

MEMORANDUM

TO: Boston Capital Development
c/o Richard Mazzocchi
Managing Director
11 Beacon Street, Suite 325
Boston, MA 02108

DATE: December 12, 2024

FROM: Kevin R. Dandrade, PE, PTOE, Principal **PROJECT NO.:** T1122.20
Frankie Ann Schripsema, Project Engineer

RE: Table Talk Redevelopment – Parcels 3A, 3B, 3C & 3D – Updated Conditions
Preliminary Site Plan - Traffic & Parking Accommodations

The purpose of this memorandum is to document the updated traffic and parking accommodations for the proposed redevelopment of the Table Talk Pie site, located at 120 Washington Street and 153 Green Street, as the Planning Board considers its review of Preliminary Site Plans. In July 2021, TEC prepared a technical memorandum for the Planning Board's review of the traffic and parking characteristics of the originally defined project¹. The scope of this memorandum was discussed with DRPS staff to document the proposal by Boston Capital Development LLC for the development of Parcel 1 and the broader redevelopment of the property at 120 Washington Street and 153 Green Street. Subsequently, in December 2022, TEC provided an interim update² of the development's attributes based on a slightly revised development program.

The Parcel 1 building with 83 residential units and 1,750 square feet of retail space was completed by Boston Capital Development, LLC in May 2024. The Parcel 2 building (existing Table Talk retail space along Green Street), which was approved for up to 56 residential units and approximately 6,500 square feet of retail space total, is currently under construction by Rossi Development LLC.

As part of other more recent refinements of the redevelopment program, SMC Management Corp. and Rossi Development LLC (collectively, the "Applicants"), now seek to further modify the proposed development that was part of the approved Preliminary Site Plan³. SMC Management Corp. seeks to develop a 7-story multifamily building with approximately 185 residential units and 233 podium parking spaces on the new Parcel 3A to be established along Washington Street, Ash Street and Spruce Street. Rossi Development LLC seeks to develop a 6-story multifamily building with 90 residential units and 83 surface and podium parking spaces on Parcel 3B which has

¹ 153 Green Street – Map 05, Block 005, Lot 00001 – Table Talk Pie Site Redevelopment – Traffic & Parking Accommodations, TEC, Inc., July 1, 2021.

² Table Talk Pie Site Redevelopment – Updated Master Plan – Preliminary Site Plan – Traffic & Parking Accommodations, TEC, Inc., December 23, 2022.

³ Worcester Planning Board Meeting Minutes – Feb. 1, 2023- Item 10: 139 & 153 Green Street (PB-2023-008)

frontage on Madison Street and Spruce Street. Rossi Development LLC seeks to develop a mixed-use building with 42 residential units and two commercial/retail units with a total of 2,248 square feet of space on the new Parcel 3C at the corner of Green Street and Spruce Street. Rossi Development seeks to develop a similar mixed-use building with 40 residential units and two commercial/retail units with a total of 1,569 square feet of space on the new Parcel 3D at the corner of Green Street and Ash Street.

The proposed parcels do not include 139 Green Street as redevelopment of that parcel is no longer proposed. The total development proposal for Parcels 3A through 3D now include a total of 358 residential units over podium parking and 3,860 square feet of retail space. The following table provides a comparison of the original overall development plan and the newly updated development plan:

Original Overall Development Proposal Parcels 1, 2 & 3 (July 2021)	Parcels 1 & 2 (Completed or In Construction)	Revised Proposal for Parcel 3 (New Development)	Net Change
359 apartments 43,500 SF of retail 350 on-site parking stalls	139 apartments 8,250 SF of retail 63 on-site parking stalls	358 apartments 3,860 SF of retail 270 on-site parking stalls	+138 apartments -31,390 SF of retail -17 on-site parking stalls

Existing Traffic Counts

To establish existing traffic volume conditions, TEC collected manual turning movement counts (TMCs) at the key project intersections during the typical weekday (7:00 AM – 7:00 PM) on October 17, 2024. Area schools were in regular session at the time of traffic counts. Some of the traffic currently using Spruce Street is associated with the on-going building construction. A detailed summary of the TMCs, partitioned into 15-minute intervals, is provided within Attachment A.

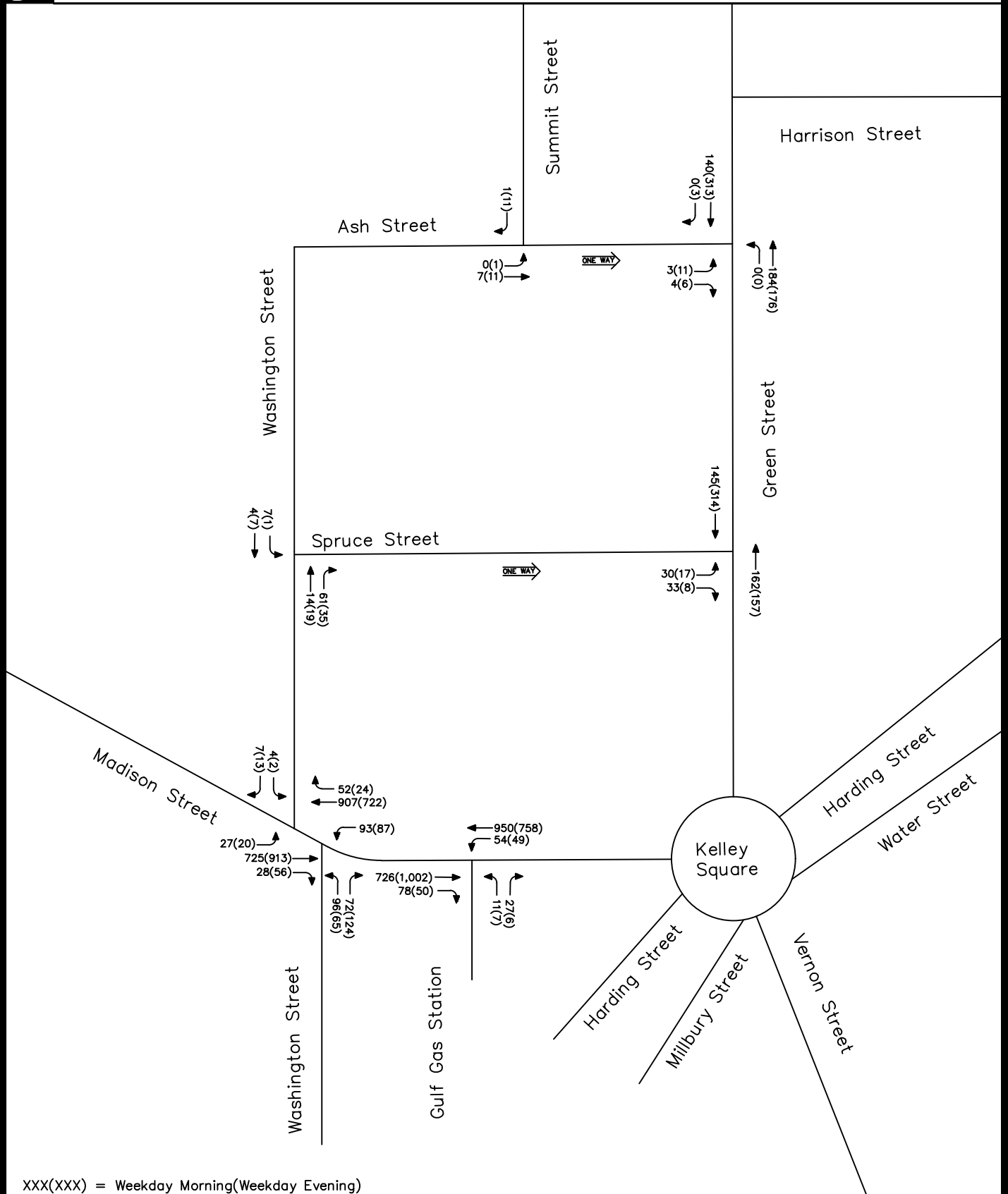
Seasonal Adjustments

In accordance with MassDOT standards, traffic volumes are typically adjusted to average month conditions. To account for seasonal adjustment, TEC utilized MassDOT’s count stations with month-to-month continuous data available within the vicinity of the project to provide a precise overview of month-to-month fluctuations in traffic volumes. From the count stations STA 3333 and STA 3991, traffic volumes in the month of October were approximately 6% higher than average month conditions. Therefore, the October 2024 traffic volumes were unadjusted to reflect a conservative analysis condition. The compiled seasonal adjustment count station data is provided in Attachment B. The resulting 2024 Base Year Conditions weekday morning and weekday evening peak hour traffic volume network is illustrated in Figure 1.



Not to Scale

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XXX(XXX) = Weekday Morning(Weekday Evening)

Figure 1

2024 Existing Conditions
Weekday Morning and Weekday Evening
Peak Hour Traffic Volumes



Crash History Analysis

Crash data for the study area intersections was compiled and analyzed for the period January 1st, 2021, to December 31st, 2023, on file from MassDOT through the Interactive Mapping Portal for Analysis and Crash Tracking (IMPACT) database. The motor vehicle crash data was reviewed to determine if any crash trends exist within the study area. A summary of the vehicle crash data is provided in Table 1. A compilation of the detailed crash data is provided in Attachment C.

Crash Data Summary

The intersections Washington Street at Spruce Street and Ash Street at Summit Street did not experience any collisions within the study period. This is likely due to the ongoing construction in the vicinity of the site. Ash Street at Green Street experienced a single non-fatal crash in 2021, involving four different vehicles in front to rear manner of collision. Green Street at Spruce Street experienced a single sideswipe crash, resulting in property damage only in 2023, which occurred on wet surface in cloudy conditions prior to the opening of the new roadway.

Madison Street at Washington Street

The intersection of Madison Street / Washington Street experienced six (6) crashes over the most recent three-year period. The majority (5 of 6) of crashes were angled crashes while the one other crash was a rear-end. One (1) of the angled crashes resulted in non-fatal injury, another manner was not reported, and the remaining four crashes resulted in property damage. The rear-end crash resulted in property damage. The number of crashes at the intersection does not indicate any specific crash trend that warrants a mitigation strategy. It is important to note that the crashes compiled for this intersection occurred prior to the recent one-way flow changes on Ash Street and Washington Street as part of this project.

Madison Street at Gulf Gas Station Driveway

The intersection of Madison Street / Gulf Gas Station Driveway experienced twenty-five (25) crashes over the most recent three-year period. Approximately 36% (9 of 25) of crashes were sideswipe crashes, 32% (8 of 25) were angled crashes, and 20% (5 of 25) were rear-end crashes, with two (2) single vehicles crashes and one (1) head-on collision. While the one other crash was a rear-end. One (1) of the angled crashes resulted in non-fatal injury, another manner was not reported, and the remaining four crashes resulted in property damage. The rear-end crash resulted in property damage. The number of crashes at the intersection does not indicate any specific crash trend. Of the sideswipe collisions, one of the crash's severities was not reported and the remaining crashes resulted in property damage only. Of the angled collisions, three (3) of the crash severities were not reported with the rest resulting in property damage only. All rear-end collisions resulted in property damage only. One single vehicle crash resulted in non-fatal injury and the other resulted in property damage only.

Based on TEC's review of the crash data, it appears that this location may benefit from additional lane use signs for Madison Street westbound and potentially a "Do Not Block" striping box for Madison Street eastbound traffic to partially mitigate the current crash trend. This existing intersection is offset from the Applicant's proposed Parcel 3B driveway.

Table 1 – Intersection Crash History

Parameter		Madison St. at Washington St.	Washington St. at Spruce St.	Ash St. at Summit St.	Ash St. at Green St.	Green St. at Spruce St.	Madison St. at Gulf Gas Station
Year	2021	1			1	0	7
	2022	4			0	0	8
	2023	<u>1</u>			<u>0</u>	<u>1</u>	<u>10</u>
	TOTAL	6			1	1	25
Average Annual Crashes		2.0			0.33	0.33	8.3
Manner of Collision	Angle	5	None	None	0	0	8
	Rear-end	1			0	0	5
	Sideswipe	0			0	1	9
	Single Vehicle	0			0	0	2
	Head-on	0			0	0	1
	Ped / Bike	0			0	0	0
	Not Reported	<u>0</u>			<u>0</u>	<u>0</u>	<u>0</u>
	TOTAL	6			1	1	25
Road Surface Conditions	Dry	6	None	None	1	0	22
	Wet	0			0	1	2
	Snow / Ice	0			0	0	1
	Other / Unknown	<u>0</u>			<u>0</u>	<u>0</u>	<u>0</u>
	TOTAL	6			1	1	25
Injury Status (Crash Severity)	Property Damage	4			0	1	20
	Non-Fatal Injury	1			1	0	1
	Fatal Injury	0			0	0	0
	Not Reported	<u>1</u>			<u>0</u>	<u>0</u>	<u>4</u>
	TOTAL	6			1	1	25
Day of Week	Monday - Friday	4			1	1	18
	Saturday - Sunday	<u>2</u>			<u>0</u>	<u>0</u>	<u>7</u>
	TOTAL	6			1	1	25
Time of Day	6:00 AM – 9:00 AM	1			0	0	1
	9:00 AM – 12:00 PM	1			0	0	1
	12:00 PM – 3:00 PM	1			0	1	7
	3:00 PM – 6:00 PM	1			1	0	5
	6:00 PM – 9:00 PM	1			0	0	4
	9:00 PM – 6:00 AM	<u>2</u>			<u>0</u>	<u>0</u>	<u>7</u>
	TOTAL	6			1	1	25

Future Conditions

Traffic volumes in the study area were projected to the year 2031, which reflects a 7-year planning horizon in accordance with MassDOT standards for TIA. The traffic conditions for the year 2031 under No-Build conditions, were developed to document the operating conditions independent of the proposed project, including all existing traffic, planned changes to traffic patterns, new traffic from background growth, and traffic from other specific developments in the site area.

Roadway Network Changes

The Department of Transportation & Mobility for the City of Worcester identified proposed modifications to the roadway network in the project area. The identified roadway modifications include plans to accept Spruce Street as a public way, Spruce Street will be a one-way street in the eastbound direction. The identified roadway modifications also included reversing the existing one-way portion of Ash Street between Green Street and Summit Street to be one-way in the westbound direction and extending the one-way segment to include both Ash Street from Summit Street to Washington Street in the westbound direction and Washington Street between Ash Street and Spruce Street in the southbound direction. These roadway changes are pending approval by the City of Worcester but are included as part of the future traffic conditions.

General Ambient Growth

To project traffic to a future horizon year, TEC utilized MassDOT historic count station data between 2014 and 2023. The data indicates traffic volumes decreased less than 0.5 percent per year. To provide a consistent analysis scenario, a 0.5 percent per year compounded annual background traffic growth rate was used to account for potential future traffic growth external to the study area for all roadway locations and any presently unforeseen development.

Specific Development Growth

Parcel 2 of the project is currently under construction and the impact of the development is not accounted for in the most recent traffic counts therefore the additional 56 residential units and 6,500 sf of retail space for this portion of the development is included as site specific growth for any future conditions. Based on Trip generation Data for Parcel 2 shown in Appendix E. This shows an additional 504 daily weekday trips should be accounted for with 31 trips and 79 trips expected for the weekday morning and evening peak hours, respectively.

A development at 85-99 Green Street, also known as The Cove, has recently opened for occupancy north of the project site. The development may have had limited occupancy at the time the traffic count was conducted however, to provide a conservative estimate it is assumed for analysis purposes that the building was unoccupied at the time of the traffic count. A traffic evaluation for the site⁷ shows a site generation of 2,506 daily trips with 126 and 224 trips expected for the weekday morning and evening peak hours, respectively. The report does not provide an anticipated distribution to the local roadway network so one has been generated based on origin-destination employment statistics for the purpose of analysis.

⁷ Traffic Evaluation Green Street Redevelopment – Worcester Massachusetts, BSC Group, April 28, 2021

No-Build Traffic Volumes

The 2031 No-Build weekday morning and weekday evening peak-hour traffic-volume networks were developed by applying the 0.5% per year compounded annual background traffic growth rate to the 2024 Existing Conditions peak-hour traffic volumes over the 7-year design horizon and adding traffic generated by the nearby proposed developments. The resulting 2031 No-Build weekday morning and weekday evening peak-hour traffic-volume networks are illustrated in Figure 2. The resulting 2031 Future Year Base Conditions weekday morning and weekday evening peak hour traffic volume network is illustrated in Figure 2. MassDOT historic count station data have been included in Attachment D.

Vehicular Trip Generation

TEC reviewed the trip-generating characteristics for the Applicant's updated development plan. This assessment considers industry-accepted trip generation rates established by the Institute of Transportation Engineers (ITE) for the following land uses codes (LUC):

- LUC 110 – General Light Industrial (Former Use)
- LUC 221 – Multifamily Housing (Mid-Rise)
- LUC 822 – Strip Retail Plaza (<40,000 SF)

All uses assume a 'Dense Multi-Use Urban' classification, which is appropriate for the project site.

The trip rates in this report have been updated to reference ITE's 11th Edition of the Trip Generation manual as a fair comparison of the original and updated development plan proposals. TEC's prior assessment used the trip rates from the 10th Edition that were available in July 2021. The proposed redevelopment project replaces a recently active light industrial use associated with Table Talk Pies. The prior light industrial use included employee-oriented commuter trends and significant heavy vehicle trips. The proposed uses of residential units and retail space tend to utilize fewer heavy vehicles and the urban setting encourages the use of modes of transportation other than personal vehicles. For the sake of analysis all peak hour trips are assumed to be by personal vehicle to provide a conservative analysis. Table 2 provides a summary of the existing/former and proposed uses for the site.

Table 2 – Project-related Vehicular Trip Generation Summary – Total Trips

	(A)	(B)	(C)	(D)	((C+D)-A)	((C+D)-B)
Time Period / Direction	Existing/ Former Land Uses*	Original Overall Development Proposal (July 2021)	Parcels 1&2 Completed or Under Construction (2024)	Updated Parcels 3A,B,C,D Proposal (New)	Overall Trip Difference	Trip Difference between 2021 & 2024 Development Proposals
<i>Weekday Daily</i>	763	3,117	986	1,813	+2,036	-318
<i>Weekday Morning Peak Hour</i>						
Enter	102	75	25	58	-19	+8
Exit	<u>14</u>	<u>122</u>	<u>40</u>	<u>134</u>	<u>+160</u>	+52
Total	116	197	65	192	+141	+60
<i>Weekday Evening Peak Hour</i>						
Enter	14	193	67	157	+210	+31
Exit	<u>88</u>	<u>168</u>	<u>56</u>	<u>97</u>	<u>+65</u>	-15
Total	102	361	123	254	+275	+16

Notes: All trip rates are based on ITE's Trip Generation, 11th Edition without credits for multi-use shared trips. This includes an updated trip assessment for the originally planned development density as of July 2021. See Attachment A for a detailed trip generation worksheet.

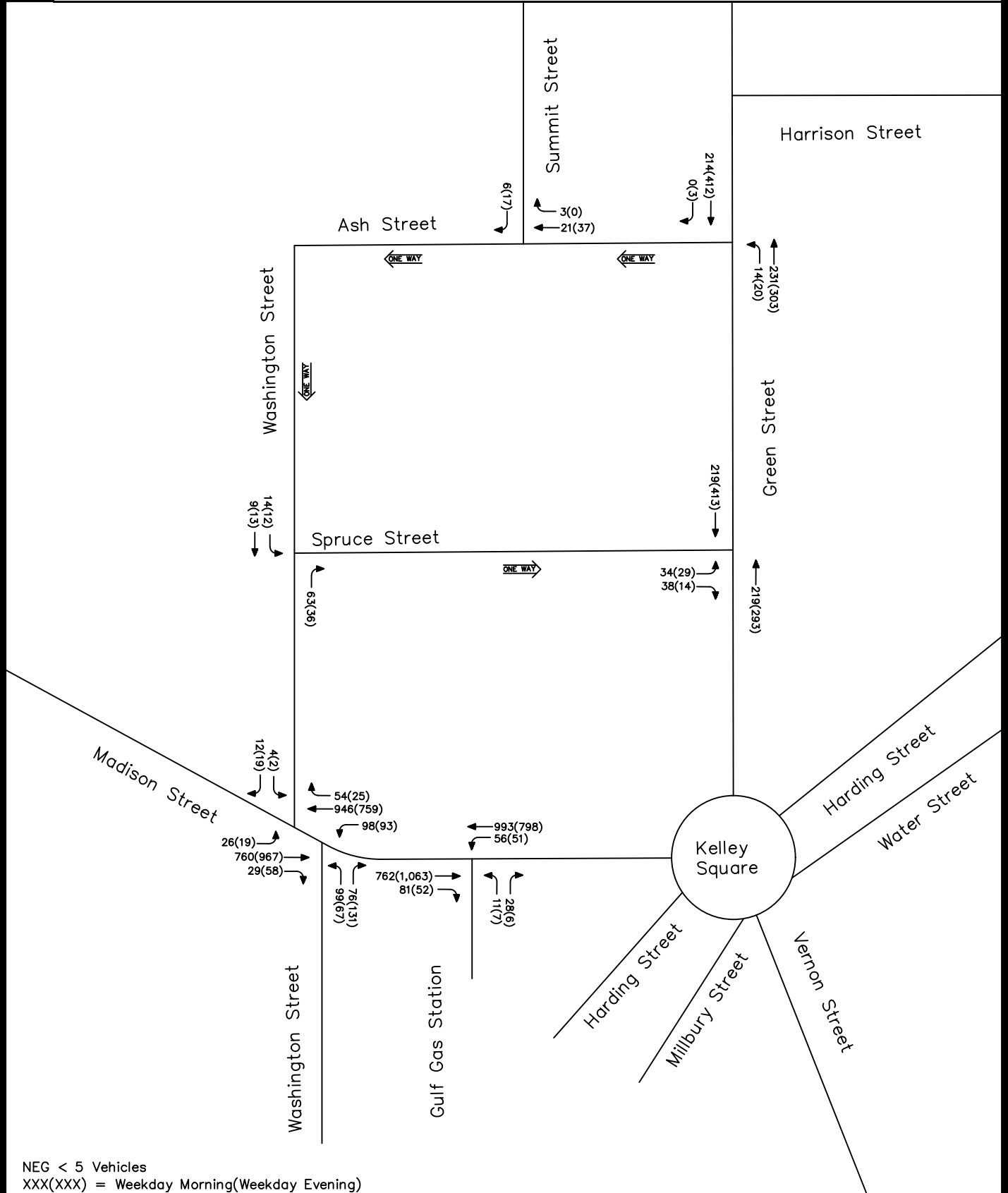
* This includes the former Table Talk factory.

The updated proposed development plan is anticipated to generate approximately 300 less trips during the average weekday than the original overall development plan but will increase the morning and evening peak hours by 60 and 16 trips respectively. The trip generation analysis worksheets are compiled in Attachment E.



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NEG < 5 Vehicles
XXX(XXX) = Weekday Morning(Weekday Evening)

Figure 2

2031 Future No-Build Conditions
Weekday Morning and Weekday Evening
Peak Hour Traffic Volumes



Site Access

The proposed redevelopment includes access to on-site parking through five driveway access points. Parcel 3A will provide two levels of podium parking the first level will provide 114 parking spaces with access to Spruce Street, the second level will provide 117 parking spaces with access to Ash Street. Both Spruce Street and Ash Street are one-way streets and will therefore require no right turn restrictions to be in place for vehicles exiting Parcel 3A to these streets.

Parcel 3B is proposed to provide 8 lower-level parking spaces with access provided via Madison Street. This site driveway is proposed to have right turn in/out only movement restrictions due to the presence of a center median at the proposed location and to avoid impacts to the east bound traffic on Madison Street approaching Kelley Square. Upper-level podium parking including 34 parking spaces and surface lot parking including 43 parking spaces for Parcel 3B are also proposed. The access to the upper-level podium parking is provided through the surface lot parking area. The surface lot parking area is proposed to have driveway connections to both Madison Street and Spruce Street. The site driveway for the surface lot at Madison Street is proposed to be right turn in and out only for the same reasons as the lower-level podium parking access to Madison Street. The site driveway to Spruce Street for the surface lot is proposed to be right turn only as required by the one-way direction of travel on Spruce Street.

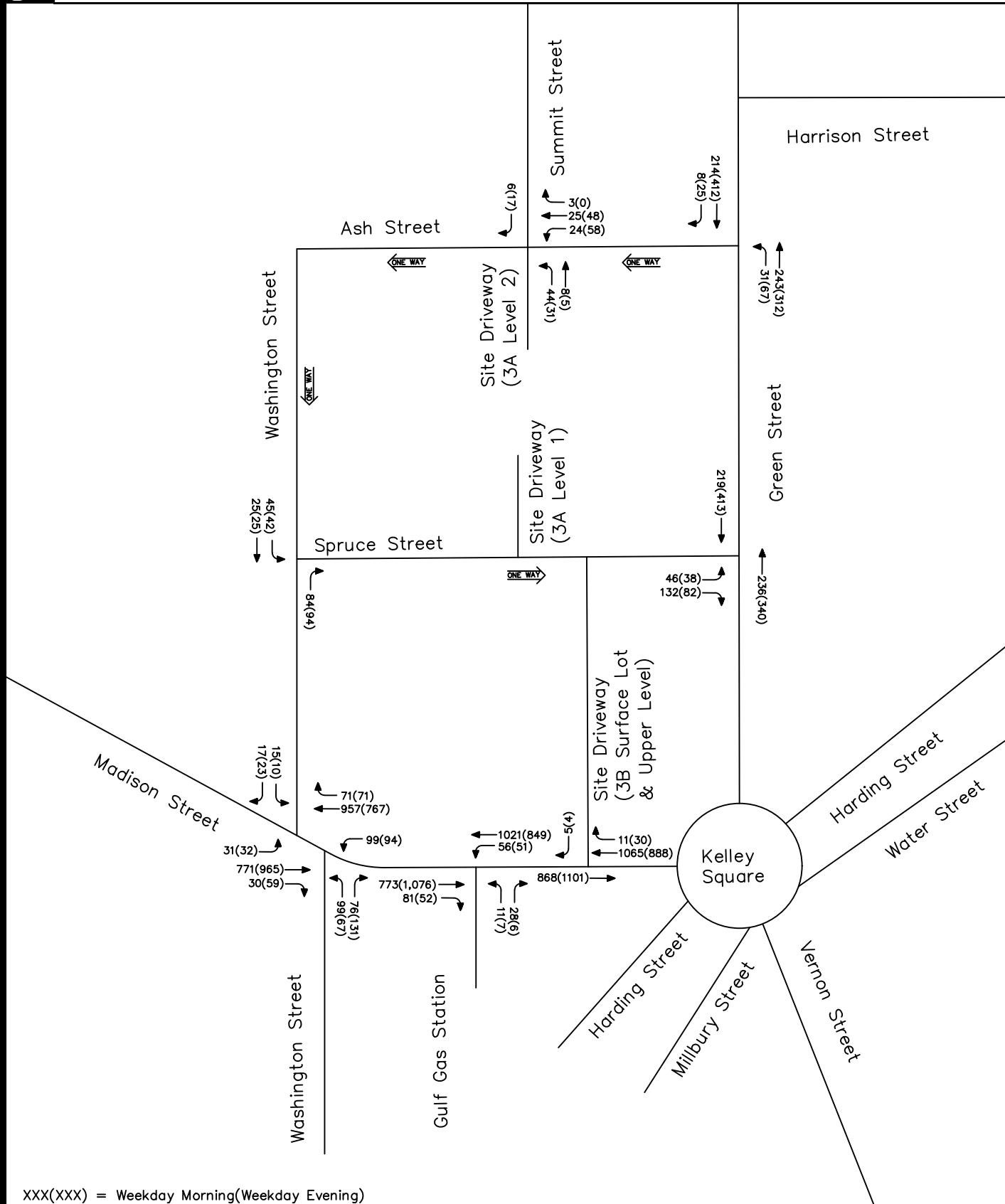
Trip Distribution

The distribution of the residential site-generated traffic volumes was based on the number of parking spaces proposed for each site driveway and gravity models using 2019-2021 U.S. Census Bureau Origin-Destination Employment Statistics data for the City of Worcester. The journey-to-work distribution models the commutes of residents from Worcester to the top 25 workplace cities and, which represent approximately 70 percent of total Worcester workers. Communities contributing less than 1.0% are deemed to not change the distribution of traffic calculations significantly. Compiled trip distribution data is provided in Attachment F.

