



## BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Monica Tibbits-Nutt, MPO Chair | Secretary and CEO, Massachusetts Department of Transportation  
Tegin Leigh Teich, Executive Director, MPO Staff

### ***TECHNICAL MEMORANDUM***

**DATE:** July 19, 2024  
**TO:** Towns of Hamilton and Ipswich  
**FROM:** Shravanthi Gopalan Narayanan and Srilekha Murthy,  
Boston Region MPO Staff  
**RE:** FFY 2024 Community Transportation Technical Assistance Program:  
Traffic-calming in Hamilton and Ipswich

The Boston Region Metropolitan Planning Organization (MPO) provides municipalities with technical assistance on local transportation issues through its Community Transportation Technical Assistance (CTTA) Program. This memorandum details the results of a transportation study on Goodhue Street in the Towns of Hamilton and Ipswich, Massachusetts, funded through this program.

Town staff from Hamilton and Ipswich reached out to MPO staff in November 2023 with a request to study Goodhue Street and adjacent intersections (at Highland Street and Waldingfield Road) owing to concerns raised by residents about the area being used as a cut-through by vehicles traveling at high speeds. Town staff requested that pedestrian access and speeding also be reviewed as part of this study.

In response to this request, MPO staff conducted a site visit and collected data on traffic volumes and vehicle travel speeds to understand whether and to what extent Goodhue Street is being used as a cut-through. Based on our analysis, we provide short-term and longer-term recommendations to enhance safety for all road users, lower speeds, and improve sight distance. We also analyze and discuss whether the possibility of making Goodhue Street a one-way roadway reduces the cut-through traffic.

As Goodhue Street and Waldingfield Road are scenic routes, any improvements on these roadways must be reviewed by the Planning Board before implementation.<sup>1</sup> Our recommendations include (1) redesigning the intersection of Goodhue Street at Highland Street; (2) traffic-calming to improve safety at the intersections of Waldingfield Road at Goodhue Street and Highland Street at Waldingfield Road; and (3) installation of signage within the study area.

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<sup>1</sup> For a history of Hamilton's streets, see [https://hwlibrary.org/wp-content/uploads/2018/11/Streets-history\\_web.pdf](https://hwlibrary.org/wp-content/uploads/2018/11/Streets-history_web.pdf).

Figure 1 shows the three intersections of interest in the study area. In this study, MPO staff analyzed existing conditions and proposed recommendations for safer pedestrian crossings and traffic-calming measures at each intersection.



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**Figure 1**  
**Hamilton/Ipswich**  
**Study Area**

*Community Transportation  
Technical Assistance Program*

## 1 STUDY AREA

The study area lies along the boundary of the towns of Hamilton and Ipswich, both of which are members of the North Shore Task Force subregion in the Boston metropolitan area. The Hamilton-Ipswich town line bisects Goodhue Street. Both Hamilton and Ipswich are home to many natural resources, including Appleton Farms in Hamilton and Crane Estate in Ipswich.

### 1.1 Roadways

Highland Street is a town-accepted, rural major collector road that carries local traffic through Hamilton, from the border of Hamilton and Wenham to the border of Hamilton and Ipswich.<sup>2</sup> The section of Highland Street in the study area is a two-way road with one lane in each direction. It runs north-south and there is a posted speed limit sign of 40 miles per hour (mph) southbound. The paved roadway is about 24 feet wide, with two 11-foot travel lanes and a two-foot shoulder on either side of the road. There are no sidewalks or bike lanes on Highland Street. The land uses surrounding Highland Street are primarily residential and equestrian farms and stables.

Goodhue Street is a town-accepted, local road that carries primarily residential traffic from Highland Street to Waldingfield Road and crosses the border with Ipswich. It runs north-south and operates as a two-way road with one lane in each direction. The paved roadway is about 18 feet wide and has no lane markings. Goodhue Street lacks sidewalks, bike lanes, and speed limit signs. It has stone walls on either side of the street. The surrounding land uses are residential and conservation with equestrian farms and stables; Appleton Farms borders Goodhue Street to the east.

Waldingfield Road is a town-accepted, local road that runs east-west. It operates as a two-way road with one lane in each direction that carries traffic from Highland Street into Ipswich, and shares an intersection with Goodhue Street. The paved roadway is about 18 feet wide and has no lane markings. There are no sidewalks or bike lanes on Waldingfield Road, and the street has posted speed limit signs of 25 mph. The surrounding land uses are primarily residential with equestrian farms and stables, and one lot (outside the study area) recently slated for development as a corporate business retreat.

