	9.1	14.4	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Harrison Place to Montgomery	1.1	15.8	14.8	С	6.7	21.4	10.9	D	2.9	17.6	13.2	С	509%	35%	-26%	164%	11%	-11%	-57%	-18%	21%
Montgomery to State	2.8	18.1	13.4	С	1.9	17.2	14.1	С	1.4	16.7	14.5	С	-32%	-5%	5%	-50%	-8%	8%	-26%	-3%	3%
State to Townsend	11.2	27.4	11.8	D	10.8	27.0	12.0	D	11.2	27.4	11.8	D	-4%	-1%	2%	0%	0%	0%	4%	1%	-2%
Townsend to McBride	1.3	17.8	18.5	С	1.3	17.8	18.5	С	1.3	17.8	18.5	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	85.0	195.4	10.0	D	86.7	197.1	9.9	D	83.9	194.3	10.1	D	2%	1%	-1%	-1%	-1%	1%	-3%	-1%	2%

		Optimized	Condition			Alterna	ative 2			Alterna	tive 2B		% Change	e - Optimize	d to Alt 2	% Change	e - Optimized	d to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е	-	Travel Tim	e	Ī	ravel Time	
Adams Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Montgomery	0.5	15.8	15.3	С	10.0	25.3	9.6	D	1.2	16.5	14.7	С	1900%	60%	-37%	140%	4%	-4%	-88%	-35%	53%
Montgomery to Harrison Place	0.4	15.1	15.4	С	0.0	14.7	15.9	С	0.1	14.8	15.8	С	-100%	-3%	3%	-75%	-2%	3%	0%	1%	-1%
Harrison Place to Warren	5.3	13.6	9.6	D	4.3	12.6	10.4	D	5.5	13.8	9.5	D	-19%	-7%	8%	4%	1%	-1%	28%	10%	-9%
Warren to Salina	31.7	38.9	2.9	F	31.1	38.3	3.0	F	31.7	38.9	2.9	F	-2%	-2%	3%	0%	0%	0%	2%	2%	-3%
Salina to Clinton	7.4	22.4	10.7	D	9.8	24.8	9.6	D	9.8	24.8	9.6	D	32%	11%	-10%	32%	11%	-10%	0%	0%	0%
Total	45.3	105.8	9.1	D	55.2	115.7	8.3	E	48.3	108.8	8.8	D	22%	9%	-9%	7%	3%	-3%	-13%	-6%	6%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimize	ed to Alt 2B	% Cha	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tir	me		Travel Time	9
Almond Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Harrison to Genesee	18.1	49.0	16.2	С	18.1	49.0	16.2	С	18.1	49.0	16.2	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Genesee to Fayette	5.9	22.2	11.6	D	3.9	20.2	12.8	D	3.9	20.2	12.8	D	-34%	-9%	10%	-34%	-9%	10%	0%	0%	0%
Fayette to Washington	4.1	19.4	12.5	D	4.3	19.6	12.4	D	4.1	19.4	12.5	D	5%	1%	-1%	0%	0%	0%	-5%	-1%	1%
Washington to Water	5.1	19.6	11.7	D	4.0	18.5	12.4	D	4.4	18.9	12.2	D	-22%	-6%	6%	-14%	-4%	4%	10%	2%	-2%
Water to Erie	1.9	8.0	12.2	D	6.5	12.6	7.7	E	2.5	8.6	11.3	D	242%	58%	-37%	32%	8%	-7%	-62%	-32%	47%
Tota	I 35.1	118.2	13.7	С	36.8	119.9	13.5	С	33.0	116.1	14.0	С	5%	1%	-1%	-6%	-2%	2%	-10%	-3%	4%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Chan	ige - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	9
Almond Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Erie	11.4	28.4	12.0	D	11.4	28.4	12.0	D	11.4	28.4	12.0	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Erie to Water	6.5	12.6	7.7	Е	5.1	11.2	8.7	E	5.8	11.9	8.2	E	-22%	-11%	13%	-11%	-6%	6%	14%	6%	-6%
Water to Washington	4.0	18.5	12.4	D	3.6	18.1	12.7	D	3.4	17.9	12.8	D	-10%	-2%	2%	-15%	-3%	3%	-6%	-1%	1%
Washington to Fayette	6.2	21.5	11.3	D	5.4	20.7	11.7	D	5.6	20.9	11.6	D	-13%	-4%	4%	-10%	-3%	3%	4%	1%	-1%
Fayette to Genesee	16.7	33.0	7.8	Е	15.1	31.4	8.2	E	18.3	34.6	7.4	E	-10%	-5%	5%	10%	5%	-5%	21%	10%	-10%
Total	44.8	114.0	10.3	D	40.6	109.8	10.6	D	44.5	113.7	10.3	D	-9%	-4%	3%	-1%	0%	0%	10%	4%	-3%

		Optimized	Condition			Alterna	ative 2			Alterna	ative 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized t	to Alt 2B	% Cha	ange - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		Tr	ravel Tim	ne		Travel Time			Travel Tim	е
Clinton Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Onondaga	-	-	-	-	10.3	24.3	11.5	D	10.3	24.3	11.5	D	-	-	-	-	-	-	0%	0%	0%
Onondaga to Ped Crossing	-	-	-	-	0.0	15.3	20.0	В	0.0	15.3	20.0	В	-	-	-	-	-	-	0%	0%	0%
Ped Crossing to Jefferson	-	-	-	-	2.4	25.7	21.8	В	8.8	32.1	17.4	С	-	-	-	-	-	-	267%	25%	-20%
Jefferson to Fayette	-	-	-	-	11.1	31.6	12.9	D	8.4	28.9	14.2	С	-	-	-	-	-	-	-24%	-9%	10%
Fayette to Washington	-	-	-	-	10.4	24.6	9.1	D	7.8	22.0	10.2	D	-	-	-	-	-	-	-25%	-11%	12%
Washington to Water	-	-	-	-	0.1	15.1	15.8	С	0.1	15.1	15.8	С	-	-	-	-	-	-	0%	0%	0%
Water to Genesee	-	-	-	-	8.1	20.4	9.6	D	12.7	25.0	7.8	E	-	-	-	-	-	-	57%	23%	-19%
Genesee to Harold	-	-	-	-	0.0	20.3	23.9	В	0.0	20.3	23.9	В	-	-	-	-	-	-	0%	0%	0%
Tota	ıl -	-	-	-	42.4	177.3	15.2	С	48.1	183.0	14.8	С	-	-	-	-	-	-	13%	3%	-3%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimize	ed to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Tim	е
Clinton Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Herald	15.5	30.8	7.9	Е	16.1	31.4	7.8	E	16.1	31.4	7.8	E	4%	2%	-1%	4%	2%	-1%	0%	0%	0%
Herald to Genesee	23.9	44.2	11.0	D	29.0	49.3	9.9	D	29.0	49.3	9.9	D	21%	12%	-10%	21%	12%	-10%	0%	0%	0%
Genesee to Water	0.6	12.9	15.2	С	0.3	12.6	15.5	С	0.3	12.6	15.5	С	-50%	-2%	2%	-50%	-2%	2%	0%	0%	0%
Water to Washington	6.3	21.3	11.2	D	13.9	28.9	8.3	E	11.6	26.6	9.0	E	121%	36%	-26%	84%	25%	-20%	-17%	-8%	8%
Washington to Fayette	12.0	26.2	8.6	E	16.8	31.0	7.3	E	16.4	30.6	7.4	E	40%	18%	-15%	37%	17%	-14%	-2%	-1%	1%
Fayette to Jefferson	4.0	24.5	16.7	С	5.3	25.8	15.9	С	6.9	27.4	14.9	С	33%	5%	-5%	73%	12%	-11%	30%	6%	-6%
Jefferson to Ped Crossing	1.0	24.3	23.0	В	0.1	23.4	23.9	В	0.1	23.4	23.9	В	-90%	-4%	4%	-90%	-4%	4%	0%	0%	0%
Ped Crossing to Gifford	9.2	24.5	12.5	D	12.9	28.2	10.8	D	14.6	29.9	10.2	D	40%	15%	-14%	59%	22%	-18%	13%	6%	-6%
Gifford to Adams	60.4	74.4	3.8	F	58.8	72.8	3.8	F	58.8	72.8	3.8	F	-3%	-2%	0%	-3%	-2%	0%	0%	0%	0%
Total	132.9	283.1	10.4	D	153.2	303.4	9.7	D	153.8	304.0	9.7	D	15%	7%	-7%	16%	7%	-7%	0%	0%	0%

		Optimized	Condition			Alterna	ative 2			Alterna	tive 2B		% Change	e - <mark>Optimiz</mark> e	d to Alt 2	% Change	- Optimized	d to Alt 2B	% Cha	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е	T	ravel Tim	е	-	Travel Time	:
Erie Blvd Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Warren	10.0	25.8	9.7	D	7.8	23.6	10.6	D	12.2	28.0	9.0	E	-22%	-9%	9%	22%	9%	-7%	56%	19%	-15%
Warren to Montgomery	6.8	20.4	13.3	С	12.0	25.6	10.6	D	6.7	20.3	13.4	С	76%	25%	-20%	-1%	0%	1%	-44%	-21%	26%
Montgomery to State	19.0	36.5	9.6	D	21.1	38.6	9.0	D	15.4	32.9	10.6	D	11%	6%	-6%	-19%	-10%	10%	-27%	-15%	18%
State to Townsend	14.8	31.0	10.5	D	13.0	29.2	11.1	D	12.4	28.6	11.3	D	-12%	-6%	6%	-16%	-8%	8%	-5%	-2%	2%
Townsend to McBride	10.7	26.2	11.8	D	8.9	24.4	12.7	D	6.8	22.3	13.9	С	-17%	-7%	8%	-36%	-15%	18%	-24%	-9%	9%
McBride to Almond	12.4	28.2	11.2	D	4.5	20.3	15.5	С	7.5	23.3	13.5	С	-64%	-28%	38%	-40%	-17%	21%	67%	15%	-13%
Total	73.7	168.1	10.8	D	67.3	161.7	11.3	D	61.0	155.4	11.7	D	-9%	-4%	5%	-17%	-8%	8%	-9%	-4%	4%

			Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Chan	nge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	е
Erie Blvd Westbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond		14.0	52.0	19.9	В	12.9	50.9	20.3	В	13.4	51.4	20.1	В	-8%	-2%	2%	-4%	-1%	1%	4%	1%	-1%
Almond to McBride		8.8	24.6	12.8	D	4.6	20.4	15.4	С	6.5	22.3	14.1	С	-48%	-17%	20%	-26%	-9%	10%	41%	9%	-8%
McBride to Townsend		15.2	30.7	10.1	D	21.0	36.5	8.5	E	19.8	35.3	8.8	Е	38%	19%	-16%	30%	15%	-13%	-6%	-3%	4%
Townsend to State		10.3	26.5	12.2	D	3.5	19.7	16.5	С	5.7	21.9	14.8	С	-66%	-26%	35%	-45%	-17%	21%	63%	11%	-10%
State to Oswego		20.7	38.2	9.1	D	16.2	33.7	10.4	D	17.5	35.0	10.0	D	-22%	-12%	14%	-15%	-8%	10%	8%	4%	-4%
	Total	69.0	172.0	13.6	С	58.2	161.2	14.5	С	62.9	165.9	14.1	С	-16%	-6%	7%	-9%	-4%	4%	8%	3%	-3%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized t	o Alt 2B	% Cha	inge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		Tı	ravel Tim	ne		Travel Time			Travel Tim	Э
Fayette Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to West SB	39.9	57.9	6.2	F	39.9	57.9	6.2	F	39.9	57.9	6.2	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
West SB West NB	4.1	12.7	10.7	D	4.1	12.7	10.7	D	4.1	12.7	10.7	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to Franklin	8.9	28.2	16.4	С	13.0	32.3	14.4	С	13.0	32.3	14.4	С	46%	15%	-12%	46%	15%	-12%	0%	0%	0%
Franklin to Clinton	8.3	26.2	13.7	С	16.7	34.6	10.3	D	15.6	33.5	10.7	D	101%	32%	-25%	88%	28%	-22%	-7%	-3%	4%
Clinton to Salina	6.1	21.4	11.4	D	4.6	19.9	12.2	D	5.0	20.3	12.0	D	-25%	-7%	7%	-18%	-5%	5%	9%	2%	-2%
Salina to Warren	12.0	28.3	9.1	D	7.5	23.8	10.8	D	9.9	26.2	9.8	D	-38%	-16%	19%	-18%	-7%	8%	32%	10%	-9%
Warren to Montgomery	3.3	16.9	16.1	С	8.4	22.0	12.4	D	6.3	19.9	13.7	С	155%	30%	-23%	91%	18%	-15%	-25%	-10%	10%
Montgomery to State	8.8	26.0	13.3	С	9.2	26.4	13.1	С	8.4	25.6	13.5	С	5%	2%	-2%	-5%	-2%	2%	-9%	-3%	3%
State to Townsend	15.6	32.1	10.3	D	9.6	26.1	12.6	D	10.5	27.0	12.2	D	-38%	-19%	22%	-33%	-16%	18%	9%	3%	-3%
Townsend to McBride	3.9	19.7	16.0	С	4.4	20.2	15.6	С	4.2	20.0	15.8	С	13%	3%	-3%	8%	2%	-1%	-5%	-1%	1%
McBride to Almond	5.6	21.1	14.7	С	6.1	21.6	14.4	С	7.4	22.9	13.5	С	9%	2%	-2%	32%	9%	-8%	21%	6%	-6%
Tota	116.5	290.5	11.7	D	123.5	297.5	11.4	D	124.3	298.3	11.4	D	6%	2%	-3%	7%	3%	-3%	1%	0%	0%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Chai	nge - Optimized	l to Alt 2	% Chan	ige - Optimized i	to Alt 2B	% Cha	nge - Alt 2 t	o Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		-	Travel Tim	ne
Fayette Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Irving to Almond	7.6	37.4	21.7	В	7.8	37.6	21.6	В	7.8	37.6	21.6	В	3%	1%	0%	3%	1%	0%	0%	0%	0%
Almond to McBride	5.5	21.0	14.8	С	5.7	21.2	14.6	С	6.1	21.6	14.4	С	4%	1%	-1%	11%	3%	-3%	7%	2%	-1%
McBride to Townsend	22.9	38.7	8.1	Е	19.5	35.3	8.9	E	19.3	35.1	9.0	Е	-15%	-9%	10%	-16%	-9%	11%	-1%	-1%	1%
Townsend to State	42.3	58.8	5.6	F	26.2	42.7	7.7	E	25.8	42.3	7.8	Е	-38%	-27%	38%	-39%	-28%	39%	-2%	-1%	1%
State to Montgomery	8.9	26.1	13.2	С	19.7	36.9	9.3	D	16.6	33.8	10.2	D	121%	41%	-30%	87%	30%	-23%	-16%	-8%	10%
Montgomery to Warren	5.0	18.6	14.7	С	7.3	20.9	13.0	С	6.1	19.7	13.8	С	46%	12%	-12%	22%	6%	-6%	-16%	-6%	6%
Warren to Salina	5.3	21.6	11.9	D	12.4	28.7	9.0	E	8.9	25.2	10.2	D	134%	33%	-24%	68%	17%	-14%	-28%	-12%	13%
Salina to Clinton	5.9	21.2	11.5	D	13.6	28.9	8.4	E	17.5	32.8	7.4	Е	131%	36%	-27%	197%	55%	-36%	29%	13%	-12%
Clinton to Franklin	18.6	36.5	9.8	D	10.2	28.1	12.7	D	14.2	32.1	11.2	D	-45%	-23%	30%	-24%	-12%	14%	39%	14%	-12%
Franklin to West NB	48.2	67.5	6.9	F	48.2	67.5	6.9	F	48.2	67.5	6.9	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to West SB	18.0	26.6	5.1	F	18.0	26.6	5.1	F	18.0	26.6	5.1	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tot	al 188.2	374.0	10.3	D	188.6	374.4	10.3	D	188.5	374.3	10.3	D	0%	0%	0%	0%	0%	0%	0%	0%	0%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Cha	nge - Optimized	to Alt 2	% Chan	ige - Optimized 1	to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Tim	е
Franklin Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Fayette	27.8	41.6	5.2	F	21.6	35.4	6.2	F	21.6	35.4	6.2	F	-22%	-15%	19%	-22%	-15%	19%	0%	0%	0%
Fayette to Washington	9.3	23.5	9.6	D	5.9	20.1	11.2	D	5.4	19.6	11.5	D	-37%	-14%	17%	-42%	-17%	20%	-8%	-2%	3%
Washinton to Erie	7.5	24.2	13.8	С	10.6	27.3	12.2	D	8.6	25.3	13.2	С	41%	13%	-12%	15%	5%	-4%	-19%	-7%	8%
Erie to Genesee	15.9	32.8	8.2	Е	16.9	33.8	7.9	Е	17.3	34.2	7.9	E	6%	3%	-4%	9%	4%	-4%	2%	1%	0%
Genesee to Willow	4.0	10.9	10.0	D	5.5	12.4	8.8	Е	6.0	12.9	8.5	E	38%	14%	-12%	50%	18%	-15%	9%	4%	-3%
Willow to Herald	9.2	23.8	9.7	D	10.4	25.0	9.3	D	10.2	24.8	9.3	D	13%	5%	-4%	11%	4%	-4%	-2%	-1%	0%
Total	73.7	156.8	8.8	Е	70.9	154.0	9.0	D	69.1	152.2	9.1	D	-4%	-2%	2%	-6%	-3%	3%	-3%	-1%	1%

		Optimized	Condition			Alterna	ative 2			Alterna	ative 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Chan	ge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	е
Franklin Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Websters Landing to Herald	15	31.6	10.5	D	14	30.6	10.9	D	13.9	30.5	10.9	D	-7%	-3%	4%	-7%	-3%	4%	-1%	0%	0%
Herald to Willow	1.3	15.9	14.6	С	1.8	16.4	14.1	С	2.1	16.7	13.9	С	38%	3%	-3%	62%	5%	-5%	17%	2%	-1%
Willow to Genesee	14.8	21.7	5	F	16.2	23.1	4.7	F	17.2	24.1	4.5	F	9%	6%	-6%	16%	11%	-10%	6%	4%	-4%
Genesee to Erie	7.4	24.3	11.1	D	8.7	25.6	10.5	D	8.8	25.7	10.5	D	18%	5%	-5%	19%	6%	-5%	1%	0%	0%
Erie to Washington	2.1	18.8	17.7	С	2	18.7	17.8	С	1.7	18.4	18.1	С	-5%	-1%	1%	-19%	-2%	2%	-15%	-2%	2%
Washington to Fayette	14.4	28.6	7.9	E	12.5	26.7	8.4	E	17.1	31.3	7.2	E	-13%	-7%	6%	19%	9%	-9%	37%	17%	-14%
Total	55	140.9	10.7	D	55.2	141.1	10.6	D	60.8	146.7	10.2	D	0%	0%	-1%	11%	4%	-5%	10%	4%	-4%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Chan	ge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	;
Genesee Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Wallace	6.1	24.5	15.1	С	6.8	25.2	14.6	С	6.8	25.2	14.6	С	11%	3%	-3%	11%	3%	-3%	0%	0%	0%
Wallace to Franklin	32.2	48.4	6.7	F	18.5	34.7	9.3	D	16.1	32.3	10.0	D	-43%	-28%	39%	-50%	-33%	49%	-13%	-7%	8%
Franklin to Clinton	14.6	31.0	10.6	D	49.0	65.4	5.0	F	40.9	57.3	5.7	F	236%	111%	-53%	180%	85%	-46%	-17%	-12%	14%
Clinton to Salina	7.8	24.0	10.7	D	7.2	23.4	11.0	D	5.5	21.7	11.8	D	-8%	-3%	3%	-29%	-10%	10%	-24%	-7%	7%
Total	60.7	127.9	10.0	D	81.5	148.7	8.6	E	69.3	136.5	9.4	D	34%	16%	-14%	14%	7%	-6%	-15%	-8%	9%

		Optimized	Condition			Alterna	ative 2			Alterna	tive 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	9				Travel	Arterial		T	ravel Tim	ne		Travel Time			Travel Time	е
Genesee Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	4.3	20.5	12.5	D	12.7	28.9	8.9	E	7.8	24.0	10.7	D	195%	41%	-29%	81%	17%	-14%	-39%	-17%	20%
Clinton to Franklin	25.1	41.5	7.9	E	13.2	29.6	11.1	D	13.1	29.5	11.1	D	-47%	-29%	41%	-48%	-29%	41%	-1%	0%	0%
Franklin to Wallace	4.1	20.3	15.9	С	4.2	20.4	15.8	С	5.0	21.2	15.2	С	2%	0%	-1%	22%	4%	-4%	19%	4%	-4%
Total	33.5	82.3	11.0	D	30.1	78.9	11.5	D	25.9	74.7	12.1	D	-10%	-4%	5%	-23%	-9%	10%	-14%	-5%	5%

	Optimized	Condition			Alterna	itive 2			Alterna	ative 2B		% Char	ige - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	Э
Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
16.0	34.3	10.7	D	16.0	34.3	10.7	D	16.0	34.3	10.7	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
6.7	27.9	15.2	С	7.5	28.7	14.8	С	7.7	28.9	14.7	С	12%	3%	-3%	15%	4%	-3%	3%	1%	-1%
2.1	17.4	13.9	С	5.6	20.9	11.6	D	4.0	19.3	12.5	D	167%	20%	-17%	90%	11%	-10%	-29%	-8%	8%
6.2	24.5	14.9	С	4.8	23.1	15.9	С	4.9	23.2	15.8	С	-23%	-6%	7%	-21%	-5%	6%	2%	0%	-1%
20.3	35.5	6.8	F	21.1	36.3	6.6	F	20.2	35.4	6.8	F	4%	2%	-3%	0%	0%	0%	-4%	-2%	3%
51.3	139.6	11.7	D	55.0	143.3	11.4	D	52.8	141.1	11.6	D	7%	3%	-3%	3%	1%	-1%	-4%	-2%	2%
	Delay (s) 16.0 6.7 2.1 6.2 20.3	Signal Delay (s)         Travel Time (s)           16.0         34.3           6.7         27.9           2.1         17.4           6.2         24.5           20.3         35.5	Delay (s)         Time (s)         Speed           16.0         34.3         10.7           6.7         27.9         15.2           2.1         17.4         13.9           6.2         24.5         14.9           20.3         35.5         6.8	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS           16.0         34.3         10.7         D           6.7         27.9         15.2         C           2.1         17.4         13.9         C           6.2         24.5         14.9         C           20.3         35.5         6.8         F	Signal Delay (s)         Travel Time (s)         Arterial Speed Speed LOS Delay (s)         Speed LOS Delay (s)           16.0         34.3         10.7         D         16.0           6.7         27.9         15.2         C         7.5           2.1         17.4         13.9         C         5.6           6.2         24.5         14.9         C         4.8           20.3         35.5         6.8         F         21.1	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Signal Delay (s)         Travel Time (s)           16.0         34.3         10.7         D         16.0         34.3           6.7         27.9         15.2         C         7.5         28.7           2.1         17.4         13.9         C         5.6         20.9           6.2         24.5         14.9         C         4.8         23.1           20.3         35.5         6.8         F         21.1         36.3	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Signal Travel Time (s)         Arterial Speed           16.0         34.3         10.7         D         16.0         34.3         10.7           6.7         27.9         15.2         C         7.5         28.7         14.8           2.1         17.4         13.9         C         5.6         20.9         11.6           6.2         24.5         14.9         C         4.8         23.1         15.9           20.3         35.5         6.8         F         21.1         36.3         6.6	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Signal Travel Time (s)         Arterial Delay (s)         Arterial Time (s)         Arterial Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         Time (s)         Speed LOS Delay (s)	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s) Time (s)         Speed Delay (s)         LOS Delay (s)         Time (s) Speed         LOS Delay (s)         Delay (s) Delay (s)         Time (s) Speed         LOS Delay (s) Delay (s)         Delay (s) Delay (s)	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s) Time (s)         Speed Delay (s)         LOS Delay (s)         Time (s)         Speed Delay (s)         LOS Delay (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Time (s)         Speed Delay (s)         Time (s)         Speed Del	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s) Time (s)         Speed Delay (s)         LOS Delay (s)         Time (s) Speed         LOS Delay (s) Time (s)         Speed Delay (s) Time (s)	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s) Time (s)         Speed Delay (s)         LOS Delay (s)         Time (s) Speed Time (s)         Speed Delay (s)         Time (s) Time (s) Time (s)         Speed Delay (s) Time (s)         Sp	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s) Time (s)         Speed Delay (s)         LOS Delay (s)         Signal Delay (s)         Travel Delay (s)	Signal Delay (s)         Travel Time (s)         Arterial Delay (s)         Arterial Time (s)         Speed Delay (s)         LOS Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Time (s)         Speed Delay (s)         LOS Signal Delay (s)         Signal Delay (s)         Column (s)         Speed Delay (s)         LOS Signal Delay (s)         Column (s)         Speed Delay (s)         LOS Signal Delay (s)         Column (s)         Speed Delay (s)         LOS Signal Delay (s)         Column (s)         Column (s)         Speed Delay (s)         LOS Signal Delay (s)         Column (s)         Column (s)         Column (s)         Column (s)         Column (s)         Column (s)	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Travel Time (s)         Travel Time (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Speed         LOS         Signal Delay (s)	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s) Speed         LOS Delay (s)         Speed LOS Delay (s)         Travel Delay (s)         Travel Time (s) Speed LOS Signal Delay (s)         Travel Time (s) Signal Delay (s)         Travel Time (s) Signal Delay (s)         Arterial Speed Signal Delay (s)           16.0         34.3         10.7         D         16.0         34.3         10.7         D         0%         0%         0%         0%           6.7         27.9         15.2         C         7.5         28.7         14.8         C         7.7         28.9         14.7         C         12%         3%         -3%         15%           2.1         17.4         13.9         C         5.6         20.9         11.6         D         4.0         19.3         12.5         D         167%         20%         -17%         90%           6.2         24.5         14.9         C         4.8         23.1         15.9         C         4.9         23.2         15.8         C         -23%         -6%         7%         -21%           20.3         35.5         6.8         F         21.1         36.3         6.6         F         20.2         35.4<	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS Delay (s)         Time (s)         Speed LOS Delay (s)         Time (s)         Speed LOS Delay (s)         Time (s)         Speed LOS Delay (s)         Time (s)         Speed LOS Delay (s)         Time (s)         Speed LOS Signal Delay (s)         Travel Time (s)         Time (s)         Speed LOS Signal Delay (s)         Time (s)         Signal Delay (s)         Travel Time (s)         Signal Delay (s)         Time (s)         Speed LOS Signal Delay (s)         Time (s)         Signal Delay (s)         Time (s)         Speed LOS Signal Delay (s)         Time (s)         Speed LOS Signal Delay (s)         Travel Time (s)         Speed LOS Signal Delay (s)         Travel Time (s)         Speed LOS Signal Delay (s)         Travel Time (s)         Speed LOS Signal Delay (s)         Signal Delay (s)         Travel Time (s)         Speed LOS Signal Delay (s)         Signal Delay (s	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed         Signal Delay (s)         Arterial Speed         Signal Delay (s)         Travel Time (s)         Arterial Speed         Signal Delay (s)         Signal Delay (s)	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed Signal Delay (s)         Ar	Signal Delay (s)         Travel Time (s)         Arterial Speed         LOS         Signal Delay (s)         Travel Time (s)         Arterial Speed Signal Delay (s)         Signal Delay (s)         Signal Delay (s)         Travel Time (s)         Arterial Speed Signal Delay (s)         Signal Delay (s)

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	:
Herald Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Franklin	9.9	22.9	9.0	E	10.4	23.4	8.8	E	10.4	23.4	8.8	Е	5%	2%	-2%	5%	2%	-2%	0%	0%	0%
Franklin to Clinton	20.1	37.0	7.2	Е	29.4	46.3	5.8	F	37.1	54.0	4.9	F	46%	25%	-19%	85%	46%	-32%	26%	17%	-16%
Clinton to Salina	7.9	23.2	10.5	D	5.7	21.0	11.6	D	6.7	22.0	11.0	D	-28%	-9%	10%	-15%	-5%	5%	18%	5%	-5%
Total	37.9	83.1	8.6	Е	45.5	90.7	7.9	Е	54.2	99.4	7.2	Е	20%	9%	-8%	43%	20%	-16%	19%	10%	-9%

		Optimized	Condition			Alterna	ative 2			Alterna	ative 2B		% Char	nge - Optimized	to Alt 2	% Chang	ge - Optimized	d to Alt 2B	% Cha	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	е	1	ravel Time	:
Herald Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	13.5	28.8	8.4	Е	12.3	27.6	8.8	Е	11.2	26.5	9.2	D	-9%	-4%	5%	-17%	-8%	10%	-9%	-4%	5%
Clinton to Franklin	0.0	16.9	15.8	С	0.0	16.9	15.8	С	0.0	16.9	15.8	С	0%	0%	0%	NA	0%	0%	NA	0%	0%
Total	13.5	45.7	11.2	D	12.3	44.5	11.5	D	11.2	43.4	11.8	D	-9%	-3%	3%	-17%	-5%	5%	-9%	-2%	3%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Chan	ge - Optimized	to Alt 2	% Chan	ge - Optimized t	o Alt 2B	% CI	nange - Alt 2 to A	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Jefferson Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Clinton	16.9	28.5	6.5	F	21.5	33.1	5.6	F	20.8	32.4	5.7	F	27%	16%	-14%	23%	14%	-12%	-3%	-2%	2%
Clinton to Salina	13.9	29.4	8.3	Е	12.8	28.3	8.7	Е	14.5	30.0	8.2	Е	-8%	-4%	5%	4%	2%	-1%	13%	6%	-6%
Salina to Warren	8.9	25.4	10.3	D	9.3	25.8	10.1	D	7.6	24.1	10.8	D	4%	2%	-2%	-15%	-5%	5%	-18%	-7%	7%
Warren to Montgomery	11.5	18.6	6.0	F	9.2	16.3	6.9	F	9.2	16.3	6.9	F	-20%	-12%	15%	-20%	-12%	15%	0%	0%	0%
Montgomery to State	35.4	49.6	4.5	F	30.7	44.9	5.0	F	32.4	46.6	4.8	F	-13%	-9%	11%	-8%	-6%	6%	6%	4%	-4%
Total	86.6	151.5	6.8	F	83.5	148.4	6.9	F	84.5	149.4	6.9	F	-4%	-2%	1%	-2%	-1%	1%	1%	1%	0%

TOLAI	00.0	151.5	0.0	Г	03.3	140.4	0.9	Г	04.3	149.4	0.9	Г	-470	-270	1 70	-270	-170	I 70	170	170	0%
_																					
		Optimized	Condition			Alterna	itive 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	1	Travel Tim	е
Jefferson Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Onondaga	-	-	-	-	13.3	27.5	8.2	E	13.5	27.7	8.1	Е	-	-	-	-	-	-	-	-	-
Onondaga to Warren	8.1	25.0	10.7	D	8.9	25.8	10.4	D	7.7	24.6	10.9	D	10%	3%	-3%	-5%	-2%	2%	-13%	-5%	5%
Warren to Salina	12.6	29.1	9.0	Е	13.5	30.0	8.7	E	14.7	31.2	8.4	Е	7%	3%	-3%	17%	7%	-7%	9%	4%	-3%
Salina to Clinton	17.7	33.2	7.4	E	19.7	35.2	7.0	F	20.9	36.4	6.7	F	11%	6%	-5%	18%	10%	-9%	6%	3%	-4%
Total	38.4	87.3	8.9	E	55.4	118.5	8.4	E	56.8	119.9	8.3	E	44%	36%	-6%	48%	37%	-7%	3%	1%	-1%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Change	e - Optimize	d to Alt 2	% Chan	ge - Optimized t	to Alt 2B	% Cha	ange - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е		Travel Time			Travel Time	9
McBride Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Genesee	15.9	27.9	6.8	F	17.1	29.1	6.5	F	17.1	29.1	6.5	F	8%	4%	-4%	8%	4%	-4%	0%	0%	0%
Genesee to Fayette	14.0	29.3	8.3	E	17.4	32.7	7.4	Е	15.8	31.1	7.8	E	24%	12%	-11%	13%	6%	-6%	-9%	-5%	5%
Fayette to Washington	15.5	30.5	7.8	E	13.0	28.0	8.5	E	13.9	28.9	8.3	Е	-16%	-8%	9%	-10%	-5%	6%	7%	3%	-2%
Washington to Water	12.6	26.7	8.4	E	16.7	30.8	7.3	Е	12.6	26.7	8.4	E	33%	15%	-13%	0%	0%	0%	-25%	-13%	15%
Water to Erie	10.7	16.8	5.8	F	16.3	22.4	4.4	F	13.1	19.2	5.1	F	52%	33%	-24%	22%	14%	-12%	-20%	-14%	16%
Total	68.7	131.2	7.6	E	80.5	143.0	6.9	F	72.5	135.0	7.4	E	17%	9%	-9%	6%	3%	-3%	-10%	-6%	7%

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Cha	nge - Optimized	to Alt 2	% Char	ige - Optimized i	to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		T	ravel Time	9
McBride Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Erie	19.1	51.9	17.2	С	19.1	51.9	17.2	С	19.1	51.9	17.2	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Erie to Water	17.9	24.0	4.1	F	15.3	21.4	4.6	F	15.9	22.0	4.4	F	-15%	-11%	12%	-11%	-8%	7%	4%	3%	-4%
Water to Washington	7.8	21.9	10.2	D	6.7	20.8	10.8	D	7.6	21.7	10.3	D	-14%	-5%	6%	-3%	-1%	1%	13%	4%	-5%
Washington to Fayette	12.0	27.0	8.8	E	13.8	28.8	8.3	E	13.1	28.1	8.5	E	15%	7%	-6%	9%	4%	-3%	-5%	-2%	2%
Fayette to Genesee	2.3	17.6	13.8	С	5.8	21.1	11.5	D	6.5	21.8	11.2	D	152%	20%	-17%	183%	24%	-19%	12%	3%	-3%
Total	59.1	142.4	11.9	D	60.7	144.0	11.8	D	62.2	145.5	11.7	D	3%	1%	-1%	5%	2%	-2%	2%	1%	-1%

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Change	e - Optimize	ed to Alt 2	% Chang	e - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ne		Travel Tim	ne	T	ravel Time	
Montgomery Street NB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Fayette	-	-	-	-	12.7	33.2	12.3	D	15.3	35.8	11.4	D	-	-	-	-	-	-	0%	8%	-7%
Fayette to Washington	-	-	-	-	10.1	24.1	9.2	D	9.6	23.6	9.4	D	-	-	-	-	-	-	0%	-2%	2%
Washington to Water	-	-	-	-	5.3	19.4	11.5	D	5.8	19.9	11.2	D	-	-	-	-	-	-	0%	3%	-3%
Water to Erie	-	-	-	-	13.3	19.5	5.0	F	14.6	20.8	4.7	F	-	-	-	-	-	-	0%	7%	-6%
Tota	al -	-	-	-	41.4	96.2	9.9	D	45.3	100.1	9.5	D	-	-	-	-	-	-	9%	4%	-4%

			Optimized	Condition			Alterna	ative 2			Alterna	ntive 2B		% Char	ige - Optimized	to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	S	ignal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time	е	T	ravel Time	<del>)</del>
Montgomery Street SB	De	elay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Erie to Water		13.0	19.2	5.1	F	12.5	18.7	5.3	F	15.2	21.4	4.6	F	-4%	-3%	4%	17%	11%	-10%	22%	14%	-13%
Water to Washington		11.5	25.6	8.7	Ε	15.3	29.4	7.6	Е	15.6	29.7	7.5	Е	33%	15%	-13%	36%	16%	-14%	2%	1%	-1%
Washington to Fayette		17.6	31.6	7.0	Е	15.5	29.5	7.5	Е	18.3	32.3	6.9	F	-12%	-7%	7%	4%	2%	-1%	18%	9%	-8%
To	otal 4	42.1	76.4	7.1	Е	43.3	77.6	7.0	Е	49.1	83.4	6.5	F	3%	2%	-1%	17%	9%	-8%	13%	7%	-7%

		Optimized	Condition			Altern	Alternative 2			Alterna	tive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	е
Montgomery Street NB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	0.0	13.8	15.9	С	0.0	13.8	15.9	С	0.0	13.8	15.9	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adams to Harrison	-	-	-	-	13.8	32.9	11.6	D	16.3	35.4	10.8	D	-	-	-	-	-	-	0%	8%	-7%
Harrison to Madison	-	-	-	-	5.3	20.4	14.8	С	4.3	19.4	15.5	С	-	-	-	-	-	-	0%	-5%	5%
Madison to Jefferson	-	-	-	-	0.0	19.5	20.0	В	0.0	19.5	20.0	В	-	-	-	-	-	-	0%	0%	0%
Total	-	-	-	-	19.1	86.6	14.9	С	20.6	88.1	14.7	С	-	-	-	-	-	-	8%	2%	-1%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimized	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	e	T	ravel Time	
Montgomery Street SB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Madison	7.7	27.2	14.3	С	13.8	33.3	11.7	D	11.0	30.5	12.8	D	79%	22%	-18%	43%	12%	-10%	-20%	-8%	9%
Madison to Harrison	6.8	21.9	13.8	С	9.9	25.0	12.1	D	4.7	19.8	15.2	С	46%	14%	-12%	-31%	-10%	10%	-53%	-21%	26%
Harrison to Adams	59.0	78.1	4.9	F	0.0	19.1	20.0	В	0.0	19.1	20.0	В	-100%	-76%	308%	-100%	-76%	308%	0%	0%	0%
Tota	73.5	127.2	8.4	E	23.7	77.4	13.9	С	15.7	69.4	15.5	С	-68%	-39%	65%	-79%	-45%	85%	-34%	-10%	12%

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Char	nge - Optimized	l to Alt 2	% Chang	ge - Optimize	d to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time	!		Travel Tim	пе	Т	ravel Time	e
Salina Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	52.5	64.2	2.9	F	52.5	64.2	2.9	F	52.5	64.2	2.9	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adams to Centro Hub	0.4	3.7	14.0	С	0.4	3.7	14.0	С	0.4	3.7	14.0	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Centro Hub to Harrsion	25.4	43.9	8.4	E	25.2	43.7	8.5	E	25.2	43.7	8.5	E	-1%	0%	1%	-1%	0%	1%	0%	0%	0%
Harrison to Ped Crossing	4.0	20.1	16.0	С	4.4	20.5	15.7	С	2.4	18.5	17.4	С	10%	2%	-2%	-40%	-8%	9%	-45%	-10%	11%
Ped Crossing Jefferson	17.5	35.0	10.0	D	15.6	33.1	10.6	D	16.9	34.4	10.2	D	-11%	-5%	6%	-3%	-2%	2%	8%	4%	-4%
Jefferson to Fayette	13.5	34.0	12.0	D	9.4	29.9	13.7	С	8.2	28.7	14.3	С	-30%	-12%	14%	-39%	-16%	19%	-13%	-4%	4%
Fayette to Washington	1.3	15.5	14.5	С	1.6	15.8	14.2	С	1.0	15.2	14.8	С	23%	2%	-2%	-23%	-2%	2%	-38%	-4%	4%
Washington to Water	2.5	17.2	13.6	С	6.2	20.9	11.2	D	4.6	19.3	12.1	D	148%	22%	-18%	84%	12%	-11%	-26%	-8%	8%
Water to James	15.8	27.5	6.7	F	2.9	14.6	12.7	D	12.3	24.0	7.7	E	-82%	-47%	90%	-22%	-13%	15%	324%	64%	-39%
James to Willow	3.7	20.0	13.0	D	3.6	19.9	13.0	С	5.5	21.8	11.9	D	-3%	-1%	0%	49%	9%	-8%	53%	10%	-8%
Willow to Herald	4.0	19.0	12.6	D	4.3	19.3	12.4	D	3.2	18.2	13.1	С	8%	2%	-2%	-20%	-4%	4%	-26%	-6%	6%
Tota	al 140.6	300.1	9.4	D	126.1	285.6	9.9	D	132.2	291.7	9.7	D	-10%	-5%	5%	-6%	-3%	3%	5%	2%	-2%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ige - Optimized i	to Alt 2B	% Cha	nge - Alt 2 to	o Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Tim	ne
Salina Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Herald	18.7	52.6	17.6	С	18.7	52.6	17.6	С	18.7	52.6	17.6	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Herald to Willow	2.1	17.1	14.0	С	2.6	17.6	13.6	С	2.6	17.6	13.6	С	24%	3%	-3%	24%	3%	-3%	0%	0%	0%
Willow to Genesee	5.6	21.9	11.8	D	8.1	24.4	10.6	D	9.2	25.5	10.2	D	45%	11%	-10%	64%	16%	-14%	14%	5%	-4%
Genesee to Water	3.8	15.5	12.0	D	5.0	16.7	11.1	D	4.1	15.8	11.7	D	32%	8%	-8%	8%	2%	-3%	-18%	-5%	5%
Water to Washington	8.7	23.4	10.0	D	14.8	29.5	7.9	E	8.7	23.4	10.0	D	70%	26%	-21%	0%	0%	0%	-41%	-21%	27%
Washington to Fayette	19.6	33.8	6.7	F	21.4	35.6	6.3	F	20.1	34.3	6.6	F	9%	5%	-6%	3%	1%	-1%	-6%	-4%	5%
Fayette to Jefferson	7.3	27.8	14.7	С	1.5	22.0	18.6	С	2.3	22.8	17.9	С	-79%	-21%	27%	-68%	-18%	22%	53%	4%	-4%
Jefferson to Ped Crossing	2.6	20.1	17.4	С	3.1	20.6	17.0	С	3.0	20.5	17.1	С	19%	2%	-2%	15%	2%	-2%	-3%	0%	1%
Ped Crossing to Onondaga	12.0	28.1	11.5	D	9.4	25.5	12.6	D	14.0	30.1	10.7	D	-22%	-9%	10%	17%	7%	-7%	49%	18%	-15%
Onondaga to Centro Hub	38.6	57.1	6.5	F	37.4	55.9	6.6	F	38.6	57.1	6.5	F	-3%	-2%	2%	0%	0%	0%	3%	2%	-2%
Centro Hub to Adams	2.6	5.9	8.8	E	3.0	6.3	8.2	E	2.6	5.9	8.8	E	15%	7%	-7%	0%	0%	0%	-13%	-6%	7%
Total	121.6	303.3	11.8	D	125.0	306.7	11.6	D	123.9	305.6	11.7	D	3%	1%	-2%	2%	1%	-1%	-1%	0%	1%