2031 Build Traffic Volumes

The 2031 Build Condition traffic-volume networks consist of the 2031 No-Build traffic-volumes with the addition of the site-generated traffic for the proposed development. The resulting 2031 Build weekday morning and weekday evening peak-hour traffic-volume networks are presented in Figure 3.

North
Not to Scale



XXX(XXX) = Weekday Morning(Weekday Evening)

Figure 3

2031 Future Build Conditions
Weekday Morning and Weekday Evening
Peak Hour Traffic Volumes



Parking Demand

The zoning ordinance does not establish minimum parking ratios for this zone and therefore the project can be permitted without any requisite off-street parking supply. However, the Applicant desires to provide a reasonable supply of on-site parking to ensure the viability of the leasing for the proposed units and to reduce the likelihood of parking impacts within the Canal District.

TEC assessed the future parking demands from the project with a review of the average parking demand rates established by the Institute of Transportation Engineers (ITE)⁸. Parking demand analysis worksheets are provided in Attachment G.

The analysis assumes the average parking demand rates that are associated with the following land uses:

- LUC 218 – Multifamily Housing – 1 BR (Mid-Rise) – 358 Dwelling Units
- LUC 822 – Strip Retail Plaza – 3,860 SF

All land uses assume a ‘Dense Multi-Use Urban’ classification, which is appropriate for the project site.

Table 3 – Parking Demand Summary for Parcel 3 (A,B,C,D) – Average Weekday Conditions

<u>Code</u>	<u>Land Use Description</u>	<u>Parking Demand (Average Rates)</u>	<u>Average Spaces Required</u>
LUC 218	Multi-Family Housing (358 units)	0.28 per unit	101 spaces
LUC 822	Strip Retail Plaza (3,860 SF)	2.52 per 1,000 SF	10 spaces
		Total	111 spaces

This ITE-based parking demand analysis for Parcels 3A, 3B, 3C, and 3D is based on the aggregation of individual uses and, conservatively, does not consider the benefits of shared-use stalls for the residential and retail uses, which will have varying peak demand characteristics. The total number of parking stalls needed to satisfy the average parking demand is 111 total spaces this includes: 52 spaces for the uses of parcel 3A, 25 spaces for the uses of parcel 3B, 17 spaces for the uses of parcel 3C and 17 spaces for the uses of parcel 3D

The proposed project includes parking on-site as a part of the site plan with a capacity of approximately 316 in single-story and two-story podium parking areas as part of Parcels 3A and 3B. As part of the demand for these stalls, 46 are allocated for District 120 (Parcel 1). The balance of the proposed parking supply (270 stalls) is dedicated to the uses of Parcels 3A and 3B. The proposed supply exceeds the estimated routine average demand for the uses on Parcels 3A and 3B. The proposed parking supply will include traditional stalls, ADA/AAB stalls, and electric vehicle charging stalls for residents and visitors. Off-street parking is not proposed for Parcels 3C and 3D given the lower expected parking demand for the “micro” studio apartments. The total supply of 316 parking stalls for Parcels 3A through 3D does not consider other existing on-street parking stalls along Ash Street or Green Street. The project area also benefits from a supply of

⁸ *Parking Generation Manual, 6th Edition, Institute of Transportation Engineers, January 2024.*

public and private off-street parking facilities to accommodate needs for Parcels 3C and 3D; any peak parking demands that may exceed average operating conditions.

Intersection Capacity Analysis Summary

The traffic analysis, using industry-accepted analysis methodologies established in the Highway Capacity Manual⁹, considers the future-year traffic conditions and overlays the site-generated traffic during the weekday morning and weekday evening peak periods. Site-generated traffic was assigned to Madison Street, Spruce Street, and Ash Street, understanding that the proposed parking facilities will be accessed from each of the roadways. Departing traffic will exit to Green Street, Madison Street, or Summit Street based on the anticipated one-way flow patterns.

The addition of the proposed site-generated traffic, with the proposed one-way flow pattern, is expected to decrease the level of service for the Madison Street eastbound left turn movement at Washington Street from a level of service A to a level of service B during the evening peak hour. This decrease in level of service is the result of an increase in delay of 0.4 seconds from the 2031 No-Build to the 2031 Build condition. This change is generally considered negligible and is only noted in this instance as the existing and No-Build conditions are already less than half of one second of delay away from the level of service B threshold during the evening peak hour. Where this expected increase in delay is minimal and the movement already operates at a level of service B during the morning peak hour the change is considered negligible.

The southbound left turn movement for vehicles on Washington Street at Madison Street will also see a decrease in level of service. The No-Build condition demonstrates level of service C that will increase to a level of service E under Build conditions during morning peak hour and a no-Build level of service B that will increase to a level of service C during the evening peak hour. These changes in the level of service result from an increase in delay of 17.8 and 10.1 seconds during the morning and evening peak hours respectively. Washington Street north of Madison Street will remain a relatively low volume road segment so this projected increase in delay will have little overall impact. It is anticipated that this increase in delay will result in a 95th percentile queue of 35 feet or approximately 1 to 2 cars during the morning peak hour and a 95th percentile queue of 1 car or less during the evening peak hour.

All other intersection movements are not expected to experience a decrease in level of service between the No-Build condition and the Build condition. As such the project does not impact the surrounding roadway network at a level which would require project-specific mitigation. See Attachment H for the intersection capacity analysis worksheets.

⁹ *Highway Capacity Manual, 6th Edition; Transportation Research Board; Washington, DC; 2016.*

Table 3 – Intersection Capacity and Queue Analysis Summary

Intersection / Lane Group	2024 Existing Conditions				2031 Future No-Build				2031 Future Build			
	V/C ^(a)	Delay ^(b)	LOS ^(c)	Queue ^(d)	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
(North) Washington Street / Madison Street												
<i>Weekday Morning Peak Period</i>												
Madison Street EBL	0.044	10.6	B	<1 veh.	0.044	10.8	B	<1 veh.	0.053	11.0	B	<1 veh.
Washington Street SBL	0.093	23.5	C	<1 veh.	0.119	21.7	C	<1 veh.	0.361	39.5	E	38
<i>Weekday Evening Peak Period</i>												
Madison Street EBL	0.026	9.6	A	<1 veh.	0.025	9.8	A	<1 veh.	0.045	10.2	B	<1 veh.
Washington Street SBL	0.061	14.6	B	<1 veh.	0.081	14.4	B	<1 veh.	0.225	24.5	C	<1 veh.
(South) Washington Street / Madison Street												
<i>Weekday Morning Peak Period</i>												
Madison Street WBL	0.122	10.2	B	<1 veh.	0.133	10.4	B	<1 veh.	0.136	10.5	B	<1 veh.
Washington Street NBL	1.348	256.5	F	300	1.599	366.9	F	358	1.681	405.0	F	375
<i>Weekday Evening Peak Period</i>												
Madison Street WBL	0.140	11.1	B	<1 veh.	0.157	11.5	B	<1 veh.	0.161	11.6	B	<1 veh.
Washington Street NBL	1.459	284.5	F	400	1.737	408.3	F	475	1.884	476.5	F	525
Ash Street / Summit Street/Site Drive												
<i>Weekday Morning Peak Period</i>												
Summit Street SBL	0.003	8.5	A	0							N/A	
Ash Street WBL			N/A				N/A		0.027	9.3	A	<1 veh.
Site Drive 3A NBL			N/A						0.068	9.7	A	<1 veh.
<i>Weekday Evening Peak Period</i>												
Summit Street SBL	0000	0.00	A	0							N/A	
Ash Street WBL			N/A				N/A		0.035	9.0	A	<1 veh.
Site Drive 3A NBL			N/A						0.053	10.2	B	<1 veh.
Green Street / Ash Street												
<i>Weekday Morning Peak Period</i>												
Ash Street EBL	0.022	10.0	B	<1 veh.			N/A				N/A	
<i>Weekday Evening Peak Period</i>												
Ash Street EBL	0.072	12.7	B	<1 veh.			N/A				N/A	
Green Street / Spruce Street												
<i>Weekday Morning Peak Period</i>												
Ash Street EBL	0.122	10.7	B	<1 veh.	0.168	12.3	B	<1 veh.	0.378	13.8	B	45
<i>Weekday Evening Peak Period</i>												
Ash Street EBL	0.054	12.3	B	<1 veh.	0.133	16.4	C	<1 veh.	0.307	16.8	C	33

Table 3 – Intersection Capacity and Queue Analysis Summary (Cont.)

Intersection / Lane Group	2024 Existing Conditions				2031 Future No-Build				2031 Future Build			
	V/C ^(a)	Delay ^(b)	LOS ^(c)	Queue ^(d)	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Gulf Gas Station Driveway / Madison Street												
<i>Weekday Morning Peak Period</i>												
Madison Street WBL	0.075	10.1	B	<1 veh.	0.081	10.3	B	<1 veh.	0.082	10.4	B	<1 veh.
Gulf Gas Station Driveway NBL	0.221	24.5	C	<1 veh.	0.247	27.1	D	<1 veh.	0.258	28.3	D	25
<i>Weekday Evening Peak Period</i>												
Madison Street WBL	0.097	11.4	B	<1 veh.	0.107	11.9	B	<1 veh.	0.108	12.0	B	<1 veh.
Gulf Gas Station Driveway NBL	0.117	38.6	E	<1 veh.	0.137	45.4	E	<1 veh.	0.149	49.4	E	<1 veh.
Madison Street / Site Drive												
<i>Weekday Morning Peak Period</i>												
Site Driveway SBR			N/A				N/A		0.012	13.0	B	<1 veh.
<i>Weekday Evening Peak Period</i>												
Site Driveway SBR									0.008	12.0	B	<1 veh.

^a Volume-to-capacity ratio

^b Delay expressed in seconds per vehicle (average)

^c Level of service

^d 95th Percentile Queue (feet)

Conclusions

The Spruce Street redevelopment proposal will activate the remaining undeveloped parcels with land uses that are compatible with the mixed-use nature of Green Street, Madison Street, Spruce Street, and the surrounding area within the Canal District. The vehicle trips can be efficiently and safely accommodated on the surrounding streets; and the multi-modal trips for pedestrians, bicyclists, and transit riders have a robust level of infrastructure and services to accommodate the project's needs. The average parking demand will be satisfied with the proposed supply planned within the proposed podium parking structures and the shared parking stalls. Any peak parking demands can be reasonably satisfied with other public and private parking options located within one-quarter mile of the project site.

Attachments:

- A – Turning Movement Counts
- B – Seasonal Adjustments
- C – Crash Data
- D – General Ambient Growth
- E – Trip Generation Worksheets
- F – Trip Distribution
- G – Parking Demand Worksheets
- H – Intersection Capacity Analysis Worksheets



Attachment A

Turning Movement Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Washington St & Madison St/SR 122/SR 122A
City: Worcester
Control: 1-Way Stop(NB)

Project ID: 24-430166-001
Date: 10/17/2024

Data - Total

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	4	0	18	0	0	0	0	0	0	181	4	0	20	148	0	0	375
7:15 AM	14	0	21	0	0	0	0	0	0	209	3	0	19	170	0	0	436
7:30 AM	24	0	23	0	0	0	0	0	0	186	6	0	19	175	0	0	433
7:45 AM	34	0	12	0	0	0	0	0	0	187	5	0	19	185	0	0	442
8:00 AM	27	0	20	0	0	0	0	0	0	158	7	0	18	225	0	0	455
8:15 AM	29	0	14	0	0	0	0	0	0	180	5	0	27	197	0	0	452
8:30 AM	23	0	18	0	0	0	0	0	0	189	7	0	30	220	0	0	487
8:45 AM	17	0	20	0	0	0	0	0	0	198	9	0	18	221	0	0	483
9:00 AM	11	0	16	0	0	0	0	0	0	180	9	0	20	152	0	0	388
9:15 AM	16	0	24	0	0	0	0	0	0	183	3	0	19	162	0	0	407
9:30 AM	14	0	33	0	0	0	0	0	0	170	5	0	17	183	0	0	422
9:45 AM	11	0	39	0	0	0	0	0	0	183	7	0	18	218	0	0	476
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	46.47%	0.00%	53.53%	0.00%	0	0	0	0	0.00%	96.92%	3.08%	0.00%	9.76%	90.24%	0.00%	0.00%	5256
PEAK HR:	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL:	96	0	72	0	0	0	0	0	0	725	28	0	93	863	0	0	1877
PEAK HR FACTOR:	0.828	0.000	0.900	0.000	0.000	0.000	0.000	0.000	0.000	0.915	0.778	0.000	0.775	0.959	0.000	0.000	0.964
	0.894								0.909				0.956				

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	14	0	26	0	0	0	0	0	0	167	10	0	19	165	0	0	401
10:15 AM	9	0	29	0	0	0	0	0	0	187	4	0	22	147	0	0	398
10:30 AM	13	0	25	0	0	0	0	0	0	181	7	0	16	173	0	0	415
10:45 AM	15	0	24	0	0	0	0	0	0	194	6	0	15	169	0	0	423
11:00 AM	14	0	32	0	0	0	0	0	0	168	12	0	18	168	0	0	412
11:15 AM	12	0	35	0	0	0	0	0	0	168	4	0	22	165	0	0	406
11:30 AM	13	0	37	0	0	0	0	0	0	183	10	0	18	159	0	0	420
11:45 AM	11	0	25	0	0	0	0	0	0	194	6	0	30	150	0	0	416
12:00 PM	9	0	40	0	0	0	0	0	0	218	10	0	22	164	0	0	463
12:15 PM	9	0	39	0	0	0	0	0	0	210	7	0	27	183	0	1	476
12:30 PM	9	0	42	0	0	0	0	0	0	189	5	0	23	172	0	0	440
12:45 PM	13	0	34	0	0	0	0	0	0	213	6	0	20	193	0	0	479
1:00 PM	11	0	30	0	0	0	0	0	0	219	9	0	30	166	0	0	465
1:15 PM	12	0	25	0	0	0	0	0	0	214	8	0	24	188	0	0	471
1:30 PM	9	0	31	0	0	0	0	0	0	212	9	1	17	168	0	0	447
1:45 PM	9	0	27	0	0	0	0	0	0	206	14	0	30	161	0	0	447
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	26.65%	0.00%	73.35%	0.00%	0	0	0	0	0.00%	96.06%	3.91%	0.03%	11.59%	88.37%	0.00%	0.03%	6979
PEAK HR:	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL:	45	0	120	0	0	0	0	0	0	858	32	1	91	715	0	0	1862
PEAK HR FACTOR:	0.865	0.000	0.882	0.000	0.000	0.000	0.000	0.000	0.000	0.979	0.889	0.250	0.758	0.926	0.000	0.000	0.972
	0.878								0.977				0.946				

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	19	0	39	0	0	0	0	0	0	194	15	0	23	165	0	0	455
2:15 PM	15	0	24	0	0	0	0	0	0	201	6	0	22	188	0	0	456
2:30 PM	11	0	36	0	0	0	0	0	0	218	7	0	29	161	0	0	462
2:45 PM	14	0	32	0	0	0	0	0	0	221	11	0	34	137	0	0	449
3:00 PM	17	0	28	0	0	0	0	0	0	196	16	0	23	187	0	0	467
3:15 PM	13	0	21	0	0	0	0	0	0	212	11	0	28	167	0	0	452
3:30 PM	18	0	17	0	0	0	0	0	0	226	18	0	27	151	0	0	457
3:45 PM	11	0	33	0	0	0	0	0	0	200	13	0	16	163	0	0	436
4:00 PM	17	0	38	0	0	0	0	0	0	237	10	0	22	161	0	0	485
4:15 PM	18	0	32	0	0	0	0	0	0	221	14	0	20	160	0	0	465
4:30 PM	21	0	43	0	0	0	0	0	0	228	6	0	17	164	0	0	479
4:45 PM	18	0	41	0	0	0	0	0	0	230	16	0	29	163	0	0	497
5:00 PM	12	0	30	0	0	0	0	0	0	230	17	0	21	192	0	0	502
5:15 PM	14	0	10	0	0	0	0	0	0	225	17	0	20	162	0	0	448
5:30 PM	17	0	17	0	0	0	0	0	0	198	12	0	16	170	0	0	430
5:45 PM	18	0	15	0	0	0	0	0	0	207	9	0	22	183	0	0	454
6:00 PM	15	0	16	0	0	0	0	0	0	225	13	0	25	138	0	0	432
6:15 PM	11	0	12	0	0	0	0	0	0	229	10	0	22	154	0	0	438
6:30 PM	18	0	10	0	0	0	0	0	0	230	7	0	18	163	0	0	446
6:45 PM	9	0	10	0	0	0	0	0	0	184	9	0	23	165	0	0	400
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	37.78%	0.00%	62.22%	0.00%	0	0	0	0	0.00%	94.79%	5.21%	0.00%	12.18%	87.82%	0.00%	0.00%	9110
PEAK HR:	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL:	69	0	146	0	0	0	0	0	0	909	53	0	87	679	0	0	1943
PEAK HR FACTOR:	0.821	0.000	0.849	0.000	0.000	0.000	0.000	0.000	0.000	0.988	0.779	0.000	0.750	0.884	0.000	0.000	0.968
	0.840								0.974				0.899				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(NB)

Project ID: 24-430166-001
 Date: 10/17/2024

Data - Buses

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	1	4	0	0	8
7:15 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	8
7:30 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
8:00 AM	2	0	0	0	0	0	0	0	0	1	0	0	0	11	0	0	14
8:15 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	8
8:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
9:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	1	2	0	0	6
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1
9:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	5	0	2	0	0	0	0	0	0	22	0	0	2	38	0	0	69
	71.43%	0.00%	28.57%	0.00%					0.00%	100.00%	0.00%	0.00%	5.00%	95.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	3	0	0	0	0	0	0	0	0	9	0	0	0	19	0	0	31
PEAK HR FACTOR :	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.432	0.000	0.000	0.554
			0.375							0.563				0.432			

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	3
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5
10:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
11:00 AM	0	0	1	0	0	0	0	0	0	1	1	0	1	3	0	0	7
11:15 AM	1	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
12:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	0	5
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
1:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	4
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1	0	5	0	0	0	0	0	0	15	1	0	6	18	0	0	46
	16.67%	0.00%	83.33%	0.00%					0.00%	93.75%	6.25%	0.00%	25.00%	75.00%	0.00%	0.00%	
PEAK HR :	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	0	0	1	5	0	0	8
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.417	0.000	0.000	0.400
										0.500				0.375			

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	3	0	0	0	0	0	0	3	0	0	0	4	0	0	10
2:15 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8
2:30 PM	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	4
2:45 PM	0	0	2	0	0	0	0	0	0	2	0	0	0	2	0	0	6
3:00 PM	0	0	1	0	0	0	0	0	0	4	0	0	1	1	0	0	7
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	4
3:45 PM	0	0	2	0	0	0	0	0	0	2	0	0	0	2	0	0	6
4:00 PM	0	0	1	0	0	0	0	0	0	1	0	0	1	2	0	0	5
4:15 PM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3
4:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1	0	12	0	0	0	0	0	0	23	2	0	3	18	0	0	59
	7.69%	0.00%	92.31%	0.00%					0.00%	92.00%	8.00%	0.00%	14.29%	85.71%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0	5
PEAK HR FACTOR :	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.417
			0.375							0.500							

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(NB)

Project ID: 24-430166-001
 Date: 10/17/2024

Data - Duals

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	1	0	0	0	0	0	0	2	0	0	1	6	0	0	10
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	8
7:45 AM	2	0	1	0	0	0	0	0	0	1	0	0	1	5	0	0	10
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	9	0	0	11
8:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
8:30 AM	1	0	0	0	0	0	0	0	0	5	1	0	1	10	0	0	18
8:45 AM	1	0	0	0	0	0	0	0	0	5	1	0	1	0	0	0	8
9:00 AM	1	0	1	0	0	0	0	0	0	6	0	0	0	6	0	0	14
9:15 AM	1	0	1	0	0	0	0	0	0	1	0	0	0	2	0	0	5
9:30 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	9	0	0	12
9:45 AM	1	0	1	0	0	0	0	0	0	2	1	0	0	8	0	0	13
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	64.29%	0.00%	35.71%	0.00%	0	0	0	0	0.00%	91.18%	8.82%	0.00%	5.56%	94.44%	0.00%	0.00%	120
PEAK HR:	08:00 AM - 09:00 AM				0				0				2				TOTAL
PEAK HR VOL:	2	0	0	0	0	0	0	0	0	15	2	0	2	21	0	0	42
PEAK HR FACTOR:	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.000	0.500	0.525	0.000	0.000	0.583

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	1	0	0	0	0	0	0	0	0	8	1	0	0	3	0	0	13
10:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	1	4	0	0	9
10:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	2	6	0	0	12
10:45 AM	0	0	1	0	0	0	0	0	0	7	0	0	0	1	0	0	9
11:00 AM	0	0	2	0	0	0	0	0	0	8	0	0	0	5	0	0	15
11:15 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
11:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	9	0	0	12
11:45 AM	1	0	0	0	0	0	0	0	0	4	0	0	0	8	0	0	13
12:00 PM	0	0	2	0	0	0	0	0	0	8	0	0	0	7	0	0	17
12:15 PM	0	0	3	0	0	0	0	0	0	10	0	0	4	7	0	0	24
12:30 PM	0	0	0	0	0	0	0	0	0	8	0	0	1	10	0	0	19
12:45 PM	0	0	0	0	0	0	0	0	0	3	1	0	2	8	0	0	14
1:00 PM	1	0	1	0	0	0	0	0	0	7	0	0	1	6	0	0	16
1:15 PM	0	0	2	0	0	0	0	0	0	6	0	0	2	11	0	0	21
1:30 PM	0	0	3	0	0	0	0	0	0	6	0	0	2	4	0	0	15
1:45 PM	0	0	1	0	0	0	0	0	0	7	0	0	0	2	0	0	10
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	16.67%	0.00%	83.33%	0.00%	0	0	0	0	0.00%	98.04%	1.96%	0.00%	14.15%	85.85%	0.00%	0.00%	226
PEAK HR:	12:45 PM - 01:45 PM				0				0				7				TOTAL
PEAK HR VOL:	1	0	6	0	0	0	0	0	0	22	1	0	7	29	0	0	66
PEAK HR FACTOR:	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.786	0.250	0.000	0.875	0.659	0.000	0.000	0.786

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	2	0	0	0	0	0	0	4	0	0	0	4	0	0	14
2:15 PM	1	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	9
2:30 PM	1	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	5
2:45 PM	1	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	7
3:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
3:15 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	6
3:30 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	6
3:45 PM	0	0	1	0	0	0	0	0	0	3	0	0	0	7	0	0	11
4:00 PM	0	0	1	0	0	0	0	0	0	3	0	0	0	4	0	0	8
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	5
4:30 PM	0	0	1	0	0	0	0	0	0	3	0	0	2	1	0	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
5:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
5:45 PM	1	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	7
6:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	44.44%	0.00%	55.56%	0.00%	0	0	0	0	0.00%	100.00%	0.00%	0.00%	6.00%	94.00%	0.00%	0.00%	114
PEAK HR:	04:15 PM - 05:15 PM				0				0				2				TOTAL
PEAK HR VOL:	0	0	1	0	0	0	0	0	0	8	0	0	2	9	0	0	20
PEAK HR FACTOR:	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.250	0.563	0.000	0.000	0.714

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(NB)

Project ID: 24-430166-001
 Date: 10/17/2024

Data - TTST

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	0.00%	100.00%	0.00%	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	25
PEAK HR :	08:00 AM - 09:00 AM				0	0	0	0	0	6	0	0	0	4	0	0	10
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.500	0.000	0.000	0.357

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	4
10:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	3
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	0.00%	100.00%	0.00%	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	37
PEAK HR :	12:45 PM - 01:45 PM				0	0	0	0	0	2	0	0	0	3	0	0	6
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.500

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0.00%	90.00%	10.00%	0.00%	0.00%	100.00%	0.00%	0.00%	20
PEAK HR :	04:15 PM - 05:15 PM				0	0	0	0	0	2	1	0	0	1	0	0	4
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.250	0.000	0.000	0.500

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(NB)

Project ID: 24-430166-001
 Date: 10/17/2024

Data - Bikes

NS/EW Streets:	S Washington St				S Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3
9:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	1	2	0	0	0	5
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3
9:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s:	0.00%	0.00%	100.00%	0.00%	0	0	0	0	0.00%	60.00%	20.00%	20.00%	33.33%	66.67%	0.00%	0.00%	16	
PEAK HR:	08:00 AM - 09:00 AM				0				0				0				TOTAL	
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	4	
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.000	0.333	
										0.500				0.250				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:45 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	3
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s:	100.00%	0.00%	0.00%	0.00%	0	0	0	0	0.00%	80.00%	20.00%	0.00%	0.00%	100.00%	0.00%	0.00%	13	
PEAK HR:	12:45 PM - 01:45 PM				0				0				0				TOTAL	
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	
														0.500				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	4
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
5:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
6:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s:	100.00%	0.00%	0.00%	0.00%	0	0	0	0	0.00%	90.91%	9.09%	0.00%	18.18%	81.82%	0.00%	0.00%	24	
PEAK HR:	04:15 PM - 05:15 PM				0				0				0				TOTAL	
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	
										0.500								