### 1.2 Intersections

Goodhue Street connects with Highland Street to the south and Waldingfield Road to the north. Goodhue Street could potentially be used as a cut-through by northbound drivers on Highland Street who are traveling to Waldingfield Road, which leads to Route

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<sup>2</sup> The process to have a roadway accepted is a statutory process that follows Massachusetts General Law and requires a town meeting vote.

1A. This route would allow them to avoid the intersection at Highland Street and Waldingfield Road.

The study area contains three intersections:

***Goodhue Street at Highland Street***

The intersection of Goodhue Street and Highland Street (Figure 2) is an unsignalized, Y intersection with a stop sign and a stop bar for vehicles approaching the intersection southbound from Goodhue Street. A median with vegetation demarcates Goodhue Street from Highland Street. There is a National Grid-owned electric pole at this median.

**Figure 2**  
**Goodhue Street at Highland Street Intersection**

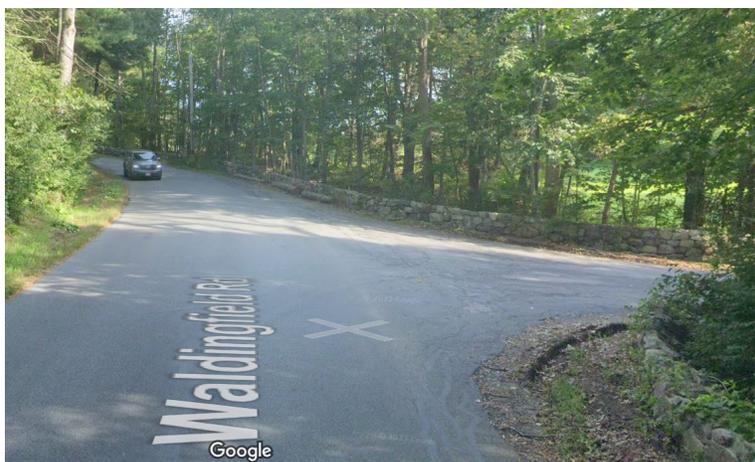


Source: Google Street View (October 2019).

***Goodhue Street at Waldingfield Road***

The intersection of Goodhue Street at Waldingfield Road (Figure 3) is an unsignalized, T intersection with a stop sign and a stop bar for vehicles approaching the intersection northbound from Goodhue Street.

**Figure 3**  
**Goodhue Street at Waldingfield Road Intersection**



Source: Google Street View (September 2023).

***Highland Street at Waldingfield Road***

The intersection of Highland Street at Waldingfield Road (Figure 4) is an unsignalized, T intersection with a stop sign and a stop bar for vehicles approaching the intersection westbound from Waldingfield Road.

**Figure 4**  
**Highland Street at Waldingfield Road Intersection**



Source: Google Street View (October 2019).