		Optimized	d Condition			Alterna	ative 2			Alterna	tive 2B		% Change	e - Optimize	ed to Alt 2	% Change	e - Optimized	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ne		Travel Tim	ie	T	ravel Time	9
State Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	32.4	48.7	6.7	F	32.8	49.1	6.6	F	32.8	49.1	6.6	F	1%	1%	-1%	1%	1%	-1%	0%	0%	0%
Adams to Harrison	19.0	38.1	10.0	D	17.2	36.3	10.5	D	17.3	36.4	10.5	D	-9%	-5%	5%	-9%	-4%	5%	1%	0%	0%
Harrison to Madison	11.3	26.4	11.4	D	11.9	27.0	11.2	D	11.5	26.6	11.3	D	5%	2%	-2%	2%	1%	-1%	-3%	-1%	1%
Madison to Jefferson	2.7	22.1	17.6	С	3.8	23.2	16.8	С	3.4	22.8	17.0	С	41%	5%	-5%	26%	3%	-3%	-11%	-2%	1%
Jefferson to Genesee	28.4	44.1	5.6	F	21.3	37.0	6.7	F	26.9	42.6	5.8	F	-25%	-16%	20%	-5%	-3%	4%	26%	15%	-13%
Genesee to Fayette	21.1	30.2	4.8	F	25.9	35.0	4.1	F	27.0	36.1	4.0	F	23%	16%	-15%	28%	20%	-17%	4%	3%	-2%
Fayette to Washington	9.3	23.8	9.7	D	9.9	24.4	9.4	D	9.9	24.4	9.4	D	6%	3%	-3%	6%	3%	-3%	0%	0%	0%
Washington to Water	5.8	19.6	11.2	D	5.7	19.5	11.3	D	5.9	19.7	11.1	D	-2%	-1%	1%	2%	1%	-1%	4%	1%	-2%
Water to Erie	28.5	34.9	2.9	F	19.9	26.3	3.8	F	21.5	27.9	3.6	F	-30%	-25%	31%	-25%	-20%	24%	8%	6%	-5%
	Total 158.5	287.9	8.1	E	148.4	277.8	8.4	E	156.2	285.6	8.2	E	-6%	-4%	4%	-1%	-1%	1%	5%	3%	-2%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	l to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time	(		Travel Tim	ne	T	ravel Tim	е
State Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Erie	20.9	42.4	10.1	D	26.8	48.3	8.9	Е	26.0	47.5	9.1	D	28%	14%	-12%	24%	12%	-10%	-3%	-2%	2%
Erie to Water	6.4	12.8	7.9	E	6.6	13.0	7.8	Е	6.8	13.2	7.6	E	3%	2%	-1%	6%	3%	-4%	3%	2%	-3%
Water to Washington	9.0	22.8	9.6	D	7.6	21.4	10.3	D	11.1	24.9	8.8	E	-16%	-6%	7%	23%	9%	-8%	46%	16%	-15%
Washington to Fayette	8.9	23.4	9.8	D	8.1	22.6	10.2	D	6.0	20.5	11.2	D	-9%	-3%	4%	-33%	-12%	14%	-26%	-9%	10%
Fayette to Onondaga	9.0	18.1	8.0	E	6.5	15.6	9.3	D	2.3	11.4	12.7	D	-28%	-14%	16%	-74%	-37%	59%	-65%	-27%	37%
Onondaga to Jefferson	3.2	18.9	13.2	С	6.2	21.9	11.4	D	7.8	23.5	10.6	D	94%	16%	-14%	144%	24%	-20%	26%	7%	-7%
Jefferson to Madison	5.8	25.2	15.4	С	7.9	27.3	14.2	С	7.8	27.2	14.3	С	36%	8%	-8%	34%	8%	-7%	-1%	0%	1%
Madison to Harrison	3.5	18.6	16.2	С	3.0	18.1	16.6	С	2.9	18.0	16.7	С	-14%	-3%	2%	-17%	-3%	3%	-3%	-1%	1%
Harrison to Adams	55.4	74.5	5.1	F	55.4	74.5	5.1	F	55.4	74.5	5.1	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	122.1	256.7	9.5	D	128.1	262.7	9.3	D	126.1	260.7	9.4	D	5%	2%	-2%	3%	2%	-1%	-2%	-1%	1%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	l to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ie	T	ravel Tim	е
Townsend Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	38.8	57.1	6.4	F	38.8	57.1	6.4	F	38.8	57.1	6.4	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adams to Harrison	14.0	32.7	11.4	D	14.0	32.7	11.4	D	14.0	32.7	11.4	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Harrison to Genesee	4.8	39.9	24.0	В	6.4	41.5	23.1	В	5.3	40.4	23.7	В	33%	4%	-4%	10%	1%	-1%	-17%	-3%	3%
Genesee to Fayette	5.8	14.7	9.6	D	7.5	16.4	8.6	E	7.4	16.3	8.7	E	29%	12%	-10%	28%	11%	-9%	-1%	-1%	1%
Fayette to Washington	2.4	16.9	13.6	С	6.8	21.3	10.8	D	6.9	21.4	10.7	D	183%	26%	-21%	188%	27%	-21%	1%	0%	-1%
Washington to Water	6.0	20.1	11.1	D	2.2	16.3	13.7	С	2.9	17.0	13.2	С	-63%	-19%	23%	-52%	-15%	19%	32%	4%	-4%
Water to Erie	7.1	13.4	7.5	E	2.2	8.5	11.8	D	1.9	8.2	12.2	D	-69%	-37%	57%	-73%	-39%	63%	-14%	-4%	3%
Erie to 1690 WB offramp	42.2	49.2	2.2	F	40.6	47.6	2.3	F	40.4	47.4	2.3	F	-4%	-3%	5%	-4%	-4%	5%	0%	0%	0%
1690 WB offramp to Burnett	8.8	24.5	10.2	D	7.9	23.6	10.5	D	13.9	29.6	8.4	E	-10%	-4%	3%	58%	21%	-18%	76%	25%	-20%
Total	129.9	268.5	10.2	D	126.4	265.0	10.4	D	131.5	270.1	10.2	D	-3%	-1%	2%	1%	1%	0%	4%	2%	-2%

		Optimized	Condition			Altern	ative 2			Alterna	tive 2B		% Char	nge - Optimized	to Alt 2	% Char	nge - Optimized t	to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
Townsend Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Burnett	8.0	24.5	13.4	С	7.2	23.7	13.9	С	7.9	24.4	13.5	С	-10%	-3%	4%	-1%	0%	1%	10%	3%	-3%
Burnett to Brown	29.5	45.2	5.5	F	31.2	46.9	5.3	F	30.3	46.0	5.4	F	6%	4%	-4%	3%	2%	-2%	-3%	-2%	2%
Brown to Erie	11.8	18.8	5.9	F	12.0	19.0	5.8	F	14.0	21.0	5.3	F	2%	1%	-2%	19%	12%	-10%	17%	11%	-9%
Erie to Water	8.3	14.6	6.9	F	2.9	9.2	10.9	D	4.2	10.5	9.5	D	-65%	-37%	58%	-49%	-28%	38%	45%	14%	-13%
Water to Washington	2.0	16.1	13.9	С	4.1	18.2	12.3	D	3.6	17.7	12.6	D	105%	13%	-12%	80%	10%	-9%	-12%	-3%	2%
Washington to Fayette	3.4	17.9	12.8	D	4.6	19.1	12.0	D	3.8	18.3	12.6	D	35%	7%	-6%	12%	2%	-2%	-17%	-4%	5%
Fayette to Genesee	3.8	12.7	11.1	D	6.7	15.6	9.0	D	5.7	14.6	9.7	D	76%	23%	-19%	50%	15%	-13%	-15%	-6%	8%
Genesee to Harrison	8.8	43.9	21.8	В	6.3	41.4	23.1	В	7.3	42.4	22.6	В	-28%	-6%	6%	-17%	-3%	4%	16%	2%	-2%
Harrison to Adams	65.1	83.8	4.5	F	65.1	83.8	4.5	F	65.1	83.8	4.5	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tota	I 140.7	277.5	9.8	D	140.1	276.9	9.8	D	141.9	278.7	9.7	D	0%	0%	0%	1%	0%	-1%	1%	1%	-1%

		Optimized	Condition			Alterna	ative 2			Alterna	tive 2B		% Change	e - Optimize	ed to Alt 2	% Change	e - Optimized	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		TI	ravel Tim	ie	-	Travel Tim	е	T	ravel Time	,
Warren Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Harrsion	14.0	33.1	11.5	D	14.9	34.0	11.2	D	14.8	33.9	11.2	D	6%	3%	-3%	6%	2%	-3%	-1%	0%	0%
Harrison to Madison	14.2	29.3	10.3	D	15.4	30.5	9.9	D	12.9	28.0	10.8	D	8%	4%	-4%	-9%	-4%	5%	-16%	-8%	9%
Madison to Jefferon	12.4	31.8	12.2	D	13.9	33.3	11.7	D	8.9	28.3	13.7	С	12%	5%	-4%	-28%	-11%	12%	-36%	-15%	17%
Jefferson to Fayette	24.2	44.7	9.2	D	19.9	40.4	10.1	D	17.6	38.1	10.7	D	-18%	-10%	10%	-27%	-15%	16%	-12%	-6%	6%
Fayette to Washington	6.4	20.4	10.9	D	7.1	21.1	10.5	D	6.3	20.3	10.9	D	11%	3%	-4%	-2%	0%	0%	-11%	-4%	4%
Washington to Water	7.6	22.4	10.5	D	11.6	26.4	8.9	Е	8.7	23.5	10.0	D	53%	18%	-15%	14%	5%	-5%	-25%	-11%	12%
Water to Erie	4.6	10.6	9.0	D	9.1	15.1	6.3	F	7.9	13.9	6.9	F	98%	42%	-30%	72%	31%	-23%	-13%	-8%	10%
Erie to James	6.7	12.6	7.5	Е	9.7	15.6	6.0	F	10.0	15.9	5.9	F	45%	24%	-20%	49%	26%	-21%	3%	2%	-2%
Tota	l 90.1	204.9	10.4	D	101.6	216.4	9.8	D	87.1	201.9	10.5	D	13%	6%	-6%	-3%	-1%	1%	-14%	-7%	7%

		Optimized	Condition			Alterna	tive 2			Alterna	itive 2B		% Chan	ge - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	пе	T	ravel Time	3
Warren Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to James	-	-	-	-	18.8	30.6	6.1	F	16.8	28.6	6.6	F	-	-	-	-	-	-	-11%	-7%	8%
James to Erie	-	-	-	-	9.4	15.3	6.1	F	8.8	14.7	6.4	F	-	-	-	-	-	-	-6%	-4%	5%
Erie to Water	-	-	-	-	11.5	17.5	5.5	F	7.4	13.4	7.1	Е	-	-	-	-	-	-	-36%	-23%	29%
Water to Washington	-	-	-	-	11.7	26.5	8.9	E	0.0	14.8	15.9	С	-	-	-	-	-	-	-100%	-44%	79%
Washington to Fayette	-	-	-	-	12.7	26.7	8.3	E	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Fayette to Jefferson	-	-	-	-	5.0	25.5	16.0	С	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Jefferson to Onondaga	-	-	-	-	0.0	19.4	20.0	В	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Onondaga to Harrison	-	-	-	-	0.0	15.1	20.0	В	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Tot	al -	-	-	-	69.1	176.6	10.9	D	33.0	71.5	8.6	E	-	-	-	-	-	-	-52%	-60%	-21%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Cha	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	ne		Travel Time		-	Travel Tim	.e
Washington Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Franklin	15.8	40.4	14.6	С	17.7	42.3	13.9	С	17.1	41.7	14.1	С	12%	5%	-5%	8%	3%	-3%	-3%	-1%	1%
Franklin to Clinton	18.1	35.8	9.9	D	21.9	39.6	9.0	Е	22.2	39.9	8.9	E	21%	11%	-9%	23%	11%	-10%	1%	1%	-1%
Clinton to Salina	11.0	26.6	9.3	D	13.0	28.6	8.7	Е	11.3	26.9	9.2	D	18%	8%	-6%	3%	1%	-1%	-13%	-6%	6%
Salina to Warren	6.0	22.3	11.6	D	5.6	21.9	11.8	D	5.3	21.6	12.0	D	-7%	-2%	2%	-12%	-3%	3%	-5%	-1%	2%
Warren to Montgomery	5.0	18.5	14.6	С	8.1	21.6	12.5	D	8.0	21.5	12.6	D	62%	17%	-14%	60%	16%	-14%	-1%	0%	1%
Montgomery to State	6.2	23.9	14.8	С	6.3	24.0	14.8	С	5.1	22.8	15.6	С	2%	0%	0%	-18%	-5%	5%	-19%	-5%	5%
State to Townsend	16.5	32.7	9.9	D	7.4	23.6	13.7	С	8.2	24.4	13.3	С	-55%	-28%	38%	-50%	-25%	34%	11%	3%	-3%
Townsend to McBride	6.2	22.0	14.3	С	6.8	22.6	13.9	C	7.1	22.9	13.8	С	10%	3%	-3%	15%	4%	-3%	4%	1%	-1%
McBride to Almond	9.0	24.3	12.6	D	10.8	26.1	11.7	D	11.7	27.0	11.3	D	20%	7%	-7%	30%	11%	-10%	8%	3%	-3%
Tota	93.8	246.5	12.3	D	97.6	250.3	12.1	D	96.0	248.7	12.1	D	4%	2%	-2%	2%	1%	-2%	-2%	-1%	0%

		Optimized	Condition			Alterna	ative 2			Alterna	itive 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Cha	nge - Alt 2 to	ວ Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Tim	ie
Washinton Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Almond	19.3	34.6	8.9	E	20.1	35.4	8.7	E	20.1	35.4	8.7	E	4%	2%	-2%	4%	2%	-2%	0%	0%	0%
Almond to McBride	4.8	20.1	15.2	С	5.9	21.2	14.4	С	5.3	20.6	14.8	С	23%	5%	-5%	10%	2%	-3%	-10%	-3%	3%
McBride to Townsend	28.2	44.0	7.2	E	24.0	39.8	7.9	E	23.4	39.2	8.0	E	-15%	-10%	10%	-17%	-11%	11%	-3%	-2%	1%
Townsend to State	19.7	35.9	9.0	D	18.1	34.3	9.4	D	13.4	29.6	10.9	D	-8%	-4%	4%	-32%	-18%	21%	-26%	-14%	16%
State to Montgomery	5.2	22.9	15.5	С	11.3	29.0	12.2	D	11.6	29.3	12.1	D	117%	27%	-21%	123%	28%	-22%	3%	1%	-1%
Montgomery to Warren	18.9	32.4	8.3	E	13.2	26.7	10.1	D	14.2	27.7	9.7	D	-30%	-18%	22%	-25%	-15%	17%	8%	4%	-4%
Warren to Salina	4.7	21.0	12.3	D	8.1	24.4	10.6	D	10.9	27.2	9.5	D	72%	16%	-14%	132%	30%	-23%	35%	11%	-10%
Salina to Clinton	9.6	25.2	9.8	D	16.0	31.6	7.9	E	16.5	32.1	7.7	E	67%	25%	-19%	72%	27%	-21%	3%	2%	-3%
Clinton to Franklin	9.0	26.7	13.3	С	9.8	27.5	12.9	D	8.2	25.9	13.7	С	9%	3%	-3%	-9%	-3%	3%	-16%	-6%	6%
Franklin to West	52.7	77.3	7.6	E	52.7	77.3	7.6	E	52.7	77.3	7.6	E	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	172.1	340.1	9.8	D	179.2	347.2	9.6	D	176.3	344.3	9.7	D	4%	2%	-2%	2%	1%	-1%	-2%	-1%	1%

		Optimized	Condition			Alterna	ative 2			Alterna	ative 2B		% Change	e - Optimize	d to Alt 2	% Chang	e - Optimized	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е		Travel Tim	е	T	ravel Time	<b>:</b>
Water Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Clinton to Salina	25.8	42.1	6.2	F	26.5	42.8	6.1	F	20.1	36.4	7.1	E	3%	2%	-2%	-22%	-14%	15%	-24%	-15%	16%
Salina to Warren	8.6	24.4	10.3	D	6.2	22	11.4	D	9.4	25.2	10	D	-28%	-10%	11%	9%	3%	-3%	52%	15%	-12%
Warren to Montgomery	1.7	18.7	14.4	С	10.9	27.9	9.7	D	9.7	26.7	10.1	D	541%	49%	-33%	471%	43%	-30%	-11%	-4%	4%
Montgomery to State	7.4	24.9	14	С	6.7	24.2	14.5	С	7.7	25.2	13.9	С	-9%	-3%	4%	4%	1%	-1%	15%	4%	-4%
State to Townsend	22.6	38.8	8.3	E	17.6	33.8	9.6	D	11.5	27.7	11.7	D	-22%	-13%	16%	-49%	-29%	41%	-35%	-18%	22%
Townsend to McBride	3.2	18.7	16.6	С	3.9	19.4	16	С	4.1	19.6	15.8	С	22%	4%	-4%	28%	5%	-5%	5%	1%	-1%
McBride to Almond	13.2	28.7	10.8	D	12.7	28.2	11	D	14.2	29.7	10.4	D	-4%	-2%	2%	8%	3%	-4%	12%	5%	-5%
Tot	al 82.5	196.3	10.6	D	84.5	198.3	10.5	D	76.7	190.5	10.9	D	2%	1%	-1%	-7%	-3%	3%	-9%	-4%	4%

		Optimized	Condition			Alterna	ative 2			Alterna	ative 2B		% Chang	e - Optimize	d to Alt 2	% Change	- Optimize	d to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
AM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Tim	е	T	ravel Tim	e	T	ravel Time	
Water Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond	15.5	53.6	19.4	В	16.1	54.2	19.2	В	16.1	54.2	19.2	В	4%	1%	-1%	4%	1%	-1%	0%	0%	0%
Almond to McBride	4.7	20.2	15.4	С	5.5	21	14	С	5.2	20.7	15	С	17%	4%	-9%	11%	2%	-3%	-5%	-1%	7%
McBride to Townsend	20.7	36.2	8.6	E	18.9	34.4	9	D	19.1	34.6	9	E	-9%	-5%	5%	-8%	-4%	5%	1%	1%	0%
Townsend to State	11.7	27.9	11.6	D	12.1	28.3	11.4	D	14.1	30.3	10.7	D	3%	1%	-2%	21%	9%	-8%	17%	7%	-6%
State to Montgomery	3.9	21.4	16.3	С	7.7	25.2	13.9	С	6	23.5	14.9	С	97%	18%	-15%	54%	10%	-9%	-22%	-7%	7%
Montgomery to Warren	0.1	17.1	15.7	С	0	17	15.8	С	0	17	15.8	С	-100%	-1%	1%	-100%	-1%	1%	0%	0%	0%
To	tal 56.6	176.4	14.8	С	60.3	180.1	14.5	С	60.5	180.3	14.4	С	7%	2%	-2%	7%	2%	-3%	0%	0%	-1%

## Arterial / Segment Reports

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized t	o Alt 2B	% Cha	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		Т	ravel Tim	е		Travel Time			Travel Time	9
Adams Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Onondaga to Clinton	3.5	21.3	16.7	С	5.4	23.2	15.3	С	5.4	23.2	15.3	С	54%	9%	-8%	54%	9%	-8%	0%	0%	0%
Clinton to Salina	27.2	41.9	5.6	F	24.8	39.5	5.9	F	24.9	39.6	5.9	F	-9%	-6%	5%	-8%	-5%	5%	0%	0%	0%
Salina to Warren	3.9	11.1	10.3	D	1.5	8.7	13.2	С	3.9	11.1	10.3	D	-62%	-22%	28%	0%	0%	0%	160%	28%	-22%
Warren to Harrison Place	4.4	12.7	10.3	D	4.1	12.4	10.6	D	4.4	12.7	10.3	D	-7%	-2%	3%	0%	0%	0%	7%	2%	-3%
Harrison Place to Montgomery	5.8	20.5	11.4	D	14.6	29.3	8.0	Е	11.5	26.2	8.9	E	152%	43%	-30%	98%	28%	-22%	-21%	-11%	11%
Montgomery to State	9.5	24.8	9.8	D	5.3	20.6	11.7	D	4.2	19.5	12.4	D	-44%	-17%	19%	-56%	-21%	27%	-21%	-5%	6%
State to Townsend	10.4	26.6	12.2	D	9.7	25.9	12.5	D	10.5	26.7	12.1	D	-7%	-3%	2%	1%	0%	-1%	8%	3%	-3%
Townsend to McBride	2.1	18.6	17.7	С	2.1	18.6	17.7	С	2.1	18.6	17.7	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	66.8	177.5	11.1	D	67.5	178.2	11.0	D	66.9	177.6	11.1	D	1%	0%	-1%	0%	0%	0%	-1%	0%	1%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Change	e - Optimized	to Alt 2	% Chan	ge - Optimized	d to Alt 2B	% Ch	nange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Tim	е		Travel Time	
Adams Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Montgomery	1.8	17.1	14.2	С	11.0	26.3	9.2	D	8.1	23.4	10.3	D	511%	54%	-35%	350%	37%	-27%	-26%	-11%	12%
Montgomery to Harrison Place	3.3	18.0	13.0	D	2.7	17.4	13.4	С	2.8	17.5	13.3	С	-18%	-3%	3%	-15%	-3%	2%	4%	1%	-1%
Harrison Place to Warren	7.7	16.0	8.2	E	7.7	16.0	8.2	Е	7.9	16.2	8.1	Е	0%	0%	0%	3%	1%	-1%	3%	1%	-1%
Warren to Salina	28.5	35.7	3.2	F	26.6	33.8	3.4	F	27.2	34.4	3.3	F	-7%	-5%	6%	-5%	-4%	3%	2%	2%	-3%
Salina to Clinton	3.8	18.5	12.6	D	5.3	20.0	11.7	D	5.3	20	11.7	D	39%	8%	-7%	39%	8%	-7%	0%	0%	0%
Total	45.1	105.3	9.1	D	53.3	113.5	8.4	E	51.3	111.5	8.6	E	18%	8%	-8%	14%	6%	-5%	-4%	-2%	2%

		Optimized	d Condition			Alterr	native 2			Alterna	ative 2B		% Chan	ge - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	nange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie	1	Travel Time	<i>;</i>		Travel Time	
Almond Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	<b>Arterial Speed</b>
Harrison to Genesee	22.8	53.7	14.8	С	21.8	52.7	15.1	С	21.8	52.7	15.1	С	-4%	-2%	2%	-4%	-2%	2%	0%	0%	0%
Genesee to Fayette	7.6	23.9	10.8	D	7.7	24.0	10.7	D	7.5	23.8	10.8	D	1%	0%	-1%	-1%	0%	0%	-3%	-1%	1%
Fayette to Washington	4.0	19.3	12.6	D	3.4	18.7	13.0	D	3.3	18.6	13	С	-15%	-3%	3%	-18%	-4%	3%	-3%	-1%	0%
Washington to Water	4.7	19.2	12.0	D	3.9	18.4	12.5	D	4.2	18.7	12.3	D	-17%	-4%	4%	-11%	-3%	3%	8%	2%	-2%
Water to Erie	4.9	11.0	8.9	E	5.7	11.8	8.3	E	3.6	9.7	10.1	D	16%	7%	-7%	-27%	-12%	13%	-37%	-18%	22%
Total	al 44.0	127.1	12.8	D	42.5	125.6	12.9	D	40.4	123.5	13.1	С	-3%	-1%	1%	-8%	-3%	2%	-5%	-2%	2%

		Optimized	d Condition			Alterr	native 2			Alterna	ative 2B		% Chan	ge - Optimize	ed to Alt 2	% Change	- Optimized	to Alt 2B	% Ch	ange - Alt 2 to <i>i</i>	Alt 2B
PM Peak	Signal	Travel	vel Arterial Signal Trave				Arterial		Signal	Travel	Arterial			Travel Tim	ie	T	ravel Time	)		Travel Time	
Almond Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Erie	16.0	33.0	10.3	D	16.0	33.0	10.3	D	16	33	10.3	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Erie to Water	9.5	15.6	6.2	F	9.1	15.2	6.4	F	8.9	15	6.5	F	-4%	-3%	3%	-6%	-4%	5%	-2%	-1%	2%
Water to Washington	3.1	17.6	13.1	С	3.3	17.8	12.9	D	2.8	17.3	13.3	С	6%	1%	-2%	-10%	-2%	2%	-15%	-3%	3%
Washington to Fayette	8.4	23.7	10.2	D	8.3	23.6	10.3	D	8.1	23.4	10.4	D	-1%	0%	1%	-4%	-1%	2%	-2%	-1%	1%
Fayette to Genesee	24.5	40.8	6.3	F	23.9	40.2	6.4	F	22.5	38.8	6.6	F	-2%	-1%	2%	-8%	-5%	5%	-6%	-3%	3%
Tota	l 61.5	130.7	8.9	E	60.6	129.8	9.0	D	58.3	127.5	9.2	D	-1%	-1%	1%	-5%	-2%	3%	-4%	-2%	2%

		Optimized	l Condition		Alternative 2				Alterna	itive 2B		% Chang	% Change - Optimized to Alt 2			% Change - Optimized to Alt 2B			% Change - Alt 2 to Alt 2B		
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			ravel Time			Travel Time	
Clinton Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Onondaga	-	-	-	-	12.0	27.1	11.2	D	12	27.1	11.2	D	-	-	-	-	-	-	0%	0%	0%
Onondaga to Ped Crossing	-	-	-	-	0.0	15.3	20.0	В	0	15.3	20	В	-	-	-	-	-	-	0%	0%	0%
Ped Crossing to Jefferson	-	-	-	-	9.7	33.0	17.1	С	9	32.3	17.3	С	-	-	-	-	-	-	-7%	-2%	1%
Jefferson to Fayette	-	-	-	-	18.9	39.4	10.5	D	18.6	39.1	10.5	D	-	-	-	-	-	-	-2%	-1%	0%
Fayette to Washington	-	-	-	-	7.4	21.6	10.4	D	8	22.2	10.1	D	-	-	-	-	-	-	8%	3%	-3%
Washington to Water	-	-	-	-	0.1	15.1	15.8	С	0.1	15.1	15.8	С	-	-	-	-	-	-	0%	0%	0%
Water to Genesee	-	-	-	-	13.9	26.2	7.4	E	22.6	34.9	5.6	F	-	-	-	-	-	-	63%	33%	-24%
Genesee to Herald	-	-	-	-	0.0	20.3	23.9	В	0	20.3	23.9	В	-	-	-	-	-	-	0%	0%	0%
Total	-	-	-	-	62.0	198.0	13.8	С	70.3	206.3	13.2	С	-	-	-	-	-	-	13%	4%	-4%

		Optimized	l Condition			Altern	ative 2			Alterna	ative 2B		% Chan	ige - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Change - Alt 2 to Alt 2B		
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	e		Travel Time			Travel Time	
Clinton Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Herald	16.5	31.8	7.7	E	15.3	30.6	8.0	E	16.7	32	7.6	E	-7%	-4%	4%	1%	1%	-1%	9%	5%	-5%
Herald to Genesee	8.9	29.2	16.6	С	8.3	28.6	17.0	С	12	32.3	15.1	С	-7%	-2%	2%	35%	11%	-9%	45%	13%	-11%
Genesee to Water	0.9	13.2	14.8	С	0.1	12.4	15.8	С	0.1	12.4	15.8	С	-89%	-6%	7%	-89%	-6%	7%	0%	0%	0%
Water to Washington	26.5	41.5	5.8	F	16.8	31.8	7.5	E	20	35	6.8	F	-37%	-23%	29%	-25%	-16%	17%	19%	10%	-9%
Washington to Fayette	14.4	28.6	7.9	E	14.2	28.4	7.9	E	10.9	25.1	9	E	-1%	-1%	0%	-24%	-12%	14%	-23%	-12%	14%
Fayette to Jefferson	7.4	27.9	14.7	С	12.2	32.7	12.5	D	12.8	33.3	12.3	D	65%	17%	-15%	73%	19%	-16%	5%	2%	-2%
Jefferson to Ped Crossing	0.9	24.2	23.1	В	0.1	23.4	23.9	В	0.1	23.4	23.9	В	-89%	-3%	3%	-89%	-3%	3%	0%	0%	0%
Ped Crossing to Gifford	11.4	26.7	11.4	D	17.7	33.0	9.3	D	17.9	33.2	9.2	D	55%	24%	-18%	57%	24%	-19%	1%	1%	-1%
Gifford to Adams	60.6	75.7	4.0	F	58.8	73.9	4.1	F	58.8	73.9	4.1	F	-3%	-2%	2%	-3%	-2%	2%	0%	0%	0%
Total	147.5	298.8	9.9	D	143.5	294.8	10.1	D	149.3	300.6	9.9	D	-3%	-1%	2%	1%	1%	0%	4%	2%	-2%

		Optimized	l Condition			Altern	ative 2	Alternative 2B				% Change - Optimized to Alt 2			% Chan	ge - Optimized	l to Alt 2B	% Change - Alt 2 to Alt 2B			
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		Ţ	ravel Time		Travel Time				Travel Time	
Erie Blvd Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Warren	26.3	42.1	6.0	F	20.1	35.9	7.0	F	19	34.8	7.2	Е	-24%	-15%	17%	-28%	-17%	20%	-5%	-3%	3%
Warren to Montgomery	6.4	20.0	13.6	С	13.9	27.5	9.9	D	15.5	29.1	9.3	D	117%	38%	-27%	142%	46%	-32%	12%	6%	-6%
Montgomery to State	17.9	35.4	9.9	D	15.2	32.7	10.7	D	15.8	33.3	10.5	D	-15%	-8%	8%	-12%	-6%	6%	4%	2%	-2%
State to Townsend	9.1	25.3	12.8	D	9.1	25.3	12.8	D	9.6	25.8	12.6	D	0%	0%	0%	5%	2%	-2%	5%	2%	-2%
Townsend to McBride	5.5	21.0	14.8	С	5.2	20.7	15.0	С	4.8	20.3	15.3	С	-5%	-1%	1%	-13%	-3%	3%	-8%	-2%	2%
McBride to Almond	8.9	24.7	12.8	D	8.6	24.4	12.9	D	8.5	24.3	13	D	-3%	-1%	1%	-4%	-2%	2%	-1%	0%	1%
Total	al 74.1	168.5	10.8	D	72.1	166.5	10.9	D	73.2	167.6	10.9	D	-3%	-1%	1%	-1%	-1%	1%	2%	1%	0%

			Optimized	<b>Condition</b>			Alterr	native 2			Alternative 2B				% Change - Optimized to Alt 2			% Change - Optimized to Alt 2B			% Change - Alt 2 to Alt 2B		
PM Peak		Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time		
Erie Blvd Westbound		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	
Crouse to Almond		17.0	55.0	18.8	С	17.0	55.0	18.8	С	17	55	18.8	С	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Almond to McBride		15.1	30.9	10.2	D	16.3	32.1	9.8	D	16.4	32.2	9.8	D	8%	4%	-4%	9%	4%	-4%	1%	0%	0%	
McBride to Townsend		6.5	22.0	14.1	С	4.8	20.3	15.3	С	4.8	20.3	15.3	С	-26%	-8%	9%	-26%	-8%	9%	0%	0%	0%	
Townsend to State		12.6	28.8	11.3	D	10.3	26.5	12.2	D	10.3	26.5	12.2	D	-18%	-8%	8%	-18%	-8%	8%	0%	0%	0%	
State to Oswego		4.0	21.5	16.2	С	6.7	24.2	14.4	С	7.6	25.1	13.9	С	68%	13%	-11%	90%	17%	-14%	13%	4%	-3%	
	Total	55.2	158.2	14.8	С	55.1	158.1	14.8	С	56.1	159.1	14.7	С	0%	0%	0%	2%	1%	-1%	2%	1%	-1%	

		Optimized	<b>Condition</b>			Altern	ative 2			Alterna	ative 2B		% Chan	nge - Optimize	ed to Alt 2	% Change	- Optimized	to Alt 2B	% Change - Alt 2 to Alt 2B		
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ne	T	ravel Time			Travel Time	
Fayette Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to West SB	21.8	39.8	9.1	D	21.8	39.8	9.1	D	21.8	39.8	9.1	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
West SB West NB	12.1	20.7	6.6	F	12.1	20.7	6.6	F	12.1	20.7	6.6	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to Franklin	10.7	30.0	15.5	С	11.3	30.6	15.2	С	11.8	31.1	14.9	С	6%	2%	-2%	10%	4%	-4%	4%	2%	-2%
Franklin to Clinton	5.0	22.9	15.6	С	13.1	31.0	11.5	D	14.9	32.8	10.9	D	162%	35%	-26%	198%	43%	-30%	14%	6%	-5%
Clinton to Salina	8.3	23.6	10.3	D	9.5	24.8	9.8	D	6.8	22.1	11	D	14%	5%	-5%	-18%	-6%	7%	-28%	-11%	12%
Salina to Warren	38.3	54.6	4.7	F	32.7	49.0	5.3	F	26.3	42.6	6	F	-15%	-10%	13%	-31%	-22%	28%	-20%	-13%	13%
Warren to Montgomery	4.0	17.6	15.5	С	4.8	18.4	14.8	С	4.7	18.3	14.9	С	20%	5%	-5%	18%	4%	-4%	-2%	-1%	1%
Montgomery to State	11.8	29.0	11.9	D	8.9	26.1	13.2	С	9.7	26.9	12.8	D	-25%	-10%	11%	-18%	-7%	8%	9%	3%	-3%
State to Townsend	25.7	42.2	7.8	Ε	27.7	44.2	7.5	E	30.1	46.6	7.1	Е	8%	5%	-4%	17%	10%	-9%	9%	5%	-5%
Townsend to McBride	3.2	19.0	16.6	С	4.5	20.3	15.5	С	4.1	19.9	15.8	С	41%	7%	-7%	28%	5%	-5%	-9%	-2%	2%
McBride to Almond	3.3	18.8	16.5	С	3.8	19.3	16.1	С	3.5	19	16.3	С	15%	3%	-2%	6%	1%	-1%	-8%	-2%	1%
Total	144.2	318.2	10.7	D	150.2	324.2	10.5	D	145.8	319.8	10.6	D	4%	2%	-2%	1%	1%	-1%	-3%	-1%	1%

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Chan	ge - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Ch	nange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	е		Travel Time			Travel Time	
Fayette Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Irving to Almond	12.4	42.2	19.2	В	13.0	42.8	19.0	С	13	42.8	19	С	5%	1%	-1%	5%	1%	-1%	0%	0%	0%
Almond to McBride	5.7	21.2	14.6	С	6.5	22.0	14.1	С	6.6	22.1	14	С	14%	4%	-3%	16%	4%	-4%	2%	0%	-1%
McBride to Townsend	18.0	33.8	9.3	D	10.0	25.8	12.2	D	9.7	25.5	12.4	D	-44%	-24%	31%	-46%	-25%	33%	-3%	-1%	2%
Townsend to State	35.8	52.3	6.3	F	29.2	45.7	7.2	E	28	44.5	7.4	Е	-18%	-13%	14%	-22%	-15%	17%	-4%	-3%	3%
State to Montgomery	8.1	25.3	13.6	С	19.5	36.7	9.4	D	19.4	36.6	9.4	D	141%	45%	-31%	140%	45%	-31%	-1%	0%	0%
Montgomery to Warren	23.1	36.7	7.4	Е	16.9	30.5	8.9	E	11.3	24.9	11	D	-27%	-17%	20%	-51%	-32%	49%	-33%	-18%	24%
Warren to Salina	4.9	21.2	12.2	D	5.8	22.1	11.7	D	4.5	20.8	12.4	D	18%	4%	-4%	-8%	-2%	2%	-22%	-6%	6%
Salina to Clinton	1.6	16.9	14.4	С	5.4	20.7	11.8	D	9.8	25.1	9.7	D	238%	22%	-18%	513%	49%	-33%	81%	21%	-18%
Clinton to Franklin	13.1	31.0	11.5	D	12.8	30.7	11.7	D	13.5	31.4	11.4	D	-2%	-1%	2%	3%	1%	-1%	5%	2%	-3%
Franklin to West NB	40.2	59.5	7.8	Е	40.2	59.5	7.8	E	40.2	59.5	7.8	E	0%	0%	0%	0%	0%	0%	0%	0%	0%
West NB to West SB	5.7	14.3	9.5	D	5.7	14.3	9.5	D	5.7	14.3	9.5	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	168.6	354.4	10.8	D	165.0	350.8	11.0	D	161.7	347.5	11.1	D	-2%	-1%	2%	-4%	-2%	3%	-2%	-1%	1%

		Optimized	Condition			Altern	ative 2			Alterna	itive 2B		% Chang	e - Optimized	to Alt 2	% Chan	ige - Optimize	d to Alt 2B	% Ch	nange - Alt 2 to <i>l</i>	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time			Travel Tim	ne		Travel Time	
Franklin Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Fayette	27.8	41.6	5.2	F	26.4	40.2	5.4	F	25.2	39	5.6	F	-5%	-3%	4%	-9%	-6%	8%	-5%	-3%	4%
Fayette to Washington	25.5	39.7	5.7	F	20.7	34.9	6.4	F	19.2	33.4	6.7	F	-19%	-12%	12%	-25%	-16%	18%	-7%	-4%	5%
Washinton to Erie	11.8	28.5	11.7	D	11.4	28.1	11.9	D	13	29.7	11.2	D	-3%	-1%	2%	10%	4%	-4%	14%	6%	-6%
Erie to Genesee	13.2	30.1	8.9	E	19.2	36.1	7.4	Е	11.9	28.8	9.3	D	45%	20%	-17%	-10%	-4%	4%	-38%	-20%	26%
Genesee to Willow	5.8	12.7	8.6	E	2.2	9.1	12.0	D	2.5	9.4	11.6	D	-62%	-28%	40%	-57%	-26%	35%	14%	3%	-3%
Willow to Herald	16.1	30.7	7.6	E	18.3	32.9	7.0	Е	18.4	33	7	E	14%	7%	-8%	14%	7%	-8%	1%	0%	0%
Total	100.2	183.3	7.6	E	98.2	181.3	7.6	Е	90.2	173.3	8	E	-2%	-1%	0%	-10%	-5%	5%	-8%	-4%	5%

		Optimized	d Condition			Alterr	native 2			Alterna	itive 2B		% Char	nge - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie	T	Travel Time	)		Travel Time	
Franklin Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Websters Landing to Herald	22.1	38.7	8.6	E	24.0	40.6	8.2	E	23.7	40.3	8.3	E	9%	5%	-5%	7%	4%	-3%	-1%	-1%	1%
Herald to Willow	3.8	18.4	12.6	D	2.0	16.6	14.0	С	2.1	16.7	13.9	С	-47%	-10%	11%	-45%	-9%	10%	5%	1%	-1%
Willow to Genesee	11.2	18.1	6.0	F	10.9	17.8	6.1	F	8.5	15.4	7.1	Е	-3%	-2%	2%	-24%	-15%	18%	-22%	-13%	16%
Genesee to Erie	3.3	20.2	13.3	С	2.0	18.9	14.2	С	2.1	19	14.1	С	-39%	-6%	7%	-36%	-6%	6%	5%	1%	-1%
Erie to Washington	13.9	30.6	10.9	D	11.7	28.4	11.7	D	11.1	27.8	12	D	-16%	-7%	7%	-20%	-9%	10%	-5%	-2%	3%
Washington to Fayette	8.4	22.6	10.0	D	9.9	24.1	9.3	D	10.1	24.3	9.3	D	18%	7%	-7%	20%	8%	-7%	2%	1%	0%
Total	62.7	148.6	10.1	D	60.5	146.4	10.3	D	57.6	143.5	10.5	D	-4%	-1%	2%	-8%	-3%	4%	-5%	-2%	2%

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Char	nge - Optimized	to Alt 2	% Chan	ge - Optimized t	to Alt 2B	% Ch	nange - Alt 2 to <i>i</i>	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	:
Genesee Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Wallace	11.5	29.9	12.3	D	11.1	29.5	12.5	D	11.1	29.5	12.5	D	-3%	-1%	2%	-3%	-1%	2%	0%	0%	0%
Wallace to Franklin	13.1	29.3	11.0	D	11.4	27.6	11.7	D	13.9	30.1	10.7	D	-13%	-6%	6%	6%	3%	-3%	22%	9%	-9%
Franklin to Clinton	8.8	25.2	13.0	D	18.9	35.3	9.3	D	12.1	28.5	11.5	D	115%	40%	-28%	38%	13%	-12%	-36%	-19%	24%
Clinton to Salina	28.2	44.4	5.8	F	33.0	49.2	5.2	F	24.8	41	6.3	F	17%	11%	-10%	-12%	-8%	9%	-25%	-17%	21%
Total	61.6	128.8	9.9	D	74.4	141.6	9.0	D	61.9	129.1	9.9	D	21%	10%	-9%	0%	0%	0%	-17%	-9%	10%

		Optimized	Condition			Alterna	ative 2			Alterna	tive 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized t	o Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	e		Travel Time			Travel Time	!
Genesee Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	4.3	20.5	12.5	D	13.2	29.4	8.7	Е	9.8	26	9.9	D	207%	43%	-30%	128%	27%	-21%	-26%	-12%	14%
Clinton to Franklin	8.7	25.1	13.0	С	10.0	26.4	12.4	D	12.1	28.5	11.5	D	15%	5%	-5%	39%	14%	-12%	21%	8%	-7%
Franklin to Wallace	5.7	21.9	14.8	С	5.6	21.8	14.8	С	5.3	21.5	15	С	-2%	0%	0%	-7%	-2%	1%	-5%	-1%	1%
Total	18.7	67.5	13.4	С	28.8	77.6	11.7	D	27.2	76	11.9	D	54%	15%	-13%	45%	13%	-11%	-6%	-2%	2%