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Washington St & Madison St/SR 122/SR 122A
City: Worcester

Project ID: 24-430166-001
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	S Washington St		S Washington St		Madison St/SR 122/SR 122A		Madison St/SR 122/SR 122A		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	2	1	0	0	0	0	3
7:15 AM	0	0	1	1	0	0	0	0	2
7:30 AM	0	0	2	1	0	0	0	0	3
7:45 AM	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	1	0	0	0	0	1	2
8:15 AM	0	0	1	1	0	0	0	1	3
8:30 AM	0	0	1	0	0	0	1	0	2
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	1	1	0	0	0	0	2
9:30 AM	0	0	4	4	0	0	0	0	8
9:45 AM	0	0	3	1	0	0	0	0	4
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	16	11	0	0	1	2	30
			59.26%	40.74%			33.33%	66.67%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	0	3	1	0	0	1	2	7
PEAK HR FACTOR :			0.750	0.250			0.250	0.500	0.583
			0.500				0.750		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	0	0	1	2	0	0	0	0	3
10:15 AM	0	0	0	4	0	0	0	1	5
10:30 AM	0	0	1	0	2	0	0	0	3
10:45 AM	0	0	5	3	0	0	0	0	8
11:00 AM	0	0	4	4	0	0	0	0	8
11:15 AM	0	0	0	3	1	0	2	0	6
11:30 AM	0	0	1	4	0	0	0	0	5
11:45 AM	0	0	1	2	0	0	0	0	3
12:00 PM	0	0	2	3	0	0	0	0	5
12:15 PM	0	0	1	3	0	0	0	0	4
12:30 PM	0	0	1	1	0	0	0	0	2
12:45 PM	0	0	2	1	0	0	0	0	3
1:00 PM	0	0	3	2	0	0	1	0	6
1:15 PM	0	0	0	1	0	0	0	0	1
1:30 PM	0	0	0	1	0	0	0	0	1
1:45 PM	0	0	3	0	0	0	0	0	3
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	25	34	3	0	3	1	66
			42.37%	57.63%	100.00%	0.00%	75.00%	25.00%	
PEAK HR :	12:45 PM - 01:45 PM								TOTAL
PEAK HR VOL :	0	0	5	5	0	0	1	0	11
PEAK HR FACTOR :			0.417	0.625			0.250		0.458
			0.500				0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	0	0	0	1	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	1	0	0	0	0	0	1
2:45 PM	0	0	3	0	0	0	0	0	3
3:00 PM	0	0	3	1	0	0	0	0	4
3:15 PM	0	0	4	3	0	0	0	2	9
3:30 PM	0	0	2	0	0	1	0	0	3
3:45 PM	0	0	2	4	0	0	0	0	6
4:00 PM	0	0	1	1	0	0	1	0	3
4:15 PM	0	0	1	4	0	0	2	0	7
4:30 PM	0	0	2	2	0	0	0	0	4
4:45 PM	0	0	2	5	0	0	0	0	7
5:00 PM	0	0	5	2	0	3	0	0	10
5:15 PM	0	0	2	3	0	0	0	0	5
5:30 PM	0	0	3	2	0	0	1	0	6
5:45 PM	0	0	2	1	0	0	0	0	3
6:00 PM	0	0	4	3	0	1	0	0	8
6:15 PM	0	0	4	3	0	0	1	0	8
6:30 PM	0	0	0	2	0	0	0	0	2
6:45 PM	0	0	2	0	0	0	0	0	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	43	37	0	5	5	2	92
			53.75%	46.25%	0.00%	100.00%	71.43%	28.57%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	10	13	0	3	2	0	28
PEAK HR FACTOR :			0.500	0.650		0.250	0.250		0.700
			0.821				0.250		

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(SB)

Project ID: 24-430166-002
 Date: 10/17/2024

Data - Buses

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	7	0	0	8
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	12	1	0	14
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	6	1	0	8
8:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
9:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	22	0	0	0	39	4	0	65
APPROACH %'s:	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	90.70%	9.30%	0.00%	
PEAK HR:	08:00 AM - 09:00 AM				0	0	0	0	0	9	0	0	0	20	2	0	31
PEAK HR VOL:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.417	0.500	0.000	0.554
PEAK HR FACTOR:									0.563				0.423				

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
10:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
1:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	17	0	0	0	19	0	0	36
APPROACH %'s:	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR:	12:45 PM - 01:45 PM				0	0	0	0	0	2	0	0	0	5	0	0	7
PEAK HR VOL:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.417	0.000	0.000	0.438
PEAK HR FACTOR:									0.500				0.417				

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
2:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0	7
2:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
2:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
3:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
3:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	24	0	0	0	18	1	0	44
APPROACH %'s:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	96.00%	0.00%	0.00%	0.00%	94.74%	5.26%	0.00%	
PEAK HR:	04:30 PM - 05:30 PM				0	0	0	0	0	1	0	0	0	0	0	0	1
PEAK HR VOL:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
PEAK HR FACTOR:									0.250								

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(SB)

Project ID: 24-430166-002
 Date: 10/17/2024

Data - Duals

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	5	1	0	9
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	0	6
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	9	2	0	13
8:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5
8:30 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	10	0	0	17
8:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	2	0	0	9
9:00 AM	0	0	0	0	0	0	1	0	0	4	0	0	0	5	0	0	10
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	5
9:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	10	1	0	14
9:45 AM	0	0	0	0	1	0	0	0	1	1	0	0	0	7	1	0	11
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	50.00%	0.00%	50.00%	0.00%	2.94%	97.06%	0.00%	0.00%	0.00%	93.42%	6.58%	0.00%	112
PEAK HR:	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	19	0	0	0	23	2	0	44
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.679	0.000	0.000	0.000	0.575	0.250	0.000	0.647

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
10:00 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	0	13
10:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9
10:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	0	10
10:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	1	0	0	8
11:00 AM	0	0	0	0	0	0	1	0	0	9	0	0	0	3	0	0	13
11:15 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	0	8
11:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	8	0	0	11
11:45 AM	0	0	0	0	0	0	0	0	1	5	0	0	0	8	0	0	14
12:00 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	0	17
12:15 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	6	1	0	16
12:30 PM	0	0	0	0	0	0	0	0	1	8	0	0	0	7	0	0	16
12:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	11	0	0	16
1:00 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	4	1	0	11
1:15 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	13	0	0	19
1:30 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	10
1:45 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	2	0	0	9
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0.00%	0.00%	100.00%	0.00%	1.92%	98.08%	0.00%	0.00%	0.00%	97.89%	2.11%	0.00%	200
PEAK HR:	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	23	0	0	0	32	1	0	56
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.958	0.000	0.000	0.000	0.615	0.250	0.000	0.737

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	2 ET	0 ER	0 EU	0 WL	2 WT	0 WR	0 WU	
2:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	8	0	0	13
2:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	1	0	8
2:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
2:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	6
3:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	6
3:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5
3:30 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	6
3:45 PM	0	0	0	0	0	0	0	0	1	4	0	0	0	6	1	0	12
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	5
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	4	0	0	8
5:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	2	1	0	7
6:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	3.51%	96.49%	0.00%	0.00%	0.00%	94.12%	5.88%	0.00%	108
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	1	11	0	0	0	5	0	0	17
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.688	0.000	0.000	0.000	0.313	0.000	0.000	0.531

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Washington St & Madison St/SR 122/SR 122A
City: Worcester
Control: 1-Way Stop(SB)

Project ID: 24-430166-002
Date: 10/17/2024

Data - TTST

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	24
PEAK HR:	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	10
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.500	0.000	0.000	0.357

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
10:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	7
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	3	0	0	6
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	7.14%	92.86%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	36
PEAK HR:	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.625

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	20
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.375

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Washington St & Madison St/SR 122/SR 122A
 City: Worcester
 Control: 1-Way Stop(SB)

Project ID: 24-430166-002
 Date: 10/17/2024

Data - Bikes

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	12
PEAK HR:	08:00 AM - 09:00 AM				0				0				0				TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.375

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	87.50%	12.50%	0.00%	13
PEAK HR:	12:45 PM - 01:45 PM				0				0				0				TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500

NS/EW Streets:	N Washington St				N Washington St				Madison St/SR 122/SR 122A				Madison St/SR 122/SR 122A				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	8.33%	91.67%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	23
PEAK HR:	04:30 PM - 05:30 PM				0				0				0				TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	6
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.250	0.000	0.000	0.750

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Washington St & Madison St/SR 122/SR 122A
City: Worcester

Project ID: 24-430166-002
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	N Washington St		N Washington St		Madison St/SR 122/SR 122A		Madison St/SR 122/SR 122A		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	4	0	0	0	0	0	0	5
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	1
7:45 AM	2	0	0	0	0	0	0	0	2
8:00 AM	1	7	0	0	0	1	0	0	9
8:15 AM	1	2	0	0	0	1	0	0	4
8:30 AM	0	1	0	0	1	0	1	0	3
8:45 AM	4	0	0	0	0	0	1	0	5
9:00 AM	0	1	0	0	0	0	0	0	1
9:15 AM	2	0	0	0	0	0	0	0	2
9:30 AM	5	1	0	0	0	0	0	1	7
9:45 AM	1	1	0	0	0	0	0	0	2
TOTAL VOLUMES :	EB 18	WB 18	EB 0	WB 0	NB 1	SB 2	NB 2	SB 1	TOTAL 42
APPROACH %'s :	50.00%	50.00%			33.33%	66.67%	66.67%	33.33%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL 21
PEAK HR VOL :	6	10	0	0	1	2	2	0	21
PEAK HR FACTOR :	0.375	0.357			0.250	0.500	0.500	0	0.583
	0.500				0.750		0.500		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	3	3	0	0	0	0	0	1	7
10:15 AM	4	3	0	0	0	0	0	0	7
10:30 AM	3	2	0	0	0	0	0	0	5
10:45 AM	3	1	0	0	0	0	0	0	4
11:00 AM	4	2	0	0	0	1	0	0	7
11:15 AM	4	3	0	0	2	0	0	0	9
11:30 AM	3	2	0	0	0	0	0	0	5
11:45 AM	6	5	0	0	0	0	0	0	11
12:00 PM	15	5	0	0	0	0	0	0	20
12:15 PM	1	9	0	0	0	0	0	0	10
12:30 PM	3	2	0	0	0	0	0	0	5
12:45 PM	5	3	0	0	0	0	0	0	8
1:00 PM	1	1	0	0	1	0	0	2	5
1:15 PM	2	2	0	0	0	0	0	0	4
1:30 PM	2	1	0	0	0	0	0	0	3
1:45 PM	4	2	0	0	0	0	0	0	6
TOTAL VOLUMES :	EB 63	WB 46	EB 0	WB 0	NB 3	SB 1	NB 0	SB 3	TOTAL 116
APPROACH %'s :	57.80%	42.20%			75.00%	25.00%	0.00%	100.00%	
PEAK HR :	12:45 PM - 01:45 PM								TOTAL 20
PEAK HR VOL :	10	7	0	0	1	0	0	2	20
PEAK HR FACTOR :	0.500	0.583			0.250	0.250	0.250	0.250	0.625
	0.531				0.250		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	6	8	0	0	0	0	0	0	14
2:15 PM	5	6	0	0	0	0	0	0	11
2:30 PM	5	0	0	0	0	0	0	0	5
2:45 PM	2	2	0	0	0	0	0	0	4
3:00 PM	4	2	0	0	0	0	0	0	6
3:15 PM	2	1	0	0	0	0	0	3	6
3:30 PM	4	2	0	0	0	0	0	0	6
3:45 PM	4	2	0	0	0	0	0	0	6
4:00 PM	1	2	0	0	1	0	0	0	4
4:15 PM	2	2	0	0	2	0	0	1	7
4:30 PM	2	0	0	0	0	0	0	0	2
4:45 PM	1	3	0	0	0	0	0	0	4
5:00 PM	5	1	0	0	0	0	0	0	6
5:15 PM	2	0	0	0	0	0	0	0	2
5:30 PM	2	1	0	0	1	0	1	0	5
5:45 PM	3	2	0	0	0	0	2	2	9
6:00 PM	3	5	0	0	0	0	0	0	8
6:15 PM	0	0	0	0	0	0	1	0	1
6:30 PM	2	1	0	0	0	0	0	0	3
6:45 PM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB 55	WB 41	EB 0	WB 0	NB 4	SB 0	NB 4	SB 6	TOTAL 110
APPROACH %'s :	57.29%	42.71%			100.00%	0.00%	40.00%	60.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL 14
PEAK HR VOL :	10	4	0	0	0	0	0	0	14
PEAK HR FACTOR :	0.500	0.333							0.583
	0.583								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Washington St & Spruce St
 City: Worcester
 Control: No Control

Project ID: 24-430166-003
 Date: 10/17/2024

Data - Buses

NS/EW Streets:	Washington St				Washington St				Spruce St				Spruce St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	0.00%	100.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0	0	4
PEAK HR:	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL:	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR:	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR:	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	0.00%	100.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR:	02:30 PM - 03:30 PM																TOTAL
PEAK HR VOL:	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR:	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

National Data & Surveying Services

Intersection Turning Movement Count

Location: Washington St & Spruce St
 City: Worcester
 Control: No Control

Project ID: 24-430166-003
 Date: 10/17/2024

Data - Bikes

NS/EW Streets:	Washington St				Washington St				Spruce St				Spruce St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR :	02:30 PM - 03:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

National Data & Surveying Services

Intersection Turning Movement Count

Location: Washington St & Spruce St
City: Worcester

Project ID: 24-430166-003
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Washington St		Washington St		Spruce St		Spruce St		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	1	0	0	0	1	0	0	2
7:15 AM	0	1	0	0	0	0	0	0	1
7:30 AM	3	2	0	0	0	0	0	0	5
7:45 AM	1	0	0	0	1	0	0	0	2
8:00 AM	0	1	0	0	1	1	0	0	3
8:15 AM	2	0	0	0	2	0	0	0	4
8:30 AM	2	6	0	0	3	2	0	0	13
8:45 AM	4	3	0	1	0	1	0	0	9
9:00 AM	0	1	1	0	3	0	0	0	5
9:15 AM	1	4	0	0	2	4	0	0	11
9:30 AM	0	2	0	1	3	2	0	0	8
9:45 AM	1	1	1	0	0	0	0	0	3
TOTAL VOLUMES :	EB 14	WB 22	EB 2	WB 2	NB 15	SB 11	NB 0	SB 0	TOTAL 66
APPROACH %'s :	38.89%	61.11%	50.00%	50.00%	57.69%	42.31%			
PEAK HR :	07:45 AM - 08:45 AM								TOTAL 22
PEAK HR VOL :	5	7	0	0	7	3	0	0	
PEAK HR FACTOR :	0.625	0.292			0.583	0.375			0.423
	0.375				0.500				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	0	0	0	1	1	0	0	0	2
10:15 AM	1	0	0	0	1	1	0	0	3
10:30 AM	2	0	0	0	0	0	0	0	2
10:45 AM	0	2	0	0	2	0	0	0	4
11:00 AM	0	1	0	0	1	1	0	0	3
11:15 AM	1	3	0	0	3	2	0	0	9
11:30 AM	0	0	1	1	1	0	0	0	3
11:45 AM	2	0	0	0	1	1	0	0	4
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	3	0	0	0	0	0	0	3
12:45 PM	4	2	0	0	0	1	0	0	7
1:00 PM	0	1	0	2	0	2	0	0	5
1:15 PM	1	1	0	1	0	0	0	0	3
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB 11	WB 14	EB 1	WB 5	NB 10	SB 8	NB 0	SB 0	TOTAL 49
APPROACH %'s :	44.00%	56.00%	16.67%	83.33%	55.56%	44.44%			
PEAK HR :	01:00 PM - 02:00 PM								TOTAL 9
PEAK HR VOL :	1	3	0	3	0	2	0	0	
PEAK HR FACTOR :	0.250	0.750		0.375		0.250			0.450
	0.500		0.375		0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	0	0	0	0	1	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	1	0	0	0	0	0	1
2:45 PM	2	2	0	0	0	0	0	0	4
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	2	0	0	0	0	0	2
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	0	0	1
4:15 PM	0	1	1	1	0	3	0	0	6
4:30 PM	0	0	2	1	2	1	0	0	6
4:45 PM	0	1	0	0	2	0	0	0	3
5:00 PM	0	0	1	0	2	0	0	0	3
5:15 PM	0	1	1	0	0	0	0	0	2
5:30 PM	0	0	1	0	2	4	0	0	7
5:45 PM	0	0	2	3	3	2	0	0	10
6:00 PM	0	1	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	1	1	0	1	2	0	0	5
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 2	WB 7	EB 12	WB 5	NB 14	SB 12	NB 0	SB 0	TOTAL 52
APPROACH %'s :	22.22%	77.78%	70.59%	29.41%	53.85%	46.15%			
PEAK HR :	02:30 PM - 03:30 PM								TOTAL 5
PEAK HR VOL :	2	2	1	0	0	0	0	0	
PEAK HR FACTOR :	0.250	0.250	0.250						0.313
	0.250		0.250						

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit St & Ash St
 City: Worcester
 Control: 1-Way Stop(SB)

Project ID: 24-430166-004
 Date: 10/17/2024

Data - TTST

NS/EW Streets:	Summit St				Summit St				Ash St				Ash St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
PEAK HR:	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL:	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	3
PEAK HR:	10:45 AM - 11:45 AM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR:	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit St & Ash St
City: Worcester

Project ID: 24-430166-004
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Summit St		Summit St		Ash St		Ash St		DIAGONAL (NE/SW)		DIAGONAL (NW/SE)		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NB	SB	NB	SB	
	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	
AM													
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	2	2	0	0	0	1	0	0	0	0	2	1	8
7:30 AM	2	2	0	0	1	1	0	0	0	0	0	0	6
7:45 AM	1	0	1	2	0	0	2	1	0	0	1	0	8
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
8:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	2
8:45 AM	0	0	0	0	0	5	0	0	0	0	0	3	8
9:00 AM	0	0	1	2	0	0	0	0	0	0	0	1	4
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	12
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	1	1	0	0	1	1	1	1	0	0	5
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	5	4	4	6	3	7	3	3	9	1	7	6	58
	55.56%	44.44%	40.00%	60.00%	30.00%	70.00%	50.00%	50.00%	90.00%	10.00%	53.85%	46.15%	
PEAK HR :	07:00 AM - 08:00 AM												
PEAK HR VOL :	5	4	1	3	1	2	2	1	0	0	3	1	23
PEAK HR FACTOR :	0.625	0.500	0.250	0.375	0.250	0.500	0.250	0.250	0	0	0.375	0.250	0.719
	0.563		0.333		0.375				0.500		0.333		
NOON													
10:00 AM	0	0	2	2	0	0	0	0	0	2	1	0	7
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
11:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
11:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	8	0	0	8
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	9	0	9
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	1	0	0	1	0	1	0	0	1	0	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	4	2	0	1	0	2	0	14	11	0	34
			66.67%	33.33%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	
PEAK HR :	10:45 AM - 11:45 AM												
PEAK HR VOL :	0	0	1	0	0	0	0	1	0	2	1	0	5
PEAK HR FACTOR :	0	0	0.250	0.250	0	0	0	0.250	0	0.500	0.250	0	0.625
			0.333								0.250		
PM													
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	6	0	0	0	0	2	0	0	0	0	0	1	9
2:45 PM	0	0	0	0	0	2	0	0	0	11	0	0	13
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	4
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	1	0	0	0	1	1	0	0	1	0	4
5:00 PM	0	1	2	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	8	1	3	0	0	4	1	3	0	11	4	5	40
	88.89%	11.11%	100.00%	0.00%	0.00%	100.00%	25.00%	75.00%	0.00%	100.00%	44.44%	55.56%	
PEAK HR :	05:00 PM - 06:00 PM												
PEAK HR VOL :	0	1	2	0	0	0	0	1	0	0	3	0	7
PEAK HR FACTOR :	0	0.250	0.250	0.250	0	0	0	0.250	0	0	0.375	0.375	0.583
		0.250									0.375		



National Data & Surveying Services

Intersection Turning Movement Count

Location: Green St & Ash St
 City: Worcester
 Control: No Control

Project ID: 24-430166-005
 Date: 10/17/2024

Data - Cars

NS/EW Streets:	Green St				Green St				Ash St				Ash St				TOTAL
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	1	0	0	0	28	0	0	2	1	0	0	0	0	0	0	
7:15 AM	4	31	0	0	0	20	0	0	0	0	1	0	0	0	0	0	
7:30 AM	0	46	0	0	0	20	0	0	0	0	5	0	0	0	0	0	
7:45 AM	1	45	0	0	0	30	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	36	0	2	0	26	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	44	0	0	0	28	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	52	0	0	0	37	0	0	2	0	1	0	0	0	0	0	
8:45 AM	0	42	0	1	0	43	0	0	1	0	3	0	0	0	0	0	
9:00 AM	1	51	0	1	0	35	3	0	1	0	1	0	0	0	0	0	
9:15 AM	0	47	0	0	0	30	0	0	0	0	0	0	0	0	0	0	
9:30 AM	1	47	0	0	0	35	1	0	1	0	2	0	0	0	0	0	
9:45 AM	0	37	0	0	0	26	0	0	2	0	3	0	0	0	0	0	
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1.38%	97.84%	0.00%	0.79%	0.00%	98.90%	1.10%	0.00%	32.14%	0.00%	67.86%	0.00%	0	0	0	0	899
PEAK HR:	08:30 AM - 09:30 AM																TOTAL
PEAK HR VOL:	1	192	0	2	0	145	3	0	4	0	5	0	0	0	0	0	352
PEAK HR FACTOR:	0.250	0.923	0.000	0.500	0.000	0.843	0.250	0.000	0.500	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.946
	0.920				0.860				0.563								

NS/EW Streets:	Green St				Green St				Ash St				Ash St				TOTAL
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	41	0	0	0	40	2	0	0	0	1	0	0	0	0	0	
10:15 AM	0	48	0	0	0	33	1	0	2	0	2	0	0	0	0	0	
10:30 AM	0	38	0	1	0	35	1	0	1	0	1	0	0	0	0	0	
10:45 AM	1	41	0	3	0	43	1	0	2	0	4	1	0	0	0	0	
11:00 AM	0	50	0	1	0	45	0	0	1	0	1	0	0	0	0	0	
11:15 AM	0	49	0	0	0	52	1	0	2	0	0	0	0	0	0	0	
11:30 AM	0	52	0	1	0	40	0	0	2	0	2	0	0	0	0	0	
11:45 AM	0	42	0	1	0	38	0	0	2	0	3	0	0	0	0	0	
12:00 PM	0	32	0	0	0	61	1	1	0	0	2	0	0	0	0	0	
12:15 PM	0	40	0	0	0	44	1	0	1	0	1	0	0	0	0	0	
12:30 PM	0	41	0	1	0	48	0	1	0	0	0	0	0	0	0	0	
12:45 PM	0	51	0	0	0	60	0	0	0	0	1	0	0	0	0	0	
1:00 PM	1	41	0	0	0	53	0	0	2	0	0	0	0	0	0	0	
1:15 PM	0	47	0	0	0	45	0	1	2	0	1	0	0	0	0	0	
1:30 PM	1	50	0	0	0	59	0	0	4	0	1	0	0	0	0	0	
1:45 PM	0	47	0	0	0	49	0	0	3	0	0	0	0	0	0	0	
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.42%	98.47%	0.00%	1.11%	0.00%	98.54%	1.06%	0.40%	53.33%	0.00%	44.44%	2.22%	0	0	0	0	1522
PEAK HR:	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL:	2	189	0	0	0	217	0	1	8	0	3	0	0	0	0	0	420
PEAK HR FACTOR:	0.500	0.926	0.000	0.000	0.000	0.904	0.000	0.250	0.500	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.913
	0.936				0.908				0.550								

NS/EW Streets:	Green St				Green St				Ash St				Ash St				TOTAL
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	41	0	0	0	54	0	1	5	0	0	0	0	0	0	0	
2:15 PM	0	39	0	1	0	32	0	0	0	0	1	0	0	0	0	0	
2:30 PM	0	35	0	0	0	58	0	0	1	0	1	0	0	0	0	0	
2:45 PM	0	40	0	0	0	56	0	0	2	0	10	0	0	0	0	0	
3:00 PM	0	38	0	0	0	62	0	2	5	0	3	0	0	0	0	0	
3:15 PM	0	50	0	0	0	58	0	0	0	0	4	0	0	0	0	0	
3:30 PM	1	45	0	0	0	76	0	1	0	0	2	0	0	0	0	0	
3:45 PM	0	45	0	0	0	48	0	0	2	0	1	0	0	0	0	0	
4:00 PM	1	41	0	0	0	61	0	0	0	0	1	0	0	0	0	0	
4:15 PM	0	47	0	1	0	48	0	0	1	0	1	0	0	0	0	0	
4:30 PM	0	46	0	0	0	93	1	0	2	0	0	0	0	0	0	0	
4:45 PM	0	35	0	0	0	69	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	31	0	0	0	76	0	0	2	0	4	0	0	0	0	0	
5:15 PM	0	58	0	0	0	69	2	0	6	0	2	0	0	0	0	0	
5:30 PM	0	39	0	0	0	72	2	0	0	0	1	0	0	0	0	0	
5:45 PM	0	62	0	1	0	60	0	0	3	0	1	0	0	0	0	0	
6:00 PM	0	46	0	0	0	52	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	52	0	1	0	49	0	0	1	0	1	0	0	0	0	0	
6:30 PM	0	43	0	0	0	40	0	1	1	0	1	0	0	0	0	0	
6:45 PM	0	42	0	0	0	43	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.23%	99.32%	0.00%	0.45%	0.00%	99.16%	0.42%	0.42%	47.69%	0.00%	52.31%	0.00%	0	0	0	0	2132
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	0	170	0	0	0	307	3	0	10	0	6	0	0	0	0	0	496
PEAK HR FACTOR:	0.000	0.733	0.000	0.000	0.000	0.825	0.375	0.000	0.417	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.873
	0.733				0.824				0.500								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Green St & Ash St
 City: Worcester
 Control: No Control

Project ID: 24-430166-005
 Date: 10/17/2024

Data - Bikes

NS/EW Streets:	Green St				Green St				Ash St				Ash St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	8
PEAK HR:	08:30 AM - 09:30 AM																TOTAL
PEAK HR VOL:	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR:	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333

NS/EW Streets:	Green St				Green St				Ash St				Ash St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	9
PEAK HR:	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL:	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR:	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

NS/EW Streets:	Green St				Green St				Ash St				Ash St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
3:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
6:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	21
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR:	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500

National Data & Surveying Services

Intersection Turning Movement Count

Location: Green St & Ash St
City: Worcester

Project ID: 24-430166-005
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Green St		Green St		Ash St		Ash St		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	5	2	7
7:30 AM	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	1	2	0	0	2	0	5
8:00 AM	0	0	1	2	0	0	0	0	3
8:15 AM	0	0	0	2	0	0	1	1	4
8:30 AM	0	0	2	1	0	0	1	2	6
8:45 AM	0	0	2	0	0	0	2	4	8
9:00 AM	0	0	1	0	0	0	2	2	5
9:15 AM	0	0	2	0	0	0	1	6	9
9:30 AM	0	0	0	1	0	0	2	1	4
9:45 AM	0	0	2	0	0	0	2	4	8
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	11	9	0	0	19	22	61
			55.00%	45.00%			46.34%	53.66%	
PEAK HR :	08:30 AM - 09:30 AM								TOTAL
PEAK HR VOL :	0	0	7	1	0	0	6	14	28
PEAK HR FACTOR :			0.875	0.250			0.750	0.583	0.778
			0.667				0.714		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	0	2	3	2	0	0	0	2	9
10:15 AM	0	1	3	0	0	0	0	4	8
10:30 AM	1	0	4	3	0	0	1	2	11
10:45 AM	0	0	3	1	0	0	4	3	11
11:00 AM	0	1	1	4	0	0	1	2	9
11:15 AM	0	0	5	2	0	0	3	1	11
11:30 AM	0	0	7	4	0	0	4	6	21
11:45 AM	0	0	1	2	0	0	3	1	7
12:00 PM	0	0	2	4	0	0	7	4	17
12:15 PM	3	0	3	5	0	0	5	6	22
12:30 PM	3	1	3	1	0	0	4	5	17
12:45 PM	0	0	9	1	0	0	0	8	18
1:00 PM	0	0	9	6	0	0	10	7	32
1:15 PM	0	0	2	3	0	0	4	2	11
1:30 PM	0	0	3	4	0	0	7	5	19
1:45 PM	0	0	0	3	0	0	2	3	8
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	7	5	58	45	0	0	55	61	231
	58.33%	41.67%	56.31%	43.69%			47.41%	52.59%	
PEAK HR :	12:45 PM - 01:45 PM								TOTAL
PEAK HR VOL :	0	0	23	14	0	0	21	22	80
PEAK HR FACTOR :			0.639	0.583			0.525	0.688	0.625
			0.617				0.632		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	0	0	7	6	0	0	5	8	26
2:15 PM	0	0	5	4	0	0	4	6	19
2:30 PM	0	0	4	2	0	0	1	5	12
2:45 PM	0	1	2	4	0	0	3	5	15
3:00 PM	1	0	2	3	0	0	5	3	14
3:15 PM	0	1	1	5	0	0	6	3	16
3:30 PM	0	0	2	6	0	0	8	3	19
3:45 PM	0	0	3	0	0	0	2	6	11
4:00 PM	0	0	1	0	0	0	1	1	3
4:15 PM	0	0	2	4	0	0	4	0	10
4:30 PM	0	0	2	5	0	0	0	7	14
4:45 PM	0	0	3	2	0	0	2	4	11
5:00 PM	0	0	2	2	0	0	0	3	7
5:15 PM	0	0	0	1	0	0	3	0	4
5:30 PM	0	0	3	0	0	0	3	3	9
5:45 PM	0	0	1	7	0	0	3	4	15
6:00 PM	0	1	0	2	0	0	2	3	8
6:15 PM	0	1	5	0	0	0	1	6	13
6:30 PM	0	0	4	4	0	0	4	1	13
6:45 PM	0	0	3	1	0	0	1	4	9
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	4	52	58	0	0	58	75	248
	20.00%	80.00%	47.27%	52.73%			43.61%	56.39%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	7	10	0	0	5	14	36
PEAK HR FACTOR :			0.583	0.500			0.417	0.500	0.643
			0.607				0.679		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Green St & Spruce St
City: Worcester

Project ID: 24-430166-006
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Green St		Green St		Spruce St		Spruce St		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	2	1	3
7:15 AM	0	0	0	0	0	0	3	0	3
7:30 AM	1	0	0	0	0	0	3	1	5
7:45 AM	0	0	1	1	0	0	3	1	6
8:00 AM	0	0	0	0	0	0	1	1	2
8:15 AM	0	0	0	0	0	0	2	1	3
8:30 AM	1	2	1	1	0	0	1	0	6
8:45 AM	2	0	0	1	0	0	3	2	8
9:00 AM	2	0	0	0	0	0	2	0	4
9:15 AM	0	1	1	1	0	0	0	4	7
9:30 AM	0	0	0	1	0	0	0	0	1
9:45 AM	0	0	1	0	0	0	2	1	4
TOTAL VOLUMES :	EB 6	WB 3	EB 4	WB 5	NB 0	SB 0	NB 22	SB 12	TOTAL 52
APPROACH %'s :	66.67%	33.33%	44.44%	55.56%			64.71%	35.29%	
PEAK HR :	08:30 AM - 09:30 AM								
PEAK HR VOL :	5	3	2	3	0	0	6	6	TOTAL 25
PEAK HR FACTOR :	0.625	0.375	0.500	0.750			0.500	0.375	0.781
	0.667		0.625				0.600		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	0	0	0	0	0	0	0	2	2
10:15 AM	0	0	0	0	0	0	0	4	4
10:30 AM	0	0	0	0	0	0	2	1	3
10:45 AM	0	0	0	0	0	0	2	3	5
11:00 AM	0	0	0	1	0	0	2	2	5
11:15 AM	0	0	0	0	0	0	3	1	4
11:30 AM	0	0	1	0	0	0	1	2	4
11:45 AM	0	0	1	0	0	0	0	1	2
12:00 PM	2	0	2	1	0	0	5	5	15
12:15 PM	1	0	2	1	0	0	2	4	10
12:30 PM	0	0	0	2	0	0	3	0	5
12:45 PM	0	0	2	3	0	0	0	2	7
1:00 PM	0	1	0	1	0	0	2	1	5
1:15 PM	0	0	0	0	0	0	2	2	4
1:30 PM	0	0	1	1	0	0	2	2	6
1:45 PM	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES :	EB 3	WB 1	EB 9	WB 11	NB 0	SB 0	NB 26	SB 32	TOTAL 82
APPROACH %'s :	75.00%	25.00%	45.00%	55.00%			44.83%	55.17%	
PEAK HR :	12:45 PM - 01:45 PM								
PEAK HR VOL :	0	1	3	5	0	0	6	7	TOTAL 22
PEAK HR FACTOR :		0.250	0.375	0.417			0.750	0.875	0.786
	0.250		0.400				0.813		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	0	0	0	0	0	0	0	6	6
2:15 PM	1	0	0	0	0	0	0	1	2
2:30 PM	0	0	4	0	0	0	1	2	7
2:45 PM	0	0	0	0	0	0	0	3	3
3:00 PM	0	0	3	0	0	0	2	3	8
3:15 PM	0	0	0	0	0	0	2	1	3
3:30 PM	0	0	0	2	0	0	3	1	6
3:45 PM	0	0	0	0	0	0	2	3	5
4:00 PM	0	0	0	0	0	0	2	1	3
4:15 PM	0	1	0	4	0	0	1	2	8
4:30 PM	0	0	0	0	0	0	0	2	2
4:45 PM	0	0	0	0	0	0	0	3	3
5:00 PM	2	1	1	0	0	0	0	5	9
5:15 PM	0	0	2	0	0	0	2	1	5
5:30 PM	0	0	0	1	0	0	1	3	5
5:45 PM	1	0	1	0	0	0	3	4	9
6:00 PM	0	0	0	1	0	0	2	4	7
6:15 PM	0	0	5	0	0	0	3	7	15
6:30 PM	0	1	2	0	0	0	0	1	4
6:45 PM	1	0	2	0	0	0	0	5	8
TOTAL VOLUMES :	EB 5	WB 3	EB 20	WB 8	NB 0	SB 0	NB 24	SB 58	TOTAL 118
APPROACH %'s :	62.50%	37.50%	71.43%	28.57%			29.27%	70.73%	
PEAK HR :	05:00 PM - 06:00 PM								
PEAK HR VOL :	3	1	4	1	0	0	6	13	TOTAL 28
PEAK HR FACTOR :	0.375	0.250	0.500	0.250			0.500	0.650	0.778
	0.333		0.625				0.679		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Gulf Gas Station West Dwy & Madison St/SR 122/SR 122A
City: Worcester

Project ID: 24-430166-007
Date: 10/17/2024

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Gulf Gas Station West Dwy		Gulf Gas Station West Dwy		Madison St/SR 122/SR 122A		Madison St/SR 122/SR 122A		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	2	0	0	0	0	0	2
7:15 AM	0	0	1	2	0	0	0	0	3
7:30 AM	0	0	2	1	0	0	0	0	3
7:45 AM	0	0	2	1	0	0	0	0	3
8:00 AM	0	0	3	1	3	0	0	0	7
8:15 AM	0	0	4	2	0	0	0	0	6
8:30 AM	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	4	0	0	0	0	0	4
9:00 AM	0	0	3	1	0	0	0	0	4
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	3	2	0	0	1	0	6
9:45 AM	0	0	3	1	0	0	0	1	5
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	27	12	3	0	1	1	44
			69.23%	30.77%	100.00%	0.00%	50.00%	50.00%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	0	11	4	3	0	0	0	18
PEAK HR FACTOR :			0.688	0.500	0.250				0.643
			0.625		0.250				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
10:00 AM	0	0	2	2	0	0	0	0	4
10:15 AM	0	0	0	1	0	2	0	0	3
10:30 AM	0	0	3	1	0	0	0	0	4
10:45 AM	0	0	4	0	0	0	0	0	4
11:00 AM	0	0	3	0	0	0	2	1	6
11:15 AM	0	0	0	3	0	0	0	0	3
11:30 AM	0	0	2	3	0	0	0	0	5
11:45 AM	0	0	1	1	0	0	0	0	2
12:00 PM	0	0	1	3	0	0	0	0	4
12:15 PM	0	0	5	3	0	0	0	0	8
12:30 PM	0	0	0	1	0	0	0	0	1
12:45 PM	0	0	0	1	0	0	0	0	1
1:00 PM	0	0	3	1	0	0	0	0	4
1:15 PM	0	0	0	2	0	0	0	1	3
1:30 PM	0	0	1	2	0	0	0	0	3
1:45 PM	0	0	2	2	0	0	0	0	4
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	27	26	0	2	2	2	59
			50.94%	49.06%	0.00%	100.00%	50.00%	50.00%	
PEAK HR :	12:15 PM - 01:15 PM								TOTAL
PEAK HR VOL :	0	0	8	6	0	0	0	0	14
PEAK HR FACTOR :			0.400	0.500					0.438
			0.438						

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
2:00 PM	0	0	3	2	0	0	0	0	5
2:15 PM	0	0	2	0	0	0	0	0	2
2:30 PM	0	0	0	1	0	0	0	0	1
2:45 PM	0	0	2	3	0	0	0	0	5
3:00 PM	0	0	2	1	0	0	0	0	3
3:15 PM	0	0	3	0	0	0	0	0	3
3:30 PM	0	0	2	4	0	0	0	1	7
3:45 PM	0	0	2	4	0	0	0	0	6
4:00 PM	0	0	5	2	0	0	0	0	7
4:15 PM	0	0	2	1	0	0	0	0	3
4:30 PM	0	0	2	3	0	0	0	0	5
4:45 PM	0	0	1	2	0	0	0	0	3
5:00 PM	0	0	3	13	0	0	0	1	17
5:15 PM	0	0	1	0	0	0	0	2	3
5:30 PM	0	0	4	4	0	0	0	2	10
5:45 PM	0	0	4	2	0	0	0	0	6
6:00 PM	0	0	3	2	0	0	1	0	6
6:15 PM	0	0	4	2	0	0	0	0	6
6:30 PM	0	0	2	1	0	0	0	0	3
6:45 PM	0	0	2	4	0	0	0	0	6
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	49	51	0	0	1	6	107
			49.00%	51.00%			14.29%	85.71%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	8	19	0	0	0	1	28
PEAK HR FACTOR :			0.667	0.365				0.250	0.412
			0.422				0.250		

Attachment B

Seasonal Adjustments

Seasonal Adjustment

Project: T1122.20 - Table Talk Redevelopment - Boston Capital Development Update
 Date: Monday, November 4, 2024
 Analyst: TEC, Inc. / FAS
 Source: MassDOT Count Stations

STATION 3333 - WORCESTER - INTERSTATE 290 - NORTH OF LINCOLN STREET

<u>YR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>YEAR</u>	<u>October Seasonal Adjustment</u>
2021	110,484	109,755	124,798	131,840	138,588							129,549	124,169	-4.3%
2022	114,509	121,234				140,808	135,175	132,804	130,824	133,811	129,253	127,026	129,494	-3.3%
2023	122,157	130,492	130,946	140,092	144,917		142,667	142,461	138,958	145,210	172,305		141,021	-3.0%

STATION 3991 - WORCESTER - ROUTE 146 - NORTH OF ROUTE I-90

<u>YR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>YEAR</u>	<u>October Seasonal Adjustment</u>
2021	41,850	41,751	47,365	48,062	48,923	48,810	49,567	51,422	52,695	54,741	53,922	50,046	49,096	-11.5%
2022	51,811	52,714	54,667	53,482	50,704	49,796	46,871	51,128	53,424	54,560	51,270	49,011	51,620	-5.7%
2023	46,230	49,122	52,953	54,441	54,305	55,679	54,436	54,635	54,621	56,556	56,147	52,762	53,491	-5.7%
Average Adj. =														-5.6%

Assume 0.0% Seasonal Adjustment for June

Attachment C

Crash Data

Crash Data Summary Tables
 Ash Street @ Green Street - Worcester, Massachusetts
 January 1, 2021 - December 31, 2023

Collision Diagram	Crash Number	Crash Date	Crash Time	Ambient Light	Weather Condition	Road Surface	Number of Vehicles	Vehicle Travel Directions				Crash Severity	Number of NonFatal Injuries	Manner of Collision	Driver Contributing Codes	Detailed Narrative (from Crash Report)
								V1	V2	V3	V4					
1	5074497	12/6/2021	2:53 PM	Daylight	Clear	Dry	4	E	E	E	E	Non-fatal Injury	1	Other	Other	

Crash Data Summary Tables
 Ash Street @ Summit Street - Worcester, Massachusetts
 January 1, 2021 - December 31, 2023

Collision Diagram	Crash Number	Crash Date	Crash Time	Ambient Light	Weather Condition	Road Surface	Number of Vehicles	Vehicle Travel Directions				Crash Severity	Number of NonFatal Injuries	Manner of Collision	Driver Contributing Codes	Detailed Narrative (from Crash Report)
								V1	V2	V3	V4					
NONE																

Crash Data Summary Tables
 Green Street @ Spruce Street - Worcester, Massachusetts
 January 1, 2021 - December 31, 2023

Collision Diagram	Crash Number	Crash Date	Crash Time	Ambient Light	Weather Condition	Road Surface	Number of Vehicles	Vehicle Travel Directions				Crash Severity	Number of NonFatal Injuries	Manner of Collision	Driver Contributing Codes	Detailed Narrative (from Crash Report)
								V1	V2	V3	V4					
1	5203342	1/5/2023	12:41 PM	Daylight	Cloudy	Wet	2					Property Damage Only	0	Sideswipe	Not Reported	

Crash Data Summary Tables
 Washington Street @ Spruce Street - Worcester, Massachusetts
 January 1, 2021 - December 31, 2023

Collision Diagram	Crash Number	Crash Date	Crash Time	Ambient Light	Weather Condition	Road Surface	Number of Vehicles	Vehicle Travel Directions				Crash Severity	Number of NonFatal Injuries	Manner of Collision	Driver Contributing Codes	Detailed Narrative (from Crash Report)
								V1	V2	V3	V4					
NONE																

Crash Data Summary Tables
 Madison Street @ Washington Street - Worcester, Massachusetts
 January 1, 2021 - December 31, 2023

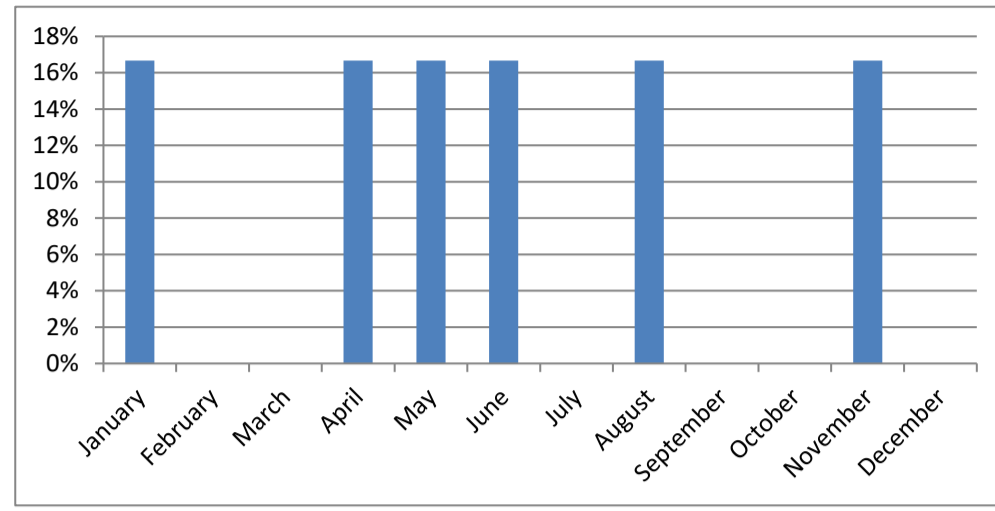
Collision Diagram	Crash Number	Crash Date	Crash Time	Ambient Light	Weather Condition	Road Surface	Number of Vehicles	Vehicle Travel Directions				Crash Severity	Number of NonFatal Injuries	Manner of Collision	Driver Contributing Codes	Detailed Narrative (from Crash Report)
								V1	V2	V3	V4					
1	5008884	8/6/2021	10:47 AM	Daylight	Cloudy	Dry	2	W	W			Property Damage Only	0	Angled	Failure to Yield Right-of-Way	
2	5090773	1/13/2022	7:10 AM	Daylight	Clear	Dry	2					Property Damage Only	0	Angled	No Improper Driving	
3	5116504	6/5/2022	5:41 PM	Daylight	Clear	Dry	2	N	E			Non-fatal Injury	1	Angled	Not Reported	
4	5122815	5/18/2022	5:00 PM	Daylight	Clear	Dry	2					Not Reported	0	Angled	Not Reported	
5	5192359	11/19/2022	12:03 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Rear-end	Not Reported	
6	5253955	4/13/2023	4:54 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Angled	Not Reported	

Crash Data Summary Charts
 Madison Street @ Washington Street - Worcester, Massachusetts
 January 1, 2021 - December 31, 2023

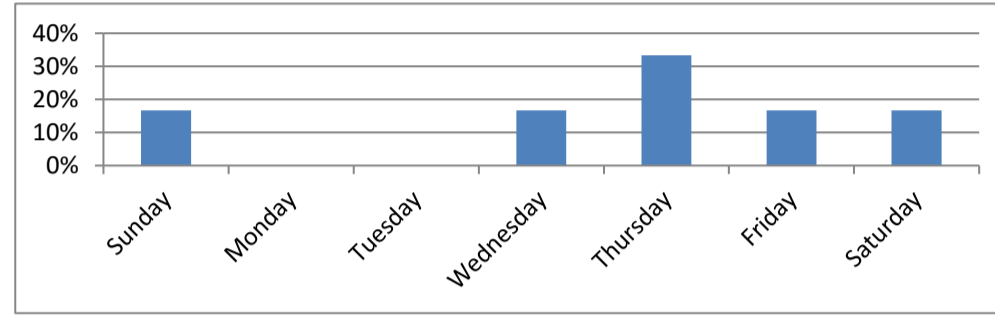
Madison Street at Washington Street

6

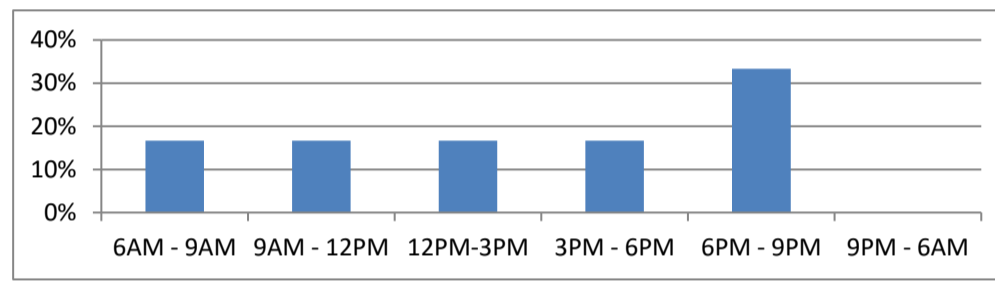
Month	#	%
January	1	17%
February	0	0%
March	0	0%
April	1	17%
May	1	17%
June	1	17%
July	0	0%
August	1	17%
September	0	0%
October	0	0%
November	1	17%
December	0	0%



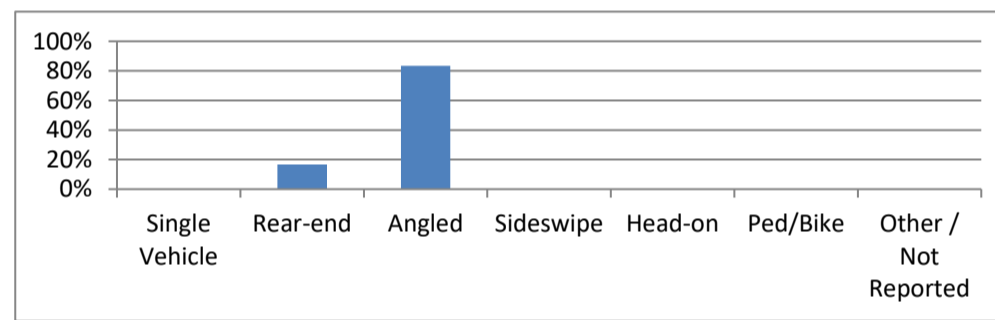
Day of Week	#	%
Sunday	1	17%
Monday	0	0%
Tuesday	0	0%
Wednesday	1	17%
Thursday	2	33%
Friday	1	17%
Saturday	1	17%



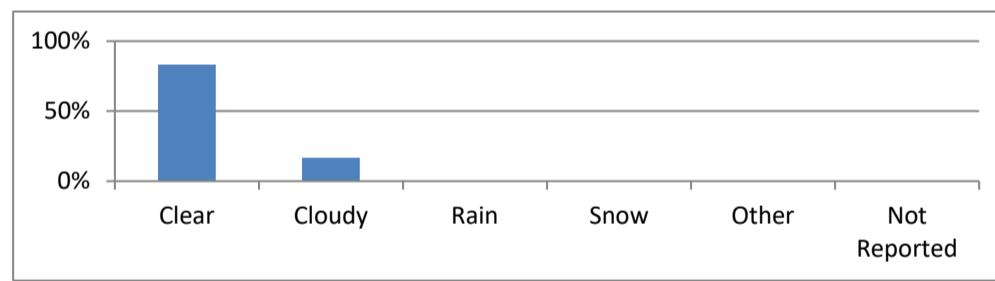
Time of Day	#	%
6AM - 9AM	1	17%
9AM - 12PM	1	17%
12PM-3PM	1	17%
3PM - 6PM	1	17%
6PM - 9PM	2	33%
9PM - 6AM	0	0%



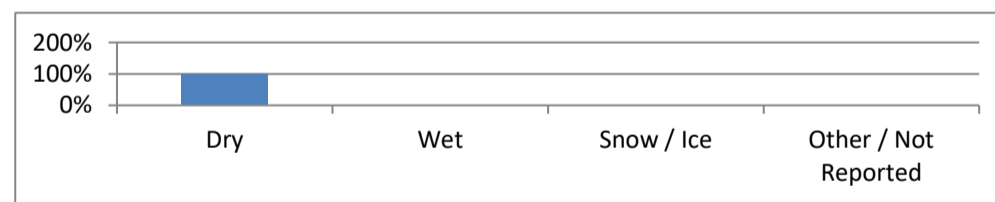
Manner of Collision	#	%
Single Vehicle	0	0%
Rear-end	1	17%
Angled	5	83%
Sideswipe	0	0%
Head-on	0	0%
Ped/Bike	0	0%
Other / Not Reported	0	0%



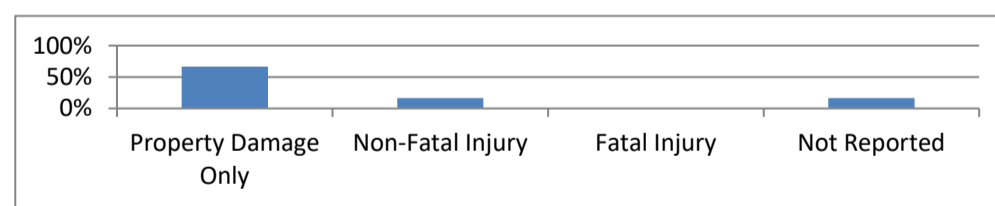
Weather Conditions	#	%
Clear	5	83%
Cloudy	1	17%
Rain	0	0%
Snow	0	0%
Other	0	0%
Not Reported	0	0%



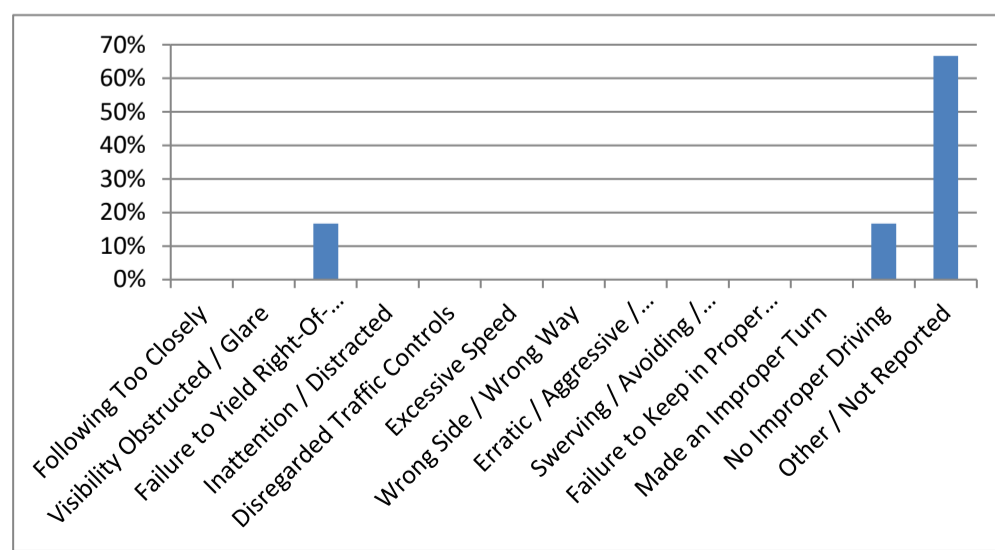
Road Surface	#	%
Dry	6	100%
Wet	0	0%
Snow / Ice	0	0%
Other / Not Reported	0	0%