		Optimized	Condition			Altern	ative 2			Alterna	tive 2B		% Chan	ıge - Optimize	d to Alt 2	% Chang	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	е		Travel Time			Travel Time	
Harrison Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Almond to Townsend	15.4	33.7	10.9	D	15.4	33.7	10.9	D	15.4	33.7	10.9	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Townsend to State	11.5	32.7	13.0	D	12.3	33.5	12.7	D	10.8	32	13.3	С	7%	2%	-2%	-6%	-2%	2%	-12%	-4%	5%
State to Montgomery	6.1	21.4	11.3	D	11.8	27.1	8.9	Е	12.5	27.8	8.7	E	93%	27%	-21%	105%	30%	-23%	6%	3%	-2%
Montgomery to Warren	9.7	28.0	13.1	С	11.0	29.3	12.5	D	10.5	28.8	12.7	D	13%	5%	-5%	8%	3%	-3%	-5%	-2%	2%
Warren to Onondaga	49.7	64.9	3.7	F	41.0	56.2	4.3	F	38.1	53.3	4.5	F	-18%	-13%	16%	-23%	-18%	22%	-7%	-5%	5%
Total	92.4	180.7	9.1	D	91.5	179.8	9.1	D	87.3	175.6	9.3	D	-1%	0%	0%	-6%	-3%	2%	-5%	-2%	2%

		Optimized	<b>Condition</b>			Alterna	ative 2			Alterna	tive 2B		% Change	e - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Tin	ne		Travel Time	
Herald Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Franklin	7.3	20.3	10.1	D	6.3	19.3	10.7	D	6.3	19.3	10.7	D	-14%	-5%	6%	-14%	-5%	6%	0%	0%	0%
Franklin to Clinton	13.6	30.5	8.8	E	23.4	40.3	6.6	F	20.7	37.6	7.1	E	72%	32%	-25%	52%	23%	-19%	-12%	-7%	8%
Clinton to Salina	18.8	34.1	7.1	E	11.3	26.6	9.1	D	13.6	28.9	8.4	E	-40%	-22%	28%	-28%	-15%	18%	20%	9%	-8%
Total	39.7	84.9	8.4	E	41.0	86.2	8.3	Е	40.6	85.8	8.3	E	3%	2%	-1%	2%	1%	-1%	-1%	0%	0%

		Optimized	Condition			Alterna	ative 2			Alterna	ative 2B		% Chang	e - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Time			Travel Tim	ne		Travel Time	
Herald Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Salina to Clinton	17.9	33.2	7.3	E	14.8	30.1	8.1	E	13.5	28.8	8.4	Е	-17%	-9%	11%	-25%	-13%	15%	-9%	-4%	4%
Clinton to Franklin	0.0	16.9	15.8	С	0.0	16.9	15.8	С	0	16.9	15.8	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	17.9	50.1	10.2	D	14.8	47.0	10.9	D	13.5	45.7	11.2	D	-17%	-6%	7%	-25%	-9%	10%	-9%	-3%	3%

		Optimized	l Condition			Alterr	native 2			Alterna	itive 2B		% Chan	ge - Optimize	d to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	е		Travel Time			Travel Time	
Jefferson Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Clinton	14.0	25.6	7.2	Е	19.4	31.0	5.9	F	19.4	31	5.9	F	39%	21%	-18%	39%	21%	-18%	0%	0%	0%
Clinton to Salina	16.2	31.7	7.7	Е	14.7	30.2	8.1	Е	16.4	31.9	7.7	E	-9%	-5%	5%	1%	1%	0%	12%	6%	-5%
Salina to Warren	15.3	31.8	8.2	E	12.5	29.0	9.0	D	13.2	29.7	8.8	E	-18%	-9%	10%	-14%	-7%	7%	6%	2%	-2%
Warren to Montgomery	9.4	16.5	6.8	F	10.5	17.6	6.4	F	10.5	17.6	6.4	F	12%	7%	-6%	12%	7%	-6%	0%	0%	0%
Montgomery to State	25.2	39.4	5.7	F	20.0	34.2	6.6	F	20.9	35.1	6.4	F	-21%	-13%	16%	-17%	-11%	12%	4%	3%	-3%
Total	80.1	145.0	7.1	E	77.1	142.0	7.2	E	80.4	145.3	7.1	E	-4%	-2%	1%	0%	0%	0%	4%	2%	-1%

		Optimized	d Condition			Altern	ative 2			Alterna	itive 2B		% Chan	ige - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to <i>l</i>	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie	T	Travel Time	:		Travel Time	
Jefferson Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Onondaga	-	-	-	-	6.8	21	10.7	D	6.8	21	10.7	D	-	-	-	-	-	-	0%	0%	0%
Onodaga to Warren	20.8	37.7	7.1	Е	16.7	33.6	8.0	E	19.2	36.1	7.4	E	-20%	-11%	13%	-8%	-4%	4%	15%	7%	-8%
Warren to Salina	14.8	31.3	8.3	Е	13.2	29.7	8.8	E	16.3	32.8	8	E	-11%	-5%	6%	10%	5%	-4%	23%	10%	-9%
Salina to Clinton	14.6	30.1	8.2	E	17.2	32.7	7.5	Е	17	32.5	7.6	E	18%	9%	-9%	16%	8%	-7%	-1%	-1%	1%
Total	50.2	99.1	7.8	E	53.9	117.0	8.5	E	59.3	122.4	8.2	E	7%	18%	9%	18%	24%	5%	10%	5%	-4%

		Optimized	l Condition			Alterr	native 2			Alterna	tive 2B		% Chan	ge - Optimize	ed to Alt 2	% Change	- Optimized	to Alt 2B	% Ch	ange - Alt 2 to <i>l</i>	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	е	T	ravel Time	)		Travel Time	
McBride Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	<b>Arterial Speed</b>
Entry Link to Genesee	15.5	27.5	6.9	F	16.1	28.1	6.7	F	16.1	28.1	6.7	F	4%	2%	-3%	4%	2%	-3%	0%	0%	0%
Genesee to Fayette	20.0	35.3	6.9	F	18.3	33.6	7.2	E	18.9	34.2	7.1	E	-9%	-5%	4%	-6%	-3%	3%	3%	2%	-1%
Fayette to Washington	14.2	29.2	8.2	E	12.8	27.8	8.6	E	12.8	27.8	8.6	E	-10%	-5%	5%	-10%	-5%	5%	0%	0%	0%
Washington to Water	11.9	26.0	8.6	E	12.1	26.2	8.6	E	12.2	26.3	8.5	E	2%	1%	0%	3%	1%	-1%	1%	0%	-1%
Water to Erie	16.1	22.2	4.4	F	15.5	21.6	4.5	F	15.8	21.9	4.5	F	-4%	-3%	2%	-2%	-1%	2%	2%	1%	0%
Tota	77.7	140.2	7.1	E	74.8	137.3	7.2	E	75.8	138.3	7.2	E	-4%	-2%	1%	-2%	-1%	1%	1%	1%	0%

	Optimized	Condition			Alterna	ative 2			Aiterna	ıtive 2B		% Chan	ge - Optimized	O AIT 2	% Chan	ge - Optimized to	O AIT 2B	% Cn	ange - Alt 2 to A	III ZB
Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time			Travel Time	
elay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
10.8	43.6	20.5	В	10.8	43.6	20.5	В	10.9	43.7	20.5	В	0%	0%	0%	1%	0%	0%	1%	0%	0%
12.3	18.4	5.3	F	10.9	17.0	5.7	F	11	17.1	5.7	F	-11%	-8%	8%	-11%	-7%	8%	1%	1%	0%
8.3	22.4	10.0	D	8.9	23.0	9.8	D	9.1	23.2	9.7	D	7%	3%	-2%	10%	4%	-3%	2%	1%	-1%
10.0	25.0	9.5	D	9.3	24.3	9.8	D	9.8	24.8	9.6	D	-7%	-3%	3%	-2%	-1%	1%	5%	2%	-2%
4.9	20.2	12.0	D	6.3	21.6	11.3	D	6.4	21.7	11.2	D	29%	7%	-6%	31%	7%	-7%	2%	0%	-1%
46.3	129.6	13.1	С	46.2	129.5	13.1	С	47.2	130.5	13	С	0%	0%	0%	2%	1%	-1%	2%	1%	-1%
•	10.8 12.3 8.3 10.0 4.9	Elay (s) Time (s) 10.8 43.6 12.3 18.4 8.3 22.4 10.0 25.0 4.9 20.2	Blay (s)         Time (s)         Speed           10.8         43.6         20.5           12.3         18.4         5.3           8.3         22.4         10.0           10.0         25.0         9.5           4.9         20.2         12.0	Belay (s)         Time (s)         Speed         LOS           10.8         43.6         20.5         B           12.3         18.4         5.3         F           8.3         22.4         10.0         D           10.0         25.0         9.5         D           4.9         20.2         12.0         D	Belay (s)         Time (s)         Speed         LOS         Delay (s)           10.8         43.6         20.5         B         10.8           12.3         18.4         5.3         F         10.9           8.3         22.4         10.0         D         8.9           10.0         25.0         9.5         D         9.3           4.9         20.2         12.0         D         6.3	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)           10.8         43.6         20.5         B         10.8         43.6           12.3         18.4         5.3         F         10.9         17.0           8.3         22.4         10.0         D         8.9         23.0           10.0         25.0         9.5         D         9.3         24.3           4.9         20.2         12.0         D         6.3         21.6	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed           10.8         43.6         20.5         B         10.8         43.6         20.5           12.3         18.4         5.3         F         10.9         17.0         5.7           8.3         22.4         10.0         D         8.9         23.0         9.8           10.0         25.0         9.5         D         9.3         24.3         9.8           4.9         20.2         12.0         D         6.3         21.6         11.3	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS           10.8         43.6         20.5         B         10.8         43.6         20.5         B           12.3         18.4         5.3         F         10.9         17.0         5.7         F           8.3         22.4         10.0         D         8.9         23.0         9.8         D           10.0         25.0         9.5         D         9.3         24.3         9.8         D           4.9         20.2         12.0         D         6.3         21.6         11.3         D	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)           10.8         43.6         20.5         B         10.8         43.6         20.5         B         10.9           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)           10.8         43.6         20.5         B         10.8         43.6         20.5         B         10.9         43.7           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed           10.8         43.6         20.5         B         10.8         43.6         20.5         B         10.9         43.7         20.5           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7         11.2	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS           10.8         43.6         20.5         B         10.9         43.7         20.5         B           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7         11.2         D	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Signal Delay (s)           10.8         43.6         20.5         B         10.9         43.7         20.5         B         0%           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F         -11%           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D         7%           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D         -7%           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7         11.2         D         29%	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Speed         LOS         Signal Delay (s)         (s)           10.8         43.6         20.5         B         10.9         43.7         20.5         B         0%         0%           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F         -11%         -8%           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D         7%         3%           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D         -7%         -3%           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7         11.2         D         29%         7%	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Speed         LOS         Signal Delay (s)         (s)         Arterial Speed           10.8         43.6         20.5         B         10.8         43.6         20.5         B         10.9         43.7         20.5         B         0%         0%         0%           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F         -11%         -8%         8%           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D         7%         3%         -2%           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D         -7%         -3%         3%           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7         11.2         D         29%         7%         -6%	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Signal Delay (s)         (s)         Arterial Speed         Signal Delay (s)           10.8         43.6         20.5         B         10.8         43.6         20.5         B         10.9         43.7         20.5         B         0%         0%         0%         0%         1%           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F         -11%         -8%         8%         -11%           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D         7%         3%         -2%         10%           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D         -7%         -3%         3%         -2%           4.9         20.2         12.0         D         6.3         21.6         11.3         D         6.4         21.7         11.2         D         29% <td>Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Signal Delay (s)         (s)         Arterial Speed         Signal Delay (s)         (s)           10.8         43.6         20.5         B         10.9         43.7         20.5         B         0%         0%         0%         1%         0%           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F         -11%         -8%         8%         -11%         -7%           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D         7%         3%         -2%         10%         4%           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D         -7%         -3%         3%         -2%         -1%           4.9         20.2         12.0         D         6.3         21.6         11.3         D</td> <td>Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Signal Delay (s)         (s)         Arterial Speed Signal De</td> <td>Belay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) (s) (s) Arterial Speed Signal Delay (s) (s) (s) (s) (s) (s) (s) (s) (s) (s)</td> <td>Belay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) (s) Arterial Speed Signal Delay (s) (s) (s) Arterial Speed Signal Delay (s) (s) (s) (s) (s) (s) (s) (s) (s) (s)</td>	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Signal Delay (s)         (s)         Arterial Speed         Signal Delay (s)         (s)           10.8         43.6         20.5         B         10.9         43.7         20.5         B         0%         0%         0%         1%         0%           12.3         18.4         5.3         F         10.9         17.0         5.7         F         11         17.1         5.7         F         -11%         -8%         8%         -11%         -7%           8.3         22.4         10.0         D         8.9         23.0         9.8         D         9.1         23.2         9.7         D         7%         3%         -2%         10%         4%           10.0         25.0         9.5         D         9.3         24.3         9.8         D         9.8         24.8         9.6         D         -7%         -3%         3%         -2%         -1%           4.9         20.2         12.0         D         6.3         21.6         11.3         D	Belay (s)         Time (s)         Speed         LOS         Delay (s)         Time (s)         Speed         LOS         Signal Delay (s)         (s)         Arterial Speed Signal De	Belay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) (s) (s) Arterial Speed Signal Delay (s)	Belay (s) Time (s) Speed LOS Delay (s) Time (s) Speed LOS Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) Arterial Speed Signal Delay (s) (s) (s) Arterial Speed Signal Delay (s) (s) (s) Arterial Speed Signal Delay (s)

			Optimized	Condition			Alterr	native 2			Alterna	itive 2B		% Char	nge - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	(	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tin	ne	T	ravel Time			Travel Time	
Montgomery Street NB	De	elay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Fayette		-	-	-	-	18.7	39.2	10.4	D	20.2	40.7	10.1	D	-	-	-	-	-	-	8%	4%	-3%
Fayette to Wasgington		-	-	-	-	7.6	21.6	10.3	D	7	21	10.6	D	-	-	-	-	-	-	-8%	-3%	3%
Wasgington to Water		-	-	-	-	10.3	24.4	9.2	D	3.6	17.7	12.6	D	-	-	-	-	-	-	-65%	-27%	37%
Water to Erie		-	-	-	-	16.0	22.2	4.4	F	22.1	28.3	3.5	F	-	-	-	-	-	-	38%	27%	-20%
	Total	-	-	-	-	52.6	107.4	8.9	E	52.9	107.7	8.8	E	-	-	-	-	-	-	1%	0%	-1%

			Optimized	d Condition			Alterr	native 2			Alterna	itive 2B		% Chan	ge - Optimize	ed to Alt 2	% Change	- Optimized	to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak		Signal							Signal	Travel	Arterial			Travel Tim	ne	T	ravel Time	!		Travel Time		
Montgomery Street SB		Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Erie to Water		21.9	28.1	3.5	F	10.9	17.1	5.7	F	9.1	15.3	6.4	F	-50%	-39%	63%	-58%	-46%	83%	-17%	-11%	12%
Water to Washington		8.0	22.1	10.1	D	9.9	24.0	9.3	D	12	26.1	8.6	E	24%	9%	-8%	50%	18%	-15%	21%	9%	-8%
Washington to Fayette		18.4	32.4	6.8	F	19.8	33.8	6.6	F	18.8	32.8	6.8	F	8%	4%	-3%	2%	1%	0%	-5%	-3%	3%
	Total	48.3	82.6	6.6	F	40.6	74.9	7.3	E	39.9	74.2	7.3	E	-16%	-9%	11%	-17%	-10%	11%	-2%	-1%	0%
		Optimized Condition Alternative 2								A 11	tive OD		0/ 01	as Ontimiz	11 4110	0/ 01	Ontimizad	1 AU OD	0/ 01	ongo Alt 2 to /	LL OB	

		Optimized	d Condition			Alterr	native 2			Alterna	itive 2B		% Char	nge - Optimiz	ed to Alt 2	% Change	- Optimized	to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tin	ne	1T	ravel Time	:		Travel Time	
Montgomery Street NB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	0.0	13.8	15.9	С	0.0	13.8	15.9	С	0	13.8	15.9	С	-	-	-	-	-	-	0%	0%	0%
Adams to Harrison	-	-	-	-	10.3	29.4	13.0	D	10.3	29.4	13	D	-	-	-	-	-	-	0%	0%	0%
Harrison to Madison	-	-	-	-	9.6	24.7	12.2	D	10	25.1	12	D	-	-	-	-	-	-	4%	2%	-2%
Madison to Jefferson	-	-	-	-	0.0	19.5	20.0	В	0	19.5	20	В	-	-	-	-	-	-	0%	0%	0%
Total	-	-	-	-	19.9	87.4	14.8	С	20.3	87.8	14.7	С	-	-	-	-	-	-	2%	0%	-1%

		Optimized	Condition			Altern	ative 2			Alterna	tive 2B		% Chang	e - Optimized	to Alt 2	% Chan	ge - Optimize	d to Alt 2B	% Ch	ange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne		Travel Time	
Montgomery Street SB	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Jefferson to Madison	9.1	28.6	13.6	С	12.3	31.8	12.2	D	14.2	33.7	11.6	D	35%	11%	-10%	56%	18%	-15%	15%	6%	-5%
Madison to Harrison	8.4	23.5	12.8	D	11.0	26.1	11.5	D	6.5	21.6	14	С	31%	11%	-10%	-23%	-8%	9%	-41%	-17%	22%
Harrison to Adams	65.4	84.5	4.5	F	0.0	19.1	20.0	В	0	19.1	20	В	-100%	-77%	344%	-100%	-77%	344%	0%	0%	0%
Total	82.9	136.6	7.9	E	23.3	77.0	13.9	С	20.7	74.4	14.4	С	-72%	-44%	76%	-75%	-46%	82%	-11%	-3%	4%

		Optimized	d Condition			Alterna	ative 2			Altern	ative 2B		% Cha	nge - Optimized	to Alt 2	% Change	e - <mark>Optimiz</mark> e	ed to Alt 2B	% Char	nge - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Tim	ne	T	ravel Time	е
Salina Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	48.7	60.4	3.1	F	49.2	60.9	3.1	F	48.7	60.4	3.1	F	1%	1%	0%	0%	0%	0%	-1%	-1%	0%
Adams to Centro Hub	0.6	3.9	13.3	С	0.6	3.9	13.3	С	0.6	3.9	13.3	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Centro Hub to Harrsion	30.2	48.7	7.6	Е	33.6	52.1	7.1	E	29.9	48.4	7.7	E	11%	7%	-7%	-1%	-1%	1%	-11%	-7%	8%
Harrison to Ped Crossing	5.5	21.6	14.9	С	5.0	21.1	15.3	С	5.2	21.3	15.1	С	-9%	-2%	3%	-5%	-1%	1%	4%	1%	-1%
Ped Crossing Jefferson	14.3	31.8	11.0	D	6.9	24.4	14.3	С	6.6	24.1	14.5	С	-52%	-23%	30%	-54%	-24%	32%	-4%	-1%	1%
Jefferson to Fayette	6.5	27.0	15.2	С	6.3	26.8	15.3	С	5.9	26.4	15.5	С	-3%	-1%	1%	-9%	-2%	2%	-6%	-1%	1%
Fayette to Washington	8.9	23.1	9.7	D	7.2	21.4	10.5	D	9	23.2	9.7	D	-19%	-7%	8%	1%	0%	0%	25%	8%	-8%
Washington to Water	5.9	20.6	11.3	D	5.6	20.3	11.5	D	6	20.7	11.3	D	-5%	-1%	2%	2%	0%	0%	7%	2%	-2%
Water to James	26.8	38.5	4.8	F	17.5	29.2	6.4	F	17.9	29.6	6.3	F	-35%	-24%	33%	-33%	-23%	31%	2%	1%	-2%
James to Willow	2.9	19.2	13.5	С	6.9	23.2	11.2	D	7.3	23.6	11	D	138%	21%	-17%	152%	23%	-19%	6%	2%	-2%
Willow to Herald	8.1	23.1	10.3	D	7.6	22.6	10.6	D	7.4	22.4	10.7	D	-6%	-2%	3%	-9%	-3%	4%	-3%	-1%	1%
Tota	ıl 158.4	317.9	8.9	Е	146.4	305.8	9.3	D	144.5	304	9.3	D	-8%	-4%	4%	-9%	-4%	4%	-1%	-1%	0%

		Optimized	l Condition			Altern	ative 2			Alterna	ative 2B		% Chan	nge - Optimize	ed to Alt 2	% Chan	ige - Optimized	to Alt 2B	% Ch	nange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie		Travel Time	!		Travel Time	9
Salina Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
State to Herald	18.9	52.8	17.5	С	18.9	52.8	17.5	С	18.9	52.8	17.5	С	0%	0%	0%	0%	0%	0%	0%	0%	0%
Herald to Willow	3.2	18.2	13.1	С	3.0	18.0	13.3	С	2.9	17.9	13.3	С	-6%	-1%	2%	-9%	-2%	2%	-3%	-1%	0%
Willow to Genesee	12.9	29.2	8.9	Е	8.4	24.7	10.5	D	14.2	30.5	8.5	E	-35%	-15%	18%	10%	4%	-4%	69%	23%	-19%
Genesee to Water	4.9	16.6	11.2	D	7.0	18.7	9.9	D	5.2	16.9	11	D	43%	13%	-12%	6%	2%	-2%	-26%	-10%	11%
Water to Washington	10.0	24.7	9.4	D	6.1	20.8	11.2	D	9.6	24.3	9.6	D	-39%	-16%	19%	-4%	-2%	2%	57%	17%	-14%
Washington to Fayette	14.8	29.0	7.8	E	13.5	27.7	8.1	E	12.2	26.4	8.5	E	-9%	-4%	4%	-18%	-9%	9%	-10%	-5%	5%
Fayette to Jefferson	6.0	26.5	15.4	С	10.2	30.7	13.3	С	12.6	33.1	12.4	D	70%	16%	-14%	110%	25%	-19%	24%	8%	-7%
Jefferson to Ped Crossing	6.9	24.4	14.3	С	22.5	40.0	8.7	E	18.7	36.2	9.7	D	226%	64%	-39%	171%	48%	-32%	-17%	-9%	11%
Ped Crossing to Onondaga	18.7	34.8	9.2	D	4.8	20.9	15.4	С	9.6	25.7	12.5	D	-74%	-40%	67%	-49%	-26%	36%	100%	23%	-19%
Onondaga to Centro Hub	33.8	52.3	7.1	E	33.0	51.5	7.2	E	33.8	52.3	7.1	E	-2%	-2%	1%	0%	0%	0%	2%	2%	-1%
Centro Hub to Adams	1.6	4.9	10.6	D	2.0	5.3	9.8	D	1.6	4.9	10.6	D	25%	8%	-8%	0%	0%	0%	-20%	-8%	8%
Total	131.7	313.4	11.4	D	129.4	311.1	11.5	D	139.3	321	11.1	D	-2%	-1%	1%	6%	2%	-3%	8%	3%	-3%

		Optimize	d Condition			Altern	ative 2			Alterna	itive 2B		% Chang	e - Optimized	l to Alt 2	% Chan	ge - Optimized	d to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	Travel Time			Travel Tim	е		Travel Time	!
State Street Northbound	Delay (	) Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	24.4	40.7	8.0	Е	16.3	24.7	7.9	Е	24.7	41	7.9	Е	-33%	-39%	-1%	1%	1%	-1%	52%	66%	0%
Adams to Harrison	15.0	34.1	11.2	D	19.1	14.0	11.5	D	15.9	35	10.9	D	27%	-59%	3%	6%	3%	-3%	-17%	150%	-5%
Harrison to Madison	16.4	31.5	9.6	D	15.1	18.6	8.9	E	15.4	30.5	9.9	D	-8%	-41%	-7%	-6%	-3%	3%	2%	64%	11%
Madison to Jefferson	5.2	24.6	15.8	С	19.4	7.9	14.2	С	7.6	27	14.4	С	273%	-68%	-10%	46%	10%	-9%	-61%	242%	1%
Jefferson to Genesee	14.1	29.8	8.4	E	15.7	12.3	8.9	E	12.1	27.8	9	Е	11%	-59%	6%	-14%	-7%	7%	-23%	126%	1%
Genesee to Fayette	20.6	29.7	4.9	F	9.1	20.6	4.9	F	20.9	30	4.8	F	-56%	-31%	0%	1%	1%	-2%	130%	46%	-2%
Fayette to Washington	18.5	33.0	7.0	F	14.5	14.7	7.9	E	14.9	29.4	7.8	E	-22%	-55%	13%	-19%	-11%	11%	3%	100%	-1%
Washington to Water	3.7	17.5	12.5	D	13.8	5.4	11.4	D	5.7	19.5	11.3	D	273%	-69%	-9%	54%	11%	-10%	-59%	261%	-1%
Water to Erie	27.3	33.7	3.0	F	6.4	24.8	3.2	F	22.4	28.8	3.5	F	-77%	-26%	7%	-18%	-15%	17%	250%	16%	9%
Т	otal 145.2	274.6	8.5	E	129.4	143.0	8.6	E	139.6	269	8.7	E	-11%	-48%	1%	-4%	-2%	2%	8%	88%	1%

		Optimized	d Condition			Altern	ative 2			Alterna	ative 2B	•	% Chan	ge - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie	7	ravel Time	9		Travel Time	!
State Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Erie	20.0	41.5	10.4	D	19.4	40.9	10.5	D	19.4	40.9	10.5	D	-3%	-1%	1%	-3%	-1%	1%	0%	0%	0%
Erie to Water	7.3	13.7	7.4	Е	8.7	15.1	6.7	F	9.7	16.1	6.3	F	19%	10%	-9%	33%	18%	-15%	11%	7%	-6%
Water to Washington	11.7	25.5	8.6	Е	9.3	23.1	9.5	D	8.7	22.5	9.8	D	-21%	-9%	10%	-26%	-12%	14%	-6%	-3%	3%
Washington to Fayette	18.2	32.7	7.0	E	23.0	37.5	6.1	F	25.8	40.3	5.7	F	26%	15%	-13%	42%	23%	-19%	12%	7%	-7%
Fayette to Onondaga	7.2	16.3	8.9	E	4.9	14.0	10.3	D	4.1	13.2	11	D	-32%	-14%	16%	-43%	-19%	24%	-16%	-6%	7%
Onondaga to Jefferson	5.4	21.1	11.8	D	14.6	30.3	8.2	E	12.7	28.4	8.8	Е	170%	44%	-31%	135%	35%	-25%	-13%	-6%	7%
Jefferson to Madison	25.9	45.3	8.6	E	17.4	36.8	10.6	D	17	36.4	10.7	D	-33%	-19%	23%	-34%	-20%	24%	-2%	-1%	1%
Madison to Harrison	1.5	16.6	18.2	С	2.1	17.2	17.5	С	2.1	17.2	17.5	С	40%	4%	-4%	40%	4%	-4%	0%	0%	0%
Harrison to Adams	51.2	70.3	5.4	F	51.2	70.3	5.4	F	51.2	70.3	5.4	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tot	al 148.4	283.0	8.6	E	150.6	285.2	8.6	E	150.7	285.3	8.6	E	1%	1%	0%	2%	1%	0%	0%	0%	0%

		Optimized	Condition			Altern	ative 2			Alterna	ative 2B		% Change	e - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	e		Travel Time			Travel Time	
Townsend Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Adams	31.6	49.9	7.3	Е	31.6	49.9	7.3	E	31.6	49.9	7.3	E	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adams to Harrison	13.3	32.0	11.7	D	13.3	32.0	11.7	D	13.3	32	11.7	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Harrison to Genesee	12.7	47.8	20.0	В	13.0	48.1	19.9	В	12.9	48	20	В	2%	1%	-1%	2%	0%	0%	-1%	0%	1%
Genesee to Fayette	9.8	18.7	7.5	Е	9.2	18.1	7.8	E	10.6	19.5	7.2	E	-6%	-3%	4%	8%	4%	-4%	15%	8%	-8%
Fayette to Washington	3.9	18.4	12.5	D	5.4	19.9	11.5	D	4.6	19.1	12	D	38%	8%	-8%	18%	4%	-4%	-15%	-4%	4%
Washington to Water	2.3	16.4	13.6	С	2.6	16.7	13.4	С	2.8	16.9	13.2	С	13%	2%	-1%	22%	3%	-3%	8%	1%	-1%
Water to Erie	24.4	30.7	3.3	F	20.1	26.4	3.8	F	23.8	30.1	3.3	F	-18%	-14%	15%	-2%	-2%	0%	18%	14%	-13%
Erie to 1690 WB offramp	23.0	30.0	3.7	F	23.5	30.5	3.6	F	21	28	3.9	F	2%	2%	-3%	-9%	-7%	5%	-11%	-8%	8%
1690 WB offramp to Burnett	5.6	21.3	11.7	D	4.4	20.1	12.4	D	4.4	20.1	12.4	D	-21%	-6%	6%	-21%	-6%	6%	0%	0%	0%
Total	126.6	265.2	10.4	D	123.1	261.7	10.5	D	125	263.6	10.4	D	-3%	-1%	1%	-1%	-1%	0%	2%	1%	-1%

		Optimized	l Condition			Altern	ative 2			Alterna	ative 2B		% Chan	ge - Optimize	ed to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ne		Travel Time			Travel Time	
Townsend Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
James to Burnett	22.7	39.2	8.4	E	21.6	38.1	8.6	E	17.6	34.1	9.7	D	-5%	-3%	2%	-22%	-13%	15%	-19%	-10%	13%
Burnett to Brown	13.9	29.6	8.4	E	16.4	32.1	7.8	E	18.5	34.2	7.3	E	18%	8%	-7%	33%	16%	-13%	13%	7%	-6%
Brown to Erie	28.3	35.3	3.1	F	26.2	33.2	3.3	F	25.1	32.1	3.4	F	-7%	-6%	6%	-11%	-9%	10%	-4%	-3%	3%
Erie to Water	2.2	8.5	11.8	D	2.7	9.0	11.1	D	2.5	8.8	11.4	D	23%	6%	-6%	14%	4%	-3%	-7%	-2%	3%
Water to Washington	3.0	17.1	13.1	С	4.6	18.7	12.0	D	4.6	18.7	12	D	53%	9%	-8%	53%	9%	-8%	0%	0%	0%
Washington to Fayette	9.3	23.8	9.7	D	8.9	23.4	9.8	D	10.5	25	9.2	D	-4%	-2%	1%	13%	5%	-5%	18%	7%	-6%
Fayette to Genesee	4.1	13.0	10.9	D	6.9	15.8	8.9	E	4.5	13.4	10.5	D	68%	22%	-18%	10%	3%	-4%	-35%	-15%	18%
Genesee to Harrison	6.3	41.4	23.1	В	5.3	40.4	23.7	В	5.5	40.6	23.6	В	-16%	-2%	3%	-13%	-2%	2%	4%	0%	0%
Harrison to Adams	62.0	80.7	4.6	F	62.0	80.7	4.6	F	62	80.7	4.6	F	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	151.8	288.6	9.4	D	154.6	291.4	9.3	D	150.8	287.6	9.4	D	2%	1%	-1%	-1%	0%	0%	-2%	-1%	1%

		Optimized	d Condition			Altern	ative 2			Alterna	itive 2B		% Chan	ge - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	ange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie		Travel Time			Travel Time	
Warren Street Northbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Adams to Harrsion	15.2	34.3	11.1	D	15.4	34.5	11.1	D	15.9	35	10.9	D	1%	1%	0%	5%	2%	-2%	3%	1%	-2%
Harrison to Madison	2.4	17.5	17.2	С	14.9	30.0	10.0	D	1.9	17	17.7	С	521%	71%	-42%	-21%	-3%	3%	-87%	-43%	77%
Madison to Jefferon	11.1	30.5	12.7	D	16.2	35.6	10.9	D	9.5	28.9	13.4	С	46%	17%	-14%	-14%	-5%	6%	-41%	-19%	23%
Jefferson to Fayette	22.1	42.6	9.6	D	24.2	44.7	9.2	D	22.3	42.8	9.6	D	10%	5%	-4%	1%	0%	0%	-8%	-4%	4%
Fayette to Washington	8.3	22.3	10.0	D	12.4	26.4	8.4	E	6.8	20.8	10.7	D	49%	18%	-16%	-18%	-7%	7%	-45%	-21%	27%
Washington to Water	3.5	18.3	12.9	D	5.5	20.3	11.6	D	4.6	19.4	12.1	D	57%	11%	-10%	31%	6%	-6%	-16%	-4%	4%
Water to Erie	2.7	8.7	11.0	D	3.7	9.7	9.8	D	5.7	11.7	8.2	Е	37%	11%	-11%	111%	34%	-25%	54%	21%	-16%
Erie to James	15.4	21.3	4.4	F	14.5	20.4	4.6	F	11.9	17.8	5.3	F	-6%	-4%	5%	-23%	-16%	20%	-18%	-13%	15%
То	tal 80.7	195.5	10.9	D	106.8	221.6	9.6	D	78.6	193.4	11	D	32%	13%	-12%	-3%	-1%	1%	-26%	-13%	15%

		Optimized	d Condition			Altern	ative 2			Alterna	ative 2B		% Chan	ge - Optimize	ed to Alt 2	% Change	- Optimized	to Alt 2B	% Ch	ange - Alt 2 to <i>i</i>	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie	Tr	ravel Time			Travel Time	
Warren Street Southbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to James	-	-	-	-	12.9	24.7	7.6	Е	12	23.8	7.9	Е	-	-	-	-	-	-	-7%	-4%	4%
James to Erie	-	-	-	-	3.9	9.8	9.6	D	9.3	15.2	6.2	F	-	-	-	-	-	-	138%	55%	-35%
Erie to Water	-	-	-	-	9.6	15.6	6.1	F	6.5	12.5	7.6	E	-	-	-	-	-	-	-32%	-20%	25%
Water to Washington	-	-	-	-	7.0	21.8	10.8	D	0	14.8	15.9	С	-	-	-	-	-	-	-100%	-32%	47%
Washington to Fayette	-	-	-	-	4.4	18.4	12.1	D	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Fayett to Jefferson	-	-	-	-	5.2	25.7	15.9	С	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Jefferson to Onondaga	-	-	-	-	6.3	25.7	15.1	В	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
Onondaga to Harrison	-	-	-	-	0.4	15.5	19.4	В	NA	NA	NA	NA	-	-	-	-	-	-	NA	NA	NA
То	tal -	-	-	-	49.7	157.2	12.3	D	27.8	66.3	9.2	D	-	-	-	-	-	-	-44%	-58%	-25%

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		Optimized	l Condition			Altern	ative 2			Alterna	ative 2B		% Change	e - Optimize	d to Alt 2	% Chan	ige - Optimized i	to Alt 2B	% Ch	nange - Alt 2 to A	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial		T	ravel Tim	е		Travel Time			Travel Time	
Washington Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
West to Franklin	13.7	38.3	15.4	С	17.0	41.6	14.2	С	19	43.6	13.5	С	24%	9%	-8%	39%	14%	-12%	12%	5%	-5%
Franklin to Clinton	4.9	22.6	15.7	С	14.7	32.4	10.9	D	12.4	30.1	11.8	D	200%	43%	-31%	153%	33%	-25%	-16%	-7%	8%
Clinton to Salina	10.6	26.2	9.5	D	9.6	25.2	9.8	D	9.4	25	9.9	D	-9%	-4%	3%	-11%	-5%	4%	-2%	-1%	1%
Salina to Warren	20.4	36.7	7.1	E	19.5	35.8	7.2	E	19.9	36.2	7.2	E	-4%	-2%	1%	-2%	-1%	1%	2%	1%	0%
Warren to Montgomery	2.5	16.0	16.9	С	5.1	18.6	14.5	С	4.8	18.3	14.8	С	104%	16%	-14%	92%	14%	-12%	-6%	-2%	2%
Montgomery to State	5.9	23.6	15.0	С	7.8	25.5	13.9	С	10.4	28.1	12.6	D	32%	8%	-7%	76%	19%	-16%	33%	10%	-9%
State to Townsend	33.8	50.0	6.5	F	27.9	44.1	7.3	E	3	46.2	7	E	-17%	-12%	12%	-91%	-8%	8%	-89%	5%	-4%
Townsend to McBride	5.7	21.5	14.7	С	5.5	21.3	14.8	С	5.1	20.9	15.1	С	-4%	-1%	1%	-11%	-3%	3%	-7%	-2%	2%
McBride to Almond	4.6	19.9	15.3	С	4.9	20.2	15.1	С	4.6	19.9	15.3	С	7%	2%	-1%	0%	0%	0%	-6%	-1%	1%
Tota	102.1	254.8	11.9	D	112.0	264.7	11.4	D	115.6	268.3	11.3	D	10%	4%	-4%	13%	5%	-5%	3%	1%	-1%

		Optimized	d Condition			Altern	ative 2			Alterna	ative 2B		% Chan	ige - Optimized	l to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Cha	ange - Alt 2 to	o Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time	:		Travel Time			Travel Tim	е
Washinton Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Entry Link to Almond	19.6	34.9	8.8	E	21.1	36.4	8.4	Е	21.1	36.4	8.4	E	8%	4%	-5%	8%	4%	-5%	0%	0%	0%
Almond to McBride	6.1	21.4	14.3	С	5.5	20.8	14.7	С	5.7	21	14.5	С	-10%	-3%	3%	-7%	-2%	1%	4%	1%	-1%
McBride to Townsend	11.6	27.4	11.5	D	9.8	25.6	12.3	D	10.6	26.4	11.9	D	-16%	-7%	7%	-9%	-4%	3%	8%	3%	-3%
Townsend to State	15.8	32.0	10.1	D	17.6	33.8	9.6	D	17.8	34	9.5	D	11%	6%	-5%	13%	6%	-6%	1%	1%	-1%
State to Montgomery	7.1	24.8	14.3	С	9.4	27.1	13.1	С	9.6	27.3	13	D	32%	9%	-8%	35%	10%	-9%	2%	1%	-1%
Montgomery to Warren	22.0	35.5	7.6	E	22.1	35.6	7.6	Е	22.3	35.8	7.5	E	0%	0%	0%	1%	1%	-1%	1%	1%	-1%
Warren to Salina	12.5	28.8	9.0	E	12.3	28.6	9.1	D	11.2	27.5	9.4	D	-2%	-1%	1%	-10%	-5%	4%	-9%	-4%	3%
Salina to Clinton	2.7	18.3	13.6	С	14.0	29.6	8.4	Е	10.5	26.1	9.5	D	419%	62%	-38%	289%	43%	-30%	-25%	-12%	13%
Clinton to Franklin	14.4	32.1	11.0	D	7.3	25.0	14.2	С	10.3	28	12.7	D	-49%	-22%	29%	-28%	-13%	15%	41%	12%	-11%
Franklin to West	33.0	57.6	10.2	D	33.0	57.6	10.2	D	33	57.6	10.2	D	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tota	144.8	312.8	10.6	D	152.1	320.1	10.4	D	152.1	320.1	10.4	D	5%	2%	-2%	5%	2%	-2%	0%	0%	0%

		Optimized	d Condition			Altern	ative 2			Alterna	ative 2B		% Chan	ige - Optimize	ed to Alt 2	% Change	e - Optimized	to Alt 2B	% Ch	nange - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Tim	ie		Travel Time	;		Travel Time	
Water Street Eastbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Clinton to Salina	8.4	24.7	10.5	D	16.6	32.9	7.9	E	14.9	31.2	8.3	E	98%	33%	-25%	77%	26%	-21%	-10%	-5%	5%
Salina to Warren	21.2	37	6.8	F	19.6	35.4	7.1	E	19.5	35.3	7.1	E	-8%	-4%	4%	-8%	-5%	4%	-1%	0%	0%
Warren to Montgomery	5.1	22.1	12.2	D	10.1	27.1	9.9	D	10.3	27.3	9.9	D	98%	23%	-19%	102%	24%	-19%	2%	1%	0%
Montgomery to State	9.1	26.6	13.1	С	9.8	27.3	12.8	D	10.2	27.7	12.6	D	8%	3%	-2%	12%	4%	-4%	4%	1%	-2%
State to Townsend	22.7	38.9	8.3	E	20.9	37.1	8.7	E	22.4	38.6	8.4	E	-8%	-5%	5%	-1%	-1%	1%	7%	4%	-3%
Townsend to McBride	10.3	25.8	12	D	11.5	27	11.5	D	9.5	25	12.4	D	12%	5%	-4%	-8%	-3%	3%	-17%	-7%	8%
McBride to Almond	10.3	25.8	12	D	9.8	25.3	12.3	D	9.5	25	12.4	D	-5%	-2%	3%	-8%	-3%	3%	-3%	-1%	1%
Tota	ıl 87.1	200.9	10.3	D	98.3	212.1	9.8	D	96.3	210.1	9.9	D	13%	6%	-5%	11%	5%	-4%	-2%	-1%	1%

		Optimized Condition				Altern	ative 2			Alterna	ative 2B		% Chai	nge - Optimized	to Alt 2	% Chan	ge - Optimized	to Alt 2B	% Chai	nge - Alt 2 to	Alt 2B
PM Peak	Signal	Travel	Arterial		Signal	Travel	Arterial		Signal	Travel	Arterial			Travel Time			Travel Time		I	ravel Time	
Water Street Westbound	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Delay (s)	Time (s)	Speed	LOS	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed	Signal Delay (s)	(s)	Arterial Speed
Crouse to Almond	18.3	56.4	18.4	С	19	57.1	18.2	С	19	57.1	18.2	С	4%	1%	-1%	4%	1%	-1%	0%	0%	0%
Almond to McBride	6.3	21.8	14.2	С	7.3	22.8	13.6	С	6.7	22.2	14	С	16%	5%	-4%	6%	2%	-1%	-8%	-3%	3%
McBride to Townsend	10.7	26.2	11.8	D	9.3	24.8	12.5	D	11.2	26.7	11.6	D	-13%	-5%	6%	5%	2%	-2%	20%	8%	-7%
Townsend to State	10.8	27	12	D	10.4	26.6	12.2	D	11	27.2	11.9	D	-4%	-1%	2%	2%	1%	-1%	6%	2%	-2%
State to Montgomery	8.9	26.4	13.2	С	12.6	30.1	11.6	D	11.2	28.7	12.2	D	42%	14%	-12%	26%	9%	-8%	-11%	-5%	5%
Montgomery to Warren	0.9	17.9	15	С	0	17	15.8	С	0	17	15.8	С	-100%	-5%	5%	-100%	-5%	5%	0%	0%	0%
Tota	I 55.9	175.7	14.8	С	58.6	178.4	14.6	С	59.1	178.9	14.6	С	5%	2%	-1%	6%	2%	-1%	1%	0%	0%