Crash Severity	#	%
Property Damage Only	4	67%
Non-Fatal Injury	1	17%
Fatal Injury	0	0%
Not Reported	1	17%



Main Contributing Factor from Narrative	#	%
Following Too Closely	0	0%
Visibility Obstructed / Glare	0	0%
Failure to Yield Right-Of-Way	1	17%
Inattention / Distracted	0	0%
Disregarded Traffic Controls	0	0%
Excessive Speed	0	0%
Wrong Side / Wrong Way	0	0%
Erratic / Aggressive / Reckless Driving	0	0%
Swerving / Avoiding / Over-Steering / Over-Correcting	0	0%
Failure to Keep in Proper Lane	0	0%
Made an Improper Turn	0	0%
No Improper Driving	1	17%
Other / Not Reported	4	67%



Crash Data Summary Tables
Middle of Madison Street - Worcester, Massachusetts
January 1, 2021 - December 31, 2023

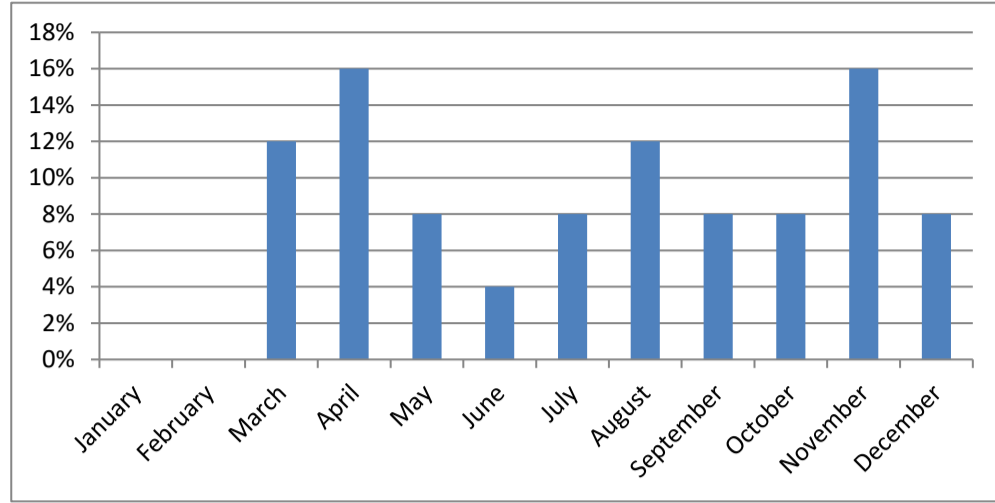
Collision Diagram	Crash Number	Crash Date	Crash Time	Ambient Light	Weather Condition	Road Surface	Number of Vehicles	Vehicle Travel Directions				Crash Severity	Number of NonFatal Injuries	Manner of Collision	Driver Contributing Codes	Detailed Narrative (from Crash Report)
								V1	V2	V3	V4					
1	4944167	3/6/2021	4:00 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Rear-end	No Improper Driving	
2	4961560	4/12/2021	3:06 AM	Dark - Lighted	Clear	Dry	1	N				Non-fatal Injury	1	Single Vehicle	Inattention / Distracted	
3	4966593	5/2/2021	1:55 PM	Daylight	Clear	Dry	2	E				Property Damage Only	0	Rear-end	Inattention / Distracted	
4	5015389	8/26/2021	12:53 PM	Daylight	Clear	Dry	3	E	W	E		Property Damage Only	0	Rear-end	Inattention / Distracted	
5	5066852	11/17/2021	5:38 PM	Dark - Lighted	Clear	Dry	2					Property Damage Only	0	Sideswipe	No Improper Driving	
6	5073809	11/4/2021	9:00 PM	Dark - Lighted	Clear	Dry	2					Not Reported	0	Sideswipe	Not Reported	
7	5087015	12/25/2021	2:04 AM	Dark - Lighted	Clear	Wet	2	S				Property Damage Only	0	Sideswipe	No Improper Driving	
8	5136544	7/4/2022	9:48 PM	Dark - Lighted	Clear	Dry	2					Property Damage Only	0	Sideswipe	No Improper Driving	
9	5146010	8/25/2022	2:41 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Sideswipe	Not Reported	
10	5152561	9/1/2022	3:46 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Sideswipe	Swerving / Avoiding	
11	5155566	8/23/2022	2:37 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Sideswipe	No Improper Driving	
12	5165747	9/25/2022	1:55 PM	Daylight	Rain	Dry	2	E	S			Property Damage Only	0	Angled	Failure to Yield Right-of-Way	
13	5175980	10/15/2022	8:41 PM	Dark - Lighted	Clear	Dry	2					Not Reported	0	Angled	Not Reported	
14	5181681	11/18/2022	7:04 PM	Dark - Lighted	Clear	Dry	2					Not Reported	0	Angled	Not Reported	
15	5225916	12/31/2022	9:16 PM	Dark - Lighted	Rain	Wet	2					Not Reported	0	Angled	Not Reported	
16	5233533	3/4/2023	3:06 AM	Dark - Lighted	Snow	Snow	1					Property Damage Only	0	Single Vehicle	Not Reported	
17	5234921	3/7/2023	4:25 PM	Daylight	Clear	Dry	2					Property Damage Only	0	Sideswipe	No Improper Driving	
18	5251337	4/13/2023	1:51 PM	Daylight	Clear	Dry	2	W	W			Property Damage Only	0	Sideswipe	Not Reported	
19	5252913	4/5/2023	6:29 PM	Daylight	Cloudy	Dry	2	W	W			Property Damage Only	0	Rear-end	Followed Too Closely	
20	5255811	4/19/2023	3:03 PM	Daylight	Cloudy	Dry	2	E	W			Property Damage Only	0	Head-on	Not Reported	
21	5267745	5/31/2023	10:56 PM	Dark - Lighted	Clear	Dry	2	E	E			Property Damage Only	0	Angled	Not Reported	
22	5271469	6/9/2023	10:30 AM	Daylight	Clear	Dry	2	N	N			Property Damage Only	0	Rear-end	Not Reported	
23	5287395	7/26/2023	3:47 PM	Daylight	Clear	Dry	2	E	S			Property Damage Only	0	Angled	Not Reported	
24	5325113	11/8/2023	7:50 AM	Daylight	Clear	Dry	2	N	N			Property Damage Only	0	Angled	Not Reported	
25	5329416	10/30/2023	2:52 PM	Daylight	Clear	Dry	2	E	S			Property Damage Only	0	Angled	No Improper Driving	

Crash Data Summary Charts
Middle of Madison Street - Worcester, Massachusetts
January 1, 2021 - December 31, 2023

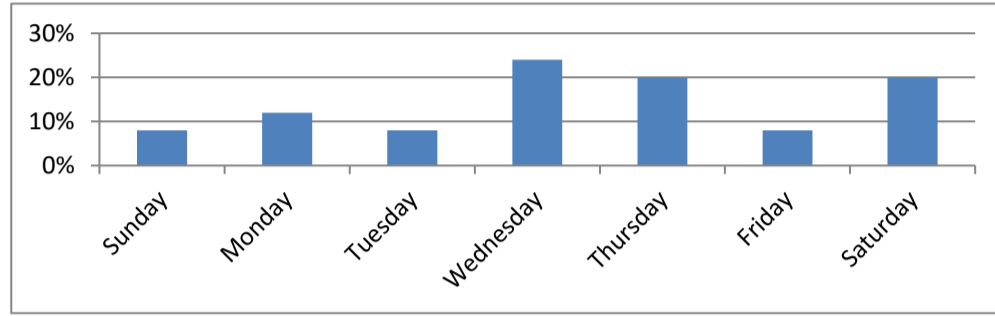
Madison Street

25

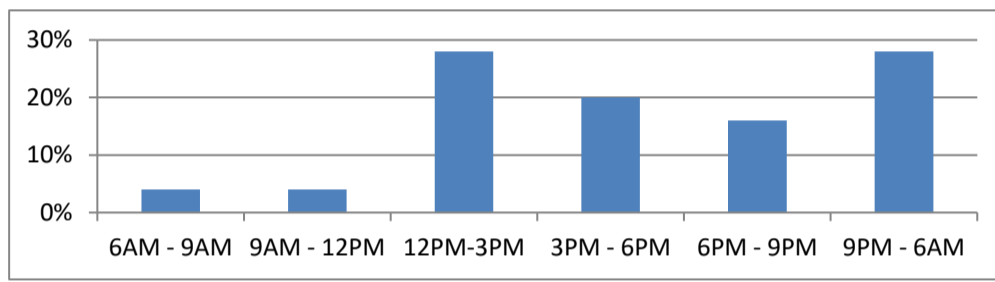
Month	#	%
January	0	0%
February	0	0%
March	3	12%
April	4	16%
May	2	8%
June	1	4%
July	2	8%
August	3	12%
September	2	8%
October	2	8%
November	4	16%
December	2	8%



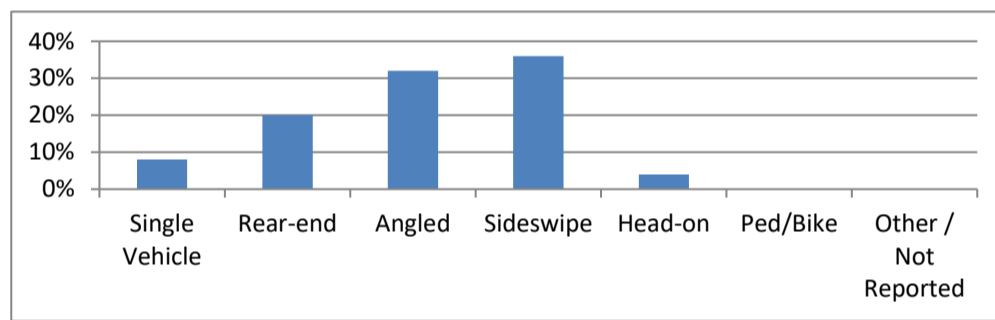
Day of Week	#	%
Sunday	2	8%
Monday	3	12%
Tuesday	2	8%
Wednesday	6	24%
Thursday	5	20%
Friday	2	8%
Saturday	5	20%



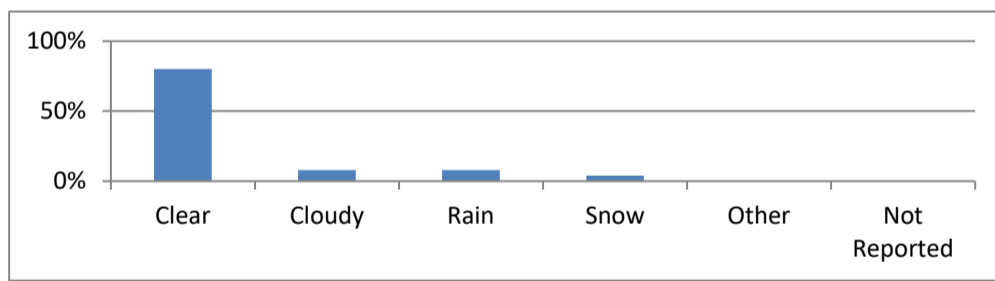
Time of Day	#	%
6AM - 9AM	1	4%
9AM - 12PM	1	4%
12PM-3PM	7	28%
3PM - 6PM	5	20%
6PM - 9PM	4	16%
9PM - 6AM	7	28%



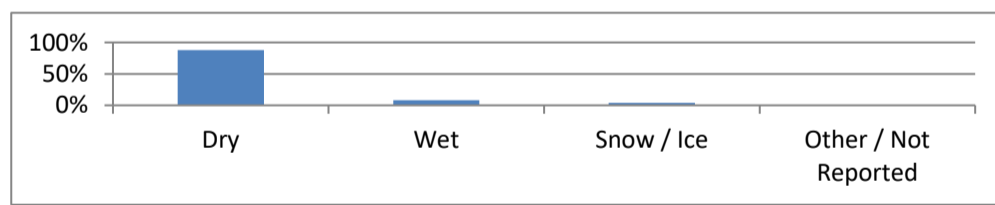
Manner of Collision	#	%
Single Vehicle	2	8%
Rear-end	5	20%
Angled	8	32%
Sideswipe	9	36%
Head-on	1	4%
Ped/Bike	0	0%
Other / Not Reported	0	0%



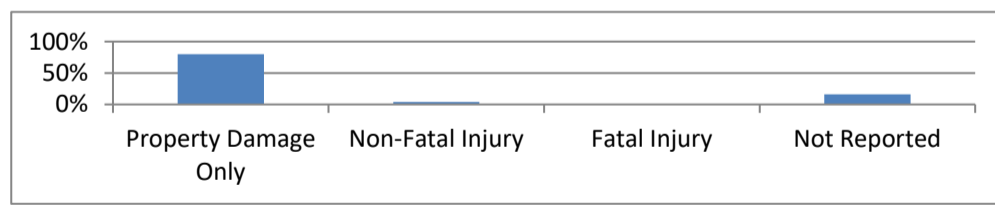
Weather Conditions	#	%
Clear	20	80%
Cloudy	2	8%
Rain	2	8%
Snow	1	4%
Other	0	0%
Not Reported	0	0%



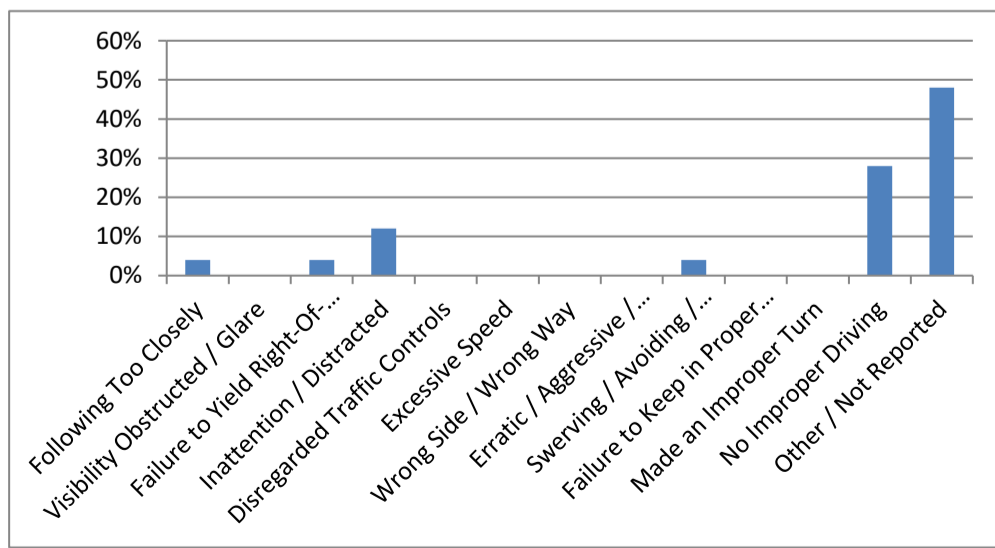
Road Surface	#	%
Dry	22	88%
Wet	2	8%
Snow / Ice	1	4%
Other / Not Reported	0	0%



Crash Severity	#	%
Property Damage Only	20	80%
Non-Fatal Injury	1	4%
Fatal Injury	0	0%
Not Reported	4	16%



Main Contributing Factor from Narrative	#	%
Following Too Closely	1	4%
Visibility Obstructed / Glare	0	0%
Failure to Yield Right-Of-Way	1	4%
Inattention / Distracted	3	12%
Disregarded Traffic Controls	0	0%
Excessive Speed	0	0%
Wrong Side / Wrong Way	0	0%
Erratic / Aggressive / Reckless Driving	0	0%
Swerving / Avoiding / Over-Steering / Over-Correcting	1	4%
Failure to Keep in Proper Lane	0	0%
Made an Improper Turn	0	0%
No Improper Driving	7	28%
Other / Not Reported	12	48%



Attachment D

General Ambient Growth

Average Daily Traffic Summary Table

Project: T1122.20 - Table Talk Redevelopment - Boston Capital Development Update
 Date: Monday, November 4, 2024
 Analyst: TEC, Inc. / FAS
 Source: MassDOT Count Stations

STA.	TOWN	ROUTE/STREET	LOCATION	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Amb. Growth
3333	Worcester	Interstate 290	North of Lincoln Street	135,547	141,464	142,171	141,306	144,848	145,069	119,214	124,621	129,493	141,020	0.72%
3991	Worcester	Route 146	North of I-90	-	51,150	51,150	52,859	52,827	52,685	41,733	49,459	51,620	53,490	1.09%
3311	Worcester	Belmont Street	West of Lake Avenue	34,061	31,722	32,134	37,904	33,066	33,198	31,951	31,372	31,843	27,856	-2.14%
													-0.11%	

Assume 0.50% Ambient Growth.

Attachment E

Trip Generation Worksheets

Trip Generation Assessment - Updated

Project: Table Talk Redevelopment - Boston Capital Development Update
 Date: Thursday, December 12, 2024
 Analyst: TEC, Inc. / F. Schripsema
 Source: Institute of Transportation Engineers - Trip Generation - 11th Ed.

Use	Infill Development			
	Transit Use Rate		Walk/Bike Rate	
	AM	PM	AM	PM
Residential	15.8%	13.3%	21.8%	30.0%
Retail	14.3%	28.3%	13.3%	19.3%

From Trip Generation Handbook 3rd Ed Table D.1 (GU w/ rail station within 1/4 mile)

From Trip Generation Handbook 3rd Ed Table D.3 (All)

Proposed Development

LUC 221 - Multifamily Housing (Mid-Rise)*

	Total Trips		Total New Trips	% Distribution		# New Trips		Multi-Use Trips		# Transit Trips		# Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	# Passby Trips		# Primary Trips	
	Avg. Rates	Fitted Curve		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			IN	OUT	IN	OUT
	Units:	358		Units															
Weekday Daily	1099	N/A	1100	50%	50%	550	550	0	0	73	73	120	120	0	714	0	0	357	357
Weekday AM PH	105	99	105	14%	86%	15	90	0	0	2	14	3	20	0	66	0	0	10	56
Weekday PM PH	98	102	102	74%	26%	75	27	0	0	10	4	23	8	0	57	0	0	42	15
Saturday Daily	731	N/A	732	50%	50%	366	366	0	0	49	49	80	80	0	474	0	0	237	237
Sat Midday PH	101	N/A	101	50%	50%	51	50	0	0	7	7	11	11	0	65	0	0	33	32

LUC 822 - Strip Retail Plaza (< 40ksf)*

	Total Trips		Total New Trips	% Distribution		# New Trips		Multi-Use Trips		# Transit Trips		# Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	# Passby Trips		# Primary Trips	
	Avg. Rates	Fitted Curve		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			IN	OUT		
	Units:	3.86		KSF															
Weekday Daily	623	713	713	50%	50%	357	356	0	0	51	51	47	47	134	383	67	67	192	191
Weekday AM PH	87	N/A	87	49%	51%	43	44	0	0	6	6	6	6	16	47	8	8	23	24
Weekday PM PH	152	N/A	152	54%	46%	82	70	0	0	23	20	16	14	26	53	13	13	30	23
Saturday Daily	N/A	N/A	0	50%	50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sat Midday PH	75	N/A	75	52%	48%	39	36	0	0	6	5	5	5	14	40	7	7	21	19

Assumed 34% pass-by rate for weekday PM and 26% pass-by rate for all others (Trip Generation Handbook, 3rd Edition).

* Dense Multi-use Urban Rates Used

TOTAL NEW DEVELOPMENT	Total Trips	Total New Trips		Total Multi-Use Trips		Total Transit Trips		Total Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	Total Pass-by Trips		Total Primary Trips	
		In	Out	In	Out	In	Out	In	Out			In	Out	In	Out
Weekday Daily	1813	907	906	0	0	124	124	167	167	134	1097	67	67	549	548
Weekday AM Peak Hour	192	58	134	0	0	8	20	9	26	16	113	8	8	33	80
Weekday PM Peak Hour	254	157	97	0	0	33	24	39	22	26	110	13	13	72	38
Saturday Daily	732	366	366	0	0	49	49	80	80	0	474	0	0	237	237
Sat Midday Peak Hour	176	90	86	0	0	13	12	16	16	14	105	7	7	54	51

Existing / Former Uses

General Light Industrial (LUC 110)

	Total Trips		Total New Trips	% Distribution		# New Trips		Multi-Use Trips		# Transit Trips		# Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	# Passby Trips		# Primary Trips	
	Avg. Rates	Fitted Curve		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT						
	Units:	156.63		KSF															
Weekday Daily	763	Not Used	763	50%	50%	381	382	0	0	0	0	0	0	0	763	0	0	381	382
Weekday AM PH	116	Not Used	116	88%	12%	102	14	0	0	0	0	0	0	0	116	0	0	102	14
Weekday PM PH	102	Not Used	102	14%	86%	14	88	0	0	0	0	0	0	0	102	0	0	14	88
Saturday Daily	108	Not Used	108	50%	50%	54	54	0	0	0	0	0	0	0	108	0	0	54	54
Sat Midday PH	108	Not Used	108	47%	53%	51	57	0	0	0	0	0	0	0	108	0	0	51	57

EXISTING / FORMER USES	Total Trips	Total New Trips		Total Multi-Use Trips		Total Transit Trips		Total Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	Total Pass-by Trips		Total Primary Trips	
		In	Out	In	Out	In	Out	In	Out			In	Out	In	Out
Weekday Daily	763	381	382	0	0	0	0	0	0	0	763	0	0	381	382
Weekday AM Peak Hour	116	102	14	0	0	0	0	0	0	0	116	0	0	102	14
Weekday PM Peak Hour	102	14	88	0	0	0	0	0	0	0	102	0	0	14	88
Saturday Daily	108	54	54	0	0	0	0	0	0	0	108	0	0	54	54
Sat Midday Peak Hour	108	51	57	0	0	0	0	0	0	0	108	0	0	51	57

NET TRIP DIFFERENCE	Total Trips	Total New Trips		Total Multi-Use Trips		Total Transit Trips		Total Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	Total Pass-by Trips		Total Primary Trips	
		In	Out	In	Out	In	Out	In	Out			In	Out	In	Out
Weekday Daily	1050	526	524	0	0	124	124	167	167	134	334	67	67	168	166
Weekday AM Peak Hour	76	-44	120	0	0	8	20	9	26	16	-3	8	8	-69	66
Weekday PM Peak Hour	152	143	9	0	0	33	24	39	22	26	8	13	13	58	-50
Saturday Daily	624	312	312	0	0	49	49	80	80	0	366	0	0	183	183
Sat Midday Peak Hour	68	39	29	0	0	13	12	16	16	14	-3	7	7	3	-6

Trip Generation Assessment - Phases 2

Project: Table Talk Redevelopment - Boston Capital Development Update (Phases 2)
 Date: 11/12/2024
 Analyst: TEC, Inc. (J. Dixon)
 Source: Institute of Transportation Engineers - Trip Generation - 11th Ed.

Infill Development				
Use	Transit Use Rate		Walk/Bike Rate	
	AM	PM	AM	PM
Residential	15.8%	13.3%	21.8%	30.0%
Retail	14.3%	28.3%	13.3%	19.3%
Office	11.0%	9.0%	13.5%	22.0%

From Trip Generation Handbook 3rd Ed Table D.1 (GU w/ rail station within 1/4 mile)
 From Trip Generation Handbook 3rd Ed Table D.3 (All)
 From Trip Generation Handbook 3rd Ed Table D.2 (GU w/ rail station within 1/4 mile)

Proposed Development

LUC 221 - Multifamily Housing (Mid-Rise) - Ph 2 = 56 units

	Total Trips		Total New Trips	% Distribution		# New Trips		Multi-Use Trips		# Transit Trips		# Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	# Passby Trips		# Primary Trips	
	Avg. Rates	Fitted Curve		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			IN	OUT	IN	OUT
	Units:	56 Units																	
Weekday Daily*	164	N/A	166	50%	50%	83	83	0	0	11	11	18	18	0	108	0	0	54	54
Weekday AM PH	21	9	9	23%	77%	2	7	1	1	0	1	0	1	0	5	0	0	1	4
Weekday PM PH	22	22	22	61%	39%	13	9	21	8	-1	0	-2	0	0	-4	0	0	-5	1
Saturday Daily*	109	N/A	110	50%	50%	55	55	0	0	7	7	12	12	0	72	0	0	36	36
Sat Midday PH	22	23	23	51%	49%	12	11	0	0	2	1	3	2	0	15	0	0	7	8

* Dense Multi-use Urban rates available

LUC 822 - Shopping Center / Mixed Retail (6.5 ksf) - Assumed first-floor uses

	Total Trips		Total New Trips	% Distribution		# New Trips		Multi-Use Trips		# Transit Trips		# Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	# Passby Trips		# Primary Trips	
	Avg. Rates	Fitted Curve		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			IN	OUT	IN	OUT
	Units:	6.5 KSF																	
Weekday Daily	354	504	504	50%	50%	252	252	0	0	36	36	34	34	94	270	47	47	135	135
Weekday AM PH	15	22	22	62%	38%	14	8	1	1	2	1	2	1	4	10	2	2	7	3
Weekday PM PH	43	57	57	49%	51%	28	29	8	21	6	2	4	2	4	10	2	2	8	2
Saturday Daily	303	N/A	303	50%	50%	152	151	0	0	22	22	20	20	56	163	28	28	82	81
Sat Midday PH	43	N/A	43	52%	48%	22	21	0	0	3	3	3	3	8	23	4	4	12	11

Assumed 34% pass-by rate for weekday PM and 26% pass-by rate for all others (Trip Generation Handbook, 3rd Edition).