## **Appendix C**

# Detailed Synchro MOE Results Alternative 2



Arterial Level of Service: EB ADAMS ST
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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
CLINTON ST	IV	30	17.2	10.9	28.1	0.10	12.3	D
SALINA ST	IV	30	15.0	47.5	62.5	0.07	3.8	F
Warren	IV	30	7.2	6.8	14.0	0.03	8.2	Ε
Harrison Place	IV	30	8.3	0.8	9.1	0.04	14.4	С
MONTGOMERY ST 2	IV	30	14.7	6.7	21.4	0.06	10.9	D
STATE ST	IV	30	15.3	1.9	17.2	0.07	14.1	С
TOWNSEND ST	IV	30	16.2	10.8	27.0	0.09	12.0	D
McBride	IV	30	16.5	1.3	17.8	0.09	18.5	С
Total	IV		110.4	86.7	197.1	0.54	9.9	D

## Arterial Level of Service: WB ADAMS ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MONTGOMERY ST 2	IV	30	15.3	10.0	25.3	0.07	9.6	D
Harrison Place	IV	30	14.7	0.0	14.7	0.06	15.9	С
Warren	IV	30	8.3	4.3	12.6	0.04	10.4	D
SALINA ST	IV	30	7.2	31.1	38.3	0.03	3.0	F
CLINTON ST	IV	30	15.0	9.8	24.8	0.07	9.6	D
Total	IV		60.5	55.2	115.7	0.27	8.3	F

#### Arterial Level of Service: NB ALMOND ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
GENESEE ST	IV	30	30.9	18.1	49.0	0.22	16.2	С
FAYETTE ST	IV	30	16.3	3.9	20.2	0.07	12.8	D
WASHINGTON ST	IV	30	15.3	4.3	19.6	0.07	12.4	D
WATER ST	IV	30	14.5	4.0	18.5	0.06	12.4	D
ERIE BLVD	IV	30	6.1	6.5	12.6	0.03	7.7	<u>E</u>
Total	IV		83.1	36.8	119.9	0.45	13.5	С

## Arterial Level of Service: SB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	17.0	11.4	28.4	0.09	12.0	D
WATER ST	IV	30	6.1	5.1	11.2	0.03	8.7	Ε
WASHINGTON ST	IV	30	14.5	3.6	18.1	0.06	12.7	D
FAYETTE ST	IV	30	15.3	5.4	20.7	0.07	11.7	D
GENESEE ST	IV	30	16.3	15.1	31.4	0.07	8.2	<u>E</u>
Total	IV		69.2	40.6	109.8	0.32	10.6	D

Arterial I	evelo	of Serv	rice: NR	CLIN	TON ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.0	10.3	24.3	0.08	11.5	D
PED CROSSING	IV	30	15.3	0.0	15.3	0.08	20.0	В
JEFFERSON ST	IV	30	23.3	2.4	25.7	0.16	21.8	В
FAYETTE ST	IV	30	20.5	11.1	31.6	0.11	12.9	D
WASHINGTON ST	IV	30	14.2	10.4	24.6	0.06	9.1	D
WATER ST	IV	30	15.0	0.1	15.1	0.07	15.8	С
GENESEE ST	IV	30	12.3	8.1	20.4	0.05	9.6	D
HERALD ST	IV	30	20.3	0.0	20.3	0.14	23.9	В
Total	IV		134.9	42.4	177.3	0.75	15.2	C

## Arterial Level of Service: SB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	15.3	16.1	31.4	0.07	7.8	E
GENESEE ST	IV	30	20.3	29.0	49.3	0.14	9.9	D
WATER ST	IV	30	12.3	0.3	12.6	0.05	15.5	С
WASHINGTON ST	IV	30	15.0	13.9	28.9	0.07	8.3	Ε
FAYETTE ST	IV	30	14.2	16.8	31.0	0.06	7.3	Ε
JEFFERSON ST	IV	30	20.5	5.3	25.8	0.11	15.9	С
PED CROSSING	IV	30	23.3	0.1	23.4	0.16	23.9	В
GIFFORD ST	IV	30	15.3	12.9	28.2	0.08	10.8	D
ADAMS ST	IV	30	14.0	58.8	72.8	0.08	3.8	<u> </u>
Total	IV		150.2	153.2	303.4	0.82	9.7	D

## Arterial Level of Service: EB ERIE BLVD

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WARREN ST	IV	30	15.8	7.8	23.6	0.07	<u>эрееи</u> 10.6	D
MONTGOMERY ST	IV	30	13.6	12.0	25.6	0.07	10.6	D
STATE ST	IV	30	17.5	21.1	38.6	0.00	9.0	D
TOWNSEND ST	IV	30	16.2	13.0	29.2	0.09	11.1	D
MCBRIDE ST	IV	30	15.5	8.9	24.4	0.09	12.7	D
ALMOND ST	IV	30	15.8	4.5	20.3	0.09	15.5	C
Total	IV		94.4	67.3	161.7	0.51	11.3	D

## Arterial Level of Service: WB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	38.0	12.9	50.9	0.29	20.3	В
MCBRIDE ST	IV	30	15.8	4.6	20.4	0.09	15.4	С
TOWNSEND ST	IV	30	15.5	21.0	36.5	0.09	8.5	Ε
STATE ST	IV	30	16.2	3.5	19.7	0.09	16.5	С
Oswego Street	IV	30	17.5	16.2	33.7	0.10	10.4	D
Total	IV		103.0	58.2	161.2	0.65	14.5	С

## Arterial Level of Service: EB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
West St.	IV	30	18.0	39.9	57.9	0.10	6.2	F
West St.	IV	30	8.6	4.1	12.7	0.04	10.7	D
FRANKLIN ST	IV	30	19.3	13.0	32.3	0.13	14.4	С
CLINTON ST	IV	30	17.9	16.7	34.6	0.10	10.3	D
SALINA ST	IV	30	15.3	4.6	19.9	0.07	12.2	D
WARREN ST	IV	30	16.3	7.5	23.8	0.07	10.8	D
MONTGOMERY ST	IV	30	13.6	8.4	22.0	0.08	12.4	D
STATE ST	IV	30	17.2	9.2	26.4	0.10	13.1	С
TOWNSEND ST	IV	30	16.5	9.6	26.1	0.09	12.6	D
MCBRIDE ST	IV	30	15.8	4.4	20.2	0.09	15.6	С
ALMOND ST	IV	30	15.5	6.1	21.6	0.09	14.4	С
Total	IV		174.0	123.5	297.5	0.94	11.4	D

## Arterial Level of Service: WB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	29.8	7.8	37.6	0.23	21.6	В
MCBRIDE ST	IV	30	15.5	5.7	21.2	0.09	14.6	С
TOWNSEND ST	IV	30	15.8	19.5	35.3	0.09	8.9	Ε
STATE ST	IV	30	16.5	26.2	42.7	0.09	7.7	Ε
MONTGOMERY ST	IV	30	17.2	19.7	36.9	0.10	9.3	D
WARREN ST	IV	30	13.6	7.3	20.9	0.08	13.0	С
SALINA ST	IV	30	16.3	12.4	28.7	0.07	9.0	Ε
CLINTON ST	IV	30	15.3	13.6	28.9	0.07	8.4	Ε
FRANKLIN ST	IV	30	17.9	10.2	28.1	0.10	12.7	D
West St.	IV	30	19.3	48.2	67.5	0.13	6.9	F
West St.	IV	30	8.6	18.0	26.6	0.04	5.1	<u> </u>
Total	IV		185.8	188.6	374.4	1.07	10.3	D

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Arterial	Level of	Service:	NB FR	ANKL	IN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	13.8	21.6	35.4	0.06	6.2	F
WASHINGTON ST	IV	30	14.2	5.9	20.1	0.06	11.2	D
ERIE BLVD	IV	30	16.7	10.6	27.3	0.09	12.2	D
GENESEE ST	IV	30	16.9	16.9	33.8	0.07	7.9	Ε
WILLOW ST	IV	30	6.9	5.5	12.4	0.03	8.8	Ε
HERALD ST	IV	30	14.6	10.4	25.0	0.06	9.3	D
Total	IV		83.1	70.9	154.0	0.39	9.0	D

## Arterial Level of Service: SB FRANKLIN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	16.6	14.0	30.6	0.09	10.9	D
WILLOW ST	IV	30	14.6	1.8	16.4	0.06	14.1	С
GENESEE ST	IV	30	6.9	16.2	23.1	0.03	4.7	F
ERIE BLVD	IV	30	16.9	8.7	25.6	0.07	10.5	D
WASHINGTON ST	IV	30	16.7	2.0	18.7	0.09	17.8	С
FAYETTE ST	IV	30	14.2	12.5	26.7	0.06	8.4	<u> </u>
Total	IV		85.9	55.2	141.1	0.42	10.6	D

## Arterial Level of Service: EB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WALLACE ST	IV	30	18.4	6.8	25.2	0.10	14.6	С
FRANKLIN ST	IV	30	16.2	18.5	34.7	0.09	9.3	D
CLINTON ST	IV	30	16.4	49.0	65.4	0.09	5.0	F
SALINA ST	IV	30	16.2	7.2	23.4	0.07	11.0	D
Total	IV		67.2	81.5	148.7	0.35	8.6	E

## Arterial Level of Service: WB GENESEE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	16.2	12.7	28.9	0.07	8.9	E
FRANKLIN ST	IV	30	16.4	13.2	29.6	0.09	11.1	D
WALLACE ST	IV	30	16.2	4.2	20.4	0.09	15.8	С
Total	IV		48.8	30.1	78.9	0.25	11.5	D

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Arterial Level of	Service: WE	3 HARRISC	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
TOWNSEND ST	IV	30	18.3	16.0	34.3	0.10	10.7	D
STATE ST	IV	30	21.2	7.5	28.7	0.12	14.8	C
MONTGOMERY ST 2	IV	30	15.3	5.6	20.9	0.07	11.6	D
WARREN ST	IV	30	18.3	4.8	23.1	0.10	15.9	C
ONONDAGA ST	IV	30	15.2	21.1	36.3	0.07	6.6	F
Total	IV		88.3	55.0	143.3	0.46	11.4	D
Arterial Level of	Service: EB	HERALD S	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	13.0	10.4	23.4	0.06	8.8	Е
CLINTON ST	IV	30	16.9	29.4	46.3	0.07	5.8	F
SALINA ST	IV	30	15.3	5.7	21.0	0.07	11.6	D
Total	IV		45.2	45.5	90.7	0.20	7.9	E
Arterial Level of	Service: WE	B HERALD	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	15.3	12.3	27.6	0.07	8.8	Е
FRANKLIN ST	IV	30	16.9	0.0	16.9	0.07	15.8	С
Total	IV		32.2	12.3	44.5	0.14	11.5	D
Arterial Level of	Service: EB	JEFFERS(	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	11.6	21.5	33.1	0.05	5.6	F
SALINA ST	IV	30	15.5	12.8	28.3	0.07	8.7	E
WARREN ST	IV	30	16.5	9.3	25.8	0.07	10.1	D
MONTGOMERY ST 2	IV	30	7.1	9.2	16.3	0.03	6.9	F
STATE ST	IV	30	14.2	30.7	44.9	0.06	5.0	F
Total	IV		64.9	83.5	148.4	0.29	6.9	F
Arterial Level of	Service: WE	3 JEFFERS	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.2	13.3	27.5	0.06	8.2	E
WARREN ST	IV	30	16.9	8.9	25.8	0.07	10.4	D
SALINA ST	IV	30	16.5	13.5	30.0	0.07	8.7	E
CLINTON ST	IV	30	15.5	19.7	35.2	0.07	7.0	F

63.1

55.4

118.5

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Total

8.4

0.28

Arterial Level of Service: NB MCBRIDE ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	12.0	17.1	29.1	0.05	6.5	F
FAYETTE ST	IV	30	15.3	17.4	32.7	0.07	7.4	Ε
WASHINGTON ST	IV	30	15.0	13.0	28.0	0.07	8.5	Ε
WATER ST	IV	30	14.1	16.7	30.8	0.06	7.3	Ε
ERIE BLVD	IV	30	6.1	16.3	22.4	0.03	4.4	<u> </u>
Total	IV		62.5	80.5	1 <u>4</u> 3 N	0.28	6.9	F

## Arterial Level of Service: SB MCBRIDE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ERIE BLVD	IV	30	32.8	19.1	51.9	0.25	17.2	С
WATER ST	IV	30	6.1	15.3	21.4	0.03	4.6	F
WASHINGTON ST	IV	30	14.1	6.7	20.8	0.06	10.8	D
FAYETTE ST	IV	30	15.0	13.8	28.8	0.07	8.3	Ε
GENESEE ST	IV	30	15.3	5.8	21.1	0.07	11.5	D
Total	IV		83.3	60.7	144.0	0.47	11.8	D

## Arterial Level of Service: NB MONTGOMERY ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
FAYETTE ST	IV	30	20.5	12.7	33.2	0.11	12.3	D
WASHINGTON ST	IV	30	14.0	10.1	24.1	0.06	9.2	D
WATER ST	IV	30	14.1	5.3	19.4	0.06	11.5	D
ERIE BLVD	IV	30	6.2	13.3	19.5	0.03	5.0	<u> </u>
Total	IV		54.8	41.4	96.2	0.26	9.9	D

## Arterial Level of Service: SB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WATER ST	IV	30	6.2	12.5	18.7	0.03	5.3	F
WASHINGTON ST	IV	30	14.1	15.3	29.4	0.06	7.6	Ε
FAYETTE ST	IV	30	14.0	15.5	29.5	0.06	7.5	Ε
Total	IV		34.3	43.3	77.6	0.15	7.0	E

## Arterial Level of Service: NB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	13.8	0.0	13.8	0.06	15.9	С
HARRISON ST	IV	30	19.1	13.8	32.9	0.11	11.6	D
MADISON ST	IV	30	15.1	5.3	20.4	0.08	14.8	С
JEFFERSON ST	IV	30	19.5	0.0	19.5	0.11	20.0	В
Total	IV		67.5	19.1	86.6	0.36	14.9	С

## Arterial Level of Service: SB MONTGOMERY ST 2

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MADISON ST	IV	30	19.5	13.8	33.3	0.11	11.7	D
HARRISON ST	IV	30	15.1	9.9	25.0	0.08	12.1	D
ADAMS ST	IV	30	19.1	0.0	19.1	0.11	20.0	В
Total	IV		53 7	23.7	77.4	0.30	13 9	C

## Arterial Level of Service: NB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	11.7	52.5	64.2	0.05	2.9	F
Centro Bus Hub Drive	IV	30	3.3	0.4	3.7	0.01	14.0	С
HARRISON ST	IV	30	18.5	25.2	43.7	0.10	8.5	Е
PED CROSS	IV	30	16.1	4.4	20.5	0.09	15.7	С
JEFFERSON ST	IV	30	17.5	15.6	33.1	0.10	10.6	D
FAYETTE ST	IV	30	20.5	9.4	29.9	0.11	13.7	С
WASHINGTON ST	IV	30	14.2	1.6	15.8	0.06	14.2	С
WATER ST	IV	30	14.7	6.2	20.9	0.06	11.2	D
JAMES ST	IV	30	11.7	2.9	14.6	0.05	12.7	D
WILLOW ST	IV	30	16.3	3.6	19.9	0.07	13.0	С
HERALD ST	IV	30	15.0	4.3	19.3	0.07	12.4	<u>D</u>
Total	IV		159.5	126.1	285.6	0.79	9.9	D

## Arterial Level of Service: SB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	33.9	18.7	52.6	0.26	17.6	С
WILLOW ST	IV	30	15.0	2.6	17.6	0.07	13.6	С
GENESEE ST	IV	30	16.3	8.1	24.4	0.07	10.6	D
WATER ST	IV	30	11.7	5.0	16.7	0.05	11.1	D
WASHINGTON ST	IV	30	14.7	14.8	29.5	0.06	7.9	Е
FAYETTE ST	IV	30	14.2	21.4	35.6	0.06	6.3	F
JEFFERSON ST	IV	30	20.5	1.5	22.0	0.11	18.6	С
PED CROSS	IV	30	17.5	3.1	20.6	0.10	17.0	С
ONONDAGA ST	IV	30	16.1	9.4	25.5	0.09	12.6	D
Centro Bus Hub Drive	IV	30	18.5	37.4	55.9	0.10	6.6	F
ADAMS ST	IV	30	3.3	3.0	6.3	0.01	8.2	<u>E</u>
Total	IV		181.7	125.0	306.7	0.99	11.6	D

Artorial	Lovol	Ωf	Service:	NID	STATE	CT
Anenai	Levei	ΟI	Service:	IND	SIAIE	SΙ

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel	Dist (mi)	Arterial Speed	Arterial LOS
					Time (s)		•	LU3
ADAMS ST	IV	30	16.3	32.8	49.1	0.09	6.6	F
HARRISON ST	IV	30	19.1	17.2	36.3	0.11	10.5	D
MADISON ST	IV	30	15.1	11.9	27.0	80.0	11.2	D
JEFFERSON ST	IV	30	19.4	3.8	23.2	0.11	16.8	С
GENESEE ST	IV	30	15.7	21.3	37.0	0.07	6.7	F
FAYETTE ST	IV	30	9.1	25.9	35.0	0.04	4.1	F
WASHINGTON ST	IV	30	14.5	9.9	24.4	0.06	9.4	D
WATER ST	IV	30	13.8	5.7	19.5	0.06	11.3	D
ERIE BLVD	IV	30	6.4	19.9	26.3	0.03	3.8	F
Total	IV		129.4	148.4	277.8	0.65	8.4	E

## Arterial Level of Service: SB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	21.5	26.8	48.3	0.12	8.9	E
WATER ST	IV	30	6.4	6.6	13.0	0.03	7.8	Ε
WASHINGTON ST	IV	30	13.8	7.6	21.4	0.06	10.3	D
FAYETTE ST	IV	30	14.5	8.1	22.6	0.06	10.2	D
ONONDAGA ST	IV	30	9.1	6.5	15.6	0.04	9.3	D
JEFFERSON ST	IV	30	15.7	6.2	21.9	0.07	11.4	D
MADISON ST	IV	30	19.4	7.9	27.3	0.11	14.2	С
HARRISON ST	IV	30	15.1	3.0	18.1	80.0	16.6	С
ADAMS ST	IV	30	19.1	55.4	74.5	0.11	5.1	<u> </u>
Total	IV		134.6	128.1	262.7	0.68	9.3	D

## Arterial Level of Service: NB TOWNSEND ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ADAMS ST	IV	30	18.3	38.8	57.1	0.10	6.4	F
HARRISON ST	IV	30	18.7	14.0	32.7	0.10	11.4	D
GENESEE ST	IV	30	35.1	6.4	41.5	0.27	23.1	В
FAYETTE ST	IV	30	8.9	7.5	16.4	0.04	8.6	Ε
WASHINGTON ST	IV	30	14.5	6.8	21.3	0.06	10.8	D
WATER ST	IV	30	14.1	2.2	16.3	0.06	13.7	С
ERIE BLVD	IV	30	6.3	2.2	8.5	0.03	11.8	D
<b>I690WBOFFRAMP</b>	IV	30	7.0	40.6	47.6	0.03	2.3	F
BURNETT AVE	IV	30	15.7	7.9	23.6	0.07	10.5	D
Total	IV		138.6	126.4	265.0	0.76	10.4	D

Arterial	l evel of	Service:	SB	TOW/I	<b>USEND</b>	ST
		OGIVIGE.	$\mathcal{O}$	1 7 7 7 1	NOLIND	$\mathbf{O}$

Oraca Charat	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
BURNETT AVE	IV	30	16.5	7.2	23.7	0.09	13.9	С
BROWN ST	IV	30	15.7	31.2	46.9	0.07	5.3	F
ERIE BLVD	IV	30	7.0	12.0	19.0	0.03	5.8	F
WATER ST	IV	30	6.3	2.9	9.2	0.03	10.9	D
WASHINGTON ST	IV	30	14.1	4.1	18.2	0.06	12.3	D
FAYETTE ST	IV	30	14.5	4.6	19.1	0.06	12.0	D
GENESEE ST	IV	30	8.9	6.7	15.6	0.04	9.0	D
HARRISON ST	IV	30	35.1	6.3	41.4	0.27	23.1	В
ADAMS ST	IV	30	18.7	65.1	83.8	0.10	4.5	<u> </u>
Total	IV		136.8	140.1	276.9	0.75	9.8	D

## Arterial Level of Service: NB WARREN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HARRISON ST	IV	30	19.1	14.9	34.0	0.11	11.2	D
MADISON ST	IV	30	15.1	15.4	30.5	0.08	9.9	D
JEFFERSON ST	IV	30	19.4	13.9	33.3	0.11	11.7	D
FAYETTE ST	IV	30	20.5	19.9	40.4	0.11	10.1	D
WASHINGTON ST	IV	30	14.0	7.1	21.1	0.06	10.5	D
WATER ST	IV	30	14.8	11.6	26.4	0.07	8.9	Ε
ERIE BLVD	IV	30	6.0	9.1	15.1	0.03	6.3	F
JAMES ST	IV	30	5.9	9.7	15.6	0.03	6.0	F
Total	IV		114.8	101.6	216.4	0.59	9.8	D

## Arterial Level of Service: SB WARREN ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
JAMES ST	IV	30	11.8	18.8	30.6	0.05	6.1	F
ERIE BLVD	IV	30	5.9	9.4	15.3	0.03	6.1	F
WATER ST	IV	30	6.0	11.5	17.5	0.03	5.5	F
WASHINGTON ST	IV	30	14.8	11.7	26.5	0.07	8.9	Ε
FAYETTE ST	IV	30	14.0	12.7	26.7	0.06	8.3	Ε
JEFFERSON ST	IV	30	20.5	5.0	25.5	0.11	16.0	С
ONONDAGA ST	IV	30	19.4	0.0	19.4	0.11	20.0	В
HARRISON ST	IV	30	15.1	0.0	15.1	0.08	20.0	<u>B</u>
Total	IV		107.5	69.1	176.6	0.54	10.9	D

Arterial	I evel of	Service:	FR	WASHINGTO	J ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	24.6	17.7	42.3	0.16	13.9	С
CLINTON ST	IV	30	17.7	21.9	39.6	0.10	9.0	E
SALINA ST	IV	30	15.6	13.0	28.6	0.07	8.7	E
WARREN ST	IV	30	16.3	5.6	21.9	0.07	11.8	D
MONTGOMERY ST	IV	30	13.5	8.1	21.6	0.08	12.5	D
STATE ST	IV	30	17.7	6.3	24.0	0.10	14.8	С
TOWNSEND ST	IV	30	16.2	7.4	23.6	0.09	13.7	С
MCBRIDE ST	IV	30	15.8	6.8	22.6	0.09	13.9	С
ALMOND ST	IV	30	15.3	10.8	26.1	0.08	11.7	D
Total	IV		152.7	97.6	250.3	0.84	12.1	D

## Arterial Level of Service: WB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	15.3	20.1	35.4	0.09	8.7	E
MCBRIDE ST	IV	30	15.3	5.9	21.2	0.08	14.4	С
TOWNSEND ST	IV	30	15.8	24.0	39.8	0.09	7.9	Е
STATE ST	IV	30	16.2	18.1	34.3	0.09	9.4	D
MONTGOMERY ST	IV	30	17.7	11.3	29.0	0.10	12.2	D
WARREN ST	IV	30	13.5	13.2	26.7	0.08	10.1	D
SALINA ST	IV	30	16.3	8.1	24.4	0.07	10.6	D
CLINTON ST	IV	30	15.6	16.0	31.6	0.07	7.9	Е
FRANKLIN ST	IV	30	17.7	9.8	27.5	0.10	12.9	D
West St.	IV	30	24.6	52.7	77.3	0.16	7.6	<u>E</u>
Total	IV	-	168.0	179.2	347.2	0.92	9.6	D

## Arterial Level of Service: EB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
SALINA ST	IV	30	16.3	26.5	42.8	0.07	6.1	F
WARREN ST	IV	30	15.8	6.2	22.0	0.07	11.4	D
MONTGOMERY ST	IV	30	17.0	10.9	27.9	0.07	9.7	D
STATE ST	IV	30	17.5	6.7	24.2	0.10	14.5	С
TOWNSEND ST	IV	30	16.2	17.6	33.8	0.09	9.6	D
MCBRIDE ST	IV	30	15.5	3.9	19.4	0.09	16.0	С
ALMOND ST	IV	30	15.5	12.7	28.2	0.09	11.0	<u>D</u>
Total	IV		113.8	84.5	198.3	0.58	10.5	D

## Arterial Level of Service: WB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ALMOND ST	IV	30	38.1	16.1	54.2	0.29	19.2	В
MCBRIDE ST	IV	30	15.5	5.5	21.0	0.09	14.8	С
TOWNSEND ST	IV	30	15.5	18.9	34.4	0.09	9.0	D
STATE ST	IV	30	16.2	12.1	28.3	0.09	11.4	D
MONTGOMERY ST	IV	30	17.5	7.7	25.2	0.10	13.9	С
WARREN ST	IV	30	17.0	0.0	17.0	0.07	15.8	С
Total	IV		119.8	60.3	180.1	0.72	14.5	С

ADAMS ST				
Direction	EB	WB	All	
Total Delay (hr)	31	1	33	
Stops (#)	3385	152	3537	
Average Speed (mph)	13	10	13	
Total Travel Time (hr)	54	2	56	
Distance Traveled (mi)	683	17	700	
Fuel Consumed (gal)	70	2	72	
Fuel Economy (mpg)	9.8	7.2	9.7	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	40.8	1.6	42.4	
ALMOND ST				
Direction	NB	SB	All	
Total Delay (hr)	4	3	7	
Stops (#)	487	418	905	
Average Speed (mph)	13	15	14	
Total Travel Time (hr)	7	6	13	
Distance Traveled (mi)	88	90	177	
Fuel Consumed (gal)	9	8	17	
Fuel Economy (mpg)	9.6	10.8	10.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.3	4.3	9.6	
CLINTON ST				
Direction	NB	SB	All	
Total Delay (hr)	1	21	22	
Stops (#)	188	2292	2480	
Average Speed (mph)	19	13	13	
Total Travel Time (hr)	3	37	40	
Distance Traveled (mi)	53	477	529	
Fuel Consumed (gal)	4	48	52	
Fuel Economy (mpg)	13.3	10.0	10.2	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.6	27.5	29.0	

ERIE BLVD				
Direction	EB	WB	All	
Total Delay (hr)	9	5	13	
Stops (#)	1389	812	2201	
Average Speed (mph)	16	17	16	
Total Travel Time (hr)	18	11	29	
Distance Traveled (mi)	292	189	481	
Fuel Consumed (gal)	26	16	42	
Fuel Economy (mpg)	11.2	12.1	11.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.5	6.9	19.4	
FAYETTE ST				
Direction	EB	WB	All	
Total Delay (hr)	18	9	27	
Stops (#)	2257	912	3169	
Average Speed (mph)	13	12	13	
Total Travel Time (hr)	32	15	46	
Distance Traveled (mi)	409	177	585	
Fuel Consumed (gal)	42	19	61	
Fuel Economy (mpg)	9.6	9.4	9.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	24.2	11.3	35.6	
FRANKLIN ST				
Direction	NB	SB	All	
Total Delay (hr)	4	8	11	
Stops (#)	599	949	1548	
Average Speed (mph)	12	15	14	
Total Travel Time (hr)	6	15	21	
Distance Traveled (mi)	75	233	308	
Fuel Consumed (gal)	9	20	29	
Fuel Economy (mpg)	8.2	11.4	10.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.3	10.2	15.5	

				1/31/2012
GENESEE ST				
Direction	EB	WB	All	
Total Delay (hr)	17	10	27	
Stops (#)	1779	1300	3079	
Average Speed (mph)	12	14	13	
Total Travel Time (hr)	28	18	47	
Distance Traveled (mi)	345	255	600	
Fuel Consumed (gal)	36	25	61	
Fuel Economy (mpg)	9.5	10.3	9.8	
Unserved Vehicles (#)	18	0	18	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	21.8	13.4	35.2	
HARRISON ST				
Direction	WB	All		
Total Delay (hr)	11	11		
Stops (#)	1702	1702		
Average Speed (mph)	16	16		
Total Travel Time (hr)	23	23		
Distance Traveled (mi)	371	371		
Fuel Consumed (gal)	33	33		
Fuel Economy (mpg)	11.4	11.4		
Unserved Vehicles (#)	0	0		
Vehicles in dilemma zone (#)	0	0		
Performance Index	15.4	15.4		
HERALD ST				
Direction	EB	WB	All	
Total Delay (hr)	2	0	2	
Stops (#)	252	34	286	
Average Speed (mph)	9	16	10	
Total Travel Time (hr)	3	0	4	
Distance Traveled (mi)	28	8	36	
F I O	4	4	-	

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Fuel Consumed (gal)

Fuel Economy (mpg)

Performance Index

Unserved Vehicles (#)

Vehicles in dilemma zone (#)

JEFFERSON ST				
Direction	EB	WB	All	
Total Delay (hr)	4	3	6	
Stops (#)	518	479	997	
Average Speed (mph)	11	11	11	
Total Travel Time (hr)	6	4	10	
Distance Traveled (mi)	64	49	113	
Fuel Consumed (gal)	8	7	15	
Fuel Economy (mpg)	7.8	7.4	7.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.1	4.0	9.2	
MCBRIDE ST				
Direction	NB	SB	All	
Total Delay (hr)	1	<u> </u>	2	
Stops (#)	136	199	335	
Average Speed (mph)	9	9	9	
Total Travel Time (hr)	1	2	3	
Distance Traveled (mi)	11	19	30	
Fuel Consumed (gal)	2	3	5	
Fuel Economy (mpg)	5.9	6.5	6.3	
Unserved Vehicles (#)	0	0.5	0.5	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.3	2.0	3.3	
MONTGOMERY ST				
Direction	NB	SB	All	
Total Delay (hr)	1	2	3	
Stops (#)	134	411	545	
Average Speed (mph)	13	11	12	
Total Travel Time (hr)	2	4	5	
Distance Traveled (mi)	21	41	62	
Fuel Consumed (gal)	2	6	8	
Fuel Economy (mpg)	9.2	7.2	7.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.3	3.5	4.8	
1 GHOHHUHGG HIUGA	1.J	3.5	٠.٠	

MONTGOMERY ST 2				
Direction	NB	SB	All	
Total Delay (hr)	0	4	4	
Stops (#)	66	444	510	
Average Speed (mph)	16	10	11	
Total Travel Time (hr)	1	6	7	
Distance Traveled (mi)	11	64	76	
Fuel Consumed (gal)	1	8	9	
Fuel Economy (mpg)	10.5	8.0	8.3	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	0.5	5.3	5.8	
SALINA ST				
Direction	NB	SB	All	
Total Delay (hr)	9	<u>36</u> 15	24	
Stops (#)	9 987	2105	3092	
Average Speed (mph)	11	16	3092 15	
Total Travel Time (hr)	15	32	47	
Distance Traveled (mi)	164	518	683	
Fuel Consumed (gal)	19	44	63	
Fuel Economy (mpg)	8.7	11.8	10.9	
Unserved Vehicles (#)	0.7	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.0	20.7	32.6	
i chomidile muex	12.0	20.1	JZ.U	
STATE ST				
Direction	NB	SB	All	
Total Delay (hr)	8	12	21	
Stops (#)	1214	1524	2738	
Average Speed (mph)	1214	1324	11	
Total Travel Time (hr)	13	21	33	
Distance Traveled (mi)	133	247	380	
Fuel Consumed (gal)	133 18	28	360 46	
Fuel Economy (mpg)	7.3	20 8.9	8.3	
Unserved Vehicles (#)	7.3 0	0.9	0.3 0	
Vehicles in dilemma zone (#)	0	0	0	
venicies in dilentina zone (#)	U	U	U	

16.7

11.5

28.2

Performance Index

TOWNSEND ST				
	MD	CD	A.II	
Direction (1)	NB .	SB	All	
Total Delay (hr)	5	19	24	
Stops (#)	665	1805	2470	
Average Speed (mph)	16	13	14	
Total Travel Time (hr)	11	34	45	
Distance Traveled (mi)	181	438	619	
Fuel Consumed (gal)	15	42	57	
Fuel Economy (mpg)	12.1	10.4	10.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	7.1	24.2	31.3	
WARREN ST				
Direction	NB	SB	All	
Total Delay (hr)	6	1	7	
Stops (#)	835	172	1007	
Average Speed (mph)	13	14	13	
Total Travel Time (hr)	10	3	13	
Distance Traveled (mi)	125	35	160	
Fuel Consumed (gal)	125 14	35	17	
Fuel Economy (mpg)	8.9	10.3	9.2	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	8.1	1.9	10.0	
WASHINGTON ST				
Direction	EB	WB	All	
Total Delay (hr)	4	5	9	
Stops (#)	581	831	1412	
Average Speed (mph)	15	13	14	
Total Travel Time (hr)	8	9	17	
Distance Traveled (mi)	120	117	236	
Fuel Consumed (gal)	11	13	24	
Fuel Economy (mpg)	10.7	8.9	9.7	
Unserved Vehicles (#)	0	0.9	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.7	7.5	13.2	

WΑ	TER	ST
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Direction	EB	WB	All
Total Delay (hr)	3	1	4
Stops (#)	466	193	659
Average Speed (mph)	14	17	15
Total Travel Time (hr)	5	2	7
Distance Traveled (mi)	77	32	108
Fuel Consumed (gal)	8	3	11
Fuel Economy (mpg)	9.8	10.7	10.1
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	4.1	1.3	5.5

## Zone CBD Totals

Number of Intersections	82	
Total Delay (hr)	302	
Stops (#)	37645	
Average Speed (mph)	13	
Total Travel Time (hr)	533	
Distance Traveled (mi)	6936	
Fuel Consumed (gal)	716	
Fuel Economy (mpg)	9.7	
Unserved Vehicles (#)	18	
Vehicles in dilemma zone (#)	15	
Performance Index	406.5	

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.8	5.4	23.2	0.10	15.3	С
SALINA ST	IV	30	14.7	24.8	39.5	0.06	5.9	F
Warren	IV	30	7.2	1.5	8.7	0.03	13.2	С
Harrison Place	IV	30	8.3	4.1	12.4	0.04	10.6	D
MONTGOMERY ST 2	IV	30	14.7	14.6	29.3	0.06	8.0	Ε
STATE ST	IV	30	15.3	5.3	20.6	0.07	11.7	D
TOWNSEND ST	IV	30	16.2	9.7	25.9	0.09	12.5	D
McBride	IV	30	16.5	2.1	18.6	0.09	17.7	С
Total	IV		110.7	67.5	178.2	0.55	11.0	D

#### Arterial Level of Service: WB ADAMS ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MONTGOMERY ST 2	IV	30	15.3	11.0	26.3	0.07	9.2	D
Harrison Place	IV	30	14.7	2.7	17.4	0.06	13.4	С
Warren	IV	30	8.3	7.7	16.0	0.04	8.2	Е
SALINA ST	IV	30	7.2	26.6	33.8	0.03	3.4	F
CLINTON ST	IV	30	14.7	5.3	20.0	0.06	11.7	D
Total	IV		60.2	53.3	113.5	0.27	8.4	F

#### Arterial Level of Service: NB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	30.9	21.8	52.7	0.22	15.1	С
FAYETTE ST	IV	30	16.3	7.7	24.0	0.07	10.7	D
WASHINGTON ST	IV	30	15.3	3.4	18.7	0.07	13.0	D
WATER ST	IV	30	14.5	3.9	18.4	0.06	12.5	D
ERIE BLVD	IV	30	6.1	5.7	11.8	0.03	8.3	<u>E</u>
Total	IV		83.1	42.5	125.6	0.45	12.9	D

## Arterial Level of Service: SB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	17.0	16.0	33.0	0.09	10.3	D
WATER ST	IV	30	6.1	9.1	15.2	0.03	6.4	F
WASHINGTON ST	IV	30	14.5	3.3	17.8	0.06	12.9	D
FAYETTE ST	IV	30	15.3	8.3	23.6	0.07	10.3	D
GENESEE ST	IV	30	16.3	23.9	40.2	0.07	6.4	F
Total	IV		69.2	60.6	129.8	0.32	9.0	D

## Arterial Level of Service: NB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	15.1	12.0	27.1	0.08	11.2	D
PED CROSSING	IV	30	15.3	0.0	15.3	0.08	20.0	В
JEFFERSON ST	IV	30	23.3	9.7	33.0	0.16	17.0	С
FAYETTE ST	IV	30	20.5	18.9	39.4	0.11	10.4	D
WASHINGTON ST	IV	30	14.2	7.4	21.6	0.06	10.4	D
WATER ST	IV	30	15.0	0.1	15.1	0.07	15.8	С
GENESEE ST	IV	30	12.3	13.9	26.2	0.05	7.5	Е
HERALD ST	IV	30	20.3	0.0	20.3	0.14	23.9	В
Total	IV		136.0	62.0	198.0	0.76	13.8	С

## Arterial Level of Service: SB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	15.3	15.3	30.6	0.07	8.0	E
GENESEE ST	IV	30	20.3	8.3	28.6	0.14	17.0	С
WATER ST	IV	30	12.3	0.1	12.4	0.05	15.8	С
WASHINGTON ST	IV	30	15.0	16.8	31.8	0.07	7.5	Е
FAYETTE ST	IV	30	14.2	14.2	28.4	0.06	7.9	Е
JEFFERSON ST	IV	30	20.5	12.2	32.7	0.11	12.5	D
PED CROSSING	IV	30	23.3	0.1	23.4	0.16	23.9	В
GIFFORD ST	IV	30	15.3	17.7	33.0	0.08	9.3	D
ADAMS ST	IV	30	15.1	58.8	73.9	0.08	4.1	<u> </u>
Total	IV	·	151.3	143.5	294.8	0.82	10.1	D

## Arterial Level of Service: EB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WARREN ST	IV	30	15.8	20.1	35.9	0.07	7.0	F
MONTGOMERY ST	IV	30	13.6	13.9	27.5	0.08	9.9	D
STATE ST	IV	30	17.5	15.2	32.7	0.10	10.7	D
TOWNSEND ST	IV	30	16.2	9.1	25.3	0.09	12.8	D
MCBRIDE ST	IV	30	15.5	5.2	20.7	0.09	15.0	С
ALMOND ST	IV	30	15.8	8.6	24.4	0.09	12.9	<u>D</u>
Total	IV		94.4	72.1	166.5	0.51	10.9	D

## Arterial Level of Service: WB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	38.0	17.0	55.0	0.29	18.8	С
MCBRIDE ST	IV	30	15.8	16.3	32.1	0.09	9.8	D
TOWNSEND ST	IV	30	15.5	4.8	20.3	0.09	15.3	С
STATE ST	IV	30	16.2	10.3	26.5	0.09	12.2	D
Oswego Street	IV	30	17.5	6.7	24.2	0.10	14.4	С
Total	IV		103.0	55.1	158.1	0.65	14.8	C

## Arterial Level of Service: EB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
West St.	IV	30	18.0	21.8	39.8	0.10	9.1	D
West St.	IV	30	8.6	12.1	20.7	0.04	6.6	F
FRANKLIN ST	IV	30	19.3	11.3	30.6	0.13	15.2	С
CLINTON ST	IV	30	17.9	13.1	31.0	0.10	11.5	D
SALINA ST	IV	30	15.3	9.5	24.8	0.07	9.8	D
WARREN ST	IV	30	16.3	32.7	49.0	0.07	5.3	F
MONTGOMERY ST	IV	30	13.6	4.8	18.4	0.08	14.8	С
STATE ST	IV	30	17.2	8.9	26.1	0.10	13.2	С
TOWNSEND ST	IV	30	16.5	27.7	44.2	0.09	7.5	Ε
MCBRIDE ST	IV	30	15.8	4.5	20.3	0.09	15.5	С
ALMOND ST	IV	30	15.5	3.8	19.3	0.09	16.1	<u>C</u>
Total	IV		174.0	150.2	324.2	0.94	10.5	D

## Arterial Level of Service: WB FAYETTE ST

Cross Street	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	29.8	13.0	42.8	0.23	19.0	С
MCBRIDE ST	IV	30	15.5	6.5	22.0	0.09	14.1	С
TOWNSEND ST	IV	30	15.8	10.0	25.8	0.09	12.2	D
STATE ST	IV	30	16.5	29.2	45.7	0.09	7.2	E
MONTGOMERY ST	IV	30	17.2	19.5	36.7	0.10	9.4	D
WARREN ST	IV	30	13.6	16.9	30.5	80.0	8.9	Ε
SALINA ST	IV	30	16.3	5.8	22.1	0.07	11.7	D
CLINTON ST	IV	30	15.3	5.4	20.7	0.07	11.8	D
FRANKLIN ST	IV	30	17.9	12.8	30.7	0.10	11.7	D
West St.	IV	30	19.3	40.2	59.5	0.13	7.8	Ε
West St.	IV	30	8.6	5.7	14.3	0.04	9.5	D
Total	IV		185.8	165.0	350.8	1.07	11.0	D

Arterial I	Level of	Service:	NB	<b>FRANKL</b>	IN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	13.8	26.4	40.2	0.06	5.4	F
WASHINGTON ST	IV	30	14.2	20.7	34.9	0.06	6.4	F
ERIE BLVD	IV	30	16.7	11.4	28.1	0.09	11.9	D
GENESEE ST	IV	30	16.9	19.2	36.1	0.07	7.4	Ε
WILLOW ST	IV	30	6.9	2.2	9.1	0.03	12.0	D
HERALD ST	IV	30	14.6	18.3	32.9	0.06	7.0	<u>E</u>
Total	IV		83.1	98.2	181.3	0.39	7.6	E

#### Arterial Level of Service: SB FRANKLIN ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial	Arterial LOS
Closs Sileet	Class	Speeu	Time	Delay	Time (s)	(1111)	Speed	LU3
HERALD ST	IV	30	16.6	24.0	40.6	0.09	8.2	Ε
WILLOW ST	IV	30	14.6	2.0	16.6	0.06	14.0	С
GENESEE ST	IV	30	6.9	10.9	17.8	0.03	6.1	F
ERIE BLVD	IV	30	16.9	2.0	18.9	0.07	14.2	С
WASHINGTON ST	IV	30	16.7	11.7	28.4	0.09	11.7	D
FAYETTE ST	IV	30	14.2	9.9	24.1	0.06	9.3	D
Total	IV		85.9	60.5	146.4	0.42	10.3	D

## Arterial Level of Service: EB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WALLACE ST	IV	30	18.4	11.1	29.5	0.10	12.5	D
FRANKLIN ST	IV	30	16.2	11.4	27.6	0.09	11.7	D
CLINTON ST	IV	30	16.4	18.9	35.3	0.09	9.3	D
SALINA ST	IV	30	16.2	33.0	49.2	0.07	5.2	F
Total	IV		67.2	74.4	141.6	0.35	9.0	D

## Arterial Level of Service: WB GENESEE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	16.2	13.2	29.4	0.07	8.7	E
FRANKLIN ST	IV	30	16.4	10.0	26.4	0.09	12.4	D
WALLACE ST	IV	30	16.2	5.6	21.8	0.09	14.8	С
Total	IV		48.8	28.8	77.6	0.25	11.7	D

								1/31/2014
Arterial Level of	Service: WE	3 HARRISC	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
TOWNSEND ST	IV	30	18.3	15.4	33.7	0.10	10.9	D
STATE ST	IV	30	21.2	12.3	33.5	0.12	12.7	D
MONTGOMERY ST 2	IV	30	15.3	11.8	27.1	0.07	8.9	Е
WARREN ST	IV	30	18.3	11.0	29.3	0.10	12.5	D
ONONDAGA ST	IV	30	15.2	41.0	56.2	0.07	4.3	F
Total	IV		88.3	91.5	179.8	0.46	9.1	D
Arterial Level of	Service: EB	HERALD S	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	13.0	6.3	19.3	0.06	10.7	D
CLINTON ST	IV	30	16.9	23.4	40.3	0.07	6.6	F
SALINA ST	IV	30	15.3	11.3	26.6	0.07	9.1	D
Total	IV		45.2	41.0	86.2	0.20	8.3	E
Arterial Level of	Service: WE	B HERALD	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	15.3	14.8	30.1	0.07	8.1	Е
FRANKLIN ST	IV	30	16.9	0.0	16.9	0.07	15.8	С
Total	IV		32.2	14.8	47.0	0.14	10.9	D
Arterial Level of	Service: EB	JEFFERS(	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	11.6	19.4	31.0	0.05	5.9	F
SALINA ST	IV	30	15.5	14.7	30.2	0.07	8.1	Е
WARREN ST	IV	30	16.5	12.5	29.0	0.07	9.0	D
MONTGOMERY ST 2	IV	30	7.1	10.5	17.6	0.03	6.4	F
STATE ST	IV	30	14.2	20.0	34.2	0.06	6.6	<u> </u>
Total	IV		64.9	77.1	142.0	0.29	7.2	E
Arterial Level of	Service: WE	3 JEFFERS	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.2	6.8	21.0	0.06	10.7	D
WARREN ST	IV	30	16.9	16.7	33.6	0.07	8.0	Е
SALINA ST	IV	30	16.5	13.2	29.7	0.07	8.8	Е
CLINTON ST	IV	30	15.5	17.2	32.7	0.07	7.5	<u>E</u>
Total	IV		62.1	52.0	117 0	U 30	0.5	

63.1

53.9

117.0

0.28

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Total

8.5

Arterial Level of Service: NB MCBRIDE ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	12.0	16.1	28.1	0.05	6.7	F
FAYETTE ST	IV	30	15.3	18.3	33.6	0.07	7.2	Ε
WASHINGTON ST	IV	30	15.0	12.8	27.8	0.07	8.6	Ε
WATER ST	IV	30	14.1	12.1	26.2	0.06	8.6	Ε
ERIE BLVD	IV	30	6.1	15.5	21.6	0.03	4.5	<u> </u>
Total	IV		62.5	74.8	137 3	0.28	7.2	F

## Arterial Level of Service: SB MCBRIDE ST

0 0 1	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	32.8	10.8	43.6	0.25	20.5	В
WATER ST	IV	30	6.1	10.9	17.0	0.03	5.7	F
WASHINGTON ST	IV	30	14.1	8.9	23.0	0.06	9.8	D
FAYETTE ST	IV	30	15.0	9.3	24.3	0.07	9.8	D
GENESEE ST	IV	30	15.3	6.3	21.6	0.07	11.3	<u>D</u>
Total	IV		83.3	46.2	129.5	0.47	13.1	С

## Arterial Level of Service: NB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	20.5	18.7	39.2	0.11	10.4	D
WASHINGTON ST	IV	30	14.0	7.6	21.6	0.06	10.3	D
WATER ST	IV	30	14.1	10.3	24.4	0.06	9.2	D
ERIE BLVD	IV	30	6.2	16.0	22.2	0.03	4.4	<u> </u>
Total	IV		54.8	52.6	107.4	0.26	8.9	E

## Arterial Level of Service: SB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WATER ST	IV	30	6.2	10.9	17.1	0.03	5.7	F
WASHINGTON ST	IV	30	14.1	9.9	24.0	0.06	9.3	D
FAYETTE ST	IV	30	14.0	19.8	33.8	0.06	6.6	F
Total	IV		34.3	40.6	74.9	0.15	7.3	E

## Arterial Level of Service: NB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	13.8	0.0	13.8	0.06	15.9	С
HARRISON ST	IV	30	19.1	10.3	29.4	0.11	13.0	D
MADISON ST	IV	30	15.1	9.6	24.7	0.08	12.2	D
JEFFERSON ST	IV	30	19.5	0.0	19.5	0.11	20.0	<u>B</u>
Total	IV		67.5	19.9	87.4	0.36	14.8	С

## Arterial Level of Service: SB MONTGOMERY ST 2

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MADISON ST	IV	30	19.5	12.3	31.8	0.11	12.2	D
HARRISON ST	IV	30	15.1	11.0	26.1	80.0	11.5	D
ADAMS ST	IV	30	19.1	0.0	19.1	0.11	20.0	В
Total	IV		53.7	23.3	77.0	0.30	13.9	С

## Arterial Level of Service: NB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	11.7	49.2	60.9	0.05	3.1	F
Centro Bus Hub Drive	IV	30	3.3	0.6	3.9	0.01	13.3	С
HARRISON ST	IV	30	18.5	33.6	52.1	0.10	7.1	Е
PED CROSS	IV	30	16.1	5.0	21.1	0.09	15.3	С
JEFFERSON ST	IV	30	17.5	6.9	24.4	0.10	14.3	С
FAYETTE ST	IV	30	20.5	6.3	26.8	0.11	15.3	С
WASHINGTON ST	IV	30	14.2	7.2	21.4	0.06	10.5	D
WATER ST	IV	30	14.7	5.6	20.3	0.06	11.5	D
JAMES ST	IV	30	11.7	17.5	29.2	0.05	6.4	F
WILLOW ST	IV	30	16.3	6.9	23.2	0.07	11.2	D
HERALD ST	IV	30	15.0	7.6	22.6	0.07	10.6	D
Total	IV		159.5	146.4	305.9	0.79	9.3	D

## Arterial Level of Service: SB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	33.9	18.9	52.8	0.26	17.5	С
WILLOW ST	IV	30	15.0	3.0	18.0	0.07	13.3	С
GENESEE ST	IV	30	16.3	8.4	24.7	0.07	10.5	D
WATER ST	IV	30	11.7	7.0	18.7	0.05	9.9	D
WASHINGTON ST	IV	30	14.7	6.1	20.8	0.06	11.2	D
FAYETTE ST	IV	30	14.2	13.5	27.7	0.06	8.1	Ε
JEFFERSON ST	IV	30	20.5	10.2	30.7	0.11	13.3	С
PED CROSS	IV	30	17.5	22.5	40.0	0.10	8.7	Е
ONONDAGA ST	IV	30	16.1	4.8	20.9	0.09	15.4	С
Centro Bus Hub Drive	IV	30	18.5	33.0	51.5	0.10	7.2	Е
ADAMS ST	IV	30	3.3	2.0	5.3	0.01	9.8	D
Total	IV		181.7	129.4	311.1	0.99	11.5	D

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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	16.3	24.7	41.0	0.09	7.9	E
HARRISON ST	IV	30	19.1	14.0	33.1	0.11	11.5	D
MADISON ST	IV	30	15.1	18.6	33.7	0.08	8.9	Ε
JEFFERSON ST	IV	30	19.4	7.9	27.3	0.11	14.2	С
GENESEE ST	IV	30	15.7	12.3	28.0	0.07	8.9	Ε
FAYETTE ST	IV	30	9.1	20.6	29.7	0.04	4.9	F
WASHINGTON ST	IV	30	14.5	14.7	29.2	0.06	7.9	Ε
WATER ST	IV	30	13.8	5.4	19.2	0.06	11.4	D
ERIE BLVD	IV	30	6.4	24.8	31.2	0.03	3.2	<u> </u>
Total	IV		129.4	143.0	272.4	0.65	8.6	Е

## Arterial Level of Service: SB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	21.5	19.4	40.9	0.12	10.5	D
WATER ST	IV	30	6.4	8.7	15.1	0.03	6.7	F
WASHINGTON ST	IV	30	13.8	9.3	23.1	0.06	9.5	D
FAYETTE ST	IV	30	14.5	23.0	37.5	0.06	6.1	F
ONONDAGA ST	IV	30	9.1	4.9	14.0	0.04	10.3	D
JEFFERSON ST	IV	30	15.7	14.6	30.3	0.07	8.2	Ε
MADISON ST	IV	30	19.4	17.4	36.8	0.11	10.6	D
HARRISON ST	IV	30	15.1	2.1	17.2	0.08	17.5	С
ADAMS ST	IV	30	19.1	51.2	70.3	0.11	5.4	<u> </u>
Total	IV		134.6	150.6	285.2	0.68	8.6	E

## Arterial Level of Service: NB TOWNSEND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	18.3	31.6	49.9	0.10	7.3	E
HARRISON ST	IV	30	18.7	13.3	32.0	0.10	11.7	D
GENESEE ST	IV	30	35.1	13.0	48.1	0.27	19.9	В
FAYETTE ST	IV	30	8.9	9.2	18.1	0.04	7.8	Ε
WASHINGTON ST	IV	30	14.5	5.4	19.9	0.06	11.5	D
WATER ST	IV	30	14.1	2.6	16.7	0.06	13.4	С
ERIE BLVD	IV	30	6.3	20.1	26.4	0.03	3.8	F
1690WBOFFRAMP	IV	30	7.0	23.5	30.5	0.03	3.6	F
BURNETT AVE	IV	30	15.7	4.4	20.1	0.07	12.4	D
Total	IV		138.6	123.1	261.7	0.76	10.5	D

Arterial	l evel of	Service:	SB	TOW/I	<b>USEND</b>	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
BURNETT AVE	IV	30	16.5	21.6	38.1	0.09	8.6	E
BROWN ST	IV	30	15.7	16.4	32.1	0.07	7.8	Ε
ERIE BLVD	IV	30	7.0	26.2	33.2	0.03	3.3	F
WATER ST	IV	30	6.3	2.7	9.0	0.03	11.1	D
WASHINGTON ST	IV	30	14.1	4.6	18.7	0.06	12.0	D
FAYETTE ST	IV	30	14.5	8.9	23.4	0.06	9.8	D
GENESEE ST	IV	30	8.9	6.9	15.8	0.04	8.9	Ε
HARRISON ST	IV	30	35.1	5.3	40.4	0.27	23.7	В
ADAMS ST	IV	30	18.7	62.0	80.7	0.10	4.6	F
Total	IV		136.8	154.6	291.4	0.75	9.3	D

## Arterial Level of Service: NB WARREN ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
HARRISON ST	IV	30	19.1	15.4	34.5	0.11	11.1	D
MADISON ST	IV	30	15.1	14.9	30.0	0.08	10.0	D
JEFFERSON ST	IV	30	19.4	16.2	35.6	0.11	10.9	D
FAYETTE ST	IV	30	20.5	24.2	44.7	0.11	9.2	D
WASHINGTON ST	IV	30	14.0	12.4	26.4	0.06	8.4	Е
WATER ST	IV	30	14.8	5.5	20.3	0.07	11.6	D
ERIE BLVD	IV	30	6.0	3.7	9.7	0.03	9.8	D
JAMES ST	IV	30	5.9	14.5	20.4	0.03	4.6	F
Total	IV		114.8	106.8	221.6	0.59	9.6	D

## Arterial Level of Service: SB WARREN ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
JAMES ST	IV	30	11.8	12.9	24.7	0.05	7.6	E
ERIE BLVD	IV	30	5.9	3.9	9.8	0.03	9.6	D
WATER ST	IV	30	6.0	9.6	15.6	0.03	6.1	F
WASHINGTON ST	IV	30	14.8	7.0	21.8	0.07	10.8	D
FAYETTE ST	IV	30	14.0	4.4	18.4	0.06	12.1	D
JEFFERSON ST	IV	30	20.5	5.2	25.7	0.11	15.9	С
ONONDAGA ST	IV	30	19.4	6.3	25.7	0.11	15.1	С
HARRISON ST	IV	30	15.1	0.4	15.5	0.08	19.4	В
Total	IV		107.5	49.7	157.2	0.54	12.3	D

Arterial	I evel of	Service:	FR	WASHINGTO	V ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	24.6	17.0	41.6	0.16	14.2	С
CLINTON ST	IV	30	17.7	14.7	32.4	0.10	10.9	D
SALINA ST	IV	30	15.6	9.6	25.2	0.07	9.8	D
WARREN ST	IV	30	16.3	19.5	35.8	0.07	7.2	Е
MONTGOMERY ST	IV	30	13.5	5.1	18.6	0.08	14.5	С
STATE ST	IV	30	17.7	7.8	25.5	0.10	13.9	С
TOWNSEND ST	IV	30	16.2	27.9	44.1	0.09	7.3	Е
MCBRIDE ST	IV	30	15.8	5.5	21.3	0.09	14.8	С
ALMOND ST	IV	30	15.3	4.9	20.2	0.08	15.1	С
Total	IV		152.7	112.0	264.7	0.84	11.4	D

## Arterial Level of Service: WB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	15.3	21.1	36.4	0.09	8.4	E
MCBRIDE ST	IV	30	15.3	5.5	20.8	0.08	14.7	С
TOWNSEND ST	IV	30	15.8	9.8	25.6	0.09	12.3	D
STATE ST	IV	30	16.2	17.6	33.8	0.09	9.6	D
MONTGOMERY ST	IV	30	17.7	9.4	27.1	0.10	13.1	С
WARREN ST	IV	30	13.5	22.1	35.6	0.08	7.6	Е
SALINA ST	IV	30	16.3	12.3	28.6	0.07	9.1	D
CLINTON ST	IV	30	15.6	14.0	29.6	0.07	8.4	Е
FRANKLIN ST	IV	30	17.7	7.3	25.0	0.10	14.2	С
West St.	IV	30	24.6	33.0	57.6	0.16	10.2	D
Total	IV	-	168.0	152.1	320.1	0.92	10.4	D

## Arterial Level of Service: EB WATER ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
SALINA ST	IV	30	16.3	16.6	32.9	0.07	7.9	E
WARREN ST	IV	30	15.8	19.6	35.4	0.07	7.1	Ε
MONTGOMERY ST	IV	30	17.0	10.1	27.1	0.07	9.9	D
STATE ST	IV	30	17.5	9.8	27.3	0.10	12.8	D
TOWNSEND ST	IV	30	16.2	20.9	37.1	0.09	8.7	Ε
MCBRIDE ST	IV	30	15.5	11.5	27.0	0.09	11.5	D
ALMOND ST	IV	30	15.5	9.8	25.3	0.09	12.3	<u>D</u>
Total	IV		113 8	98.3	212 1	0.58	9.8	D

## Arterial Level of Service: WB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ALMOND ST	IV	30	38.1	19.0	57.1	0.29	18.2	С
MCBRIDE ST	IV	30	15.5	7.3	22.8	0.09	13.6	С
TOWNSEND ST	IV	30	15.5	9.3	24.8	0.09	12.5	D
STATE ST	IV	30	16.2	10.4	26.6	0.09	12.2	D
MONTGOMERY ST	IV	30	17.5	12.6	30.1	0.10	11.6	D
WARREN ST	IV	30	17.0	0.0	17.0	0.07	15.8	С
Total	IV		119.8	58.6	178.4	0.72	14.6	С

ADAMS ST			
Direction	EB	WB	All
Total Delay (hr)	14	4	18
Stops (#)	2353	561	2914
Average Speed (mph)	16	10	15
Total Travel Time (hr)	31	6	37
Distance Traveled (mi)	490	56	547
Fuel Consumed (gal)	44	8	52
Fuel Economy (mpg)	11.2	6.7	10.5
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	21.0	5.6	26.6
ALMOND ST			
Direction	NB	SB	All
Total Delay (hr)	5	5	11
Stops (#)	594	588	1182
Average Speed (mph)	12	11	12
Total Travel Time (hr)	9	9	17
Distance Traveled (mi)	102	101	203
Fuel Consumed (gal)	11	11	23
Fuel Economy (mpg)	9.1	8.8	9.0
Unserved Vehicles (#)	0	0.0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	6.7	7.1	13.8
CLINTON ST			
Direction	NB	SB	All
Total Delay (hr)	2	12	13
Stops (#)	219	1447	1666
Average Speed (mph)	17	14	14
Total Travel Time (hr)	3	23	26
Distance Traveled (mi)	58	318	376
Fuel Consumed (gal)	5	30	35
Fuel Economy (mpg)	12.3	10.7	10.9
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	2.1	16.0	18.1
1 onormanoo maox	2.1	10.0	10.1

Total Delay (hr)   9   8   17	ERIE BLVD			
Total Delay (hr)   9   8   17	Direction	EB	WB	All
Stops (#)         1375         1192         2567           Average Speed (mph)         15         18         16           Total Travel Time (hr)         17         20         38           Distance Traveled (mi)         255         356         611           Fuel Consumed (gal)         25         27         52           Fuel Economy (mpg)         10.4         13.0         11.8           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Performance Index         12.7         11.7         24.4           FAYETTE ST           Direction         EB         WB         All           Total Delay (hr)         15         17         32           Stops (#)         1794         1718         3512           Average Speed (mph)         12         12         12           Total Travel Time (hr)         25         29         54           Distance Traveled (mi)         303         351         654           Fuel Economy (mpg)         9.1         9.6         9.4				
Average Speed (mph) 15 18 16 Total Travel Time (hr) 17 20 38 Distance Traveled (mi) 255 356 611 Fuel Consumed (gal) 25 27 52 Fuel Economy (mpg) 10.4 13.0 11.8 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Performance Index 12.7 11.7 24.4  FAYETTE ST  Direction EB WB All Total Delay (hr) 15 17 32 Stops (#) 1794 1718 3512 Average Speed (mph) 12 12 12 12 Total Travel Time (hr) 25 29 54 Distance Traveled (mi) 303 351 654 Fuel Consumed (gal) 33 36 70 Fuel Economy (mpg) 9.1 9.6 9.4 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Performance Index 20.0 21.8 41.7  FRANKLIN ST  Direction NB SB All Total Delay (hr) 14 4 18 Stops (#) 1688 492 2180 Average Speed (mph) 10 14 11 Total Travel Time (hr) 20 7 28 Distance Traveled (mi) 10 14 11 Total Travel Time (hr) 20 7 28 Direction NB SB 20 18 Direction NB SB All Total Delay (hr) 10 14 11 Total Travel Time (hr) 20 7 28 Distance Traveled (mi) 20 1 106 307 Fuel Consumed (gal) 28 10 38 Fuel Economy (mpg) 7.3 10.7 8.2 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (gal) 28 10 38 Fuel Economy (mpg) 7.3 10.7 8.2 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0		1375	1192	
Total Travel Time (hr) 17 20 38 Distance Traveled (mi) 255 356 611 Fuel Consumed (gal) 25 27 52 Fuel Economy (mpg) 10.4 13.0 11.8 Unserved Vehicles (#) 0 0 0 Performance Index 12.7 11.7 24.4  FAYETTE ST  Direction EB WB All Total Delay (hr) 15 17 32 Stops (#) 1794 1718 3512 Average Speed (mph) 12 12 12 Total Travel Time (hr) 25 29 54 Distance Traveled (mi) 303 351 654 Fuel Consumed (gal) 33 36 70 Fuel Economy (mpg) 9.1 9.6 9.4 Unserved Vehicles (#) 0 0 0 Performance Index 20.0 21.8 41.7  FRANKLIN ST  Direction NB SB All Total Delay (hr) 14 4 18 Stops (#) 1688 492 2180 Average Speed (mph) 10 14 11 Total Travel Time (hr) 20 7 28 Distance Traveled (mi) 10 14 11 Total Travel Time (hr) 20 7 28 Distance Traveled (mi) 10 30 Stops (#) 1688 492 2180 Average Speed (mph) 10 14 11 Total Travel Time (hr) 20 7 28 Distance Traveled (mi) 20 1 106 307 Fuel Consumed (gal) 28 10 38 Fuel Economy (mpg) 7.3 10.7 8.2 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Vehicles in dilemma (gal) 28 10 38 Fuel Economy (mpg) 7.3 10.7 8.2 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0			18	16
Distance Traveled (mi)       255       356       611         Fuel Consumed (gal)       25       27       52         Fuel Economy (mpg)       10.4       13.0       11.8         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0         Performance Index       12.7       11.7       24.4         FAYETTE ST         EB       WB       All         Total Delay (hr)       15       17       32         Stops (#)       1794       1718       3512         Average Speed (mph)       12       12       12         Total Travel Time (hr)       25       29       54         Distance Traveled (mi)       303       351       654         Fuel Consumed (gal)       33       36       70         Fuel Economy (mpg)       9.1       9.6       9.4         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0         Performance Index       20.0       21.8       41.7         FRANKLIN ST         Direction       NB <t< td=""><td></td><td></td><td></td><td></td></t<>				
Fuel Consumed (gal)	Distance Traveled (mi)			
Fuel Economy (mpg)	` ,		27	52
Unserved Vehicles (#)			13.0	11.8
Vehicles in dilemma zone (#)         0         0         0           Performance Index         12.7         11.7         24.4           FAYETTE ST           Direction         EB         WB         All           Total Delay (hr)         15         17         32           Stops (#)         1794         1718         3512           Average Speed (mph)         12         12         12           Total Travel Time (hr)         25         29         54           Distance Traveled (mi)         303         351         654           Fuel Consumed (gal)         33         36         70           Fuel Economy (mpg)         9.1         9.6         9.4           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28				
Performance Index   12.7   11.7   24.4		0	0	
Direction         EB         WB         All           Total Delay (hr)         15         17         32           Stops (#)         1794         1718         3512           Average Speed (mph)         12         12         12           Total Travel Time (hr)         25         29         54           Distance Traveled (mi)         303         351         654           Fuel Consumed (gal)         33         36         70           Fuel Economy (mpg)         9.1         9.6         9.4           Unserved Vehicles (#)         0         0         0         0           Vehicles in dilemma zone (#)         0         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106 <td< td=""><td>Performance Index</td><td>12.7</td><td>11.7</td><td>24.4</td></td<>	Performance Index	12.7	11.7	24.4
Total Delay (hr)         15         17         32           Stops (#)         1794         1718         3512           Average Speed (mph)         12         12         12           Total Travel Time (hr)         25         29         54           Distance Traveled (mi)         303         351         654           Fuel Consumed (gal)         33         36         70           Fuel Economy (mpg)         9.1         9.6         9.4           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38	FAYETTE ST			
Total Delay (hr)         15         17         32           Stops (#)         1794         1718         3512           Average Speed (mph)         12         12         12           Total Travel Time (hr)         25         29         54           Distance Traveled (mi)         303         351         654           Fuel Consumed (gal)         33         36         70           Fuel Economy (mpg)         9.1         9.6         9.4           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38	Direction	EB	WB	All
Stops (#)       1794       1718       3512         Average Speed (mph)       12       12       12         Total Travel Time (hr)       25       29       54         Distance Traveled (mi)       303       351       654         Fuel Consumed (gal)       33       36       70         Fuel Economy (mpg)       9.1       9.6       9.4         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0         Performance Index       20.0       21.8       41.7         FRANKLIN ST         Direction       NB       SB       All         Total Delay (hr)       14       4       18         Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0				
Average Speed (mph) 12 12 12 Total Travel Time (hr) 25 29 54 Distance Traveled (mi) 303 351 654 Fuel Consumed (gal) 33 36 70 Fuel Economy (mpg) 9.1 9.6 9.4 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Performance Index 20.0 21.8 41.7     Direction NB SB All Total Delay (hr) 14 4 18 Stops (#) 1688 492 2180 Average Speed (mph) 10 14 11 Total Travel Time (hr) 20 7 28 Distance Traveled (mi) 201 106 307 Fuel Consumed (gal) 28 10 38 Fuel Economy (mpg) 7.3 10.7 8.2 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 Vehicles in dilemma zone (#) 0 0				
Total Travel Time (hr)         25         29         54           Distance Traveled (mi)         303         351         654           Fuel Consumed (gal)         33         36         70           Fuel Economy (mpg)         9.1         9.6         9.4           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38           Fuel Economy (mpg)         7.3         10.7         8.2           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0 <td< td=""><td></td><td></td><td></td><td></td></td<>				
Distance Traveled (mi)       303       351       654         Fuel Consumed (gal)       33       36       70         Fuel Economy (mpg)       9.1       9.6       9.4         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0         Performance Index       20.0       21.8       41.7         FRANKLIN ST         Direction       NB       SB       All         Total Delay (hr)       14       4       18         Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0				
Fuel Consumed (gal)       33       36       70         Fuel Economy (mpg)       9.1       9.6       9.4         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0         Performance Index       20.0       21.8       41.7         FRANKLIN ST         Direction       NB       SB       All         Total Delay (hr)       14       4       18         Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	` ,			
Fuel Economy (mpg)       9.1       9.6       9.4         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0         Performance Index       20.0       21.8       41.7         FRANKLIN ST         Direction       NB       SB       All         Total Delay (hr)       14       4       18         Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0				
Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38           Fuel Economy (mpg)         7.3         10.7         8.2           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0	.0 /			
Vehicles in dilemma zone (#)         0         0         0           Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38           Fuel Economy (mpg)         7.3         10.7         8.2           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0				
Performance Index         20.0         21.8         41.7           FRANKLIN ST           Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38           Fuel Economy (mpg)         7.3         10.7         8.2           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0				
Direction         NB         SB         All           Total Delay (hr)         14         4         18           Stops (#)         1688         492         2180           Average Speed (mph)         10         14         11           Total Travel Time (hr)         20         7         28           Distance Traveled (mi)         201         106         307           Fuel Consumed (gal)         28         10         38           Fuel Economy (mpg)         7.3         10.7         8.2           Unserved Vehicles (#)         0         0         0           Vehicles in dilemma zone (#)         0         0         0	Performance Index			
Total Delay (hr)       14       4       18         Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	FRANKLIN ST			
Total Delay (hr)       14       4       18         Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	Direction	NB	SB	All
Stops (#)       1688       492       2180         Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	Total Delay (hr)	14	4	18
Average Speed (mph)       10       14       11         Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	Stops (#)			
Total Travel Time (hr)       20       7       28         Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	1 1			
Distance Traveled (mi)       201       106       307         Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0				
Fuel Consumed (gal)       28       10       38         Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0				
Fuel Economy (mpg)       7.3       10.7       8.2         Unserved Vehicles (#)       0       0       0         Vehicles in dilemma zone (#)       0       0       0	, ,			
Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0				
Vehicles in dilemma zone (#) 0 0 0				
I CHOHHUHOC HUCK I LT J.Z ZJ.U	Performance Index	18.4	5.2	23.6

				1/31/2014
GENESEE ST				
Direction	EB	WB	All	
Total Delay (hr)	11	11	22	
Stops (#)	1400	1529	2929	
Average Speed (mph)	12	15	14	
Total Travel Time (hr)	18	22	40	
Distance Traveled (mi)	222	317	539	
Fuel Consumed (gal)	25	30	54	
Fuel Economy (mpg)	9.0	10.7	9.9	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	14.4	15.5	29.9	
HARRISON ST				
Direction	WB	All		
Total Delay (hr)	13	13		
Stops (#)	1296	1296		
Average Speed (mph)	12	12		
Total Travel Time (hr)	21	21		
Distance Traveled (mi)	261	261		
Fuel Consumed (gal)	27	27		
Fuel Economy (mpg)	9.6	9.6		
Unserved Vehicles (#)	0	0		
Vehicles in dilemma zone (#)	0	0		
Performance Index	16.3	16.3		
HERALD ST				
Direction	EB	WB	All	
Total Delay (hr)	4	0	5	
Stops (#)	481	60	541	
Average Speed (mph)	8	13	9	
Total Travel Time (hr)	6	1	6	
Distance Traveled (mi)	45	11	56	
Fuel Consumed (gal)	8	1	9	
Fuel Economy (mpg)	6.1	9.5	6.5	
Unserved Vehicles (#)	0	0	0	
Vahiclas in dilamma zona (#)	0	0	0	

0

0.6

0

6.0

0

5.4

Vehicles in dilemma zone (#)

Performance Index

JEFFERSON ST				
Direction	EB	WB	All	
Total Delay (hr)	3	3	6	
Stops (#)	526	474	1000	
Average Speed (mph)	11	11	11	
Total Travel Time (hr)	5	5	10	
Distance Traveled (mi)	54	50	104	
Fuel Consumed (gal)	7	7	14	
Fuel Economy (mpg)	7.3	7.3	7.3	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	4.6	4.2	8.8	
MCBRIDE ST				
Direction	NB	SB	All	
Total Delay (hr)	4	1	4	
Stops (#)	372	97	469	
Average Speed (mph)	8	11	9	
Total Travel Time (hr)	5	1	6	
Distance Traveled (mi)	42	13	55	
Fuel Consumed (gal)	6	2	8	
Fuel Economy (mpg)	6.5	8.1	6.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	4.6	1.0	5.6	
MONTGOMERY ST				
Direction	NB	SB	All	
Total Delay (hr)	2	2	3	
Stops (#)	286	318	604	
Average Speed (mph)	11	12	11	
Total Travel Time (hr)	3	3	5	
Distance Traveled (mi)	30	32	62	
Fuel Consumed (gal)	4	4	8	
Fuel Economy (mpg)	7.4	7.5	7.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	2.5	2.5	5.0	

MONTGOMERY ST 2				
Direction	NB	SB	All	
Total Delay (hr)	0	<u> </u>	8 8	
Stops (#)	80	441	521	
Average Speed (mph)	14	7	8	
Total Travel Time (hr)	14	10	0 11	
Distance Traveled (mi)	11	74	85	
, ,		74 11	12	
Fuel Consumed (gal)	1 9.1	6.7	6.9	
Fuel Economy (mpg)				
Unserved Vehicles (#)	0 0	0	0	
Vehicles in dilemma zone (#)		0	0	
Performance Index	0.6	8.9	9.6	
SALINA ST				
Direction	NB	SB	All	
Total Delay (hr)	14	10	25	
Stops (#)	1686	1343	3029	
Average Speed (mph)	12	1545	13	
Total Travel Time (hr)	23	21	44	
Distance Traveled (mi)	272	315	587	
Fuel Consumed (gal)	31	28	59	
Fuel Economy (mpg)	8.8	11.3	10.0	
Unserved Vehicles (#)	0.0	0	0.0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	18.9	14.1	33.0	
- Shormanoo maox	10.7		00.0	
STATE ST				
Direction	NB	SB	All	
Total Delay (hr)	14	12	27	
Stops (#)	1447	1348	2795	
Average Speed (mph)	10	10	10	
Total Travel Time (hr)	21	19	40	
Distance Traveled (mi)	206	197	403	
Fuel Consumed (gal)	27	25	52	
Fuel Economy (mpg)	7.7	8.0	7.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	18.3	16.1	34.3	

TOWNSEND ST				
Direction	NB	SB	All	
Total Delay (hr)	10	16	26	
Stops (#)	1126	1393	2519	
Average Speed (mph)	14	1373	13	
Total Travel Time (hr)	20	26	46	
Distance Traveled (mi)	282	291	573	
Fuel Consumed (gal)	25	31	57	
Fuel Economy (mpg)	11.1	9.2	10.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	13.5	19.9	33.4	
WARREN ST				
Direction	NB	SB	All	
Total Delay (hr)	13	1	14	
Stops (#)	1485	181	1666	
Average Speed (mph)	12	17	12	
Total Travel Time (hr)	21	2	23	
Distance Traveled (mi)	244	37	280	
Fuel Consumed (gal)	28	3	31	
Fuel Economy (mpg)	8.8	11.5	9.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	16.9	1.4	18.3	
WASHINGTON ST				
Direction	EB	WB	All	
Total Delay (hr)	5	15	20	
Stops (#)	648	1565	2213	
Average Speed (mph)	14	12	13	
Total Travel Time (hr)	10	26	35	
Distance Traveled (mi)	135	318	453	
Fuel Consumed (gal)	13	33	46	
Fuel Economy (mpg)	10.5	9.7	9.9	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	6.9	19.5	26.3	

WATER ST					
Direction	EB	WB	All		
Total Delay (hr)	2	2	4		
Stops (#)	294	225	519		
Average Speed (mph)	13	17	14		
Total Travel Time (hr)	4	3	8		
Distance Traveled (mi)	53	57	109		
Fuel Consumed (gal)	4	5	10		

#### Fuel Consumed (gal) 10 Fuel Economy (mpg) 9.5 12.0 10.7 Unserved Vehicles (#) 0 0 0 Vehicles in dilemma zone (#) 0 0 0 Performance Index 3.2 2.2 5.4

#### Zone CBD Totals

Number of Intersections	82	
Total Delay (hr)	332	
Stops (#)	39413	
Average Speed (mph)	12	
Total Travel Time (hr)	565	
Distance Traveled (mi)	6993	
Fuel Consumed (gal)	750	
Fuel Economy (mpg)	9.3	
Unserved Vehicles (#)	0	
Vehicles in dilemma zone (#)	25	
Performance Index	441.6	

## **Appendix D**

# Detailed Synchro MOE Results Alternative 2B



	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.2	10.9	28.1	0.10	12.3	D
SALINA ST	IV	30	15.0	47.5	62.5	0.07	3.8	F
Warren	IV	30	7.2	7.9	15.1	0.03	7.6	Ε
Harrison Place	IV	30	8.3	0.8	9.1	0.04	14.4	С
MONTGOMERY ST 2	IV	30	14.7	2.9	17.6	0.06	13.2	С
STATE ST	IV	30	15.3	1.4	16.7	0.07	14.5	С
TOWNSEND ST	IV	30	16.2	11.2	27.4	0.09	11.8	D
McBride	IV	30	16.5	1.3	17.8	0.09	18.5	С
Total	IV		110.4	83.9	194.3	0.54	10.1	D

#### Arterial Level of Service: WB ADAMS ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MONTGOMERY ST 2	IV	30	15.3	1.2	16.5	0.07	14.7	С
Harrison Place	IV	30	14.7	0.1	14.8	0.06	15.8	С
Warren	IV	30	8.3	5.5	13.8	0.04	9.5	D
SALINA ST	IV	30	7.2	31.7	38.9	0.03	2.9	F
CLINTON ST	IV	30	15.0	9.8	24.8	0.07	9.6	D
Total	IV		60.5	48.3	108.8	0.27	8.8	F

#### Arterial Level of Service: NB ALMOND ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
GENESEE ST	IV	30	30.9	18.1	49.0	0.22	16.2	С
FAYETTE ST	IV	30	16.3	3.9	20.2	0.07	12.8	D
WASHINGTON ST	IV	30	15.3	4.1	19.4	0.07	12.5	D
WATER ST	IV	30	14.5	4.4	18.9	0.06	12.2	D
ERIE BLVD	IV	30	6.1	2.5	8.6	0.03	11.3	<u>D</u>
Total	IV		83.1	33.0	116.1	0.45	14.0	С

#### Arterial Level of Service: SB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	17.0	11.4	28.4	0.09	12.0	D
WATER ST	IV	30	6.1	5.8	11.9	0.03	8.2	Ε
WASHINGTON ST	IV	30	14.5	3.4	17.9	0.06	12.8	D
FAYETTE ST	IV	30	15.3	5.6	20.9	0.07	11.6	D
GENESEE ST	IV	30	16.3	18.3	34.6	0.07	7.4	E
Total	IV	-	69.2	44.5	113.7	0.32	10.3	D

Arterial	Level	Ωf	Service:	NR	CLI	INT	(UN)	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.0	10.3	24.3	0.08	11.5	D
PED CROSSING	IV	30	15.3	0.0	15.3	0.08	20.0	В
JEFFERSON ST	IV	30	23.3	8.8	32.1	0.16	17.4	С
FAYETTE ST	IV	30	20.5	8.4	28.9	0.11	14.2	С
WASHINGTON ST	IV	30	14.2	7.8	22.0	0.06	10.2	D
WATER ST	IV	30	15.0	0.1	15.1	0.07	15.8	С
GENESEE ST	IV	30	12.3	12.7	25.0	0.05	7.8	Ε
HERALD ST	IV	30	20.3	0.0	20.3	0.14	23.9	В
Total	IV		134.9	48.1	183.0	0.75	14.8	С

#### Arterial Level of Service: SB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	15.3	16.1	31.4	0.07	7.8	E
GENESEE ST	IV	30	20.3	29.0	49.3	0.14	9.9	D
WATER ST	IV	30	12.3	0.3	12.6	0.05	15.5	С
WASHINGTON ST	IV	30	15.0	11.6	26.6	0.07	9.0	Ε
FAYETTE ST	IV	30	14.2	16.4	30.6	0.06	7.4	Ε
JEFFERSON ST	IV	30	20.5	6.9	27.4	0.11	14.9	С
PED CROSSING	IV	30	23.3	0.1	23.4	0.16	23.9	В
GIFFORD ST	IV	30	15.3	14.6	29.9	0.08	10.2	D
ADAMS ST	IV	30	14.0	58.8	72.8	0.08	3.8	F
Total	IV		150.2	153.8	304.0	0.82	9.7	D

#### Arterial Level of Service: EB ERIE BLVD

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WARREN ST	IV	30	15.8	12.2	28.0	0.07	9.0	E
MONTGOMERY ST	IV	30	13.6	6.7	20.3	0.08	13.4	С
STATE ST	IV	30	17.5	15.4	32.9	0.10	10.6	D
TOWNSEND ST	IV	30	16.2	12.4	28.6	0.09	11.3	D
MCBRIDE ST	IV	30	15.5	6.8	22.3	0.09	13.9	С
ALMOND ST	IV	30	15.8	7.5	23.3	0.09	13.5	С
Total	IV		94.4	61.0	155.4	0.51	11.7	D

#### Arterial Level of Service: WB ERIE BLVD

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	38.0	13.4	51.4	0.29	20.1	В
MCBRIDE ST	IV	30	15.8	6.5	22.3	0.09	14.1	С
TOWNSEND ST	IV	30	15.5	19.8	35.3	0.09	8.8	Ε
STATE ST	IV	30	16.2	5.7	21.9	0.09	14.8	С
Oswego Street	IV	30	17.5	17.5	35.0	0.10	10.0	D
Total	IV		103.0	62.9	165.9	0.65	14.1	С

#### Arterial Level of Service: EB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
West St.	IV	30	18.0	39.9	57.9	0.10	6.2	F
West St.	IV	30	8.6	4.1	12.7	0.04	10.7	D
FRANKLIN ST	IV	30	19.3	13.0	32.3	0.13	14.4	С
CLINTON ST	IV	30	17.9	15.6	33.5	0.10	10.7	D
SALINA ST	IV	30	15.3	5.0	20.3	0.07	12.0	D
WARREN ST	IV	30	16.3	9.9	26.2	0.07	9.8	D
MONTGOMERY ST	IV	30	13.6	6.3	19.9	0.08	13.7	С
STATE ST	IV	30	17.2	8.4	25.6	0.10	13.5	С
TOWNSEND ST	IV	30	16.5	10.5	27.0	0.09	12.2	D
MCBRIDE ST	IV	30	15.8	4.2	20.0	0.09	15.8	С
ALMOND ST	IV	30	15.5	7.4	22.9	0.09	13.5	<u>C</u>
Total	IV		174.0	124.3	298.3	0.94	11.4	D

#### Arterial Level of Service: WB FAYETTE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
						` ,		
ALMOND ST	IV	30	29.8	7.8	37.6	0.23	21.6	В
MCBRIDE ST	IV	30	15.5	6.1	21.6	0.09	14.4	С
TOWNSEND ST	IV	30	15.8	19.3	35.1	0.09	9.0	E
STATE ST	IV	30	16.5	25.8	42.3	0.09	7.8	Ε
MONTGOMERY ST	IV	30	17.2	16.6	33.8	0.10	10.2	D
WARREN ST	IV	30	13.6	6.1	19.7	0.08	13.8	С
SALINA ST	IV	30	16.3	8.9	25.2	0.07	10.2	D
CLINTON ST	IV	30	15.3	17.5	32.8	0.07	7.4	Ε
FRANKLIN ST	IV	30	17.9	14.2	32.1	0.10	11.2	D
West St.	IV	30	19.3	48.2	67.5	0.13	6.9	F
West St.	IV	30	8.6	18.0	26.6	0.04	5.1	<u> </u>
Total	IV		185.8	188.5	374.3	1.07	10.3	D

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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	13.8	21.6	35.4	0.06	6.2	F
WASHINGTON ST	IV	30	14.2	5.4	19.6	0.06	11.5	D
ERIE BLVD	IV	30	16.7	8.6	25.3	0.09	13.2	С
GENESEE ST	IV	30	16.9	17.3	34.2	0.07	7.9	Ε
WILLOW ST	IV	30	6.9	6.0	12.9	0.03	8.5	Ε
HERALD ST	IV	30	14.6	10.2	24.8	0.06	9.3	D
Total	IV		83.1	69.1	152.2	0.39	9.1	D