TOTAL NEW DEVELOPMENT	Total Trips	Total New Trips		Total Multi-Use Trips		Total Transit Trips		Total Walk/Bike Trips		Total New Pass-by Trips	Total New Primary Trips	Total Pass-by Trips		Total Primary Trips	
		In	Out	In	Out	In	Out	In	Out			In	Out	In	Out
Weekday Daily	670	335	335	0	0	47	47	52	52	94	378	47	47	189	189
Weekday AM Peak Hour	31	16	15	2	2	2	2	2	2	4	15	2	2	8	7
Weekday PM Peak Hour	79	41	38	29	29	5	2	2	2	4	6	2	2	3	3
Saturday Daily	413	207	206	0	0	29	29	32	32	56	235	28	28	118	117
Sat Midday Peak Hour	66	34	32	0	0	5	4	6	5	8	38	4	4	19	19

Attachment F

Trip Distribution

**Trip Distribution Gravity Model - Residence to Workplace
Resident Distribution**

Project: T1122.20 - Table Talk Redevelopment - Boston Capital Development Update
 Date: 10/23/2024
 Analyst: TEC, Inc. / FAS
 Source: U.S. Census Bureau, OnTheMap Application 2019-2021

Residence State-County-MCD Name	Workplace State-County-MCD Name	Count	% of Total Worcester Residents	% of Distributed Residents	Major Route										Major Route									
					To/From Kelley Sq via I-290 North	To/From Kelley Sq via I-290 South	To/From Kelley Sq via Vernon St.	To/From Kelley Sq via MA-122	To/From Kelley Sq via Harding St.	To/From Kelley Sq via Millbury St.	To/From Madison St. West	To/From Green St. North	To/From Washington St. South	Check	To/From Kelley Sq via I-290 North	To/From Kelley Sq via I-290 South	To/From Kelley Sq via Vernon St.	To/From Kelley Sq via MA-122	To/From Kelley Sq via Harding St.	To/From Kelley Sq via Millbury St.	To/From Madison St. West	To/From Green St. North	To/From Washington St. South	
Worcester city Worcester Co. MA	Worcester city (Worcester, MA)	34,046	49.22%	35.21%	10%	10%	20%	10%	4%	4%	20%	20%	2%	100.0%	5.5%	3.5%	11.0%	5.5%	2.2%	2.2%	11.0%	11.0%	1.1%	
Worcester city Worcester Co. MA	Boston city (Suffolk, MA)	4,081	4.82%	6.62%	50%	50%								100.0%	3.3%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Westborough town (Worcester, MA)	2,731	3.23%	4.43%	60%	50%	20%	20%						100.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Marlborough city (Middlesex, MA)	2,582	3.05%	4.19%	75%								25%	100.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%
Worcester city Worcester Co. MA	Shrewsbury town (Worcester, MA)	2,431	2.87%	3.94%	70%			15%						100.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%
Worcester city Worcester Co. MA	Auburn town (Worcester, MA)	1,999	2.36%	3.24%		80%						20%		100.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%
Worcester city Worcester Co. MA	Framingham city (Middlesex, MA)	1,808	2.14%	2.93%	50%	50%								100.0%	1.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Worcester city Worcester Co. MA	Northborough town (Worcester, MA)	1,363	1.61%	2.21%	80%							20%		100.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	
Worcester city Worcester Co. MA	West Boylston town (Worcester, MA)	912	1.08%	1.46%	80%							20%		100.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	
Worcester city Worcester Co. MA	Oxford town (Worcester, MA)	882	1.02%	1.40%		100%								100.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Millbury town (Worcester, MA)	827	0.98%	1.34%		80%	20%							100.0%	0.0%	1.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Leominster city (Worcester, MA)	794	0.94%	1.29%	80%			20%					20%	100.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	
Worcester city Worcester Co. MA	Sutton town (Worcester, MA)	684	0.81%	1.11%		100%								100.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Springfield city (Hampden, MA)	689	0.79%	1.09%		100%								100.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Cambridge city (Middlesex, MA)	653	0.77%	1.06%	50%	50%								100.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Hudson town (Middlesex, MA)	640	0.76%	1.04%	80%							20%		100.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	
Worcester city Worcester Co. MA	Holden town (Worcester, MA)	609	0.72%	0.99%	35%						35%	30%		100.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	
Worcester city Worcester Co. MA	Waltham city (Middlesex, MA)	571	0.67%	0.93%	50%	50%								100.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Worcester city Worcester Co. MA	Northbridge town (Worcester, MA)	565	0.67%	0.92%		80%	20%							100.0%	0.0%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%		
Worcester city Worcester Co. MA	Grafton town (Worcester, MA)	515	0.61%	0.83%		60%	40%							100.0%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Worcester city Worcester Co. MA	Millford town (Worcester, MA)	507	0.60%	0.82%		60%	40%							100.0%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%		
Worcester city Worcester Co. MA	Southborough town (Worcester, MA)	489	0.58%	0.81%		40%	40%	20%						100.0%	0.3%	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%		
Worcester city Worcester Co. MA	Newton city (Middlesex, MA)	456	0.54%	0.74%		50%								100.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Worcester city Worcester Co. MA	Natick town (Middlesex, MA)	454	0.54%	0.74%		40%	40%					20%		100.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%		
Worcester city Worcester Co. MA	Webster town (Worcester, MA)	411	0.49%	0.67%		100%								100.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
TOTAL		84,649	72.85%	100.00%											26%	22%	13%	7%	2%	2%	12%	14%	2%	

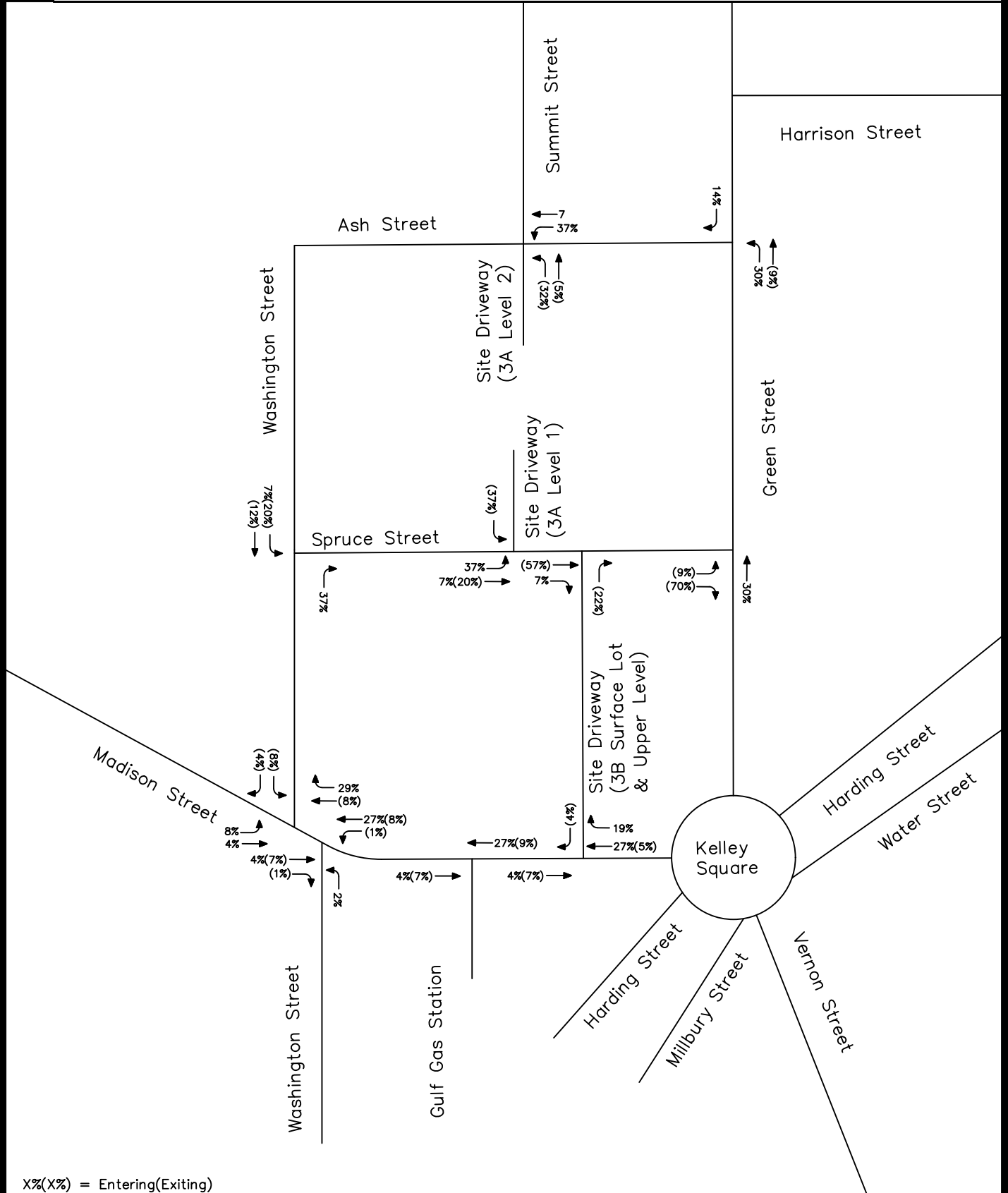


Not to Scale

Table Talk Site Redevelopment - Worcester, MA

Traffic Memorandum

\\T00798F501\projects\T1122\CAD\Highway\Graphics\Traffic Networks\T1122.20_Traffic Networks.dwg 11/12/2024 7:55:34 AM



X%(X%) = Entering(Exiting)

Appendix

2031 Future Build Conditions Trip Distribution



Attachment G

Parking Demand Worksheets

Land Use: 218 Multifamily Housing— 1 BR (Mid-Rise)

Description

Mid-rise multifamily housing with one bedroom is a residential building with between four and 10 floors (levels) of residence that consist entirely of 1-bedroom dwelling units. A studio or micro-apartment or condominium is treated as a 1-bedroom dwelling unit for this land use.

For this land use, a studio apartment is defined as a self-contained dwelling unit in which the living room, bedroom, and kitchen are combined into a single room. A micro-apartment is defined as a single-occupant studio apartment with a compact design that typically ranges between approximately 200 and 400 gross square feet. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Land Use Subcategory

Data are separated into two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Time-of-Day Distribution for Parking Demand

The current database for this land use does not have sufficient data to produce a detailed, hour-by-hour distribution of parking demand from which the analyst can determine a peak period of parking demand. Based on the time periods for which data were collected for this land use and on a review of comparable land uses with hour-by-hour parking demand data, the presumed peak period for parking demand for this land use is between late-evening and early-morning.

Additional Data

The average parking supply ratios for the study sites with parking supply information are shown in the table below.

Setting	Proximity to Rail Transit	Parking Supply Per Dwelling Unit
Center City Core	Within ½ mile of rail transit	0.19 (4 sites)
Dense Multi-Use Urban	Within ½ mile of rail transit	0.31 (3 sites)
	Not within ½ mile of rail transit	0.53 (7 sites)
General Urban/Suburban	Within ½ mile of rail transit	0.88 (2 sites)
	Not within ½ mile of rail transit	0.71 (1 site)

The average peak parking occupancy at the 14 sites in a dense multi-use urban or center city core setting is 67 percent. The average peak parking occupancy at the three sites in a general urban/suburban setting is 77 percent.

The sites were surveyed in the 2010s and the 2020s in Colorado, District of Columbia, Massachusetts, and Wisconsin.

Source Numbers

537, 546, 583, 584, 585, 608

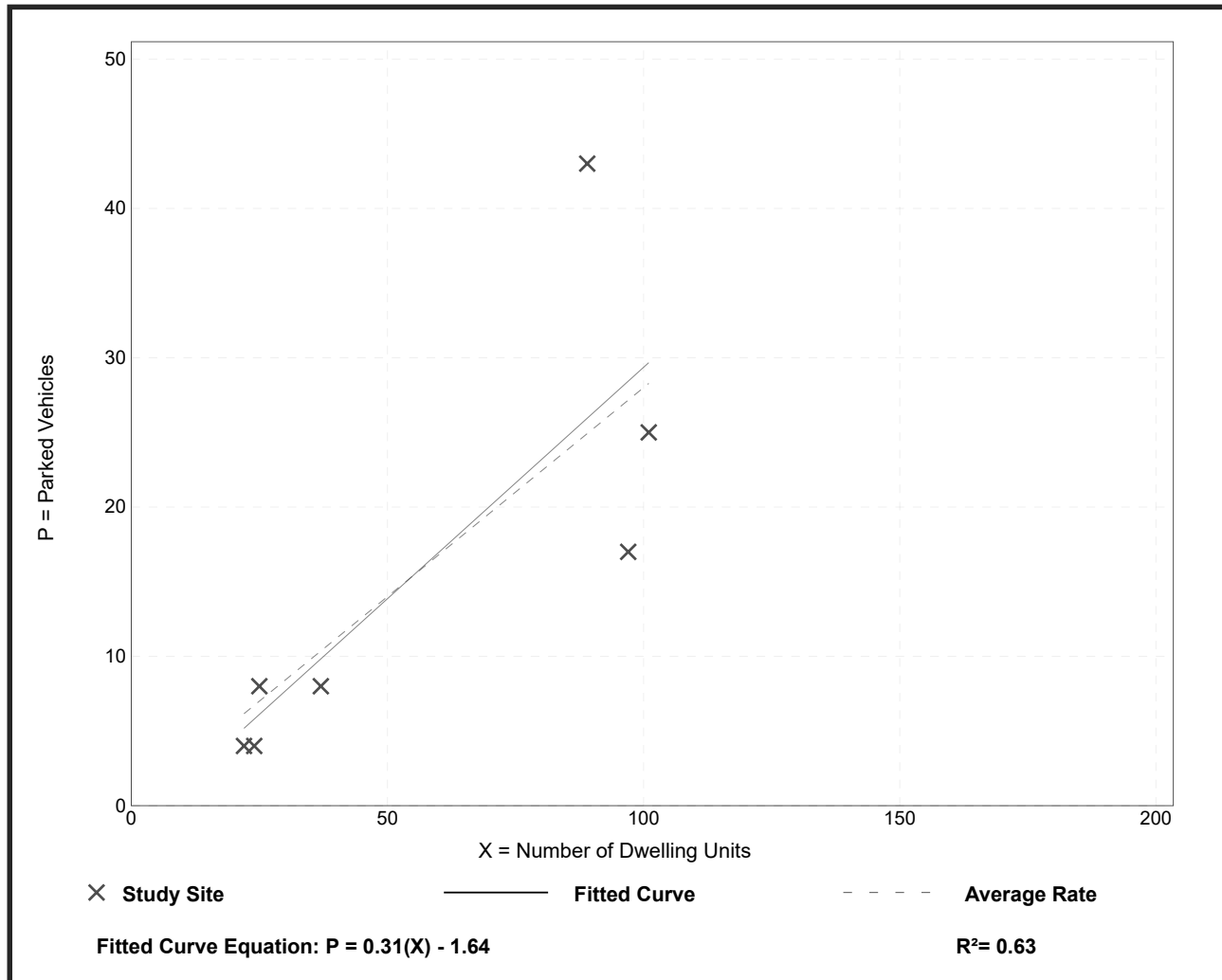
Multifamily Housing - 1 BR (Mid-Rise) - Not Close to Rail Transit (218)

Peak Period Parking Demand vs: Dwelling Units
On a: Weekday (Monday - Friday)
Setting/Location: Dense Multi-Use Urban
 Number of Studies: 7
 Avg. Num. of Dwelling Units: 56

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.28	0.17 - 0.48	0.18 / 0.45	***	0.13 (46%)

Data Plot and Equation



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Weighted Average: 105
Fitted Curve: 115
85th Percentile: 169

Land Use: 822 Strip Retail Plaza (<40k)

Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area (GFA) of the building.

The 40,000 square feet GLA threshold between shopping plaza and strip retail plaza (Land Use 822) is based on an examination of the parking demand database. All shopping plazas with a supermarket as their anchor in the database are larger than 40,000 square feet GLA.

Time-of-Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a Monday–Thursday (five study sites), a Friday (two study sites), and a Saturday (four study sites).

Hour Beginning	Percent of Peak Parking Demand		
	Monday–Thursday	Friday	Saturday
12:00–4:00 a.m.	—	—	—
5:00 a.m.	—	—	—
6:00 a.m.	—	—	—
7:00 a.m.	—	—	—
8:00 a.m.	19	19	—
9:00 a.m.	33	40	38
10:00 a.m.	47	44	55
11:00 a.m.	55	52	66
12:00 p.m.	89	96	85
1:00 p.m.	100	96	100
2:00 p.m.	73	84	96
3:00 p.m.	73	52	79
4:00 p.m.	66	50	66
5:00 p.m.	70	63	64
6:00 p.m.	75	49	67
7:00 p.m.	70	100	70
8:00 p.m.	54	94	70
9:00 p.m.	48	73	51
10:00 p.m.	—	—	—
11:00 p.m.	—	—	—

Additional Data

The average parking supply ratios for the study sites with parking supply information are the following:

- 5.7 spaces per 1,000 square feet GLA (24 sites) in a general urban/suburban setting
- 3.3 spaces per 1,000 square feet GLA (3 sites) in a dense multi-use urban setting

The average peak parking occupancy is 50 percent at the general urban/suburban sites and 76 percent at the dense multi-use urban sites.

The sites were surveyed in the 1990s, the 2010s, and the 2020s in Alberta (CAN), British Columbia (CAN), California, Colorado, Kansas, Maine, Manitoba (CAN), Maryland, Michigan, Minnesota, Missouri, New York, Texas, Virginia, and Washington.

Future data submissions should attempt to provide information on the composition of each study site (types and number of stores, restaurants, or other tenants within the shopping center).

Source Numbers

89, 209, 219, 297, 511, 601, 605, 606, 618, 619, 621, 635

Strip Retail Plaza (< 40k) (822)

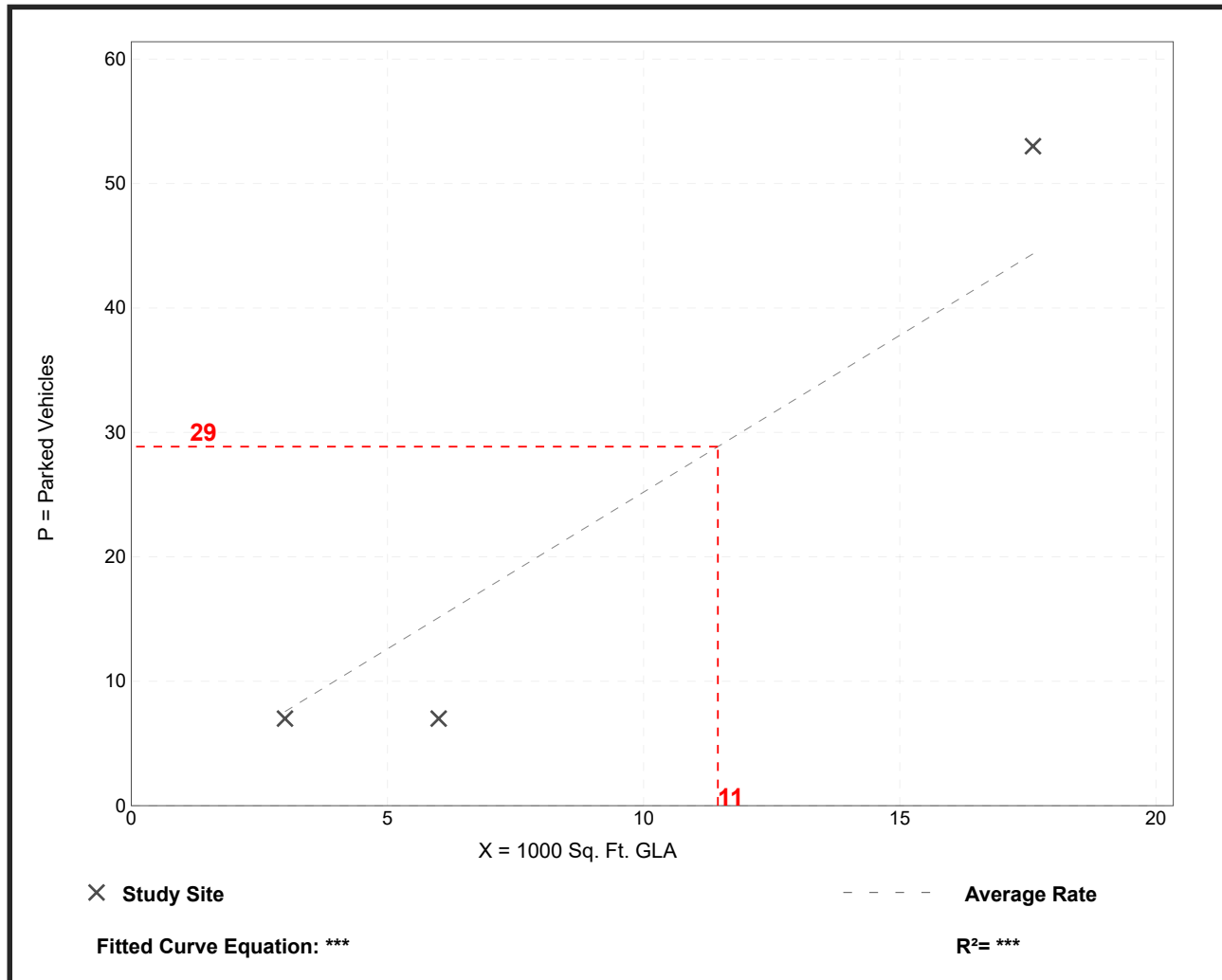
Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Weekday (Monday - Thursday)
Setting/Location: Dense Multi-Use Urban
 Number of Studies: 3
 Avg. 1000 Sq. Ft. GLA: 8.8

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.52	1.17 - 3.01	1.54 / 3.01	***	0.93 (37%)

Data Plot and Equation

Caution – Small Sample Size



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Attachment H

Intersection Capacity Analysis Worksheets

Lanes, Volumes, Timings
 1: Madison St. & Washington S.

11/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↕	↕↔		↕↔	
Traffic Volume (vph)	27	751	907	52	4	7
Future Volume (vph)	27	751	907	52	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.912	
Flt Protected		0.998			0.983	
Satd. Flow (prot)	0	3566	3507	0	1670	0
Flt Permitted		0.998			0.983	
Satd. Flow (perm)	0	3566	3507	0	1670	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		375	75		150	
Travel Time (s)		8.5	1.7		3.4	
Confl. Peds. (#/hr)	2			3	8	8
Confl. Bikes (#/hr)				3		
Peak Hour Factor	0.92	0.92	0.94	0.94	0.55	0.55
Heavy Vehicles (%)	2%	1%	2%	4%	2%	2%
Adj. Flow (vph)	29	816	965	55	7	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	845	1020	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.8%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↑↔		↔↓	
Traffic Vol, veh/h	27	751	907	52	4	7
Future Vol, veh/h	27	751	907	52	4	7
Conflicting Peds, #/hr	2	0	0	3	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	94	94	55	55
Heavy Vehicles, %	2	1	2	4	2	2
Mvmt Flow	29	816	965	55	7	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1023	0	-	0	1470 521
Stage 1	-	-	-	-	996 -
Stage 2	-	-	-	-	474 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	674	-	-	-	118 500
Stage 1	-	-	-	-	318 -
Stage 2	-	-	-	-	592 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	672	-	-	-	108 495
Mov Cap-2 Maneuver	-	-	-	-	108 -
Stage 1	-	-	-	-	292 -
Stage 2	-	-	-	-	590 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	672	-	-	-	215
HCM Lane V/C Ratio	0.044	-	-	-	0.093
HCM Control Delay (s)	10.6	0.4	-	-	23.5
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Lanes, Volumes, Timings
 2: Washington St. & Madison St.

11/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↙	
Traffic Volume (vph)	725	28	93	863	96	72
Future Volume (vph)	725	28	93	863	96	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994			0.942		
Flt Protected				0.995	0.972	
Satd. Flow (prot)	3551	0	0	3522	1696	0
Flt Permitted				0.995	0.972	
Satd. Flow (perm)	3551	0	0	3522	1696	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	75			200	300	
Travel Time (s)	1.7			4.5	6.8	
Confl. Peds. (#/hr)	3			2 2		
Confl. Bikes (#/hr)	3					
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	1%	2%	2%	2%	3%	2%
Adj. Flow (vph)	797	31	97	899	108	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	828	0	0	996	189	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.5%			ICU Level of Service C		
Analysis Period (min)	15					

HCM 6th TWSC
2: Washington St. & Madison St.

11/12/2024

Intersection						
Int Delay, s/veh	25					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	725	28	93	863	96	72
Future Vol, veh/h	725	28	93	863	96	72
Conflicting Peds, #/hr	0	3	0	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	96	96	89	89
Heavy Vehicles, %	1	2	2	2	3	2
Mvmt Flow	797	31	97	899	108	81

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	831	0	1462
Stage 1	-	-	-	-	816
Stage 2	-	-	-	-	646
Critical Hdwy	-	-	4.14	-	6.86
Critical Hdwy Stg 1	-	-	-	-	5.86
Critical Hdwy Stg 2	-	-	-	-	5.86
Follow-up Hdwy	-	-	2.22	-	3.53
Pot Cap-1 Maneuver	-	-	797	-	118
Stage 1	-	-	-	-	393
Stage 2	-	-	-	-	481
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	795	-	~ 89
Mov Cap-2 Maneuver	-	-	-	-	~ 89
Stage 1	-	-	-	-	392
Stage 2	-	-	-	-	363

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	256.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	140	-	-	795	-
HCM Lane V/C Ratio	1.348	-	-	0.122	-
HCM Control Delay (s)	256.5	-	-	10.2	1
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	12	-	-	0.4	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
 3: Washington S./Washington St. & Spruce St.

11/12/2024



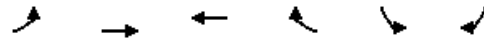
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↔
Traffic Volume (vph)	0	0	14	63	7	4
Future Volume (vph)	0	0	14	63	7	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.890					
Flt Protected	0.969					
Satd. Flow (prot)	0	0	1658	0	0	1805
Flt Permitted	0.969					
Satd. Flow (perm)	0	0	1658	0	0	1805
Link Speed (mph)	30	30		30		
Link Distance (ft)	486	150		200		
Travel Time (s)	11.0	3.4		4.5		
Confl. Peds. (#/hr)	5	5	12			
Peak Hour Factor	0.25	0.25	0.84	0.84	0.99	0.99
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%
Adj. Flow (vph)	0	0	17	75	7	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	92	0	0	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0	0		0		
Link Offset(ft)	0	0		0		
Crosswalk Width(ft)	16	16		16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	
Sign Control	Stop	Free		Free		

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 17.9% ICU Level of Service A
 Analysis Period (min) 15

Lanes, Volumes, Timings
4: Ash St. & Summit St.