#### Arterial Level of Service: SB FRANKLIN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	16.6	13.9	30.5	0.09	10.9	D
WILLOW ST	IV	30	14.6	2.1	16.7	0.06	13.9	С
GENESEE ST	IV	30	6.9	17.2	24.1	0.03	4.5	F
ERIE BLVD	IV	30	16.9	8.8	25.7	0.07	10.5	D
WASHINGTON ST	IV	30	16.7	1.7	18.4	0.09	18.1	С
FAYETTE ST	IV	30	14.2	17.1	31.3	0.06	7.2	<u> </u>
Total	IV		85.9	60.8	146.7	0.42	10.2	D

#### Arterial Level of Service: EB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WALLACE ST	IV	30	18.4	6.8	25.2	0.10	14.6	С
FRANKLIN ST	IV	30	16.2	16.1	32.3	0.09	10.0	D
CLINTON ST	IV	30	16.4	40.9	57.3	0.09	5.7	F
SALINA ST	IV	30	16.2	5.5	21.7	0.07	11.8	D
Total	IV		67.2	69.3	136.5	0.35	9.4	D

#### Arterial Level of Service: WB GENESEE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	16.2	7.8	24.0	0.07	10.7	D
FRANKLIN ST	IV	30	16.4	13.1	29.5	0.09	11.1	D
WALLACE ST	IV	30	16.2	5.0	21.2	0.09	15.2	С
Total	IV		48.8	25.9	74.7	0.25	12.1	D

								1/31/2014
Arterial Level of	Service: WE	3 HARRISC	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
TOWNSEND ST	IV	30	18.3	16.0	34.3	0.10	10.7	D
STATE ST	IV	30	21.2	7.7	28.9	0.12	14.7	С
MONTGOMERY ST 2	IV	30	15.3	4.0	19.3	0.07	12.5	D
WARREN ST	IV	30	18.3	4.9	23.2	0.10	15.8	С
ONONDAGA ST	IV	30	15.2	20.2	35.4	0.07	6.8	F
Total	IV		88.3	52.8	141.1	0.46	11.6	D
Arterial Level of S	Service: EB	HERALD S	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	13.0	10.4	23.4	0.06	8.8	Е
CLINTON ST	IV	30	16.9	37.1	54.0	0.07	4.9	F
SALINA ST	IV	30	15.3	6.7	22.0	0.07	11.0	D
Total	IV		45.2	54.2	99.4	0.20	7.2	Е
Arterial Level of	Service: WE	B HERALD	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	15.3	11.2	26.5	0.07	9.2	D
FRANKLIN ST	IV	30	16.9	0.0	16.9	0.07	15.8	С
Total	IV		32.2	11.2	43.4	0.14	11.8	D
Arterial Level of	Service: EB	JEFFERS(	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	11.6	20.8	32.4	0.05	5.7	F
SALINA ST	IV	30	15.5	14.5	30.0	0.07	8.2	Е
WARREN ST	IV	30	16.5	7.6	24.1	0.07	10.8	D
MONTGOMERY ST 2	IV	30	7.1	9.2	16.3	0.03	6.9	F
STATE ST	IV	30	14.2	32.4	46.6	0.06	4.8	F
Total	IV		64.9	84.5	149.4	0.29	6.9	F
Arterial Level of	Service: WE	3 JEFFERS	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.2	13.5	27.7	0.06	8.1	E
WARREN ST	IV	30	16.9	7.7	24.6	0.07	10.9	D
SALINA ST	IV	30	16.5	14.7	31.2	0.07	8.4	Е
CLINTON ST	IV	30	15.5	20.9	36.4	0.07	6.7	F
T	11.7		/11	F/ 0	110.0	0.20	0.2	

63.1

56.8

119.9

0.28

IV

Total

8.3

Arterial Level of Service: NB MCBRIDE	ST
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Connec Street	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	12.0	17.1	29.1	0.05	6.5	F
FAYETTE ST	IV	30	15.3	15.8	31.1	0.07	7.8	Ε
WASHINGTON ST	IV	30	15.0	13.9	28.9	0.07	8.3	Ε
WATER ST	IV	30	14.1	12.6	26.7	0.06	8.4	Ε
ERIE BLVD	IV	30	6.1	13.1	19.2	0.03	5.1	F
Total	IV		62.5	72 5	135.0	0.28	7.4	F

#### Arterial Level of Service: SB MCBRIDE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ERIE BLVD	IV	30	32.8	19.1	51.9	0.25	17.2	C
WATER ST	IV	30	6.1	15.9	22.0	0.03	4.4	F
WASHINGTON ST	IV	30	14.1	7.6	21.7	0.06	10.3	D
FAYETTE ST	IV	30	15.0	13.1	28.1	0.07	8.5	Ε
GENESEE ST	IV	30	15.3	6.5	21.8	0.07	11.2	D
Total	IV		83.3	62.2	145.5	0.47	11.7	D

#### Arterial Level of Service: NB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	20.5	15.3	35.8	0.11	11.4	D
WASHINGTON ST	IV	30	14.0	9.6	23.6	0.06	9.4	D
WATER ST	IV	30	14.1	5.8	19.9	0.06	11.2	D
ERIE BLVD	IV	30	6.2	14.6	20.8	0.03	4.7	<u> </u>
Total	IV		54.8	45.3	100.1	0.26	9.5	D

#### Arterial Level of Service: SB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WATER ST	IV	30	6.2	15.2	21.4	0.03	4.6	F
WASHINGTON ST	IV	30	14.1	15.6	29.7	0.06	7.5	Ε
FAYETTE ST	IV	30	14.0	18.3	32.3	0.06	6.9	F
Total	IV		34.3	49.1	83.4	0.15	6.5	F

#### Arterial Level of Service: NB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	13.8	0.0	13.8	0.06	15.9	С
HARRISON ST	IV	30	19.1	16.3	35.4	0.11	10.8	D
MADISON ST	IV	30	15.1	4.3	19.4	0.08	15.5	С
JEFFERSON ST	IV	30	19.5	0.0	19.5	0.11	20.0	В
Total	IV		67.5	20.6	88.1	0.36	14.7	С

#### Arterial Level of Service: SB MONTGOMERY ST 2

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MADISON ST	IV	30	19.5	11.0	30.5	0.11	12.8	D
HARRISON ST	IV	30	15.1	4.7	19.8	0.08	15.2	С
ADAMS ST	IV	30	19.1	0.0	19.1	0.11	20.0	В
Total	IV		53.7	15.7	69 4	0.30	15.5	C

#### Arterial Level of Service: NB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	11.7	52.5	64.2	0.05	2.9	F
Centro Bus Hub Drive	IV	30	3.3	0.4	3.7	0.01	14.0	С
HARRISON ST	IV	30	18.5	25.2	43.7	0.10	8.5	Е
PED CROSS	IV	30	16.1	2.4	18.5	0.09	17.4	С
JEFFERSON ST	IV	30	17.5	16.9	34.4	0.10	10.2	D
FAYETTE ST	IV	30	20.5	8.2	28.7	0.11	14.3	С
WASHINGTON ST	IV	30	14.2	1.0	15.2	0.06	14.8	С
WATER ST	IV	30	14.7	4.6	19.3	0.06	12.1	D
JAMES ST	IV	30	11.7	12.3	24.0	0.05	7.7	Е
WILLOW ST	IV	30	16.3	5.5	21.8	0.07	11.9	D
HERALD ST	IV	30	15.0	3.2	18.2	0.07	13.1	С
Total	IV		159.5	132.2	291.7	0.79	9.7	D

#### Arterial Level of Service: SB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	33.9	18.7	52.6	0.26	17.6	С
WILLOW ST	IV	30	15.0	2.6	17.6	0.07	13.6	С
GENESEE ST	IV	30	16.3	9.2	25.5	0.07	10.2	D
WATER ST	IV	30	11.7	4.1	15.8	0.05	11.7	D
WASHINGTON ST	IV	30	14.7	8.7	23.4	0.06	10.0	D
FAYETTE ST	IV	30	14.2	20.1	34.3	0.06	6.6	F
JEFFERSON ST	IV	30	20.5	2.3	22.8	0.11	17.9	С
PED CROSS	IV	30	17.5	3.0	20.5	0.10	17.1	С
ONONDAGA ST	IV	30	16.1	14.0	30.1	0.09	10.7	D
Centro Bus Hub Drive	IV	30	18.5	38.6	57.1	0.10	6.5	F
ADAMS ST	IV	30	3.3	2.6	5.9	0.01	8.8	E
Total	IV		181.7	123.9	305.6	0.99	11.7	D

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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	16.3	32.8	49.1	0.09	6.6	F
HARRISON ST	IV	30	19.1	17.3	36.4	0.11	10.5	D
MADISON ST	IV	30	15.1	11.5	26.6	0.08	11.3	D
JEFFERSON ST	IV	30	19.4	3.4	22.8	0.11	17.0	С
GENESEE ST	IV	30	15.7	26.9	42.6	0.07	5.8	F
FAYETTE ST	IV	30	9.1	27.0	36.1	0.04	4.0	F
WASHINGTON ST	IV	30	14.5	9.9	24.4	0.06	9.4	D
WATER ST	IV	30	13.8	5.9	19.7	0.06	11.1	D
ERIE BLVD	IV	30	6.4	21.5	27.9	0.03	3.6	<u> </u>
Total	IV		129 4	156.2	285.6	0.65	8.2	F

#### Arterial Level of Service: SB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	21.5	26.0	47.5	0.12	9.1	D
WATER ST	IV	30	6.4	6.8	13.2	0.03	7.6	Ε
WASHINGTON ST	IV	30	13.8	11.1	24.9	0.06	8.8	Ε
FAYETTE ST	IV	30	14.5	6.0	20.5	0.06	11.2	D
ONONDAGA ST	IV	30	9.1	2.3	11.4	0.04	12.7	D
JEFFERSON ST	IV	30	15.7	7.8	23.5	0.07	10.6	D
MADISON ST	IV	30	19.4	7.8	27.2	0.11	14.3	С
HARRISON ST	IV	30	15.1	2.9	18.0	0.08	16.7	С
ADAMS ST	IV	30	19.1	55.4	74.5	0.11	5.1	F
Total	IV		134.6	126.1	260.7	0.68	9.4	D

#### Arterial Level of Service: NB TOWNSEND ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ADAMS ST	IV	30	18.3	38.8	57.1	0.10	6.4	F
HARRISON ST	IV	30	18.7	14.0	32.7	0.10	11.4	D
GENESEE ST	IV	30	35.1	5.3	40.4	0.27	23.7	В
FAYETTE ST	IV	30	8.9	7.4	16.3	0.04	8.7	Ε
WASHINGTON ST	IV	30	14.5	6.9	21.4	0.06	10.7	D
WATER ST	IV	30	14.1	2.9	17.0	0.06	13.2	С
ERIE BLVD	IV	30	6.3	1.9	8.2	0.03	12.2	D
<b>I690WBOFFRAMP</b>	IV	30	7.0	40.4	47.4	0.03	2.3	F
BURNETT AVE	IV	30	15.7	13.9	29.6	0.07	8.4	<u>E</u>
Total	IV		138.6	131.5	270.1	0.76	10.2	D

∆rterial	I evel of	Service:	SR T	A/M	ISEND	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
BURNETT AVE	IV	30	16.5	7.9	24.4	0.09	13.5	С
BROWN ST	IV	30	15.7	30.3	46.0	0.07	5.4	F
ERIE BLVD	IV	30	7.0	14.0	21.0	0.03	5.3	F
WATER ST	IV	30	6.3	4.2	10.5	0.03	9.5	D
WASHINGTON ST	IV	30	14.1	3.6	17.7	0.06	12.6	D
FAYETTE ST	IV	30	14.5	3.8	18.3	0.06	12.6	D
GENESEE ST	IV	30	8.9	5.7	14.6	0.04	9.7	D
HARRISON ST	IV	30	35.1	7.3	42.4	0.27	22.6	В
ADAMS ST	IV	30	18.7	65.1	83.8	0.10	4.5	<u> </u>
Total	IV		136.8	141.9	278.7	0.75	9.7	D

### Arterial Level of Service: NB WARREN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HARRISON ST	IV	30	19.1	14.8	33.9	0.11	11.2	D
MADISON ST	IV	30	15.1	12.9	28.0	0.08	10.8	D
JEFFERSON ST	IV	30	19.4	8.9	28.3	0.11	13.7	С
FAYETTE ST	IV	30	20.5	17.6	38.1	0.11	10.7	D
WASHINGTON ST	IV	30	14.0	6.3	20.3	0.06	10.9	D
WATER ST	IV	30	14.8	8.7	23.5	0.07	10.0	D
ERIE BLVD	IV	30	6.0	7.9	13.9	0.03	6.9	F
JAMES ST	IV	30	5.9	10.0	15.9	0.03	5.9	F
Total	IV	-	114.8	87.1	201.9	0.59	10.5	D

#### Arterial Level of Service: SB WARREN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
JAMES ST	IV	30	11.8	16.8	28.6	0.05	6.6	F
ERIE BLVD	IV	30	5.9	8.8	14.7	0.03	6.4	F
WATER ST	IV	30	6.0	7.4	13.4	0.03	7.1	Ε
WASHINGTON ST	IV	30	14.8	0.0	14.8	0.07	15.9	C
Total	IV		38.5	33.0	71.5	0.17	8.6	E

Arterial	I evel of	Service:	FR	WASHINGTO	J ST
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Cross Street	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	24.6	17.1	41.7	0.16	14.1	С
CLINTON ST	IV	30	17.7	22.2	39.9	0.10	8.9	Е
SALINA ST	IV	30	15.6	11.3	26.9	0.07	9.2	D
WARREN ST	IV	30	16.3	5.3	21.6	0.07	12.0	D
MONTGOMERY ST	IV	30	13.5	8.0	21.5	0.08	12.6	D
STATE ST	IV	30	17.7	5.1	22.8	0.10	15.6	С
TOWNSEND ST	IV	30	16.2	8.2	24.4	0.09	13.3	С
MCBRIDE ST	IV	30	15.8	7.1	22.9	0.09	13.8	С
ALMOND ST	IV	30	15.3	11.7	27.0	0.08	11.3	D
Total	IV		152.7	96.0	248.7	0.84	12.1	D

#### Arterial Level of Service: WB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	15.3	20.1	35.4	0.09	8.7	E
MCBRIDE ST	IV	30	15.3	5.3	20.6	0.08	14.8	С
TOWNSEND ST	IV	30	15.8	23.4	39.2	0.09	8.0	Ε
STATE ST	IV	30	16.2	13.4	29.6	0.09	10.9	D
MONTGOMERY ST	IV	30	17.7	11.6	29.3	0.10	12.1	D
WARREN ST	IV	30	13.5	14.2	27.7	0.08	9.7	D
SALINA ST	IV	30	16.3	10.9	27.2	0.07	9.5	D
CLINTON ST	IV	30	15.6	16.5	32.1	0.07	7.7	Ε
FRANKLIN ST	IV	30	17.7	8.2	25.9	0.10	13.7	С
West St.	IV	30	24.6	52.7	77.3	0.16	7.6	<u>E</u>
Total	IV	-	168.0	176.3	344.3	0.92	9.7	D

#### Arterial Level of Service: EB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
SALINA ST	IV	30	16.3	20.1	36.4	0.07	7.1	E
WARREN ST	IV	30	15.8	9.4	25.2	0.07	10.0	D
MONTGOMERY ST	IV	30	17.0	9.7	26.7	0.07	10.1	D
STATE ST	IV	30	17.5	7.7	25.2	0.10	13.9	С
TOWNSEND ST	IV	30	16.2	11.5	27.7	0.09	11.7	D
MCBRIDE ST	IV	30	15.5	4.1	19.6	0.09	15.8	С
ALMOND ST	IV	30	15.5	14.2	29.7	0.09	10.4	D
Total	IV		113.8	76.7	190.5	0.58	10.9	D

#### Arterial Level of Service: WB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ALMOND ST	IV	30	38.1	16.1	54.2	0.29	19.2	В
MCBRIDE ST	IV	30	15.5	5.2	20.7	0.09	15.0	С
TOWNSEND ST	IV	30	15.5	19.1	34.6	0.09	9.0	Ε
STATE ST	IV	30	16.2	14.1	30.3	0.09	10.7	D
MONTGOMERY ST	IV	30	17.5	6.0	23.5	0.10	14.9	С
WARREN ST	IV	30	17.0	0.0	17.0	0.07	15.8	С
Total	IV		119.8	60.5	180.3	0.72	14.4	С

ADAMS ST				
Direction	EB	WB	All	
Total Delay (hr)	31	1	32	
Stops (#)	3283	135	3418	
Average Speed (mph)	13	10	13	
Total Travel Time (hr)	54	2	55	
Distance Traveled (mi)	687	17	704	
Fuel Consumed (gal)	69	2	71	
Fuel Economy (mpg)	10.0	7.6	9.9	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	40.0	1.5	41.4	
ALMOND ST				
Di di	ND	C.D.	A II	
Direction Tetal Delay (hr)	NB A	SB	All 7	
Total Delay (hr)	4	3		
Stops (#)	438	424	862	
Average Speed (mph)	13	14	14	
Total Travel Time (hr)	7	6	13	
Distance Traveled (mi)	88	90	177	
Fuel Consumed (gal)	9	9 10 F	17	
Fuel Economy (mpg)	10.1	10.5	10.3	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	4.9	4.6	9.5	
CLINTON ST				
Direction	NB	SB	All	
Total Delay (hr)	1	21	22	
Stops (#)	222	2347	2569	
Average Speed (mph)	18	13	13	
Total Travel Time (hr)	3	37	40	
Distance Traveled (mi)	53	477	529	
Fuel Consumed (gal)	4	48	52	
Fuel Economy (mpg)	12.4	9.9	10.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	

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27.5

29.3

Performance Index

ERIE BLVD			
Direction	EB	WB	All
Total Delay (hr)	8	5	13
Stops (#)	1380	857	2237
Average Speed (mph)	17	17	17
Total Travel Time (hr)	17	11	29
Distance Traveled (mi)	290	189	479
Fuel Consumed (gal)	25	16	41
Fuel Economy (mpg)	11.5	11.7	11.5
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	11.7	7.4	19.0
FAYETTE ST			
Direction	EB	WB	All
Total Delay (hr)	18	9	27
Stops (#)	2376	922	3298
Average Speed (mph)	13	12	13
Total Travel Time (hr)	32	15	46
Distance Traveled (mi)	408	176	584
Fuel Consumed (gal)	43	19	62
Fuel Economy (mpg)	9.5	9.4	9.4
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	24.5	11.3	35.9
FRANKLIN ST			
Direction	NB	SB	All
Total Delay (hr)	4	8	11
Stops (#)	571	900	1471
Average Speed (mph)	12	15	14
Total Travel Time (hr)	6	16	22
Distance Traveled (mi)	75	233	308
Fuel Consumed (gal)	9	20	29
Fuel Economy (mpg)	8.4	11.5	10.6
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	5.2	10.3	15.5
1 onormanoo maox	J.2	10.0	10.0

				1/31/2014
GENESEE ST				
Direction	EB	WB	All	
Total Delay (hr)	15	10	25	
Stops (#)	1442	1253	2695	
Average Speed (mph)	13	13	13	
Total Travel Time (hr)	26	19	45	
Distance Traveled (mi)	345	255	600	
Fuel Consumed (gal)	33	25	58	
Fuel Economy (mpg)	10.5	10.2	10.3	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	18.8	13.9	32.7	
HARRISON ST				
Direction	WB	All		
Total Delay (hr)	10	10		
Stops (#)	1491	1491		
Average Speed (mph)	16	16		
Total Travel Time (hr)	23	23		
Distance Traveled (mi)	371	371		
Fuel Consumed (gal)	31	31		
Fuel Economy (mpg)	11.9	11.9		
Unserved Vehicles (#)	0	0		
Vehicles in dilemma zone (#)	0	0		
Performance Index	14.5	14.5		
HERALD ST				
Direction	EB	WB	All	
Total Delay (hr)	2	0	2	
Stops (#)	271	40	311	
Average Speed (mph)	9	17	10	
Total Travel Time (hr)	3	0	4	
Distance Traveled (mi)	28	8	36	
Fuel Consumed (gal)	4	1	5	
Fuel Economy (mpg)	6.5	NA	7.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	Λ	

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Vehicles in dilemma zone (#)

Performance Index

JEFFERSON ST				
Direction	EB	WB	All	
Total Delay (hr)	4	3	6	
Stops (#)	518	474	992	
Average Speed (mph)	11	11	11	
Total Travel Time (hr)	6	4	10	
Distance Traveled (mi)	64	49	113	
Fuel Consumed (gal)	8	7	15	
Fuel Economy (mpg)	7.7	7.4	7.6	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.2	4.0	9.2	
MCBRIDE ST				
Direction	NB	SB	All	
Total Delay (hr)	1	1	2	
Stops (#)	120	176	296	
Average Speed (mph)	9	9	9	
Total Travel Time (hr)	1	2	3	
Distance Traveled (mi)	11	19	30	
Fuel Consumed (gal)	2	3	5	
Fuel Economy (mpg)	6.5	6.8	6.7	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.2	2.0	3.1	
MONTGOMERY ST				
Direction	NB	SB	All	
Total Delay (hr)	1	3	4	
Stops (#)	145	439	584	
Average Speed (mph)	12	10	11	
Total Travel Time (hr)	2	4	6	
Distance Traveled (mi)	21	41	61	
Fuel Consumed (gal)	2	6	8	
Fuel Economy (mpg)	8.7	6.8	7.3	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	1.4	3.8	5.2	

MONTGOMERY ST 2				
Direction	NB	SB	All	
Total Delay (hr)	0	2	2	
Stops (#)	68	236	304	
Average Speed (mph)	15	14	14	
Total Travel Time (hr)	1	4	4	
Distance Traveled (mi)	11	49	60	
Fuel Consumed (gal)	1	5	6	
Fuel Economy (mpg)	10.2	10.3	10.3	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	0.6	2.6	3.2	
SALINA ST				
O/ (LII W/ COT				
Direction	NB	SB	All	
Total Delay (hr)	9	17	26	
Stops (#)	1010	2106	3116	
Average Speed (mph)	11	16	14	
Total Travel Time (hr)	15	36	51	
Distance Traveled (mi)	164	561	726	
Fuel Consumed (gal)	19	47	66	
Fuel Economy (mpg)	8.6	11.9	10.9	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.1	22.9	35.0	
STATE ST				
Direction	NB	SB	All	
Total Delay (hr)	9	12	21	
Stops (#)	1248	1376	2624	
Average Speed (mph)	10	12	11	
Total Travel Time (hr)	13	20	33	
Distance Traveled (mi)	133	247	380	
Fuel Consumed (gal)	19	26	45	
Fuel Economy (mpg)	7.1	9.4	8.4	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.3	15.6	27.8	

TOWNSEND ST				
Direction	NB	SB	All	
Total Delay (hr)	6	<u>3B</u>	25	
Stops (#)	741	2010	2751	
Average Speed (mph)	15	13	14	
Total Travel Time (hr)	12	34	45	
Distance Traveled (mi)	181	438	619	
Fuel Consumed (gal)	16	430	59	
Fuel Economy (mpg)	11.5	10.2	10.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	7.9	24.5	32.3	
Performance muex	1.9	24.3	32.3	
WARREN ST				
Direction	NB	SB	All	
Total Delay (hr)	5	0	5	
Stops (#)	725	60	785	
Average Speed (mph)	14	9	14	
Total Travel Time (hr)	9	1	9	
Distance Traveled (mi)	125	5	130	
Fuel Consumed (gal)	13	1	13	
Fuel Economy (mpg)	10.0	NA	9.7	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	6.7	0.6	7.3	
WASHINGTON ST				
Direction	EB	WB	All	
Total Delay (hr)	4	5	9	
Stops (#)	566	708	1274	
Average Speed (mph)	15	13	14	
Total Travel Time (hr)	8	9	17	
Distance Traveled (mi)	119	118	237	
Fuel Consumed (gal)	11	13	23	
Fuel Economy (mpg)	10.9	9.5	10.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	5.5	7.0	12.5	
i chomiance muck	5.5	7.0	12.5	

W	ΑT	ER	ST
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Direction	EB	WB	All
Total Delay (hr)	3	1	3
Stops (#)	468	177	645
Average Speed (mph)	15	17	15
Total Travel Time (hr)	5	2	7
Distance Traveled (mi)	75	32	107
Fuel Consumed (gal)	8	3	10
Fuel Economy (mpg)	9.9	11.0	10.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	3.9	1.3	5.2

#### Zone CBD Totals

Number of Intersections	82	
Total Delay (hr)	297	
Stops (#)	36573	
Average Speed (mph)	13	
Total Travel Time (hr)	528	
Distance Traveled (mi)	6925	
Fuel Consumed (gal)	706	
Fuel Economy (mpg)	9.8	
Unserved Vehicles (#)	0	
Vehicles in dilemma zone (#)	15	
Performance Index	399.1	

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	17.8	5.4	23.2	0.10	15.3	С
SALINA ST	IV	30	14.7	24.9	39.6	0.06	5.9	F
Warren	IV	30	7.2	3.9	11.1	0.03	10.3	D
Harrison Place	IV	30	8.3	4.4	12.7	0.04	10.3	D
MONTGOMERY ST 2	IV	30	14.7	11.5	26.2	0.06	8.9	Ε
STATE ST	IV	30	15.3	4.2	19.5	0.07	12.4	D
TOWNSEND ST	IV	30	16.2	10.5	26.7	0.09	12.1	D
McBride	IV	30	16.5	2.1	18.6	0.09	17.7	C
Total	IV		110.7	66.9	177.6	0.55	11.1	D

#### Arterial Level of Service: WB ADAMS ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MONTGOMERY ST 2	IV	30	15.3	8.1	23.4	0.07	10.3	D
Harrison Place	IV	30	14.7	2.8	17.5	0.06	13.3	С
Warren	IV	30	8.3	7.9	16.2	0.04	8.1	Е
SALINA ST	IV	30	7.2	27.2	34.4	0.03	3.3	F
CLINTON ST	IV	30	14.7	5.3	20.0	0.06	11.7	D
Total	IV		60.2	51.3	111.5	0.27	8.6	F

#### Arterial Level of Service: NB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	30.9	21.8	52.7	0.22	15.1	С
FAYETTE ST	IV	30	16.3	7.5	23.8	0.07	10.8	D
WASHINGTON ST	IV	30	15.3	3.3	18.6	0.07	13.0	С
WATER ST	IV	30	14.5	4.2	18.7	0.06	12.3	D
ERIE BLVD	IV	30	6.1	3.6	9.7	0.03	10.1	D
Total	IV		83.1	40.4	123.5	0.45	13.1	С

#### Arterial Level of Service: SB ALMOND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	17.0	16.0	33.0	0.09	10.3	D
WATER ST	IV	30	6.1	8.9	15.0	0.03	6.5	F
WASHINGTON ST	IV	30	14.5	2.8	17.3	0.06	13.3	С
FAYETTE ST	IV	30	15.3	8.1	23.4	0.07	10.4	D
GENESEE ST	IV	30	16.3	22.5	38.8	0.07	6.6	F
Total	IV		69.2	58.3	127.5	0.32	9.2	D

Arterial	Level	Ωf	Service:	NR	CLI	INT	(UN)	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	15.1	12.0	27.1	0.08	11.2	D
PED CROSSING	IV	30	15.3	0.0	15.3	0.08	20.0	В
JEFFERSON ST	IV	30	23.3	9.0	32.3	0.16	17.3	С
FAYETTE ST	IV	30	20.5	18.6	39.1	0.11	10.5	D
WASHINGTON ST	IV	30	14.2	8.0	22.2	0.06	10.1	D
WATER ST	IV	30	15.0	0.1	15.1	0.07	15.8	С
GENESEE ST	IV	30	12.3	22.6	34.9	0.05	5.6	F
HERALD ST	IV	30	20.3	0.0	20.3	0.14	23.9	В
Total	IV		136.0	70.3	206.3	0.76	13.2	С

#### Arterial Level of Service: SB CLINTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	15.3	16.7	32.0	0.07	7.6	Ε
GENESEE ST	IV	30	20.3	12.0	32.3	0.14	15.1	С
WATER ST	IV	30	12.3	0.1	12.4	0.05	15.8	С
WASHINGTON ST	IV	30	15.0	20.0	35.0	0.07	6.8	F
FAYETTE ST	IV	30	14.2	10.9	25.1	0.06	9.0	Ε
JEFFERSON ST	IV	30	20.5	12.8	33.3	0.11	12.3	D
PED CROSSING	IV	30	23.3	0.1	23.4	0.16	23.9	В
GIFFORD ST	IV	30	15.3	17.9	33.2	0.08	9.2	D
ADAMS ST	IV	30	15.1	58.8	73.9	0.08	4.1	F
Total	IV		151.3	149.3	300.6	0.82	9.9	D

#### Arterial Level of Service: EB ERIE BLVD

Cross Street	Arterial Class	Flow	Running Time	Signal Delav	Travel	Dist (mi)	Arterial	Arterial LOS
		Speed			Time (s)	, ,	Speed	LU3
WARREN ST	IV	30	15.8	19.0	34.8	0.07	7.2	Ε
MONTGOMERY ST	IV	30	13.6	15.5	29.1	0.08	9.3	D
STATE ST	IV	30	17.5	15.8	33.3	0.10	10.5	D
TOWNSEND ST	IV	30	16.2	9.6	25.8	0.09	12.6	D
MCBRIDE ST	IV	30	15.5	4.8	20.3	0.09	15.3	С
ALMOND ST	IV	30	15.8	8.5	24.3	0.09	13.0	<u>D</u>
Total	IV		94.4	73.2	167.6	0.51	10.9	D

#### Arterial Level of Service: WB ERIE BLVD

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
ALMOND ST	IV	30	38.0	17.0	55.0	0.29	18.8	С
MCBRIDE ST	IV	30	15.8	16.4	32.2	0.09	9.8	D
TOWNSEND ST	IV	30	15.5	4.8	20.3	0.09	15.3	С
STATE ST	IV	30	16.2	10.3	26.5	0.09	12.2	D
Oswego Street	IV	30	17.5	7.6	25.1	0.10	13.9	С
Total	IV		103.0	56.1	159.1	0.65	14.7	

#### Arterial Level of Service: EB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
West St.	IV	30	18.0	21.8	39.8	0.10	9.1	D
West St.	IV	30	8.6	12.1	20.7	0.04	6.6	F
FRANKLIN ST	IV	30	19.3	11.8	31.1	0.13	14.9	С
CLINTON ST	IV	30	17.9	14.9	32.8	0.10	10.9	D
SALINA ST	IV	30	15.3	6.8	22.1	0.07	11.0	D
WARREN ST	IV	30	16.3	26.3	42.6	0.07	6.0	F
MONTGOMERY ST	IV	30	13.6	4.7	18.3	0.08	14.9	С
STATE ST	IV	30	17.2	9.7	26.9	0.10	12.8	D
TOWNSEND ST	IV	30	16.5	30.1	46.6	0.09	7.1	Ε
MCBRIDE ST	IV	30	15.8	4.1	19.9	0.09	15.8	С
ALMOND ST	IV	30	15.5	3.5	19.0	0.09	16.3	С
Total	IV		174.0	145.8	319.8	0.94	10.6	D

#### Arterial Level of Service: WB FAYETTE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	29.8	13.0	42.8	0.23	19.0	С
MCBRIDE ST	IV	30	15.5	6.6	22.1	0.09	14.0	С
TOWNSEND ST	IV	30	15.8	9.7	25.5	0.09	12.4	D
STATE ST	IV	30	16.5	28.0	44.5	0.09	7.4	Ε
MONTGOMERY ST	IV	30	17.2	19.4	36.6	0.10	9.4	D
WARREN ST	IV	30	13.6	11.3	24.9	0.08	11.0	D
SALINA ST	IV	30	16.3	4.5	20.8	0.07	12.4	D
CLINTON ST	IV	30	15.3	9.8	25.1	0.07	9.7	D
FRANKLIN ST	IV	30	17.9	13.5	31.4	0.10	11.4	D
West St.	IV	30	19.3	40.2	59.5	0.13	7.8	Ε
West St.	IV	30	8.6	5.7	14.3	0.04	9.5	<u>D</u>
Total	IV		185.8	161.7	347.5	1.07	11.1	D

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Arterial	Level of	Service:	NB FR	ANKL	IN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	13.8	25.2	39.0	0.06	5.6	F
WASHINGTON ST	IV	30	14.2	19.2	33.4	0.06	6.7	F
ERIE BLVD	IV	30	16.7	13.0	29.7	0.09	11.2	D
GENESEE ST	IV	30	16.9	11.9	28.8	0.07	9.3	D
WILLOW ST	IV	30	6.9	2.5	9.4	0.03	11.6	D
HERALD ST	IV	30	14.6	18.4	33.0	0.06	7.0	<u>E</u>
Total	IV		83.1	90.2	173.3	0.39	8.0	E

#### Arterial Level of Service: SB FRANKLIN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	16.6	23.7	40.3	0.09	8.3	Е
WILLOW ST	IV	30	14.6	2.1	16.7	0.06	13.9	С
GENESEE ST	IV	30	6.9	8.5	15.4	0.03	7.1	Е
ERIE BLVD	IV	30	16.9	2.1	19.0	0.07	14.1	С
WASHINGTON ST	IV	30	16.7	11.1	27.8	0.09	12.0	D
FAYETTE ST	IV	30	14.2	10.1	24.3	0.06	9.3	D
Total	IV		85.9	57.6	143.5	0.42	10.5	D

#### Arterial Level of Service: EB GENESEE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
WALLACE ST	IV	30	18.4	11.1	29.5	0.10	12.5	D
FRANKLIN ST	IV	30	16.2	13.9	30.1	0.09	10.7	D
CLINTON ST	IV	30	16.4	12.1	28.5	0.09	11.5	D
SALINA ST	IV	30	16.2	24.8	41.0	0.07	6.3	F
Total	IV		67.2	61.9	129.1	0.35	9.9	D

#### Arterial Level of Service: WB GENESEE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	16.2	9.8	26.0	0.07	9.9	D
FRANKLIN ST	IV	30	16.4	12.1	28.5	0.09	11.5	D
WALLACE ST	IV	30	16.2	5.3	21.5	0.09	15.0	С
Total	IV		48.8	27.2	76.0	0.25	11.9	D

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Arterial Level of	Service: WE	HARRISC	N ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
TOWNSEND ST	IV	30	18.3	15.4	33.7	0.10	10.9	D
STATE ST	IV	30	21.2	10.8	32.0	0.12	13.3	С
MONTGOMERY ST 2	IV	30	15.3	12.5	27.8	0.07	8.7	Ε
WARREN ST	IV	30	18.3	10.5	28.8	0.10	12.7	D
ONONDAGA ST	IV	30	15.2	38.1	53.3	0.07	4.5	<u> </u>
Total	IV		88.3	87.3	175.6	0.46	9.3	D
Arterial Level of	Service: EB	HERALD S	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	13.0	6.3	19.3	0.06	10.7	D
CLINTON ST	IV	30	16.9	20.7	37.6	0.07	7.1	E
SALINA ST	IV	30	15.3	13.6	28.9	0.07	8.4	<u> </u>
Total	IV		45.2	40.6	85.8	0.20	8.3	E
Arterial Level of	Service: WE	HERALD	ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	15.3	13.5	28.8	0.07	8.4	Е
FRANKLIN ST	IV	30	16.9	0.0	16.9	0.07	15.8	<u>C</u>
Total	IV		32.2	13.5	45.7	0.14	11.2	D
Arterial Level of	Service: EB	JEFFERS(	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
CLINTON ST	IV	30	11.6	19.4	31.0	0.05	5.9	F
SALINA ST	IV	30	15.5	16.4	31.9	0.07	7.7	Е
WARREN ST	IV	30	16.5	13.2	29.7	0.07	8.8	E
MONTGOMERY ST 2	IV	30	7.1	10.5	17.6	0.03	6.4	F
STATE ST	IV	30	14.2	20.9	35.1	0.06	6.4	F
Total	IV		64.9	80.4	145.3	0.29	7.1	E
Arterial Level of	Service: WE	3 JEFFERS	ON ST					
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ONONDAGA ST	IV	30	14.2	6.8	21.0	0.06	10.7	D
WARREN ST	IV	30	16.9	19.2	36.1	0.07	7.4	E
SALINA ST	IV	30	16.5	16.3	32.8	0.07	8.0	E
CLINTON ST	IV	30	15.5	17.0	32.5	0.07	7.6	<u>E</u>
Total	IV		63.1	59.3	122.4	0.28	8.2	Е

Arterial Level of Service: N	NB MCBRIDE ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
GENESEE ST	IV	30	12.0	16.1	28.1	0.05	6.7	F
FAYETTE ST	IV	30	15.3	18.9	34.2	0.07	7.1	Ε
WASHINGTON ST	IV	30	15.0	12.8	27.8	0.07	8.6	Е
WATER ST	IV	30	14.1	12.2	26.3	0.06	8.5	Е
ERIE BLVD	IV	30	6.1	15.8	21.9	0.03	4.5	<u> </u>
Total	IV		62.5	75.8	138 3	0.28	7.2	F

#### Arterial Level of Service: SB MCBRIDE ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
_				Delay	Time (S)			LU3
ERIE BLVD	IV	30	32.8	10.9	43.7	0.25	20.5	В
WATER ST	IV	30	6.1	11.0	17.1	0.03	5.7	F
WASHINGTON ST	IV	30	14.1	9.1	23.2	0.06	9.7	D
FAYETTE ST	IV	30	15.0	9.8	24.8	0.07	9.6	D
GENESEE ST	IV	30	15.3	6.4	21.7	0.07	11.2	D
Total	IV		83.3	47.2	130.5	0.47	13.0	С

#### Arterial Level of Service: NB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FAYETTE ST	IV	30	20.5	20.2	40.7	0.11	10.1	D
WASHINGTON ST	IV	30	14.0	7.0	21.0	0.06	10.6	D
WATER ST	IV	30	14.1	3.6	17.7	0.06	12.6	D
ERIE BLVD	IV	30	6.2	22.1	28.3	0.03	3.5	<u> </u>
Total	IV		54.8	52.9	107.7	0.26	8.8	E

#### Arterial Level of Service: SB MONTGOMERY ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
WATER ST	IV	30	6.2	9.1	15.3	0.03	6.4	F
WASHINGTON ST	IV	30	14.1	12.0	26.1	0.06	8.6	Ε
FAYETTE ST	IV	30	14.0	18.8	32.8	0.06	6.8	F
Total	IV		34.3	39.9	74.2	0.15	7.3	E

#### Arterial Level of Service: NB MONTGOMERY ST 2

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	13.8	0.0	13.8	0.06	15.9	С
HARRISON ST	IV	30	19.1	10.3	29.4	0.11	13.0	D
MADISON ST	IV	30	15.1	10.0	25.1	0.08	12.0	D
JEFFERSON ST	IV	30	19.5	0.0	19.5	0.11	20.0	<u>B</u>
Total	IV		67.5	20.3	87.8	0.36	14.7	С

#### Arterial Level of Service: SB MONTGOMERY ST 2

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
MADISON ST	IV	30	19.5	14.2	33.7	0.11	11.6	D
HARRISON ST	IV	30	15.1	6.5	21.6	0.08	14.0	С
ADAMS ST	IV	30	19.1	0.0	19.1	0.11	20.0	В
Total	IV		53.7	20.7	74.4	0.30	14 4	C

#### Arterial Level of Service: NB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	11.7	48.7	60.4	0.05	3.1	F
Centro Bus Hub Drive	IV	30	3.3	0.6	3.9	0.01	13.3	С
HARRISON ST	IV	30	18.5	29.9	48.4	0.10	7.7	Ε
PED CROSS	IV	30	16.1	5.2	21.3	0.09	15.1	С
JEFFERSON ST	IV	30	17.5	6.6	24.1	0.10	14.5	С
FAYETTE ST	IV	30	20.5	5.9	26.4	0.11	15.5	С
WASHINGTON ST	IV	30	14.2	9.0	23.2	0.06	9.7	D
WATER ST	IV	30	14.7	6.0	20.7	0.06	11.3	D
JAMES ST	IV	30	11.7	17.9	29.6	0.05	6.3	F
WILLOW ST	IV	30	16.3	7.3	23.6	0.07	11.0	D
HERALD ST	IV	30	15.0	7.4	22.4	0.07	10.7	<u>D</u>
Total	IV		159.5	144.5	304.0	0.79	9.3	D

#### Arterial Level of Service: SB SALINA ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
HERALD ST	IV	30	33.9	18.9	52.8	0.26	17.5	С
WILLOW ST	IV	30	15.0	2.9	17.9	0.07	13.3	С
GENESEE ST	IV	30	16.3	14.2	30.5	0.07	8.5	Ε
WATER ST	IV	30	11.7	5.2	16.9	0.05	11.0	D
WASHINGTON ST	IV	30	14.7	9.6	24.3	0.06	9.6	D
FAYETTE ST	IV	30	14.2	12.2	26.4	0.06	8.5	Ε
JEFFERSON ST	IV	30	20.5	12.6	33.1	0.11	12.4	D
PED CROSS	IV	30	17.5	18.7	36.2	0.10	9.7	D
ONONDAGA ST	IV	30	16.1	9.6	25.7	0.09	12.5	D
Centro Bus Hub Drive	IV	30	18.5	33.8	52.3	0.10	7.1	Е
ADAMS ST	IV	30	3.3	1.6	4.9	0.01	10.6	<u>D</u>
Total	IV		181.7	139.3	321.0	0.99	11.1	D

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Anenai	Levei	ΟI	Service:	IND	SIAIE	SΙ

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	16.3	24.7	41.0	0.09	7.9	E
HARRISON ST	IV	30	19.1	15.9	35.0	0.11	10.9	D
MADISON ST	IV	30	15.1	15.4	30.5	0.08	9.9	D
JEFFERSON ST	IV	30	19.4	7.6	27.0	0.11	14.4	С
GENESEE ST	IV	30	15.7	12.1	27.8	0.07	9.0	Ε
FAYETTE ST	IV	30	9.1	20.9	30.0	0.04	4.8	F
WASHINGTON ST	IV	30	14.5	14.9	29.4	0.06	7.8	Ε
WATER ST	IV	30	13.8	5.7	19.5	0.06	11.3	D
ERIE BLVD	IV	30	6.4	22.4	28.8	0.03	3.5	<u> </u>
Total	IV		129.4	139.6	269.0	0.65	8.7	Е

#### Arterial Level of Service: SB STATE ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ERIE BLVD	IV	30	21.5	19.4	40.9	0.12	10.5	D
WATER ST	IV	30	6.4	9.7	16.1	0.03	6.3	F
WASHINGTON ST	IV	30	13.8	8.7	22.5	0.06	9.8	D
FAYETTE ST	IV	30	14.5	25.8	40.3	0.06	5.7	F
ONONDAGA ST	IV	30	9.1	4.1	13.2	0.04	11.0	D
JEFFERSON ST	IV	30	15.7	12.7	28.4	0.07	8.8	Ε
MADISON ST	IV	30	19.4	17.0	36.4	0.11	10.7	D
HARRISON ST	IV	30	15.1	2.1	17.2	0.08	17.5	С
ADAMS ST	IV	30	19.1	51.2	70.3	0.11	5.4	<u> </u>
Total	IV		134.6	150.7	285.3	0.68	8.6	E

#### Arterial Level of Service: NB TOWNSEND ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ADAMS ST	IV	30	18.3	31.6	49.9	0.10	7.3	Е
HARRISON ST	IV	30	18.7	13.3	32.0	0.10	11.7	D
GENESEE ST	IV	30	35.1	12.9	48.0	0.27	20.0	В
FAYETTE ST	IV	30	8.9	10.6	19.5	0.04	7.2	Ε
WASHINGTON ST	IV	30	14.5	4.6	19.1	0.06	12.0	D
WATER ST	IV	30	14.1	2.8	16.9	0.06	13.2	С
ERIE BLVD	IV	30	6.3	23.8	30.1	0.03	3.3	F
<b>I690WBOFFRAMP</b>	IV	30	7.0	21.0	28.0	0.03	3.9	F
BURNETT AVE	IV	30	15.7	4.4	20.1	0.07	12.4	D
Total	IV		138.6	125.0	263.6	0.76	10.4	D

Arterial	l evel of	Service:	SB	TOW/I	<b>USEND</b>	ST
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	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
BURNETT AVE	IV	30	16.5	17.6	34.1	0.09	9.7	D
BROWN ST	IV	30	15.7	18.5	34.2	0.07	7.3	Ε
ERIE BLVD	IV	30	7.0	25.1	32.1	0.03	3.4	F
WATER ST	IV	30	6.3	2.5	8.8	0.03	11.4	D
WASHINGTON ST	IV	30	14.1	4.6	18.7	0.06	12.0	D
FAYETTE ST	IV	30	14.5	10.5	25.0	0.06	9.2	D
GENESEE ST	IV	30	8.9	4.5	13.4	0.04	10.5	D
HARRISON ST	IV	30	35.1	5.5	40.6	0.27	23.6	В
ADAMS ST	IV	30	18.7	62.0	80.7	0.10	4.6	F
Total	IV		136.8	150.8	287.6	0.75	9.4	D

#### Arterial Level of Service: NB WARREN ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
HARRISON ST	IV	30	19.1	15.9	35.0	0.11	10.9	D
WARREN ST	IV	30	15.1	1.9	17.0	0.08	17.7	С
JEFFERSON ST	IV	30	19.4	9.5	28.9	0.11	13.4	С
FAYETTE ST	IV	30	20.5	22.3	42.8	0.11	9.6	D
WASHINGTON ST	IV	30	14.0	6.8	20.8	0.06	10.7	D
WATER ST	IV	30	14.8	4.6	19.4	0.07	12.1	D
ERIE BLVD	IV	30	6.0	5.7	11.7	0.03	8.2	Ε
JAMES ST	IV	30	5.9	11.9	17.8	0.03	5.3	F
Total	IV		114.8	78.6	193.4	0.59	11.0	D

#### Arterial Level of Service: SB WARREN ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
JAMES ST	IV	30	11.8	12.0	23.8	0.05	7.9	E
ERIE BLVD	IV	30	5.9	9.3	15.2	0.03	6.2	F
WATER ST	IV	30	6.0	6.5	12.5	0.03	7.6	Ε
WASHINGTON ST	IV	30	14.8	0.0	14.8	0.07	15.9	C
Total	IV		38.5	27.8	66.3	0.17	9.2	D

Arterial Leve	Lof Service:	<b>EB WASHINGTON</b>	ST
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0 0 1	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
FRANKLIN ST	IV	30	24.6	19.0	43.6	0.16	13.5	С
CLINTON ST	IV	30	17.7	12.4	30.1	0.10	11.8	D
SALINA ST	IV	30	15.6	9.4	25.0	0.07	9.9	D
WARREN ST	IV	30	16.3	19.9	36.2	0.07	7.2	Ε
MONTGOMERY ST	IV	30	13.5	4.8	18.3	0.08	14.8	С
STATE ST	IV	30	17.7	10.4	28.1	0.10	12.6	D
TOWNSEND ST	IV	30	16.2	30.0	46.2	0.09	7.0	Ε
MCBRIDE ST	IV	30	15.8	5.1	20.9	0.09	15.1	С
ALMOND ST	IV	30	15.3	4.6	19.9	0.08	15.3	С
Total	IV		152.7	115.6	268.3	0.84	11.3	D

#### Arterial Level of Service: WB WASHINGTON ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
ALMOND ST	IV	30	15.3	21.1	36.4	0.09	8.4	E
MCBRIDE ST	IV	30	15.3	5.7	21.0	0.08	14.5	С
TOWNSEND ST	IV	30	15.8	10.6	26.4	0.09	11.9	D
STATE ST	IV	30	16.2	17.8	34.0	0.09	9.5	D
MONTGOMERY ST	IV	30	17.7	9.6	27.3	0.10	13.0	D
WARREN ST	IV	30	13.5	22.3	35.8	0.08	7.5	Ε
SALINA ST	IV	30	16.3	11.3	27.6	0.07	9.4	D
CLINTON ST	IV	30	15.6	10.4	26.0	0.07	9.5	D
FRANKLIN ST	IV	30	17.7	10.3	28.0	0.10	12.7	D
West St.	IV	30	24.6	33.0	57.6	0.16	10.2	D
Total	IV		168.0	152.1	320.1	0.92	10.4	D

#### Arterial Level of Service: EB WATER ST

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
SALINA ST	IV	30	16.3	14.9	31.2	0.07	8.3	Е
WARREN ST	IV	30	15.8	19.5	35.3	0.07	7.1	Ε
MONTGOMERY ST	IV	30	17.0	10.3	27.3	0.07	9.9	D
STATE ST	IV	30	17.5	10.2	27.7	0.10	12.6	D
TOWNSEND ST	IV	30	16.2	22.4	38.6	0.09	8.4	Ε
MCBRIDE ST	IV	30	15.5	9.5	25.0	0.09	12.4	D
ALMOND ST	IV	30	15.5	9.5	25.0	0.09	12.4	D
Total	IV		113.8	96.3	210 1	0.58	9 9	D

### Arterial Level of Service: WB WATER ST

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delav	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
					, ,	. , ,		
ALMOND ST	IV	30	38.1	19.0	57.1	0.29	18.2	C
MCBRIDE ST	IV	30	15.5	6.7	22.2	0.09	14.0	С
TOWNSEND ST	IV	30	15.5	11.2	26.7	0.09	11.6	D
STATE ST	IV	30	16.2	11.0	27.2	0.09	11.9	D
MONTGOMERY ST	IV	30	17.5	11.2	28.7	0.10	12.2	D
WARREN ST	IV	30	17.0	0.0	17.0	0.07	15.8	С
Total	IV		119.8	59.1	178.9	0.72	14.6	С

ADAMS ST			
Direction	EB	WB	All
Total Delay (hr)	15	4	19
Stops (#)	2435	571	3006
Average Speed (mph)	16	10	15
Total Travel Time (hr)	31	6	37
Distance Traveled (mi)	501	56	557
Fuel Consumed (gal)	45	8	53
Fuel Economy (mpg)	11.2	6.7	10.5
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	21.3	5.6	26.9
ALMOND ST			
Direction	NB	SB	All
Total Delay (hr)	5	5	10
Stops (#)	559	588	1147
Average Speed (mph)	12	12	12
Total Travel Time (hr)	8	9	17
Distance Traveled (mi)	102	101	203
Fuel Consumed (gal)	11	11	22
Fuel Economy (mpg)	9.4	9.0	9.2
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	6.4	6.9	13.3
CLINTON ST			
Direction	NB	SB	All
Total Delay (hr)	2	13	14
Stops (#)	238	1501	1739
Average Speed (mph)	15	14	14
Total Travel Time (hr)	4	23	27
Distance Traveled (mi)	58	318	376
Fuel Consumed (gal)	5	31	36
Fuel Economy (mpg)	11.5	10.4	10.6
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	2.5	16.7	19.2
1 offormation much	2.0	10.7	17.2

ERIE BLVD				
Direction	EB	WB	All	
Total Delay (hr)	9	8	17	
Stops (#)	1362	1203	2565	
Average Speed (mph)	15	18	16	
Total Travel Time (hr)	17	20	37	
Distance Traveled (mi)	253	356	609	
Fuel Consumed (gal)	24	27	52	
Fuel Economy (mpg)	10.4	13.0	11.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.5	11.7	24.2	
FAYETTE ST				
Direction	EB	WB	All	
Total Delay (hr)	15	17	31	
Stops (#)	1790	1789	3579	
Average Speed (mph)	12	12	12	
Total Travel Time (hr)	25	28	53	
Distance Traveled (mi)	302	351	653	
Fuel Consumed (gal)	33	37	70	
Fuel Economy (mpg)	9.1	9.6	9.4	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	19.6	21.7	41.3	
FRANKLIN ST				
Direction	NB	SB	All	
Total Delay (hr)	13	4	16	
Stops (#)	1510	489	1999	
Average Speed (mph)	10	15	12	
Total Travel Time (hr)	19	7	26	
Distance Traveled (mi)	201	106	307	
Fuel Consumed (gal)	26	100	36	
Fuel Economy (mpg)	7.8	10.9	8.6	
Unserved Vehicles (#)	0	0	0.0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	16.8	5.0	21.8	
I GHOHHAHCE HINCA	10.0	5.0	21.0	

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GENESEE ST				
Direction	EB	WB	All	
Total Delay (hr)	9	10	19	
Stops (#)	1350	1397	2747	
Average Speed (mph)	14	15	14	
Total Travel Time (hr)	16	21	37	
Distance Traveled (mi)	222	317	539	
Fuel Consumed (gal)	23	28	52	
Fuel Economy (mpg)	9.6	11.2	10.5	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	12.7	14.3	27.0	
HARRISON ST				
Direction	WB	All		
Total Delay (hr)	12	12		
Stops (#)	1293	1293		
Average Speed (mph)	12	12		
Total Travel Time (hr)	21	21		
Distance Traveled (mi)	261	261		
Fuel Consumed (gal)	27	27		
Fuel Economy (mpg)	9.7	9.7		
Unserved Vehicles (#)	0	0		
Vehicles in dilemma zone (#)	0	0		
Performance Index	15.9	15.9		
HERALD ST				
Direction	EB	WB	All	
Total Delay (hr)	4	0	5	
Stops (#)	486	54	540	
Average Speed (mph)	8	14	9	
Total Travel Time (hr)	6	1	7	
Distance Traveled (mi)	45	12	57	
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Fuel Consumed (gal) Fuel Economy (mpg)

Unserved Vehicles (#)

Performance Index

Vehicles in dilemma zone (#)

				_
JEFFERSON ST				
Direction	EB	WB	All	
Total Delay (hr)	3	3	6	
Stops (#)	529	477	1006	
Average Speed (mph)	11	10	10	
Total Travel Time (hr)	5	5	10	
Distance Traveled (mi)	54	50	104	
Fuel Consumed (gal)	8	7	15	
Fuel Economy (mpg)	7.2	7.1	7.1	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	4.8	4.5	9.2	
	1.0	110	/ ·· <u>-</u>	
MCBRIDE ST				
Direction	NB	SB	All	
Total Delay (hr)	4	1	4	
Stops (#)	371	94	465	
Average Speed (mph)	8	11	9	
Total Travel Time (hr)	5	1	6	
Distance Traveled (mi)	42	13	55	
Fuel Consumed (gal)	6	2	8	
Fuel Economy (mpg)	6.5	8.1	6.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	4.7	1.0	5.7	
. ssand mack		1.0	0.,	
MONTGOMERY ST				
Direction	NB	SB	All	
Total Delay (hr)	2	2	3	
Stops (#)	199	302	501	
Average Speed (mph)	11	12	11	
Total Travel Time (hr)	3	3	6	
Distance Traveled (mi)	30	32	62	
Fuel Consumed (gal)	4	4	8	
Fuel Economy (mpg)	8.2	7.7	7.9	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	2.3	2.5	4.8	

MONTGOMERY ST 2				
Direction	MD	CD	ΛΙΙ	
Direction Total Dalay (hr)	NB 0	<u>SB</u> 5	All 5	
Total Delay (hr)				
Stops (#)	62	347	409	
Average Speed (mph)	15	9	10	
Total Travel Time (hr)	1	7	7	
Distance Traveled (mi)	11	59	70	
Fuel Consumed (gal)	1	8	9	
Fuel Economy (mpg)	10.2	7.6	7.9	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	0.6	5.6	6.1	
SALINA ST				
Direction	NB	SB	All	
Total Delay (hr)	ND	3 <u>b</u> 14	28	
Stops (#)	1548	1705	3253	
Average Speed (mph)	12	1703	13	
Total Travel Time (hr)	23	26	49	
Distance Traveled (mi)	23 272	26 366	638	
` ,	30	300 35	65 65	
Fuel Consumed (gal)				
Fuel Economy (mpg)	9.0	10.5	9.8	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	18.4	18.8	37.2	
STATE ST				
Direction	NB	SB	All	
Total Delay (hr)	14	12	26	
Stops (#)	1422	1231	2653	
Average Speed (mph)	10	10	10	
Total Travel Time (hr)	21	19	39	
Distance Traveled (mi)	206	197	403	
Fuel Consumed (gal)	26	24	50	
Fuel Economy (mpg)	7.8	8.2	8.0	
Unserved Vehicles (#)	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	
Performance Index	17.6	15.8	33.4	

TOWNSEND ST			
Direction	NB	SB	All
Total Delay (hr)	11	16	26
Stops (#)	1284	1351	2635
Average Speed (mph)	14	11	13
Total Travel Time (hr)	20	25	46
Distance Traveled (mi)	282	291	573
Fuel Consumed (gal)	27	31	58
Fuel Economy (mpg)	10.6	9.4	10.0
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	14.3	19.5	33.7
WARREN ST			
Direction	NB	SB	All
Total Delay (hr)	10	0	10
Stops (#)	1270	30	1300
Average Speed (mph)	13	11	13
Total Travel Time (hr)	18	0	19
Distance Traveled (mi)	244	4	248
Fuel Consumed (gal)	25	0	25
Fuel Economy (mpg)	9.9	NA	9.9
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	13.8	0.3	14.1
WASHINGTON ST			
Direction	EB	WB	All
Total Delay (hr)	5	15	20
Stops (#)	690	1634	2324
Average Speed (mph)	14	12	13
Total Travel Time (hr)	10	25	35
Distance Traveled (mi)	134	317	451
Fuel Consumed (gal)	13	33	46
Fuel Economy (mpg)	10.2	9.6	9.8
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	7.1	19.4	26.6
1 STIGHTHUNGO HIMON	7.1	17.7	20.0

WATER ST				
Direction	EB	WB	All	
Total Delay (hr)	2	2	1	

Direction	FR	WB	All
Total Delay (hr)	2	2	4
Stops (#)	286	227	513
Average Speed (mph)	13	17	15
Total Travel Time (hr)	4	3	7
Distance Traveled (mi)	52	57	108
Fuel Consumed (gal)	5	5	10
Fuel Economy (mpg)	9.6	12.0	10.7
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	0	0	0
Performance Index	3.1	2.2	5.2

### Zone CBD Totals

Number of Intersections	82
Total Delay (hr)	324
Stops (#)	38857
Average Speed (mph)	13
Total Travel Time (hr)	557
Distance Traveled (mi)	6990
Fuel Consumed (gal)	742
Fuel Economy (mpg)	9.4
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	25
Performance Index	432.3

### **Attachment G**

**Working Group Meeting Summaries** 





# UPWP 44.23.02 V DOWNTOWN SYRACUSE TWO WAY FEASIBILITY TECHNICAL ANALYSIS GET START MEETING SMTC CITY OF SYRACUSE, ONONDAGA COUNTY

# CITY OF SYRACUSE, ONONDAGA COUNTY JUNE 19, 2012

Name	Representing	Phone #
James D'Agostino	SMTC	422-5716
Mario Colone	SMTC	422-5716
James Effinger	CENTRO	442-3354
John Reichert	NYSDOT	428-4405
Liz Hassett	SMTC	422-5716
Rob Martin	City of Syracuse Engineering	448-8441
Paul Mercurio	City of Syracuse DPW	448-8511
Harry Carlson	City of Syracuse DPW	448-8510
Rich Landerkin	CENTRO	442-3381
Gordon Stansbury	GTS Consulting	391-5110
Kelly Thompson	Bergmann Associates	422-5200

### **Purpose of Meeting:**

Project kick-off meeting with the Working Group for the subject project.

### **Proceedings:**

### 1. Introductions of Attendees

### 2. Study Overview

- Performing an analysis of the existing street network within the City's CBD to determine the feasibility of converting several one-way streets to two-way operation.
- Reviewing existing conditions and data provided through a Fatal Flaw Analysis, identifying additional data to be provided/collected.
- Develop three (3) alternative conditions and quantify the challenges to rank the Alternatives for the Design Year.
- Recommend an Action Plan for Implementation including costs, geometric alterations necessary and operational challenges to overcome.





• Document in a Final Report and Executive Summary

### 3. Routes (Project Area)

- Project area shown on attached slide-Bounded by:
  - i. On the north by I-690;
  - ii. On the west by West Street;
  - iii. On the south by Adams Street; and
  - iv. On the east by Almond Street.

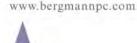
Discussion on NYSDOT signals in the study area. We will need to obtain NYSDOT timing data for verification in the SYNCHRO models due to re-timing activities currently underway between the State of NY and City of Syracuse.

Discussed the potential impact on NYSDOT signals associated with the transit hub opening in July. The city would like to see some verification of operations in this area in the fall, likely as a task outside this project. As of this time, such activity will be the responsibility of the City to request separately.

The group concurred that someone from NYSDOT signals should be part of the working committee to ensure NYSDOT interests or limitations are accounted for

### 4. Data Provided and Yet To Be Provided/Updated:

- Data provided included:
  - i. ATR Data
  - ii. Current Count Data Counts for 52 intersections collected last year in May/June for the AM and PM peak hours, includes pedestrian's volumes and HV percentages.
  - iii. GIS Mapping and Shape Files includes parcel data, curb cuts, parking, transit, road widths.
  - iv. Transit Routes Current routes and stops provided, will all change when the new hub starts operation, planned on 7/23/12.
  - v. City of Syracuse SYNCHRO V6 for project area.
- Data yet to be provided or update to information provided:
  - i. Bike Routes City will provide information on intended routes
  - ii. Truck Routes SMTC will provide 1999 data on existing truck routes in the city.
  - iii. Transit Routes Centro will be setting final transit routes in place as late as one week before the new hub opening; data will be provided to SMTC.
- Data provided will be reviewed by Consultant team and further needs identified and requested from SMTC.





### 5. Analysis to be Performed (Scope of Work)

- <u>Task 6.1.5 Existing Geometry/Traffic Control Identification of Changes</u>
  - i. Using a Fatal Flaw Analysis (Minimize Field Data Collection) for Compliance with data with attention to location of Major Traffic Sources/Sinks, transit routes/stops, pedestrian generators, and truck/bike routes.
  - ii. Significant activity will be to migrate existing City SYNCHRO Model from V6 to Version 7

### • Task 6.1.5b Signal Timing Optimization (Existing Conditions)

- i. City discussed the concerns with modeling lane designation verses actual usage. Example Warren Street is designated as two lanes northbound but really operate as one with illegal parking on the west side. General thoughts were that this is an enforcement issue and the models should represent lane designations.
- ii. The City noted a clear desire to try to maintain existing signal cycle lengths due to potential impacts to outlying intersections. There was some discussion on signal standards (yellow and red times 4 & 1 sec, respectively) and pedestrian timings. General conclusion was that we will maintain yellow/red times from the existing operations and check to confirm splits accommodate pedestrian crossing times. Use 3.5 ft/sec walking speed in general with more conservative 3.0 in critical areas such as the bus hub.

### • <u>6.1.6 Future Scenarios</u> (3)

- 1. Alt. #1: Conversion of majority of 1 way streets to 2 way operation.
- 2. Alt. #2: Conversion of select number of existing 1 way streets to 2 way operation.
- 3. Alt. #3: Conversion of a smaller subset of 1 way to 2 way operation.

### • 6.1.7 Action Plan Development

1. Phased – In Implementation Plan with magnitude of cost and challenges to address.

### 6. Schedule of Data to be Received/Phases v Funding

• Original proposed schedule from Consultant Team was duration of 10 months – based on receipt of data at project initiation and no funding limitations on completion. However, due to need to fund over two fiscal years, a revised schedule will be proposed based on the availability of funding. SMTC will provide funding split between this fiscal year and next so that Bergman/GTS can develop a schedule of work to fit within those constraints.

### 7. Deliverables

• Technical Memo #1:

Data Collection & Review

• Technical Memo #2:

**Existing Conditions Evaluation** 





• <u>Technical Memo #3:</u>

Summarized Measures of Effectiveness for Alt. #1 - #3

- Final Report & Executive Summary
- Each document will be submitted to the SMTC and Working Group in draft form. Upon receipt of comments from same, will be revised and issued as Final form of each Technical Memo. The Final Report will encompass the three (3) Technical Memos and summarized in the Final Report and Executive Summary for acceptance/approval by the SMTC Executive Committee.

### 8. Summary

- Questions Answered
- Next Steps:
  - i. SMTC: Provide UPWP Budget for FFY 2012/13 and 2013/14
  - ii. Bergmann Team:
    - 1. Review Data provided and determine missing yet required or updated information to be provided.
    - 2. Issue Meeting Minutes
    - 3. Project Schedule based on UPWP program.
- Attachments: Slides from PowerPoint

Submitted By:

Kelly M. Thompson, P.E. Business Segment Leader – Traffic Operations & ITS Services

cc: Working Group





# UPWP 44.23.02 V DOWNTOWN SYRACUSE TWO WAY FEASIBILITY TECHNICAL ANALYSIS WORKING GROUP MEETING #2 SMTC CITY OF SYRACUSE, ONONDAGA COUNTY JUNE 20, 2013

Name	Representing
James D'Agostino	SMTC
Mario Colone	SMTC
James Effinger	CENTRO
John Reichert	NYSDOT
Liz Hassett	SMTC
Merike Treier	Downtown Committee of Syracuse
Rob Martin	City of Syracuse Engineering
Paul Mercurio	City of Syracuse DPW
Ben Walsh	City of Syracuse NBD
Harry Carlson	City of Syracuse DPW
Steve Koegel	CENTRO
Mark Grainer	NYSDOT
John Reichert	NYSDOT
Scott Bates	NYSDOT
Gordon Stansbury	GTS Consulting
Kelly Thompson	Bergmann Associates

### **Purpose of Meeting:**

- 1. Review of Technical Memo #1 with the Working Group.
- 2. Determination of Project Study Intersections/roadway links for consideration of one-way to two-way street operation conversions.
- 3. Optimization of existing signalized intersections within the CBD-scope limitations.
- 4. Next Steps and revised schedule for project.





### **Proceedings:**

#### 1. Introductions of Attendees

#### 2. Technical Memo #1 Review:

The purpose of this Study is two-fold:

- a. Feasibility of converting one-way streets to two-way operation within the defined study boundary; and
- b. Optimization of the existing traffic signal timing for the morning and evening peak hour periods within the defined study boundary utilizing the City's Synchro v6 model. The v6 model has been migrated to a v7 model for use on this Study.

Reviewed the Technical Memo data collection results and, based on field verification and Synchro model review, determined areas where additional data collection was deemed necessary. This data is being provided by SMTC, and it includes:

- a. Intersection lane widths as they impact Saturation Flow Rates and delay; and
- b. Turn lane lengths to determine if queue impacts and spillback from upstream conflicts and parking impacts.

Additionally, NYSDOT is completing an optimization study on Adams Street between West Street and Almond Street. Model has been completed; field implementation has not been completed due to on-going construction activity in this area. NYSDOT agreed to provide the model to SMTC for use in the Study. Upon receipt, the Adams Street model will be integrated into the CBD model with the optimized timing along Adams Street.

Centro indicated in their review of the Technical Memo #1 the transit stop locations and routes indicate more stops and/or routes than currently are operated for the general public. The data may have included also school bus stops which would not be pertinent to the Study. They will provide updated information for the Study Area with the pertinent data provided.

### 3. Schedule & Next Steps

a. Existing Signal Optimization – This effort will include examination of the signalized intersections within the v7 migrated Synchro model. Slide attached showing existing signals in yellow. The Working Group agreed the signal optimization should focus on City intersections, and if through simulation some issues are noted on the State arterials, improvements might be suggested for the NYSDOT to consider implementing. The Consultant efforts do not need to focus on State routes.

Basis of timing changes would initially start with existing phasing and look at length/split changes, but would consider phase changes if the simulation were to indicate significant issues that could offer beneficial changes. Standards for pedestrian crossing and clearance intervals will also be implemented such as yellow and red times -4 & 1 sec, respectively.





- b. Study Area Boundary Determination The project scope includes development of future scenario alternative analyses for the conversion of one-way streets to two-way operation within the agreed-upon study area\*. A discussion ensued whereupon a number of existing one-way streets shown in red on the attached map, will be studied for conversion and are described as:
  - i. Clinton Street from Marnell Avenue and the I-81 SB off-ramp to W. Adams Street;
  - ii. Herald Place from Wallace Street to N. Franklin Street;
  - iii. W. Water Street from S. Franklin Street to Warren Street;
  - iv. Erie Boulevard E. from S. Salina Street to Montgomery Street;
  - v. W. Washington Street from West Street to mid-block parking facility;
  - vi. McCarthy Avenue from S. State Street to S. Townsend Street;
  - vii. E. Jefferson Street from Montgomery Street to S. State Street;
  - viii. Montgomery Street from Erie Boulevard E. to E. Adams Street
  - ix. Madison Street from S. Warren Street to S. State Street;
  - x. Harrison Street from S. Salina Street to Townsend Street; and,
  - xi. E. Adams Street from S. State Street to Townsend Street.

The one-way streets that will not be included in the conversion study shown on the attached map in purple are:

- i. Herald Place from West Street to Wallace Street;
- ii. Bank Street from E. Jefferson Street to E. Washington Street;
- iii. E. Onondaga Street from S. Salina Street to Madison Street;
- iv. E. Onondaga Street from E. Jefferson Street to S. State Street;
- v. McCormick Avenue from S. West Street to Granger Street;
- vi. Gifford Street from S. West Street to S. Clinton Street:
- vii. Granger Street from McCormick Avenue to Seymour Street;
- viii. Seymour Street from S. West Street to W. Onondaga Street;
  - ix. Harrison Street from Townsend Street to Almond Street/I-81; and
  - x E Adams Street from Townsend Street to Almond Street/I-81

See the attached map that has been modified from the exhibit reviewed at this meeting to show the one-way streets that will be included in the conversion study shown in red.

c. Schedule of Data to be Received/Phases

i. Existing Signal Optimization Results –
 ii. Future Scenario Alternatives Analysis –
 iii. Action Plan for Implementation of Conversion –
 iv. Final Report and Executive Summary Due August 30, 2013.
 Due October 25, 2013.
 Due December 20, 2013.
 Due January 31, 2014.

### 4. Open Discussion

NYSDOT is currently administering the Preliminary Engineering phase of a project to address the future status of Interstate 81 through the Syracuse area. Pending the results of these studies and a yet





to be determined plan for this vital corridor, the question was raised if this Study should continue The I-81 PE phase has recently commenced and as yet the schedule for and/or be altered. determining the results is unknown. Additionally, the funding levels and sources to address any resultant projects are not currently identified. This feasibility study may result in early gains to the traveling public by developing optimized timing plans that could be implemented by the City's Traffic Control System and would also provide an Action Plan for street conversion implementation if deemed prudent and cost effective in the short term. Final documentation and associated files will be provided to NYSDOT for consideration/reference.

Next meeting of the Working Group would be scheduled when the Future Scenario Alternatives Analysis is complete.

### 5. Data to be Provided by Agency

- SMTC Complete Lane Widths/Turn Lane Lengths
- NYSDOT Synchro Model for Adams/Almond Street Optimization Study
- Centro Revised Transit Stop/Route Mapping for the Study Area

#### Attachments:

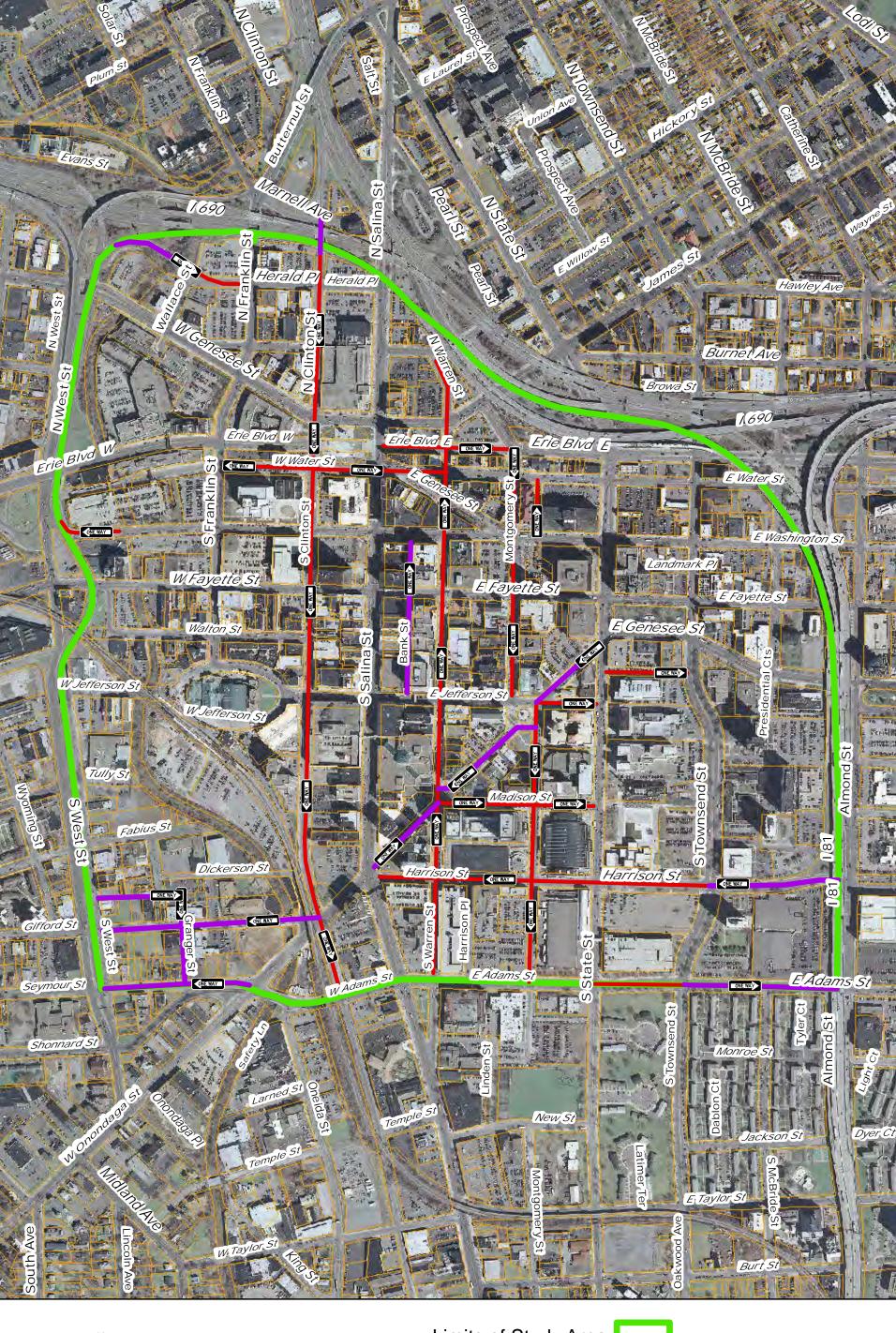
- 1. Slides from PowerPoint
- 2. \*Revised Map of One-Way to Two-Way Roadways to Comprise the Conversion Study

Submitted By:

Kelly M. Thompson, P.E. Business Segment Leader – Traffic Operations & ITS Services

cc: Working Group





1-Way Traffic Limits of Study Area

1-Way Not Included In Conversion Study

1-Way Not Included In Conversion Study

1-Way Not Included In Conversion Study

Bergmann architects // engineers // planners



# UPWP 44.23.02 V DOWNTOWN SYRACUSE TWO WAY FEASIBILITY TECHNICAL ANALYSIS WORKING GROUP MEETING #3 SMTC CITY OF SYRACUSE, ONONDAGA COUNTY

### **DECEMBER 6, 2013**

Name	Representing
Mario Colone	SMTC
James Effinger	CENTRO
Steve Koegel	CENTRO
Liz Hassett	SMTC
Merike Treier	Downtown Committee of Syracuse
Julie Bednar	NYSDOT
Paul Mercurio	City of Syracuse DPW
Ben Walsh	City of Syracuse NBD
Andrew Maxwell	SOCPA
Mark Grainer	NYSDOT
Scott Bates	NYSDOT
Gordon Stansbury	GTS Consulting
Kelly Thompson	Bergmann Associates

### **Purpose of Meeting:**

- 1. Review of Technical Memo #2 with the Working Group.
- 2. Alternative #2: Additional roadway section for consideration of one-way to two-way street operation conversions.
- 3. Next Steps for project.





### **Proceedings:**

### a. Technical Memorandum #2 Review:

Reviewed Technical Memorandum #2 for Alternative #1 analysis, which were identified as determined at Working Group Meeting #2 on June 20, 2013 and as shown in Technical Memorandum #2. The process for this analysis was reviewed, as noted:

- Sketches were developed for each intersection and corridor within the Study Area to confirm the existing one-way street conditions.
- Existing City-provided Synchro models for AM and PM periods were improved for optimized conditions.
- Models were developed for two-way operation including revising lane widths, lane configurations, parking, etc. Traffic volumes were estimated and input into the models.
- Existing signal phasing and order of phases were maintained.
- Existing 80 second AM signal cycle length and 85 second PM cycle length was maintained to ensure traffic progression at adjacent City intersections. Also maintained the existing signal timing at the NYSDOT-owned intersections along Adams, Almond, West and Harrison Street.
- Optimized the two-way models for operations including splits and offsets.
- Modified signal splits to balance the delays along the corridors.
- Finally, system-wide offsets between signals were adjusted to optimize the overall system performance.

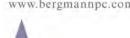
The conversion results indicated that two sections would result in unacceptable Levels of Service (LOS) if the roadways were converted to two-way operation. These segments were:

- Harrison Street (WB) from Warren Street to S. Salina Street which would give a LOS of F in the PM period;
- Washington Street from Franklin Street to West Street which would have a LOS of E in the AM period and F in the PM period.

Additionally, McCarthy Avenue between State Street and Townsend Street supports access to the adjacent streets and has a significant parking demand. It is recommended McCarthy Avenue be retained as a one-way street. Therefore, as shown on the Graphic titled, "Technical Analysis October 2013" these street sections are shown in yellow and are not recommended for conversion to two-way operation.

A series of graphics were reviewed that show the comparison of conditions based on increase or decrease in delay measurements based on converting streets to two-way operation:

- Existing to Optimized AM: Change in Delay;
  - o Total Hours of Delay reduced by 34%
  - o Total Number of Stops reduced by 19%
  - o Overall Average Speed increased by 30%.



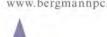


- Existing to Optimized PM: Change in Delay;
  - o Total Hours of Delay reduced by 34%
  - Total Number of Stops reduced by 17%
  - Overall Average Speed increased by 20%.
- Existing to Alternative #1 AM: Change in Delay:
  - o Total Hours of Delay reduced by 30%
  - Total Number of Stops reduced by 16%
  - o Overall Average Speed increased by 30%.
- Existing to Alternative #1 PM: Change in Delay;
  - o Total Hours of Delay reduced by 18%
  - Total Number of Stops reduced by 14%
  - Overall Average Speed increased by 10%.
- Optimized to Alternative #1 AM: Change in Delay;
  - o Total Hours of Delay increase by 6% over optimizing signal operation alone.
  - Total Number of Stops increase by 3% over optimizing signal operation alone.
  - Overall Average Speed did not change when changing to two-way operation. The same increase in average speed was already achieved by optimizing signal operation.
- Optimized to Alternative #1 PM: Change in Delay.
  - o Total Hours of Delay increase by 25% over optimizing signal operation alone.
  - Total Number of Stops increase by 4% over optimizing signal operation alone.
  - Overall Average Speed was reduced by 8% when changing to two-way operation.

The overall network shows significant improvement in all Measures of Effectiveness (MOE)'s for Alternative 1 as compared to the existing condition during both the morning and evening peak hours with the developed Alternative 1 signal plans.

The benefits to be realized comparing the existing condition with Alternative 1 are generally less than the improvements that could be realized by retaining the existing one-way operation with the implementation of signal optimization only. Comparison of Alternative 1 conversion results to the optimized signal timing and coordination implementation shows a slight degradation in MOE's.

Changes in the number of parking spaces with the conversion to Alternative #1 two-way conversions was also examined and displayed on the attached graphic titled, "Change in Parking Alternative 1". Minimum travel lane widths of ten feet and eight foot parking lanes were used as design constraints to accommodate two-way operation. Few streets showed an increase in parking available due to the conversion to two-way operation, but many streets would lose parking under these scenarios. Overall, 166 parking spaces would be lost within the project area.





#### b. Additional comments:

- i. Modifying Harrison Street between Warren Street and S. Salina Street may have impacts on the current bus operations at the adjacent Centro Bus Hub. Any modification to either Warren Street or Harrison Street will be examined to quantify any impacts on bus operations.
- ii. Warren Street varies in width significantly block to block which limits the availability for parking on one or both sides of Warren Street if converted to two-way operation. Alternative #2 Evaluation will convert Warren Street to two-way operation from Harrison Street to Willow Street. Alternative #2b will be a permeation of Alternative #2, which will evaluate the benefits/dis-benefits with the conversion of Warren Street to two-way operation from Washington Street north to Willow Street.

### c. Next Steps:

- i. A follow up meeting with the City of Syracuse, NYSDOT and SMTC will be scheduled for December 11, 2013 to review individual street segments for lane configurations, maintaining parking where shown/determined, etc. that may be included in Alternative #1 based on re-examination of minimum travel lanes and parking lane widths, moving parking to the opposite side of the roadway based on adjacent property-owner's requests, etc. Subsequent modifications to Alternative #1, in terms of roadways to be converted to two-way operation will be noted in meeting minutes and shared with all Working Group Members.
- ii. Alternative #2 will include maintain the existing one-way operation of all the streets except the following that will be converted to two-way operation:
  - Clinton Street from Herald Place to W. Adams Street;
  - Montgomery Street Erie Boulevard E. to E. Adams Street;
  - Warren Street from Harrison Street to Willow Street;
  - E. Jefferson Street from Montgomery Street to State Street.
- iii. Alternative #2b will include all of Alternative #2, with the two-way operation on Warren Street north of Washington Street to Willow Street.

Next meeting of the Working Group would be scheduled when Alternative #2 and #2b of the Future Scenario Alternatives Analysis is complete.