11/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔			↔	
Traffic Volume (vph)	1	7	3	3	1	1
Future Volume (vph)	1	7	3	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.925		0.932	
Flt Protected		0.994			0.976	
Satd. Flow (prot)	0	1852	0	0	1694	0
Flt Permitted		0.994			0.976	
Satd. Flow (perm)	0	1852	0	0	1694	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		225	260		150	
Travel Time (s)		5.1	5.9		3.4	
Confl. Peds. (#/hr)	3			3	5	5
Peak Hour Factor	0.44	0.44	0.50	0.50	0.57	0.57
Adj. Flow (vph)	2	16	6	6	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	18	12	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔			↔	
Traffic Vol, veh/h	1	7	3	3	1	1
Future Vol, veh/h	1	7	3	3	1	1
Conflicting Peds, #/hr	3	0	0	3	5	5
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	44	44	50	50	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	16	6	6	2	2










Major/Minor	Major1		Minor2	
Conflicting Flow All	3	0	28	8
Stage 1	-	-	3	-
Stage 2	-	-	25	-
Critical Hdwy	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	1619	-	987	1074
Stage 1	-	-	-	-
Stage 2	-	-	998	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	1614	-	980	1066
Mov Cap-2 Maneuver	-	-	980	-
Stage 1	-	-	-	-
Stage 2	-	-	995	-

Approach	EB	SB
HCM Control Delay, s	0.9	8.5
HCM LOS		A

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	1614	-	1021
HCM Lane V/C Ratio	0.001	-	0.003
HCM Control Delay (s)	7.2	0	8.5
HCM Lane LOS	A	A	A
HCM 95th %tile Q(veh)	0	-	0

Lanes, Volumes, Timings
5: Green St. & Ash St.

11/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	3	4	0	184	140	0
Future Volume (vph)	3	4	0	184	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.924					
Flt Protected	0.979					
Satd. Flow (prot)	1685	0	0	1863	1827	0
Flt Permitted	0.979					
Satd. Flow (perm)	1685	0	0	1863	1827	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	260			225	150	
Travel Time (s)	5.9			5.1	3.4	
Confl. Peds. (#/hr)	6	6	10			
Confl. Bikes (#/hr)						6
Peak Hour Factor	0.44	0.44	0.85	0.85	0.80	0.80
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	7	9	0	216	175	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	216	175	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↑	
Traffic Vol, veh/h	3	4	0	184	140	0
Future Vol, veh/h	3	4	0	184	140	0
Conflicting Peds, #/hr	6	6	10	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	44	44	85	85	80	80
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	7	9	0	216	175	0










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	397	181	-	0	-	0
Stage 1	175	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	608	862	0	-	-	0
Stage 1	855	-	0	-	-	0
Stage 2	815	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	608	857	-	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 729	-
HCM Lane V/C Ratio	- 0.022	-
HCM Control Delay (s)	- 10	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.1	-

Lanes, Volumes, Timings
6: Green St. & Spruce St.

11/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	33	0	162	145	1
Future Volume (vph)	30	33	0	162	145	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.929			0.999		
Flt Protected	0.977					
Satd. Flow (prot)	1691	0	0	1863	1843	0
Flt Permitted	0.977					
Satd. Flow (perm)	1691	0	0	1863	1843	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	486			275	225	
Travel Time (s)	11.0			6.3	5.1	
Confl. Peds. (#/hr)	6	6	3			5
Confl. Bikes (#/hr)						6
Peak Hour Factor	0.72	0.72	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	42	46	0	205	184	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	0	205	185	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.9%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↑	
Traffic Vol, veh/h	30	33	0	162	145	1
Future Vol, veh/h	30	33	0	162	145	1
Conflicting Peds, #/hr	6	6	3	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	79	79	79	79
Heavy Vehicles, %	2	2	2	2	3	2
Mvmt Flow	42	46	0	205	184	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	395	190	-	0	-	0
Stage 1	184	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	610	852	0	-	-	0
Stage 1	848	-	0	-	-	0
Stage 2	824	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	610	847	-	-	-	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 715	-
HCM Lane V/C Ratio	- 0.122	-
HCM Control Delay (s)	- 10.7	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.4	-

Lanes, Volumes, Timings
7: Gulf Gas Station & Madison St.

11/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕↕			↕↕	↘↗	
Traffic Volume (vph)	726	78	54	950	11	27
Future Volume (vph)	726	78	54	950	11	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.985			0.904		
Flt Protected				0.997	0.986	
Satd. Flow (prot)	3486	0	0	3529	1660	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	3486	0	0	3529	1660	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			140	350	
Travel Time (s)	4.5			3.2	8.0	
Confl. Peds. (#/hr)				3	8	8
Confl. Bikes (#/hr)	3					
Peak Hour Factor	0.92	0.92	0.94	0.94	0.73	0.73
Adj. Flow (vph)	789	85	57	1011	15	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	874	0	0	1068	52	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 66.1% ICU Level of Service C
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Vol, veh/h	726	78	54	950	11	27
Future Vol, veh/h	726	78	54	950	11	27
Conflicting Peds, #/hr	0	0	3	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	94	94	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	789	85	57	1011	15	37

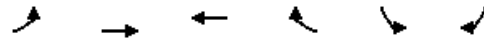
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	877	0	1463 448
Stage 1	-	-	-	-	835 -
Stage 2	-	-	-	-	628 -
Critical Hdwy	-	-	4.14	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.22	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	766	-	119 558
Stage 1	-	-	-	-	386 -
Stage 2	-	-	-	-	494 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	764	-	98 552
Mov Cap-2 Maneuver	-	-	-	-	98 -
Stage 1	-	-	-	-	385 -
Stage 2	-	-	-	-	407 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	24.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	236	-	-	764	-
HCM Lane V/C Ratio	0.221	-	-	0.075	-
HCM Control Delay (s)	24.5	-	-	10.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Lanes, Volumes, Timings
 1: Madison St. & Washington S.

11/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Traffic Volume (vph)	20	968	722	24	2	13
Future Volume (vph)	20	968	722	24	2	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.882	
Flt Protected		0.999			0.994	
Satd. Flow (prot)	0	3536	3522	0	1633	0
Flt Permitted		0.999			0.994	
Satd. Flow (perm)	0	3536	3522	0	1633	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		375	75		150	
Travel Time (s)		8.5	1.7		3.4	
Confl. Peds. (#/hr)					7	7
Peak Hour Factor	0.98	0.98	0.90	0.90	0.62	0.62
Adj. Flow (vph)	20	988	802	27	3	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1008	829	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.1%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↑↔		↔↓	
Traffic Vol, veh/h	20	968	722	24	2	13
Future Vol, veh/h	20	968	722	24	2	13
Conflicting Peds, #/hr	0	0	0	0	7	7
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	90	90	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	988	802	27	3	21

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	829	0	-	0	1357 422
Stage 1	-	-	-	-	816 -
Stage 2	-	-	-	-	541 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	798	-	-	-	140 580
Stage 1	-	-	-	-	395 -
Stage 2	-	-	-	-	548 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	798	-	-	-	132 576
Mov Cap-2 Maneuver	-	-	-	-	132 -
Stage 1	-	-	-	-	373 -
Stage 2	-	-	-	-	548 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	798	-	-	-	398
HCM Lane V/C Ratio	0.026	-	-	-	0.061
HCM Control Delay (s)	9.6	0.3	-	-	14.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Lanes, Volumes, Timings
 2: Washington St. & Madison St.

11/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	913	56	87	681	65	124
Future Volume (vph)	913	56	87	681	65	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.991				0.911	
Flt Protected				0.994	0.983	
Satd. Flow (prot)	3507	0	0	3518	1668	0
Flt Permitted				0.994	0.983	
Satd. Flow (perm)	3507	0	0	3518	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	75			200	300	
Travel Time (s)	1.7			4.5	6.8	
Confl. Peds. (#/hr)		2	3		12	12
Peak Hour Factor	0.98	0.98	0.90	0.90	0.74	0.74
Adj. Flow (vph)	932	57	97	757	88	168
Shared Lane Traffic (%)						
Lane Group Flow (vph)	989	0	0	854	256	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	70.8%			ICU Level of Service C		
Analysis Period (min)	15					

HCM 6th TWSC
 2: Washington St. & Madison St.

11/12/2024

Intersection						
Int Delay, s/veh	35.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	913	56	87	681	65	124
Future Vol, veh/h	913	56	87	681	65	124
Conflicting Peds, #/hr	0	2	3	0	12	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	90	90	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	932	57	97	757	88	168

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	992	0	1549
Stage 1	-	-	-	-	964
Stage 2	-	-	-	-	585
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	693	-	105
Stage 1	-	-	-	-	331
Stage 2	-	-	-	-	520
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	691	-	~ 78
Mov Cap-2 Maneuver	-	-	-	-	~ 78
Stage 1	-	-	-	-	330
Stage 2	-	-	-	-	389









Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	284.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	175	-	-	691	-
HCM Lane V/C Ratio	1.459	-	-	0.14	-
HCM Control Delay (s)	284.5	-	-	11.1	1.1
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	16	-	-	0.5	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
 3: Washington S./Washington St. & Spruce St.

11/12/2024

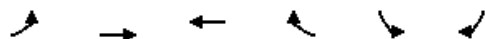
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	19	35	1	7
Future Volume (vph)	0	0	19	35	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.912					
Flt Protected						0.994
Satd. Flow (prot)	0	0	1699	0	0	1852
Flt Permitted						0.994
Satd. Flow (perm)	0	0	1699	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	486		150			200
Travel Time (s)	11.0		3.4			4.5
Peak Hour Factor	0.92	0.92	0.90	0.90	0.50	0.50
Adj. Flow (vph)	0	0	21	39	2	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	60	0	0	16
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization 6.7%	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
4: Ash St. & Summit St.

11/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔			↔	
Traffic Volume (vph)	1	11	3	0	6	11
Future Volume (vph)	1	11	3	0	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.912	
Fl _t Protected		0.996			0.983	
Satd. Flow (prot)	0	1855	0	0	1670	0
Fl _t Permitted		0.996			0.983	
Satd. Flow (perm)	0	1855	0	0	1670	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		225	260		150	
Travel Time (s)		5.1	5.9		3.4	
Peak Hour Factor	0.50	0.50	0.75	0.75	0.71	0.71
Adj. Flow (vph)	2	22	4	0	8	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	24	4	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔			↔	
Traffic Vol, veh/h	1	11	3	0	6	11
Future Vol, veh/h	1	11	3	0	6	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	75	75	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	22	4	0	8	15










Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	26	0
Stage 1	-	-	0	-
Stage 2	-	-	26	-
Critical Hdwy	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	989	-
Stage 1	-	-	-	-
Stage 2	-	-	997	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	989	-
Mov Cap-2 Maneuver	-	-	989	-
Stage 1	-	-	-	-
Stage 2	-	-	997	-

Approach	EB	SB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	-
HCM Lane LOS	-	-	-
HCM 95th %tile Q(veh)	-	-	-

Lanes, Volumes, Timings
5: Green St. & Ash St.

11/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	6	0	176	313	3
Future Volume (vph)	11	6	0	176	313	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.951				0.999	
Flt Protected	0.969					
Satd. Flow (prot)	1717	0	0	1863	1861	0
Flt Permitted	0.969					
Satd. Flow (perm)	1717	0	0	1863	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	260			225	150	
Travel Time (s)	5.9			5.1	3.4	
Confl. Bikes (#/hr)		19				17
Peak Hour Factor	0.47	0.47	0.72	0.72	0.81	0.81
Adj. Flow (vph)	23	13	0	244	386	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	36	0	0	244	390	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.7%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↑	
Traffic Vol, veh/h	11	6	0	176	313	3
Future Vol, veh/h	11	6	0	176	313	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	47	47	72	72	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	13	0	244	386	4










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	632	388	-	0	-	0
Stage 1	388	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	444	660	0	-	-	-
Stage 1	686	-	0	-	-	-
Stage 2	797	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	444	660	-	-	-	-
Mov Cap-2 Maneuver	444	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	502	-	-
HCM Lane V/C Ratio	-	0.072	-	-
HCM Control Delay (s)	-	12.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Lanes, Volumes, Timings
6: Green St. & Spruce St.

11/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	8	0	157	314	2
Future Volume (vph)	17	8	0	157	314	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.957			0.999		
Flt Protected	0.967					
Satd. Flow (prot)	1724	0	0	1863	1861	0
Flt Permitted	0.967					
Satd. Flow (perm)	1724	0	0	1863	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	486			275	225	
Travel Time (s)	11.0			6.3	5.1	
Confl. Peds. (#/hr)	7	7	3			3
Confl. Bikes (#/hr)						3
Peak Hour Factor	0.89	0.89	0.69	0.69	0.89	0.89
Adj. Flow (vph)	19	9	0	228	353	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	0	228	355	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 28.7% ICU Level of Service A
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↑	
Traffic Vol, veh/h	17	8	0	157	314	2
Future Vol, veh/h	17	8	0	157	314	2
Conflicting Peds, #/hr	7	7	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	69	69	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	9	0	228	353	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	588	360	-	0	-	0
Stage 1	353	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	471	684	0	-	-	0
Stage 1	711	-	0	-	-	0
Stage 2	804	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	471	679	-	-	-	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 522	-
HCM Lane V/C Ratio	- 0.054	-
HCM Control Delay (s)	- 12.3	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.2	-

Lanes, Volumes, Timings
 7: Gulf Gas Station & Madison St.

11/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	1002	50	49	758	7	6
Future Volume (vph)	1002	50	49	758	7	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.993				0.937	
Flt Protected				0.997	0.974	
Satd. Flow (prot)	3514	0	0	3529	1700	0
Flt Permitted				0.997	0.974	
Satd. Flow (perm)	3514	0	0	3529	1700	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			140	350	
Travel Time (s)	4.5			3.2	8.0	
Confl. Peds. (#/hr)		1			14	14
Peak Hour Factor	0.94	0.93	0.82	0.92	0.92	0.92
Adj. Flow (vph)	1066	54	60	824	8	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1120	0	0	884	15	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	68.7%
Analysis Period (min)	15
	ICU Level of Service C

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑	↔	
Traffic Vol, veh/h	1002	50	49	758	7	6
Future Vol, veh/h	1002	50	49	758	7	6
Conflicting Peds, #/hr	0	1	0	0	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	93	82	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1066	54	60	824	8	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1121	0	1640
Stage 1	-	-	-	-	1094
Stage 2	-	-	-	-	546
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	619	-	91
Stage 1	-	-	-	-	282
Stage 2	-	-	-	-	544
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	618	-	74
Mov Cap-2 Maneuver	-	-	-	-	74
Stage 1	-	-	-	-	282
Stage 2	-	-	-	-	441

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	38.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	121	-	-	618	-
HCM Lane V/C Ratio	0.117	-	-	0.097	-
HCM Control Delay (s)	38.6	-	-	11.4	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	0.4	-	-	0.3	-

Lanes, Volumes, Timings
 1: Madison St. & Washington S.

12/09/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↘↘	
Traffic Volume (vph)	26	780	946	54	4	12
Future Volume (vph)	26	780	946	54	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.898	
Flt Protected		0.998			0.988	
Satd. Flow (prot)	0	3566	3507	0	1653	0
Flt Permitted		0.998			0.988	
Satd. Flow (perm)	0	3566	3507	0	1653	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		375	75		150	
Travel Time (s)		8.5	1.7		3.4	
Confl. Peds. (#/hr)	2			3	8	8
Confl. Bikes (#/hr)				3		
Peak Hour Factor	0.92	0.92	0.94	0.94	0.55	0.55
Heavy Vehicles (%)	2%	1%	2%	4%	2%	2%
Adj. Flow (vph)	28	848	1006	57	7	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	876	1063	0	29	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.8%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	26	780	946	54	4	12
Future Vol, veh/h	26	780	946	54	4	12
Conflicting Peds, #/hr	2	0	0	3	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	94	94	55	55
Heavy Vehicles, %	2	1	2	4	2	2
Mvmt Flow	28	848	1006	57	7	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1066	0	-	0	1526 543
Stage 1	-	-	-	-	1038 -
Stage 2	-	-	-	-	488 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	649	-	-	-	108 484
Stage 1	-	-	-	-	302 -
Stage 2	-	-	-	-	583 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	647	-	-	-	99 479
Mov Cap-2 Maneuver	-	-	-	-	99 -
Stage 1	-	-	-	-	276 -
Stage 2	-	-	-	-	581 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	21.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	647	-	-	-	244
HCM Lane V/C Ratio	0.044	-	-	-	0.119
HCM Control Delay (s)	10.8	0.4	-	-	21.7
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Lanes, Volumes, Timings
2: Washington St. & Madison St.

12/09/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (vph)	760	29	98	894	99	76
Future Volume (vph)	760	29	98	894	99	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.941
Flt Protected				0.995	0.972	
Satd. Flow (prot)	3552	0	0	3522	1694	0
Flt Permitted				0.995	0.972	
Satd. Flow (perm)	3552	0	0	3522	1694	0
Link Speed (mph)	30					30
Link Distance (ft)	75					300
Travel Time (s)	1.7					6.8
Confl. Peds. (#/hr)	3					
Confl. Bikes (#/hr)	3					
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	1%	2%	2%	2%	3%	2%
Adj. Flow (vph)	835	32	102	931	111	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	867	0	0	1033	196	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0					12
Link Offset(ft)	0					0
Crosswalk Width(ft)	16					16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		
Sign Control	Free				Free	Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	69.9%			ICU Level of Service C		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	35.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	760	29	98	894	99	76
Future Vol, veh/h	760	29	98	894	99	76
Conflicting Peds, #/hr	0	3	0	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	96	96	89	89
Heavy Vehicles, %	1	2	2	2	3	2
Mvmt Flow	835	32	102	931	111	85

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	870	0	1526
Stage 1	-	-	-	-	854
Stage 2	-	-	-	-	672
Critical Hdwy	-	-	4.14	-	6.86
Critical Hdwy Stg 1	-	-	-	-	5.86
Critical Hdwy Stg 2	-	-	-	-	5.86
Follow-up Hdwy	-	-	2.22	-	3.53
Pot Cap-1 Maneuver	-	-	770	-	~ 107
Stage 1	-	-	-	-	375
Stage 2	-	-	-	-	466
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	768	-	~ 77
Mov Cap-2 Maneuver	-	-	-	-	~ 77
Stage 1	-	-	-	-	374
Stage 2	-	-	-	-	337

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	\$ 366.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	123	-	-	768	-
HCM Lane V/C Ratio	1.599	-	-	0.133	-
HCM Control Delay (s)	\$ 366.9	-	-	10.4	1.2
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	14.3	-	-	0.5	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
 3: Washington S./Washington St. & Spruce St.

12/09/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↔
Traffic Volume (vph)	0	0	0	63	14	9
Future Volume (vph)	0	0	0	63	14	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.865			
Flt Protected						0.970
Satd. Flow (prot)	0	0	1611	0	0	1807
Flt Permitted						0.970
Satd. Flow (perm)	0	0	1611	0	0	1807
Link Speed (mph)	30		30			30
Link Distance (ft)	486		150			200
Travel Time (s)	11.0		3.4			4.5
Confl. Peds. (#/hr)	5	5			12	
Peak Hour Factor	0.25	0.25	0.84	0.84	0.99	0.99
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%
Adj. Flow (vph)	0	0	0	75	14	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	75	0	0	23
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.5%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 4: Site Driveway/Summit St. & Ash St.

12/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↕			↕			↕		
Traffic Volume (vph)	0	0	0	3	21	3	0	0	0	0	12	6	
Future Volume (vph)	0	0	0	3	21	3	0	0	0	0	12	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Ped Bike Factor													
Frt					0.984					0.938			
Flt Protected					0.997								
Satd. Flow (prot)	0	0	0	0	1827	0	0	1863	0	0	1747	0	
Flt Permitted					0.997								
Satd. Flow (perm)	0	0	0	0	1827	0	0	1863	0	0	1747	0	
Link Speed (mph)	30				30			30			30		
Link Distance (ft)	225				260			100			150		
Travel Time (s)	5.1				5.9			2.3			3.4		
Confl. Peds. (#/hr)	3					3					5	5	
Peak Hour Factor	0.44	0.44	0.92	0.92	0.50	0.50	0.92	0.92	0.92	0.57	0.92	0.57	
Adj. Flow (vph)	0	0	0	3	42	6	0	0	0	0	13	11	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	51	0	0	0	0	0	24	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)	0				0			0			0		
Link Offset(ft)	0				0			0			0		
Crosswalk Width(ft)	16				16			16			16		
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	60		60	9		60	60		15	9		
Sign Control	Free			Free			Stop			Stop			

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.8%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
 4: Site Driveway/Summit St. & Ash St.

12/09/2024

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	3	21	3	0	0	0	0	12	6
Future Vol, veh/h	0	0	0	3	21	3	0	0	0	0	12	6
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	44	44	92	92	50	50	92	92	92	57	92	57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	3	42	6	0	0	0	0	13	11

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	0	0	68
Stage 1	-	-	0
Stage 2	-	-	68
Critical Hdwy	4.12	-	7.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	6.12
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	925
Stage 1	-	-	-
Stage 2	-	-	942
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	905
Mov Cap-2 Maneuver	-	-	905
Stage 1	-	-	-
Stage 2	-	-	918

Approach	WB	NB	SB
HCM Control Delay, s		0	9.1
HCM LOS		A	A

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	905
HCM Lane V/C Ratio	-	-	-	-	0.026
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1

Lanes, Volumes, Timings
5: Green St. & Ash St.

12/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	14	231	214	1
Future Volume (vph)	0	0	14	231	214	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.999	
Flt Protected				0.997		
Satd. Flow (prot)	0	0	0	1857	1825	0
Flt Permitted				0.997		
Satd. Flow (perm)	0	0	0	1857	1825	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	260			225	150	
Travel Time (s)	5.9			5.1	3.4	
Confl. Peds. (#/hr)	6	6	10			
Confl. Bikes (#/hr)						6
Peak Hour Factor	0.44	0.44	0.85	0.85	0.80	0.80
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	0	0	16	272	268	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	288	269	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.4%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
6: Green St. & Spruce St.

12/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	34	38	1	219	219	1
Future Volume (vph)	34	38	1	219	219	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.928					
Flt Protected	0.977					
Satd. Flow (prot)	1689	0	0	1863	1845	0
Flt Permitted	0.977					
Satd. Flow (perm)	1689	0	0	1863	1845	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	486			275	225	
Travel Time (s)	11.0			6.3	5.1	
Confl. Peds. (#/hr)	6	6	3			5
Confl. Bikes (#/hr)						6
Peak Hour Factor	0.72	0.72	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	47	53	1	277	277	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	0	278	278	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.1%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
Traffic Vol, veh/h	34	38	1	219	219	1
Future Vol, veh/h	34	38	1	219	219	1
Conflicting Peds, #/hr	6	6	3	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	79	79	79	79
Heavy Vehicles, %	2	2	2	2	3	2
Mvmt Flow	47	53	1	277	277	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	565	286	280	0	-	0
Stage 1	280	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	486	753	1283	-	-	0
Stage 1	767	-	-	-	-	0
Stage 2	763	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	483	747	1279	-	-	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	761	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1279	-	594	-
HCM Lane V/C Ratio	0.001	-	0.168	-
HCM Control Delay (s)	7.8	-	12.3	-
HCM Lane LOS	A	-	B	-
HCM 95th %tile Q(veh)	0	-	0.6	-

Lanes, Volumes, Timings
7: Gulf Gas Station & Madison St.

12/09/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	762	81	56	993	11	28
Future Volume (vph)	762	81	56	993	11	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.986				0.903	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	3490	0	0	3529	1659	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	3490	0	0	3529	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			90	350	
Travel Time (s)	4.5			2.0	8.0	
Confl. Peds. (#/hr)			3		8	8
Confl. Bikes (#/hr)		3				
Peak Hour Factor	0.92	0.92	0.94	0.94	0.73	0.73
Adj. Flow (vph)	828	88	60	1056	15	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	916	0	0	1116	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	68.4%
ICU Level of Service	C
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	762	81	56	993	11	28
Future Vol, veh/h	762	81	56	993	11	28
Conflicting Peds, #/hr	0	0	3	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	94	94	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	828	88	60	1056	15	38

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	919	0	1531
Stage 1	-	-	-	-	875
Stage 2	-	-	-	-	656
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	738	-	108
Stage 1	-	-	-	-	368
Stage 2	-	-	-	-	478
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	736	-	86
Mov Cap-2 Maneuver	-	-	-	-	86
Stage 1	-	-	-	-	367
Stage 2	-	-	-	-	381

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	27.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	216	-	-	736	-
HCM Lane V/C Ratio	0.247	-	-	0.081	-
HCM Control Delay (s)	27.1	-	-	10.3	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.9	-	-	0.3	-

Lanes, Volumes, Timings
 1: Madison St. & Washington S.

12/09/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↘↘	
Traffic Volume (vph)	19	1004	759	25	2	19
Future Volume (vph)	19	1004	759	25	2	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.995		0.877	
Flt Protected		0.999			0.996	
Satd. Flow (prot)	0	3536	3522	0	1627	0
Flt Permitted		0.999			0.996	
Satd. Flow (perm)	0	3536	3522	0	1627	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		375	75		150	
Travel Time (s)		8.5	1.7		3.4	
Confl. Peds. (#/hr)					7	7
Peak Hour Factor	0.98	0.98	0.90	0.90	0.62	0.62
Adj. Flow (vph)	19	1024	843	28	3	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1043	871	0	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.4%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕	
Traffic Vol, veh/h	19	1004	759	25	2	19
Future Vol, veh/h	19	1004	759	25	2	19
Conflicting Peds, #/hr	0	0	0	0	7	7
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	90	90	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	1024	843	28	3	31

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	871	0	-	0	1414 443
Stage 1	-	-	-	-	857 -
Stage 2	-	-	-	-	557 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	770	-	-	-	129 562
Stage 1	-	-	-	-	376 -
Stage 2	-	-	-	-	537 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	770	-	-	-	122 558
Mov Cap-2 Maneuver	-	-	-	-	122 -
Stage 1	-	-	-	-	355 -
Stage 2	-	-	-	-	537 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	770	-	-	-	416
HCM Lane V/C Ratio	0.025	-	-	-	0.081
HCM Control Delay (s)	9.8	0.3	-	-	14.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Lanes, Volumes, Timings
2: Washington St. & Madison St.

12/09/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (vph)	967	58	93	705	67	131
Future Volume (vph)	967	58	93	705	67	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.911
Flt Protected				0.994	0.983	
Satd. Flow (prot)	3511	0	0	3518	1668	0
Flt Permitted				0.994	0.983	
Satd. Flow (perm)	3511	0	0	3518	1668	0
Link Speed (mph)	30					30
Link Distance (ft)	75					300
Travel Time (s)	1.7					6.8
Confl. Peds. (#/hr)	2		3	12		
Peak Hour Factor	0.98	0.98	0.90	0.90	0.74	0.74
Adj. Flow (vph)	987	59	103	783	91	177
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1046	0	0	886	268	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0					12
Link Offset(ft)	0					0
Crosswalk Width(ft)	16					16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		
Sign Control	Free				Free	Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	73.6%
Analysis Period (min)	15
	ICU Level of Service D

Intersection						
Int Delay, s/veh	50.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	967	58	93	705	67	131
Future Vol, veh/h	967	58	93	705	67	131
Conflicting Peds, #/hr	0	2	3	0	12	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	90	90	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	987	59	103	783	91	177

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1049	0	1630
Stage 1	-	-	-	-	1020
Stage 2	-	-	-	-	610
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	659	-	92
Stage 1	-	-	-	-	309
Stage 2	-	-	-	-	505
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	657	-	~ 66
Mov Cap-2 Maneuver	-	-	-	-	~ 66
Stage 1	-	-	-	-	308
Stage 2	-	-	-	-	361

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	\$ 408.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	154	-	-	657	-
HCM Lane V/C Ratio	1.737	-	-	0.157	-
HCM Control Delay (s)	\$ 408.3	-	-	11.5	1.3
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	19.4	-	-	0.6	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings

3: Washington S./Washington St. & Spruce St.

12/09/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↔
Traffic Volume (vph)	0	0	0	36	12	13
Future Volume (vph)	0	0	0	36	12	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Fl _t Protected						0.977
Satd. Flow (prot)	0	0	1611	0	0	1820
Fl _t Permitted						0.977
Satd. Flow (perm)	0	0	1611	0	0	1820
Link Speed (mph)	30		30		30	
Link Distance (ft)	486		150		200	
Travel Time (s)	11.0		3.4		4.5	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.50	0.50
Adj. Flow (vph)	0	0	0	40	24	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	40	0	0	50
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	11.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
4: Site Driveway/Summit St. & Ash St.

12/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	0	37	0	0	0	0	6	0	17
Future Volume (vph)	0	0	0	0	37	0	0	0	0	6	0	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t												0.899
Fl _t Protected												0.988
Satd. Flow (prot)	0	0	0	0	1863	0	0	1863	0	0	1655	0
Fl _t Permitted												0.988
Satd. Flow (perm)	0	0	0	0	1863	0	0	1863	0	0	1655	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		225			260			100			150	
Travel Time (s)		5.1			5.9			2.3			3.4	
Peak Hour Factor	0.50	0.50	0.92	0.92	0.75	0.75	0.92	0.92	0.92	0.71	0.92	0.71
Adj. Flow (vph)	0	0	0	0	49	0	0	0	0	8	0	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	49	0	0	0	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		60	60		9	60		60	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
4: Site Driveway/Summit St. & Ash St.

12/09/2024

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	37	0	0	0	0	6	0	17
Future Vol, veh/h	0	0	0	0	37	0	0	0	0	6	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	92	92	75	75	92	92	92	71	92	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	49	0	0	0	0	8	0	24

Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	0	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS		A	A

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1001
HCM Lane V/C Ratio	-	-	-	-	0.032
HCM Control Delay (s)	0	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1

Lanes, Volumes, Timings
5: Green St. & Ash St.

12/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	20	303	412	3
Future Volume (vph)	0	0	20	303	412	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.999
Flt Protected				0.997		
Satd. Flow (prot)	0	0	0	1857	1861	0
Flt Permitted				0.997		
Satd. Flow (perm)	0	0	0	1857	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	260			225	150	
Travel Time (s)	5.9			5.1	3.4	
Confl. Bikes (#/hr)	19					
Peak Hour Factor	0.47	0.47	0.72	0.72	0.81	0.81
Adj. Flow (vph)	0	0	28	421	509	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	449	513	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.7%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
6: Green St. & Spruce St.

12/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	29	14	1	293	413	2
Future Volume (vph)	29	14	1	293	413	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.956				0.999	
Flt Protected	0.967					
Satd. Flow (prot)	1722	0	0	1863	1861	0
Flt Permitted	0.967					
Satd. Flow (perm)	1722	0	0	1863	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	486			275	225	
Travel Time (s)	11.0			6.3	5.1	
Confl. Peds. (#/hr)	7	7	3			3
Confl. Bikes (#/hr)						3
Peak Hour Factor	0.89	0.89	0.69	0.69	0.89	0.89
Adj. Flow (vph)	33	16	1	425	464	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	0	426	466	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.9%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
Traffic Vol, veh/h	29	14	1	293	413	2
Future Vol, veh/h	29	14	1	293	413	2
Conflicting Peds, #/hr	7	7	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	69	69	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	16	1	425	464	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	901	474	467	0	-	0
Stage 1	467	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	309	590	1094	-	-	0
Stage 1	631	-	-	-	-	0
Stage 2	653	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	307	584	1091	-	-	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	651	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1091	-	363	-
HCM Lane V/C Ratio	0.001	-	0.133	-
HCM Control Delay (s)	8.3	-	16.4	-
HCM Lane LOS	A	-	C	-
HCM 95th %tile Q(veh)	0	-	0.5	-

Lanes, Volumes, Timings
7: Gulf Gas Station & Madison St.

12/09/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	1063	52	51	798	7	6
Future Volume (vph)	1063	52	51	798	7	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.993				0.937	
Flt Protected				0.997	0.974	
Satd. Flow (prot)	3514	0	0	3529	1700	0
Flt Permitted				0.997	0.974	
Satd. Flow (perm)	3514	0	0	3529	1700	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			90	350	
Travel Time (s)	4.5			2.0	8.0	
Confl. Peds. (#/hr)		1			14	14
Peak Hour Factor	0.94	0.93	0.82	0.92	0.92	0.92
Adj. Flow (vph)	1131	56	62	867	8	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1187	0	0	929	15	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	71.6%
Analysis Period (min)	15
	ICU Level of Service C

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	1063	52	51	798	7	6
Future Vol, veh/h	1063	52	51	798	7	6
Conflicting Peds, #/hr	0	1	0	0	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	93	82	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1131	56	62	867	8	7

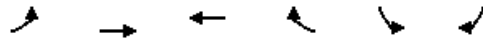
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1188	0	1732
Stage 1	-	-	-	-	1160
Stage 2	-	-	-	-	572
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	583	-	79
Stage 1	-	-	-	-	260
Stage 2	-	-	-	-	528
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	582	-	62
Mov Cap-2 Maneuver	-	-	-	-	62
Stage 1	-	-	-	-	260
Stage 2	-	-	-	-	413

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	45.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	103	-	-	582	-
HCM Lane V/C Ratio	0.137	-	-	0.107	-
HCM Control Delay (s)	45.4	-	-	11.9	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	0.5	-	-	0.4	-

Lanes, Volumes, Timings
 1: Madison St. & Washington S.

12/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Volume (vph)	31	782	957	71	15	17
Future Volume (vph)	31	782	957	71	15	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.990		0.928	
Flt Protected		0.998			0.977	
Satd. Flow (prot)	0	3566	3499	0	1689	0
Flt Permitted		0.998			0.977	
Satd. Flow (perm)	0	3566	3499	0	1689	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		375	75		150	
Travel Time (s)		8.5	1.7		3.4	
Confl. Peds. (#/hr)	2			3	8	8
Confl. Bikes (#/hr)				3		
Peak Hour Factor	0.92	0.92	0.94	0.94	0.55	0.55
Heavy Vehicles (%)	2%	1%	2%	4%	2%	2%
Adj. Flow (vph)	34	850	1018	76	27	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	884	1094	0	58	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.6%
Analysis Period (min)	15
	ICU Level of Service B

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↑↔		↔↓	
Traffic Vol, veh/h	31	782	957	71	15	17
Future Vol, veh/h	31	782	957	71	15	17
Conflicting Peds, #/hr	2	0	0	3	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	94	94	55	55
Heavy Vehicles, %	2	1	2	4	2	2
Mvmt Flow	34	850	1018	76	27	31

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1097	0	-	0	1560 558
Stage 1	-	-	-	-	1059 -
Stage 2	-	-	-	-	501 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	632	-	-	-	103 473
Stage 1	-	-	-	-	295 -
Stage 2	-	-	-	-	574 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	630	-	-	-	92 468
Mov Cap-2 Maneuver	-	-	-	-	92 -
Stage 1	-	-	-	-	264 -
Stage 2	-	-	-	-	572 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	39.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	630	-	-	-	161
HCM Lane V/C Ratio	0.053	-	-	-	0.361
HCM Control Delay (s)	11	0.5	-	-	39.5
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

Lanes, Volumes, Timings
2: Washington St. & Madison St.

12/12/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	771	30	99	921	99	76
Future Volume (vph)	771	30	99	921	99	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994				0.941	
Flt Protected				0.995	0.972	
Satd. Flow (prot)	3551	0	0	3522	1694	0
Flt Permitted				0.995	0.972	
Satd. Flow (perm)	3551	0	0	3522	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	75			200	300	
Travel Time (s)	1.7			4.5	6.8	
Confl. Peds. (#/hr)		3			2	2
Confl. Bikes (#/hr)		3				
Peak Hour Factor	0.91	0.91	0.96	0.96	0.89	0.89
Heavy Vehicles (%)	1%	2%	2%	2%	3%	2%
Adj. Flow (vph)	847	33	103	959	111	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	880	0	0	1062	196	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	71.0%
Analysis Period (min)	15
	ICU Level of Service C

HCM 6th TWSC
2: Washington St. & Madison St.

12/12/2024

Intersection						
Int Delay, s/veh	38.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑	↑↓	
Traffic Vol, veh/h	771	30	99	921	99	76
Future Vol, veh/h	771	30	99	921	99	76
Conflicting Peds, #/hr	0	3	0	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	96	96	89	89
Heavy Vehicles, %	1	2	2	2	3	2
Mvmt Flow	847	33	103	959	111	85

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	883	0	1555
Stage 1	-	-	-	-	867
Stage 2	-	-	-	-	688
Critical Hdwy	-	-	4.14	-	6.86
Critical Hdwy Stg 1	-	-	-	-	5.86
Critical Hdwy Stg 2	-	-	-	-	5.86
Follow-up Hdwy	-	-	2.22	-	3.53
Pot Cap-1 Maneuver	-	-	762	-	~ 103
Stage 1	-	-	-	-	369
Stage 2	-	-	-	-	458
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	760	-	~ 73
Mov Cap-2 Maneuver	-	-	-	-	~ 73
Stage 1	-	-	-	-	368
Stage 2	-	-	-	-	325

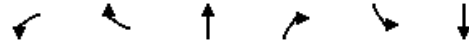
Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	\$ 405
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	117	-	-	760	-
HCM Lane V/C Ratio	1.681	-	-	0.136	-
HCM Control Delay (s)	\$ 405	-	-	10.5	1.3
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	14.9	-	-	0.5	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
 3: Washington S./Washington St. & Spruce St.

12/12/2024


















Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↔
Traffic Volume (vph)	0	0	0	84	45	25
Future Volume (vph)	0	0	0	84	45	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.865			
Flt Protected						0.969
Satd. Flow (prot)	0	0	1611	0	0	1805
Flt Permitted						0.969
Satd. Flow (perm)	0	0	1611	0	0	1805
Link Speed (mph)	30		30			30
Link Distance (ft)	486		150			200
Travel Time (s)	11.0		3.4			4.5
Confl. Peds. (#/hr)	5	5			12	
Peak Hour Factor	0.25	0.25	0.84	0.84	0.99	0.99
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%
Adj. Flow (vph)	0	0	0	100	45	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	100	0	0	70
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 22.0% ICU Level of Service A
 Analysis Period (min) 15

Lanes, Volumes, Timings
 4: Site Driveway/Summit St. & Ash St.

12/12/2024

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (vph)	0	0	0	24	25	3	44	8	0	0	12	6		
Future Volume (vph)	0	0	0	24	25	3	44	8	0	0	12	6		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Ped Bike Factor														
Frt					0.990					0.938				
Flt Protected					0.984					0.960				
Satd. Flow (prot)	0	0	0	0	1815	0	0	1788	0	0	1747	0		
Flt Permitted					0.984					0.960				
Satd. Flow (perm)	0	0	0	0	1815	0	0	1788	0	0	1747	0		
Link Speed (mph)					30					30				
Link Distance (ft)					225					100				
Travel Time (s)					5.1					2.3				
Confl. Peds. (#/hr)	3									3				
Peak Hour Factor	0.44	0.44	0.92	0.92	0.50	0.50	0.92	0.92	0.92	0.57	0.92	0.57		
Adj. Flow (vph)	0	0	0	26	50	6	48	9	0	0	13	11		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	0	0	0	82	0	0	57	0	0	24	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right		
Median Width(ft)				0			0			0				
Link Offset(ft)				0			0			0				
Crosswalk Width(ft)				16			16			16				
Two way Left Turn Lane														
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	15			9	15			9	15			9		
Sign Control	Free			Free			Stop			Stop				

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	24	25	3	44	8	0	0	12	6
Future Vol, veh/h	0	0	0	24	25	3	44	8	0	0	12	6
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	44	44	92	92	50	50	92	92	92	57	92	57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	50	6	48	9	0	0	13	11







Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	0	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		9.7	9.3
HCM LOS		A	A

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	824	-	-	-	865
HCM Lane V/C Ratio	0.069	-	-	-	0.027
HCM Control Delay (s)	9.7	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1










Lanes, Volumes, Timings
5: Green St. & Ash St.

12/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	31	243	214	8
Future Volume (vph)	0	0	31	243	214	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.995	
Flt Protected				0.994		
Satd. Flow (prot)	0	0	0	1852	1819	0
Flt Permitted				0.994		
Satd. Flow (perm)	0	0	0	1852	1819	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	260			225	150	
Travel Time (s)	5.9			5.1	3.4	
Confl. Peds. (#/hr)	6	6	10			
Confl. Bikes (#/hr)						6
Peak Hour Factor	0.44	0.44	0.85	0.85	0.80	0.80
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	0	0	36	286	268	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	322	278	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.4%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
6: Green St. & Spruce St.

12/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	46	132	0	236	219	1
Future Volume (vph)	46	132	0	236	219	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.900					
Flt Protected	0.987					
Satd. Flow (prot)	1655	0	0	1863	1845	0
Flt Permitted	0.987					
Satd. Flow (perm)	1655	0	0	1863	1845	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	486			275	225	
Travel Time (s)	11.0			6.3	5.1	
Confl. Peds. (#/hr)	6	6	3			5
Confl. Bikes (#/hr)						6
Peak Hour Factor	0.72	0.72	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	64	183	0	299	277	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	247	0	0	299	278	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.6%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↑	
Traffic Vol, veh/h	46	132	0	236	219	1
Future Vol, veh/h	46	132	0	236	219	1
Conflicting Peds, #/hr	6	6	3	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	79	79	79	79
Heavy Vehicles, %	2	2	2	2	3	2
Mvmt Flow	64	183	0	299	277	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	582	283	-	0	-	0
Stage 1	277	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	475	756	0	-	-	0
Stage 1	770	-	0	-	-	0
Stage 2	748	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	475	752	-	-	-	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 654	-
HCM Lane V/C Ratio	- 0.378	-
HCM Control Delay (s)	- 13.8	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 1.8	-

Lanes, Volumes, Timings
 7: Gulf Gas Station & Madison St.

12/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	773	81	56	1021	11	28
Future Volume (vph)	773	81	56	1021	11	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.986			0.903		
Flt Protected				0.997	0.986	
Satd. Flow (prot)	3490	0	0	3529	1659	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	3490	0	0	3529	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			90	350	
Travel Time (s)	4.5			2.0	8.0	
Confl. Peds. (#/hr)				3	8	8
Confl. Bikes (#/hr)	3					
Peak Hour Factor	0.92	0.92	0.94	0.94	0.73	0.73
Adj. Flow (vph)	840	88	60	1086	15	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	928	0	0	1146	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 69.5% ICU Level of Service C
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑	↔	
Traffic Vol, veh/h	773	81	56	1021	11	28
Future Vol, veh/h	773	81	56	1021	11	28
Conflicting Peds, #/hr	0	0	3	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	94	94	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	840	88	60	1086	15	38

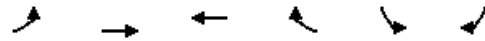
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	931	0	1558
Stage 1	-	-	-	-	887
Stage 2	-	-	-	-	671
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	731	-	103
Stage 1	-	-	-	-	363
Stage 2	-	-	-	-	470
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	729	-	81
Mov Cap-2 Maneuver	-	-	-	-	81
Stage 1	-	-	-	-	362
Stage 2	-	-	-	-	369

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	28.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	207	-	-	729	-
HCM Lane V/C Ratio	0.258	-	-	0.082	-
HCM Control Delay (s)	28.3	-	-	10.4	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1	-	-	0.3	-

Lanes, Volumes, Timings
8: Madison St. & Site Driveway

12/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Volume (vph)	0	868	1065	11	0	5
Future Volume (vph)	0	868	1065	11	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.998			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3532	0	0	1450
Flt Permitted						
Satd. Flow (perm)	0	3539	3532	0	0	1450
Link Speed (mph)		30	30		30	
Link Distance (ft)		90	60		100	
Travel Time (s)		2.0	1.4		2.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)						0
Adj. Flow (vph)	0	943	1158	12	0	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	943	1170	0	0	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14
Turning Speed (mph)	60			60	60	60
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC
8: Madison St. & Site Driveway

12/12/2024

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	868	1065	11	0	5
Future Vol, veh/h	0	868	1065	11	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	943	1158	12	0	5

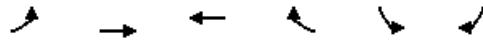
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	585
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	454
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	454
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	454
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Lanes, Volumes, Timings
 1: Madison St. & Washington S.

12/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↕	↕↔		↕↔	
Traffic Volume (vph)	32	1010	767	71	10	23
Future Volume (vph)	32	1010	767	71	10	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.987		0.906	
Flt Protected		0.998			0.985	
Satd. Flow (prot)	0	3532	3493	0	1662	0
Flt Permitted		0.998			0.985	
Satd. Flow (perm)	0	3532	3493	0	1662	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		375	75		150	
Travel Time (s)		8.5	1.7		3.4	
Confl. Peds. (#/hr)					7	7
Peak Hour Factor	0.98	0.98	0.90	0.90	0.62	0.62
Adj. Flow (vph)	33	1031	852	79	16	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1064	931	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.2%
Analysis Period (min)	15
	ICU Level of Service B

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↑↔		↔↓	
Traffic Vol, veh/h	32	1010	767	71	10	23
Future Vol, veh/h	32	1010	767	71	10	23
Conflicting Peds, #/hr	0	0	0	0	7	7
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	90	90	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	1031	852	79	16	37

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	931	0	-	0	1481 473
Stage 1	-	-	-	-	892 -
Stage 2	-	-	-	-	589 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	731	-	-	-	116 538
Stage 1	-	-	-	-	361 -
Stage 2	-	-	-	-	517 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	731	-	-	-	104 534
Mov Cap-2 Maneuver	-	-	-	-	104 -
Stage 1	-	-	-	-	323 -
Stage 2	-	-	-	-	517 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	24.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	731	-	-	-	237
HCM Lane V/C Ratio	0.045	-	-	-	0.225
HCM Control Delay (s)	10.2	0.5	-	-	24.5
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Lanes, Volumes, Timings
 2: Washington St. & Madison St.

12/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	980	59	94	755	67	131
Future Volume (vph)	980	59	94	755	67	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992				0.911	
Flt Protected				0.995	0.983	
Satd. Flow (prot)	3511	0	0	3522	1668	0
Flt Permitted				0.995	0.983	
Satd. Flow (perm)	3511	0	0	3522	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	75			200	300	
Travel Time (s)	1.7			4.5	6.8	
Confl. Peds. (#/hr)		2	3		12	12
Peak Hour Factor	0.98	0.98	0.90	0.90	0.74	0.74
Adj. Flow (vph)	1000	60	104	839	91	177
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1060	0	0	943	268	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	75.4%			ICU Level of Service D		
Analysis Period (min)	15					

HCM 6th TWSC
2: Washington St. & Madison St.

12/12/2024

Intersection						
Int Delay, s/veh	57.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	980	59	94	755	67	131
Future Vol, veh/h	980	59	94	755	67	131
Conflicting Peds, #/hr	0	2	3	0	12	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	90	90	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1000	60	104	839	91	177

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1063	0	1673
Stage 1	-	-	-	-	1033
Stage 2	-	-	-	-	640
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	651	-	~ 87
Stage 1	-	-	-	-	304
Stage 2	-	-	-	-	487
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	649	-	~ 60
Mov Cap-2 Maneuver	-	-	-	-	~ 60
Stage 1	-	-	-	-	303
Stage 2	-	-	-	-	337









Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	\$ 476.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	142	-	-	649	-
HCM Lane V/C Ratio	1.884	-	-	0.161	-
HCM Control Delay (s)	\$ 476.5	-	-	11.6	1.4
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	20.6	-	-	0.6	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
 3: Washington S./Washington St. & Spruce St.

12/12/2024
















						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	94	42	25
Future Volume (vph)	0	0	0	94	42	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected	0.970					
Satd. Flow (prot)	0	0	1611	0	0	1807
Flt Permitted	0.970					
Satd. Flow (perm)	0	0	1611	0	0	1807
Link Speed (mph)	30		30		30	
Link Distance (ft)	486		150		200	
Travel Time (s)	11.0		3.4		4.5	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.50	0.50
Adj. Flow (vph)	0	0	0	104	84	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	104	0	0	134
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.6% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 4: Site Driveway/Summit St. & Ash St.

12/12/2024

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (vph)	0	0	0	58	48	0	31	5	0	6	0	17		
Future Volume (vph)	0	0	0	58	48	0	31	5	0	6	0	17		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Fr												0.899		
Flt Protected					0.976				0.958					0.988
Satd. Flow (prot)	0	0	0	0	1818	0	0	1785	0	0	1655	0		
Flt Permitted					0.976				0.958					0.988
Satd. Flow (perm)	0	0	0	0	1818	0	0	1785	0	0	1655	0		
Link Speed (mph)	30						30		30		30			
Link Distance (ft)	225						260		100		150			
Travel Time (s)	5.1						5.9		2.3		3.4			
Peak Hour Factor	0.50	0.50	0.92	0.92	0.75	0.75	0.92	0.92	0.92	0.71	0.92	0.71		
Adj. Flow (vph)	0	0	0	63	64	0	34	5	0	8	0	24		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	0	0	0	127	0	0	39	0	0	32	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right		
Median Width(ft)	0						0		0		0			
Link Offset(ft)	0						0		0		0			
Crosswalk Width(ft)	16						16		16		16			
Two way Left Turn Lane														
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	15	60		60				9	60	60	15	9		
Sign Control	Free			Free			Stop			Stop				

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	17.8%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
 4: Site Driveway/Summit St. & Ash St.

12/12/2024

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	58	48	0	31	5	0	6	0	17
Future Vol, veh/h	0	0	0	58	48	0	31	5	0	6	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	92	92	75	75	92	92	92	71	92	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	63	64	0	34	5	0	8	0	24









Major/Minor	Major2	Minor1	Minor2
Conflicting Flow All	0	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		10.2	9
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	733	-	-	-	925
HCM Lane V/C Ratio	0.053	-	-	-	0.035
HCM Control Delay (s)	10.2	-	-	-	9
HCM Lane LOS	B	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1










Lanes, Volumes, Timings
5: Green St. & Ash St.

12/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	67	312	412	25
Future Volume (vph)	0	0	67	312	412	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.992	
Flt Protected				0.991		
Satd. Flow (prot)	0	0	0	1846	1848	0
Flt Permitted				0.991		
Satd. Flow (perm)	0	0	0	1846	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	260			225	150	
Travel Time (s)	5.9			5.1	3.4	
Confl. Bikes (#/hr)		19				17
Peak Hour Factor	0.47	0.47	0.72	0.72	0.81	0.81
Adj. Flow (vph)	0	0	93	433	509	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	526	540	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	50.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
6: Green St. & Spruce St.

12/12/2024

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	38	82	0	340	413	2
Future Volume (vph)	38	82	0	340	413	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.908				0.999	
Flt Protected	0.984					
Satd. Flow (prot)	1664	0	0	1863	1861	0
Flt Permitted	0.984					
Satd. Flow (perm)	1664	0	0	1863	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	486			275	225	
Travel Time (s)	11.0			6.3	5.1	
Confl. Peds. (#/hr)	7	7	3			3
Confl. Bikes (#/hr)						3
Peak Hour Factor	0.89	0.89	0.69	0.69	0.89	0.89
Adj. Flow (vph)	43	92	0	493	464	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	135	0	0	493	466	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.4%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↑	
Traffic Vol, veh/h	38	82	0	340	413	2
Future Vol, veh/h	38	82	0	340	413	2
Conflicting Peds, #/hr	7	7	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Free
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	69	69	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	92	0	493	464	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	964	471	-	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	283	593	0	-	-	0
Stage 1	633	-	0	-	-	0
Stage 2	609	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	283	589	-	-	-	-
Mov Cap-2 Maneuver	283	-	-	-	-	-
Stage 1	633	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 439	-
HCM Lane V/C Ratio	- 0.307	-
HCM Control Delay (s)	- 16.8	-
HCM Lane LOS	- C	-
HCM 95th %tile Q(veh)	- 1.3	-

Lanes, Volumes, Timings
 7: Gulf Gas Station & Madison St.

12/12/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	1079	52	51	849	7	6
Future Volume (vph)	1079	52	51	849	7	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.993				0.937	
Flt Protected				0.997	0.974	
Satd. Flow (prot)	3514	0	0	3529	1700	0
Flt Permitted				0.997	0.974	
Satd. Flow (perm)	3514	0	0	3529	1700	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			90	350	
Travel Time (s)	4.5			2.0	8.0	
Confl. Peds. (#/hr)		1			14	14
Peak Hour Factor	0.94	0.93	0.82	0.92	0.92	0.92
Adj. Flow (vph)	1148	56	62	923	8	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1204	0	0	985	15	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	73.5%			ICU Level of Service D		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑	↔	
Traffic Vol, veh/h	1079	52	51	849	7	6
Future Vol, veh/h	1079	52	51	849	7	6
Conflicting Peds, #/hr	0	1	0	0	14	14
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	93	82	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1148	56	62	923	8	7

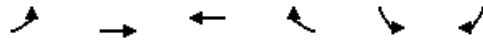
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1205	0	1777
Stage 1	-	-	-	-	1177
Stage 2	-	-	-	-	600
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	575	-	74
Stage 1	-	-	-	-	255
Stage 2	-	-	-	-	511
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	574	-	57
Mov Cap-2 Maneuver	-	-	-	-	57
Stage 1	-	-	-	-	255
Stage 2	-	-	-	-	392

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	49.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	95	-	-	574	-
HCM Lane V/C Ratio	0.149	-	-	0.108	-
HCM Control Delay (s)	49.4	-	-	12	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	0.5	-	-	0.4	-

Lanes, Volumes, Timings
 8: Madison St. & Site Driveway

12/12/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Volume (vph)	0	1101	888	30	0	4
Future Volume (vph)	0	1101	888	30	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Fr _t			0.995			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3522	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3522	0	0	1611
Link Speed (mph)		30	30		30	
Link Distance (ft)		90	60		100	
Travel Time (s)		2.0	1.4		2.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1197	965	33	0	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1197	998	0	0	4
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	1101	888	30	0	4
Future Vol, veh/h	0	1101	888	30	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1197	965	33	0	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	499
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	517
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	517
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	517
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	12
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0