#### Attachments:

- 1. Slides from PowerPoint
- 2. Revised Map of One-Way to Two-Way Roadways to Comprise the Conversion Study



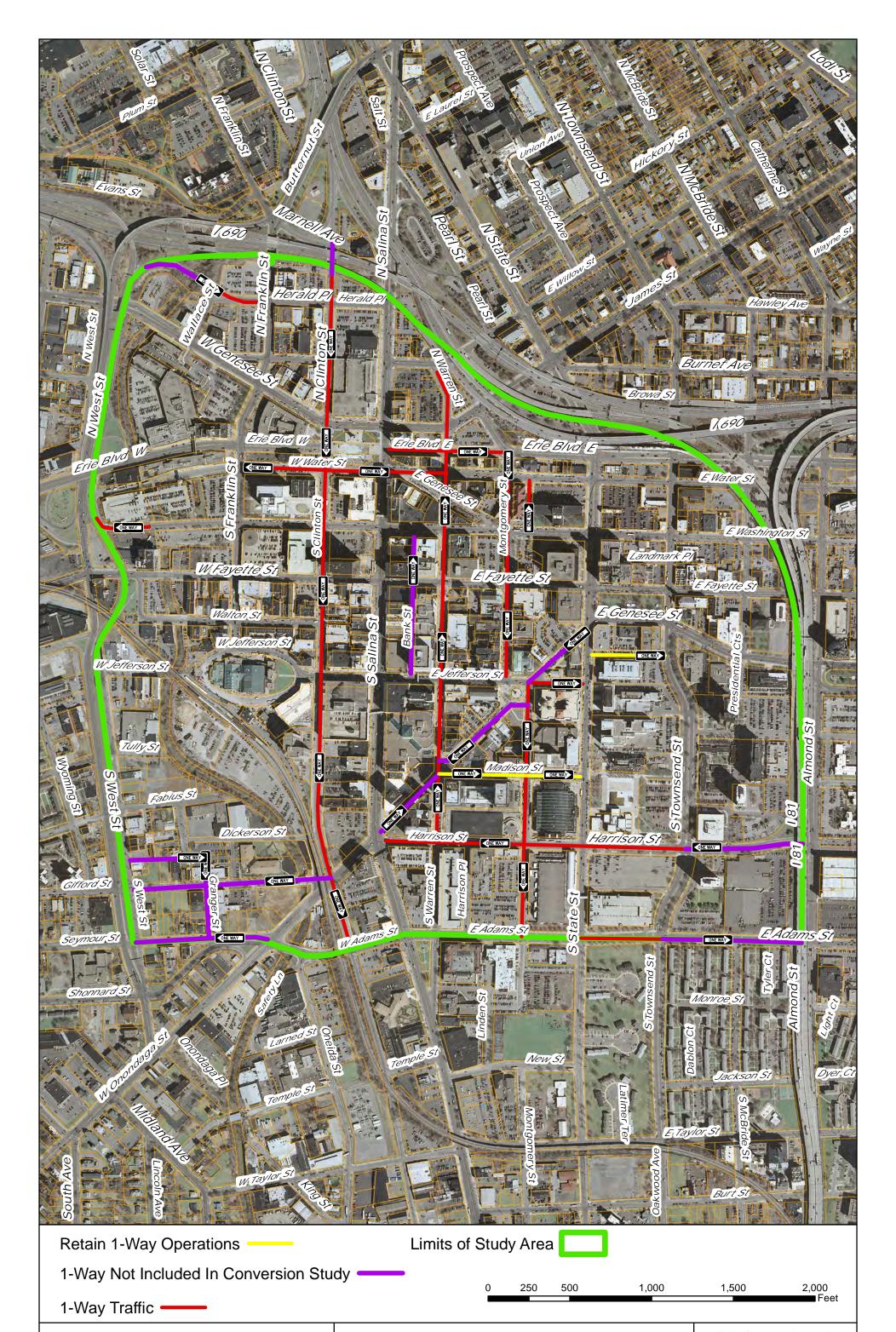


Submitted By:

Kelly M. Thompson, P.E. Business Segment Leader – Traffic Operations & ITS Services

cc: Working Group

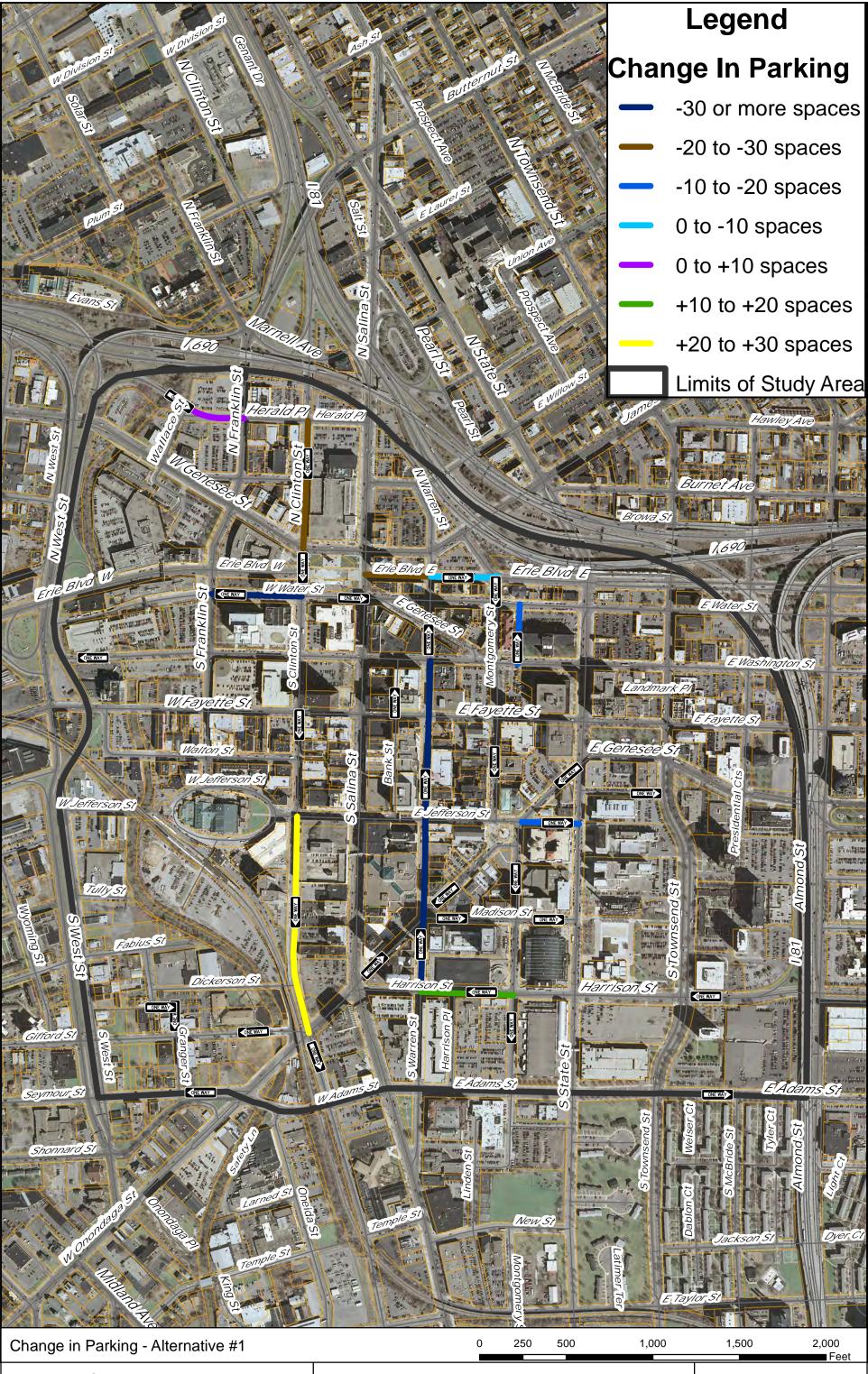


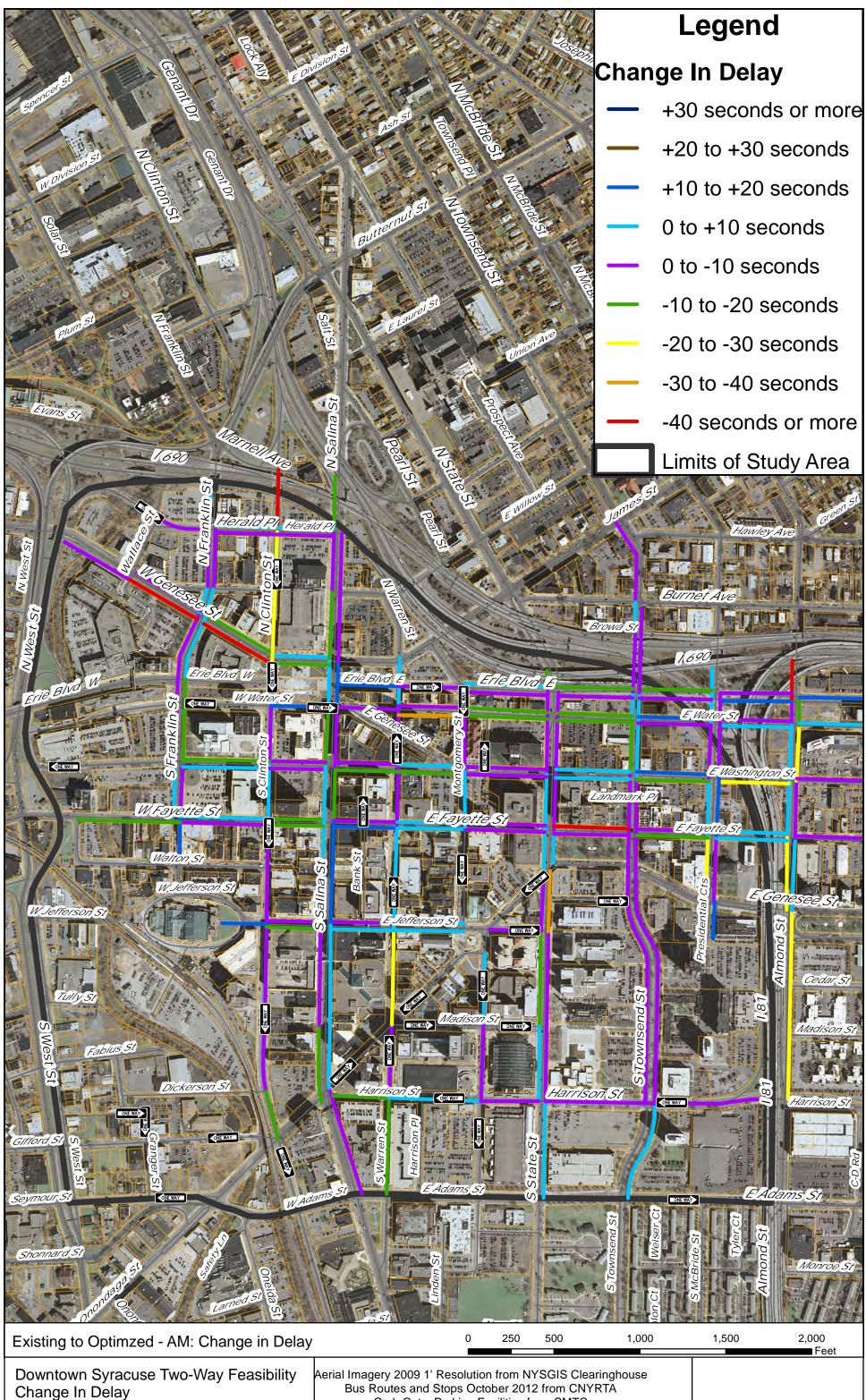


Downtown Syracuse Two-Way Feasibility Technical Analysis October 2013

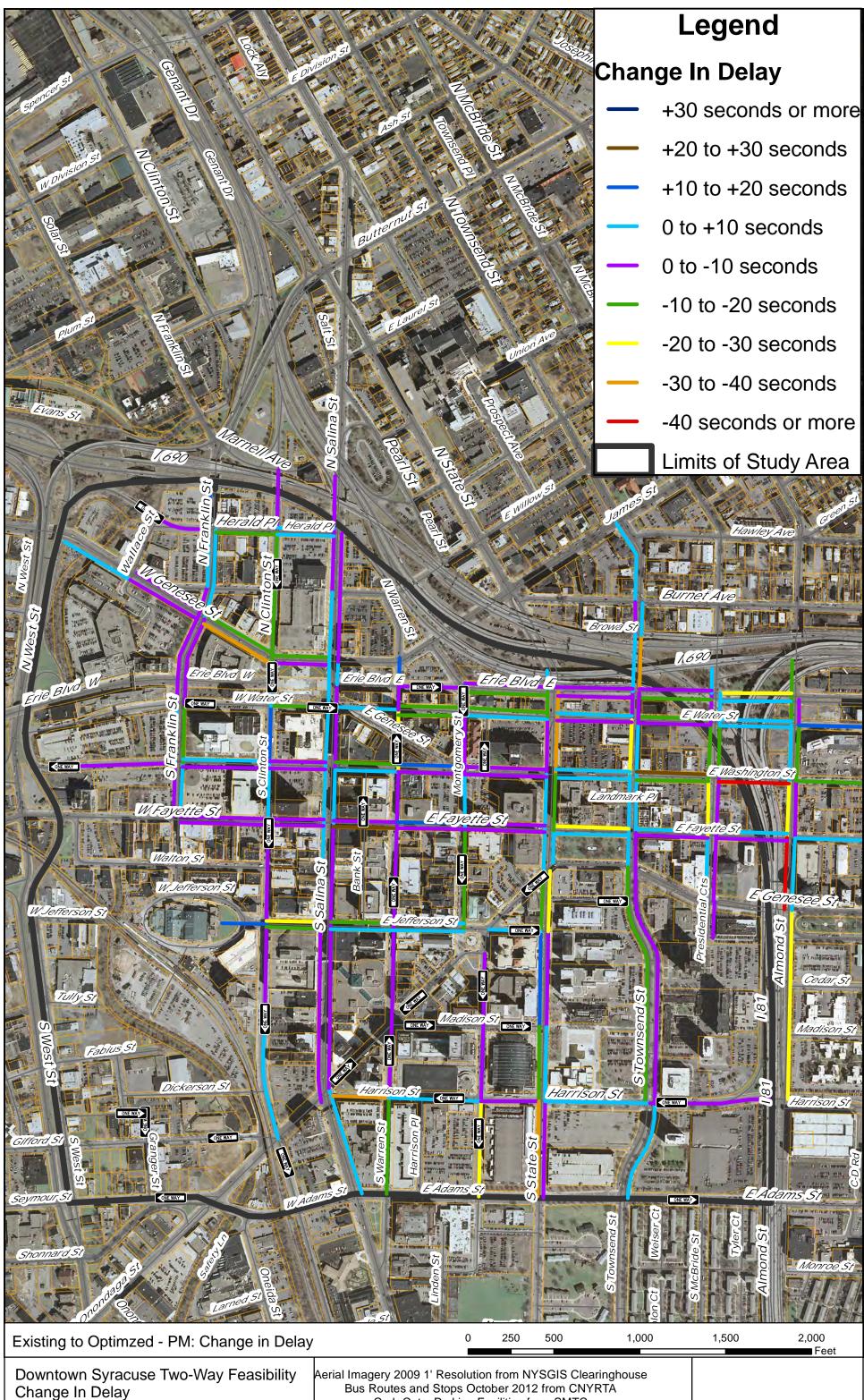
Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC

Bergmann associates architects // engineers // planners

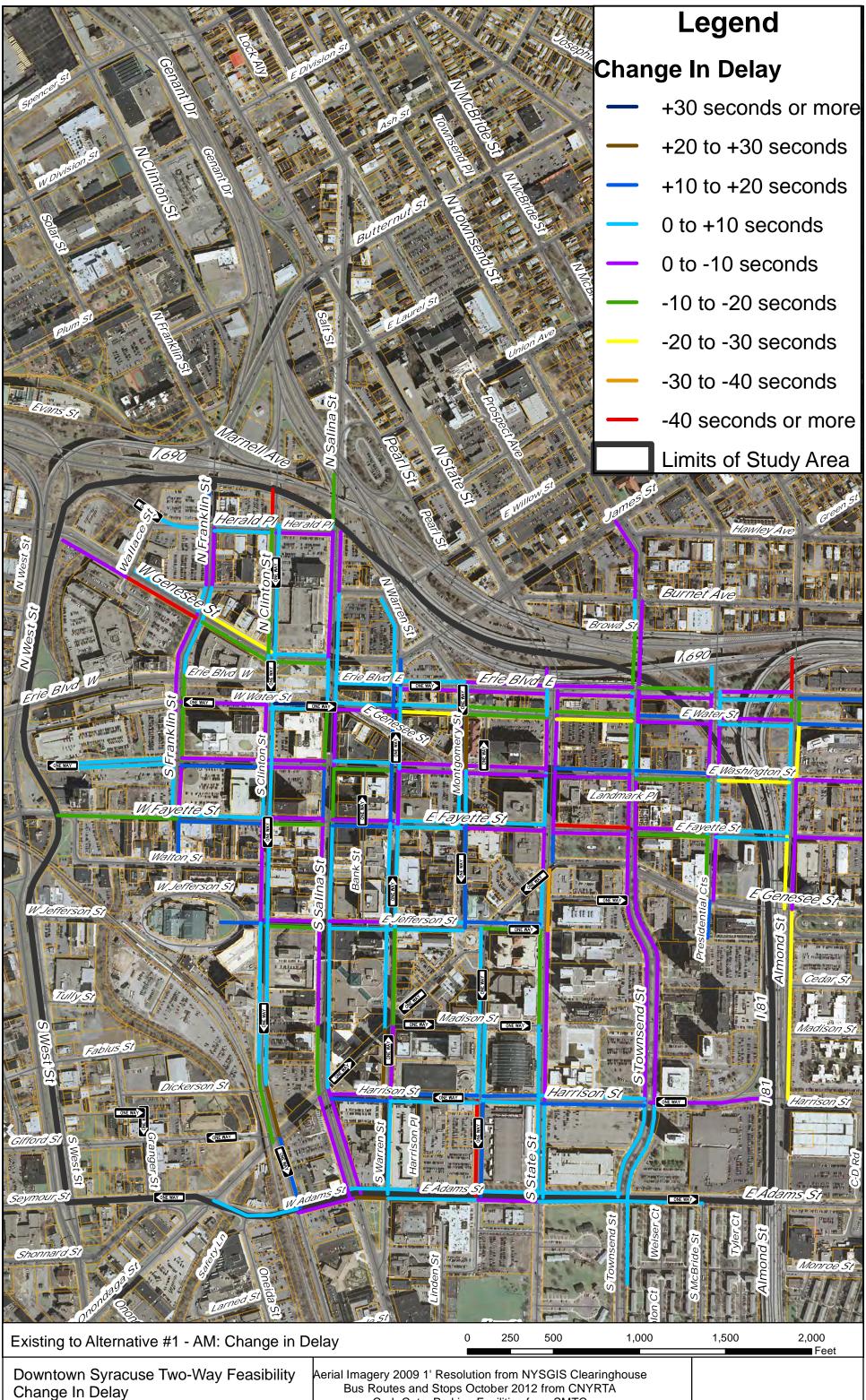


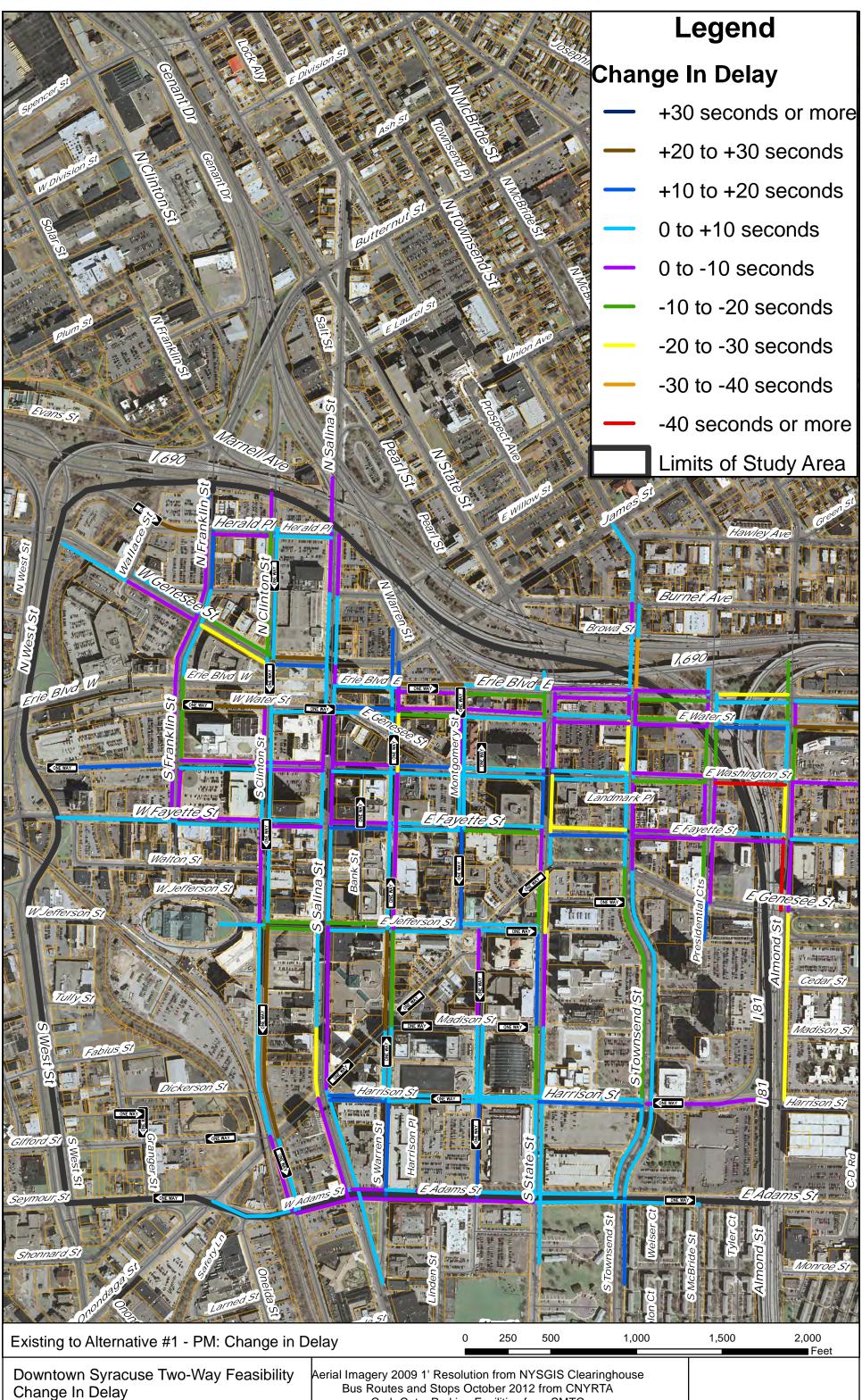


Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC

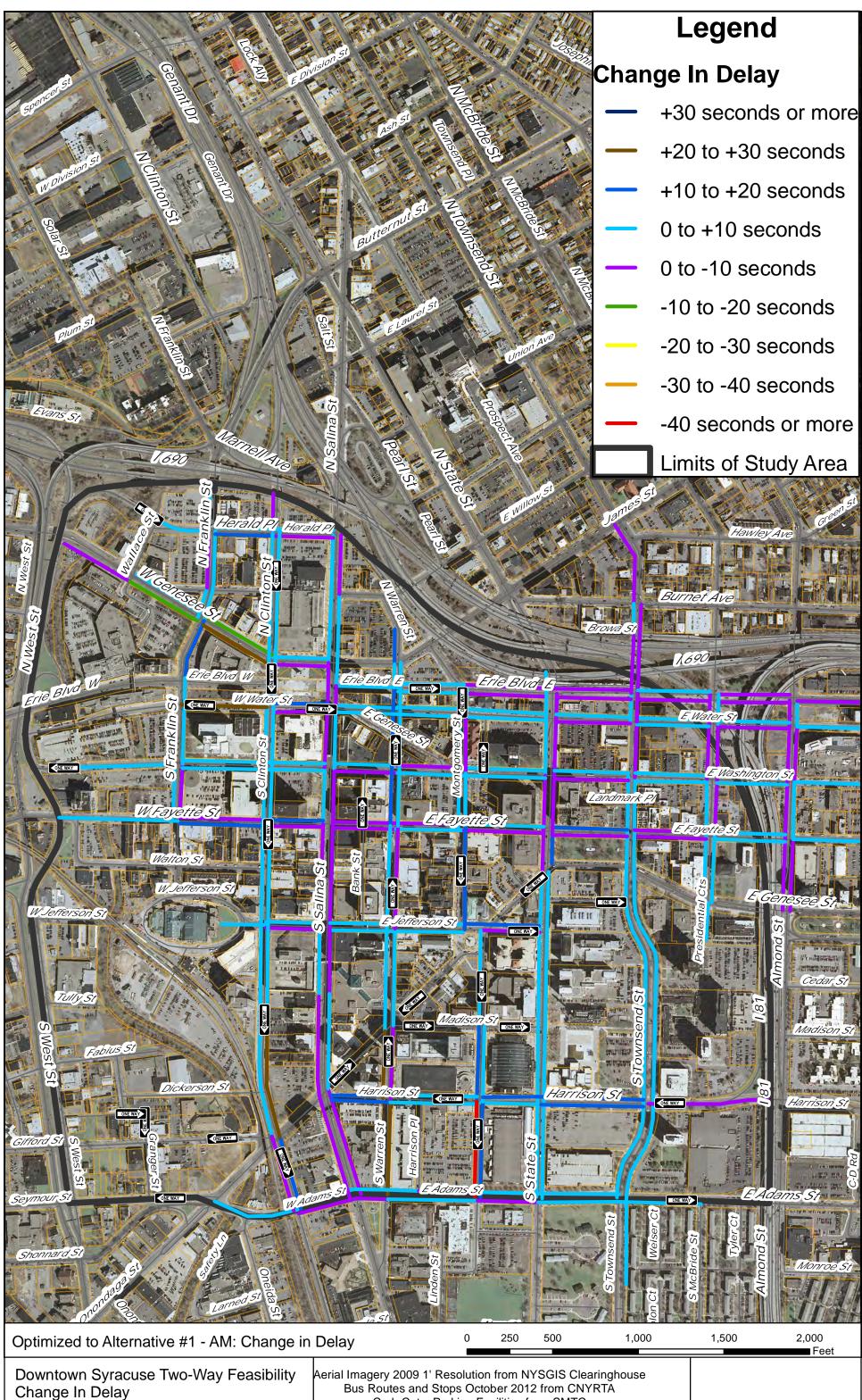


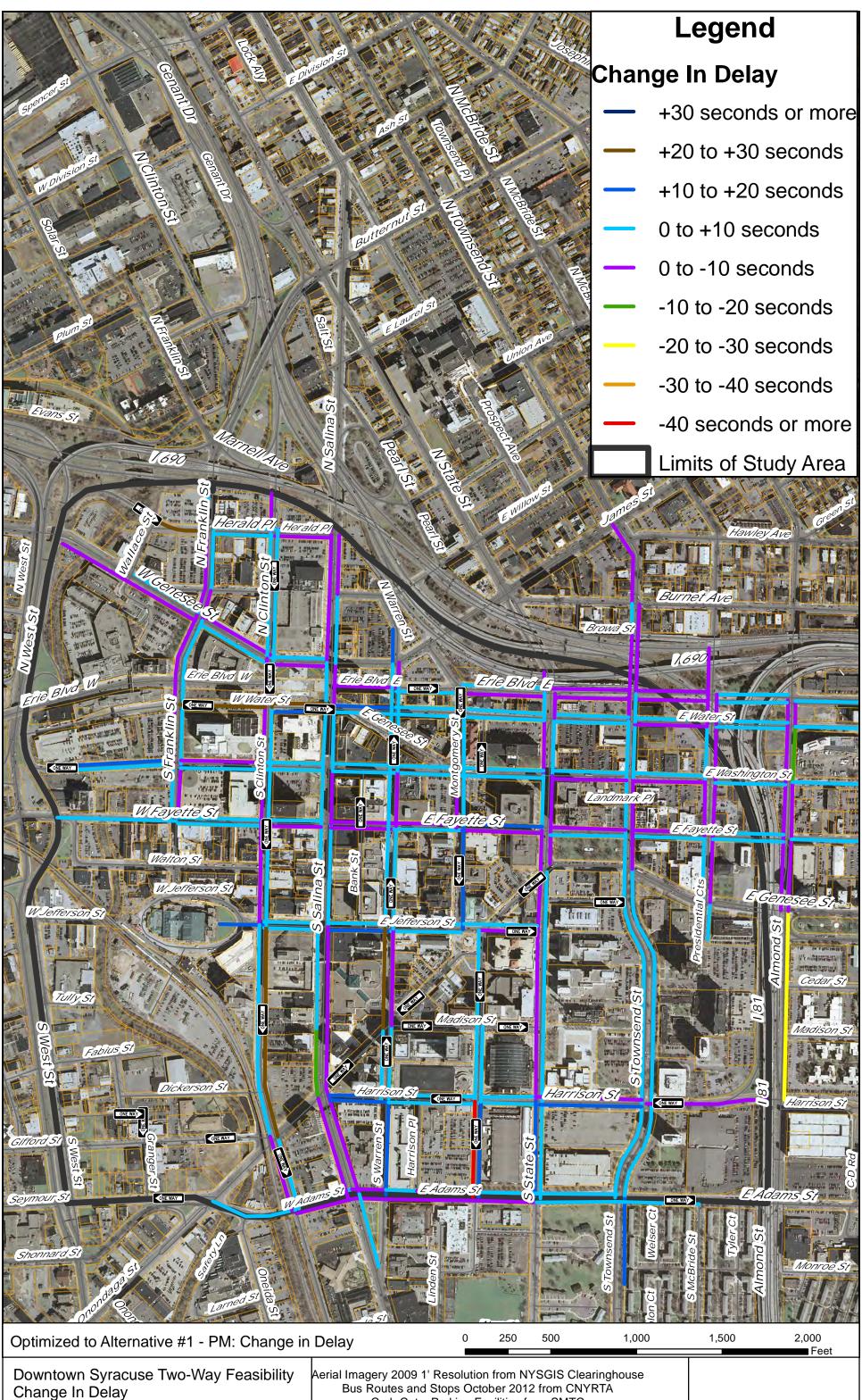
Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC





Bus Routes and Stops October 2012 from CNYRTA Curb Cuts, Parking Facilities from SMTC







### UPWP 44.23.02 V DOWNTOWN SYRACUSE TWO WAY FEASIBILITY TECHNICAL ANALYSIS WORKING GROUP MEETING #3 FOLLOW UP SMTC

# CITY OF SYRACUSE, ONONDAGA COUNTY DECEMBER 11, 2013

Name	Representing	
Mario Colone	SMTC	
Paul Mercurio	City of Syracuse DPW	
Mark Grainer	NYSDOT	
Gordon Stansbury	GTS Consulting	
Kelly Thompson	Bergmann Associates	

### **Purpose of Meeting:**

- 1. Detailed review of Technical Memo #2.
- 2. Alternatives #2 and #2b: Refinement of additional roadway sections for consideration of one-way to two-way street operation conversions.
- 3. Next Steps for project.

### **Proceedings:**

### 1. Technical Memorandum #2 Review:

Reviewed Technical Memorandum #2 for Alternative #1 analysis, which were identified as determined at Working Group Meeting #2 on June 20, 2013 and as shown in Technical Memorandum #2. Conversion from one-way to two-way operation resulted in lane configurations supporting acceptable Level of Service (LOS) and parking. A street-by-street review yielded the following considerations and modifications to Alternative #1 as noted:

### Clinton Street:

- Consider retention of parking on west side of Clinton Street between Herald Place and Genesee Street.
- From Harrison Street as approaching Jefferson Street (Northbound) to support Landmark Theatre, consider adding parking on the east side and the need for the proposed right turn lane.





### Warren Street:

• Alternative #2 will examine conversion to two-way operation from Harrison Street to Willow Street. Alternative #2b will convert Warren Street to two-way operation north of Washington Street to Willow Street; retaining one-way operation on Warren Street from Harrison Street to Washington Street.

### Montgomery Street:

- Examine the available street width for Alternatives #1 and #2 from Washington Street to Fayette Street for one lane in each direction with angled parking.
- From Madison Street to Harrison Street, determine if angled parking both sides of Montgomery Street is achievable rather than 14' wide travel lanes.

### **Madison Street:**

• From Montgomery Street to State Street, maintain one-way operation, but examine if angled parking on both the north and south side of Madison Street is achievable.

### Harrison Street:

• From Warren Street to S. Salina Street, consider if removal of parking and loading zone on the north side of Harrison Street would allow for acceptable operations along both Harrison Street and Salina Street while not impacting transit operations negatively at the Intersection with Warren Street and the Transit Center. Examine traffic operations if Harrison Street were converted to two-way operation with two (2) lanes westbound on Harrison Street (one (1) left/through lane and one (1) right/through lane) and one (1) lane eastbound on Harrison Street.

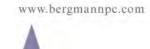
### Washington Street:

Install a double right-turn lane from Washington Street at West Street.

Remaining street section proposals for Alternative #1 would be retained as proposed in Technical Memorandum #2. Note, the re-examination of parking on roadway sections noted above would have little impact on the Alternative #1 analysis. Therefore, the modifications to Alternative #1 is limited to lane configurations on Harrison Street between Warren Street and Salina Street and on Washington Street exiting onto West Street.

### 2. Next Steps:

- Alternative #1 would be modified to include:
  - 1. Two westbound travel lanes on Harrison Street from Warren Street to Salina Street with one left/through and one right/through lane westbound and one lane eastbound.
  - 2. Introduction of a double right-turn from Washington Street to West Street.





- Alternative #2 will include maintain the existing one-way operation of all the streets except the following that will be converted to two-way operation:
  - 1. Clinton Street from Marnell Avenue and the I-81 SB off-ramp to W. Adams Street;
  - 2. Montgomery Street Erie Boulevard E. to E. Adams Street;
  - 3. Warren Street from Harrison Street to Willow Street;
  - 4. E. Jefferson Street from Montgomery Street to State Street.
- Alternative #2b will include the one-way to two-way street conversions of Alternative #2, with limiting two-way operation on Warren Street from north of Washington Street to Willow Street while maintaining one-way operation from Harrison Street to Washington Street.

Submitted By:

Kelly M. Thompson, P.E. Business Segment Leader – Traffic Operations & ITS Services

cc: Working Group





## SYRACUSE METROPOLITAN TRANSPORTATION COUNCIL

Downtown Syracuse Two-Way Feasibility Technical Analysis

City Of Syracuse, NY / Onondaga County

Working Group Meeting#4



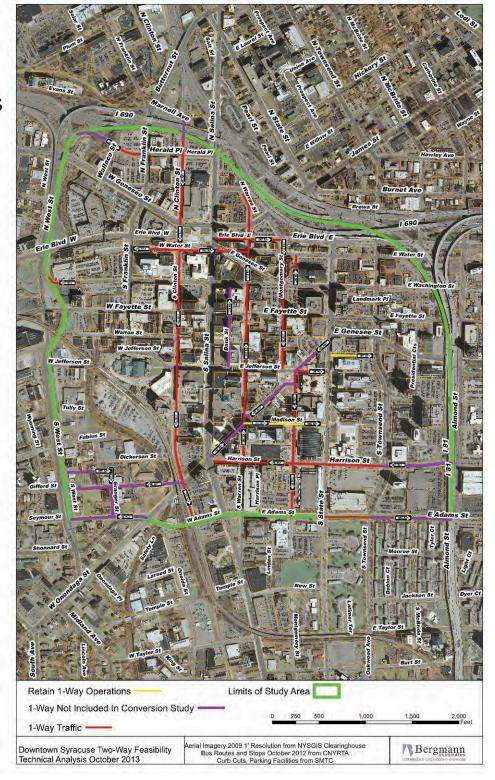


# Working Group Meeting #4 Agenda

- Technical Memo #3 Review
- 2. Selected Alternative & Recommendations
- 3. Next Steps & Schedule



Study Area with One-Way Streets Available for Conversion for Two-Way Operation



### **Alternative #2**

Clinton St: (Herald PI to W. Adams St)

Herald PI Herald Erle Blvd E E Adams St Retain 1-Way Operations Convert To 2-Way Operations 1-Way Not Included In Conversion Study -Limits of Study Area 1-Way Traffic Alternative 2 Aerial Imagery 2009 1' Resolution from NYSGIS Clearinghouse Bus Routes and Stops October 2012 from CNYRTA Rergmann Downtown Syracuse Two-Way Feasibility

Curb Cuts, Parking Facilities from SMTC

Technical Analysis December 2013



Jefferson St (Montgomery St to State St)

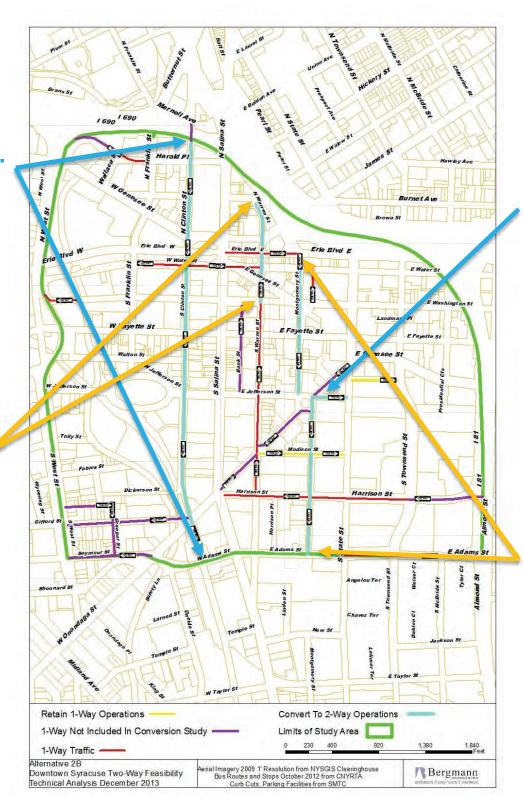
Montgomery St (Erie Blvd to Adams St)

Warren St (Willow Street to Harrison St)

### **Alternative #2B**

Clinton St: (Herald PI to W. Adams St)

Warren St (Willow Street to Washington St)





Jefferson St (Montgomery St to State St)

Montgomery St (Erie Blvd to Adams St)



# Network Results: Alternative Comparisons

## **Morning Peak Hour**

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2		MOE Change - Optimized to Alternative 2B	
Total Delay (Hours)	296	302	297	+6	(+2%)	+1	(+0%)
Stops (#)	36387	37645	36573	+1258	(+3%)	+186	(+1%)
Average Speed (mph)	13	13	13	0	(0%)	0	(0%)
Fuel Consumed (gal)	703	716	706	+13	(+2%)	+3	(+0%)
Fuel Economy (mpg)	9.8	9.7	9.8	-0.1	(-1%)	0	(0%)



# Network Results: Alternative Comparisons

## **Evening Peak Hour**

Measures of Effectiveness	Optimized Condition	Alternative 2 Condition	Alternative 2B Condition	MOE Change - Optimized to Alternative 2		MOE Change - Optimized to Alternative 2B	
Total Delay (Hours)	328	332	324	+4	(+1%)	-4	(-1%)
Stops (#)	39204	39413	38857	+209	(+1%)	-347	(-1%)
Average Speed (mph)	12	12	13	0	(0%)	+1	(+8%)
Fuel Consumed (gal)	745	750	742	+5	(+1%)	-3	(-0%)
Fuel Economy (mpg)	9.4	9.3	9.4	-0.1	(-1%)	0	(0%)



# Parking Impacts: Alternative Comparisons

	Alternative 2	Alternative 2B		
Street Name (Termini to Termini)	Number of Parking Spaces Loss/Gain (-/+)	Number of Parking Spaces Loss/Gain (-/+)		
Clinton Street (Herald PI – Genesee St)	- 24	-24		
Clinton Street (Jefferson St – Onondaga St)	+30	+30		
Jefferson Street (Montgomery St – State St)	-12	-12		
Warren Street (Washington Street – Harrison St)	-81	0		
Parking Impacts Alternative Comparisons	-87	-6		



# Next Steps & Schedule

 Final Report: Develop Work Requirements and Cost to Implement Preferred Alternative

Schedule: Draft Report Submitted: May 23, 2014

Review Comments: June 6, 2014

Draft Final Report to June 13, 2014

Planning Committee:

Final Report Accepted: June 30, 2014



# Questions?



### **UPWP 44.23.02 V** DOWNTOWN SYRACUSE TWO WAY FEASIBILITY TECHNICAL ANALYSIS **WORKING GROUP MEETING #4 SMTC** CITY OF SYRACUSE, ONONDAGA COUNTY

### **APRIL 15, 2014**

Name	Representing
Mario Colone	SMTC
Rich Landerkin	CENTRO
Merike Treier	Downtown Committee of Syracuse
Julie Bednar	NYSDOT
Paul Mercurio	City of Syracuse DPW
Andrew Maxwell	SOCPA
Scott Bates	NYSDOT
Gordon Stansbury	GTS Consulting
Kelly Thompson	Bergmann Associates

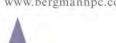
### **Purpose of Meeting:**

- 1. Review of Technical Memo #3 with the Working Group.
- 2. Select Alternatives and Recommendations: Examine the difference between the results of Alternatives 2 and 2B. Select one alternative to development of a Future Action Plan and Final Plan documentation.
- 3. Next Steps for project and schedule for completion of those steps.

### **Proceedings:**

### 1. Technical Memorandum #3 Review:

Reviewed Technical Memorandum #3 which examined Alternatives #2 and 2B, were determined at Working Group Meeting #3 on December 6, 2013, and as shown in Technical Memorandum #3.





### The one-way streets converted under Alternative 2 are:

- 1. Clinton Street from Herald Place to W. Adams Street;
- 2. Montgomery Street from Erie Boulevard E. to E. Adams Street;
- 3. Warren Street from Willow Street to Harrison Street;
- 4. E. Jefferson Street from Montgomery Street to S. State Street.

Alternative 2B includes all the one-way street conversions under Alternative 2 except the conversion of Warren Street to two-way operation is limited to the segment from Willow Street to Washington Street. The existing one-way streets to be converted to two-way operation for the future scenario Alternative 2B analyses are:

- 1. Clinton Street from Herald Place to W. Adams Street;
- 2. Montgomery Street from Erie Boulevard E. to E. Adams Street;
- 3. Warren Street from Willow Street to Washington Street;
- 4. E. Jefferson Street from Montgomery Street to S. State Street.

The overall network shows significant improvement in all Measures of Effectiveness (MOE)'s for Alternative 1 (Optimizing Traffic Signal Timing/Phasing only) as compared to the existing condition during both the morning and evening peak hours. Measures of Effectiveness (MOE's) for Alternatives 2 and 2B were evaluated by arterial, overall corridor and on a full network basis for both the morning and evening conditions and then compared to the optimized model MOE's to identify expected changes.

Alternative 1 and Alternative 2B conditions are expected to provide the most effective MOE's and the least impact to parking. Alternative 2 is slightly less effective based on the comparison of MOE's which are summarized in tables that are arranged in order of increasing detail in Appendix B.

### 2. Parking Impacts:

Implementation of Alternative 2B will have the same impacts on parking for Clinton Street and Jefferson Street as Alternative 2 except on Warren Street where the retention of one-way (northbound) operations south of Washington Street would allow parking both sides of the street would retain 81 additional parking spaces. Overall, implementation of Alternative 2B will result in a net loss of 6 parking spaces while Alternative 2 would result in a loss of 87 parking spaces.

### 3. Next Steps:

Working Group discussed the merits of each alternative and concurred with the selection of Alternative 2B upon which an Action Plan for phased-in implementation to be developed. This Plan will include an order of magnitude cost estimate for each street or segment of street conversion and will suggest a prioritized order for implementation. The support for prioritization and definition of project limits will be based on a number of factors including manageable project size (≤ \$0.5M/segment), perceived economic enhancement, improved transportation access and/or connectivity within the downtown core





and definable benefits for tourism. A Final Report would document the overall purpose for the Study, summarize the data collected, and the conversion recommendations.

A schedule was proposed and accepted to complete the Study:

Draft Report & Executive Summary to SMTC/Working Group: May 23, 2014
 Review Comments to Bergmann: June 6, 2014
 Draft Final Report Submitted to Planning Committee: June 13, 2014
 Final Report Accepted: June 30, 2014

#### Attachments:

- 1. Slides from PowerPoint
- 2. Alternative 2: One-Way to Two-Way Feasibility Technical Analysis
- 3. Alternative 2B: One-Way to Two-Way Feasibility Technical Analysis

Submitted By:

Kelly M. Thompson, P.E. Business Segment Leader – Traffic Operations & ITS Services

cc: Working Group