## 2 COMMUNITY ENGAGEMENT

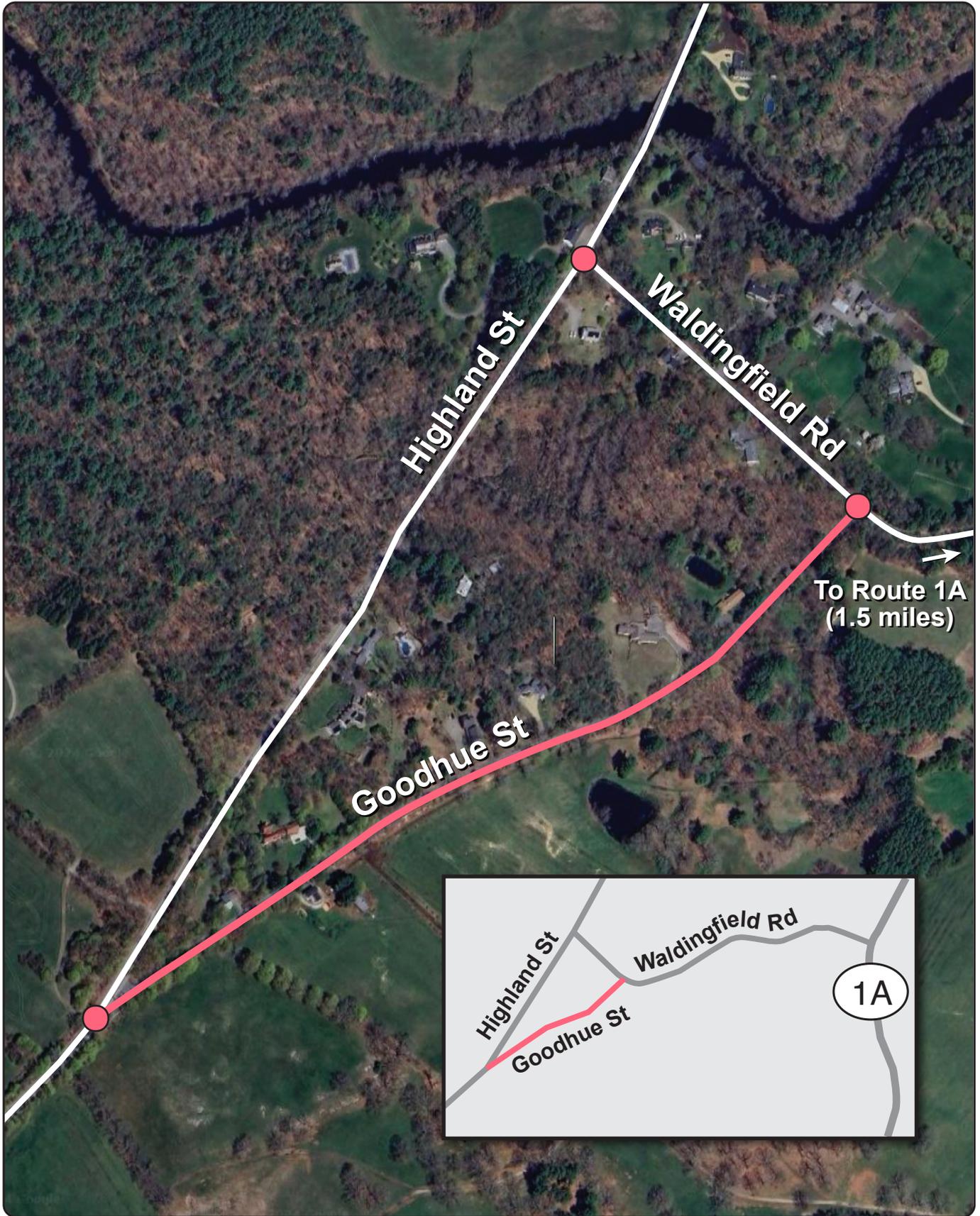
MPO staff met with the following staff from the Towns of Hamilton and Ipswich for an in-person site visit on Tuesday, January 23, 2024:

- John Domelowicz, Town Manager for the Town of Hamilton
- Tim Olson, Director of the Department of Public Works for the Town of Hamilton
- Stephen Crane, Town Manager for the Town of Ipswich
- Rick Clarke, Director of the Department of Public Works for the Town of Ipswich

We conducted a walk-through of Goodhue Street and adjacent intersections and took photographs and videos of existing conditions at each intersection. We also discussed issues and concerns in the study area with representatives from the Towns of Hamilton and Ipswich.

## 3 ISSUES AND CONCERNS

Town staff discussed several safety and speeding issues with MPO staff. The primary concerns were that Goodhue Street is used as a cut-through for vehicles looking to bypass Route 1A, and that people driving these vehicles frequently speed through residential roads and intersections. Figure 5 shows the proximity of the study area to Route 1A.



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**Figure 5**  
**Hamilton/Ipswich**  
**Study Area**

*Community Transportation  
Technical Assistance Program*

MPO staff observed that a portion of a stone retaining wall near Goodhue Street at Waldingfield Road intersection had been damaged due to a truck striking it during a storm. However, there was no other crash history from the MassDOT IMPACT Portal in the study area.<sup>3</sup> Additional concerns identified by Town staff were poor sight distances at the intersection of Goodhue Street at Waldingfield Road, and at the intersection of Highland Street at Waldingfield Road.

A new corporate retreat facility has been proposed for development on Waldingfield Road, and residents have expressed concern about the potential additional traffic that might be added to these roadways. The traffic impact of this new facility must be taken into consideration when considering potential improvements to the site.

## 4 ANALYSIS OF EXISTING CONDITIONS

MPO staff collected several types of data to understand and analyze the existing conditions during the week of January 29, 2024. These data comprise turning movement counts (TMCs) at all three intersections, average weekday traffic volumes, and speed data for the roadways within the study area.

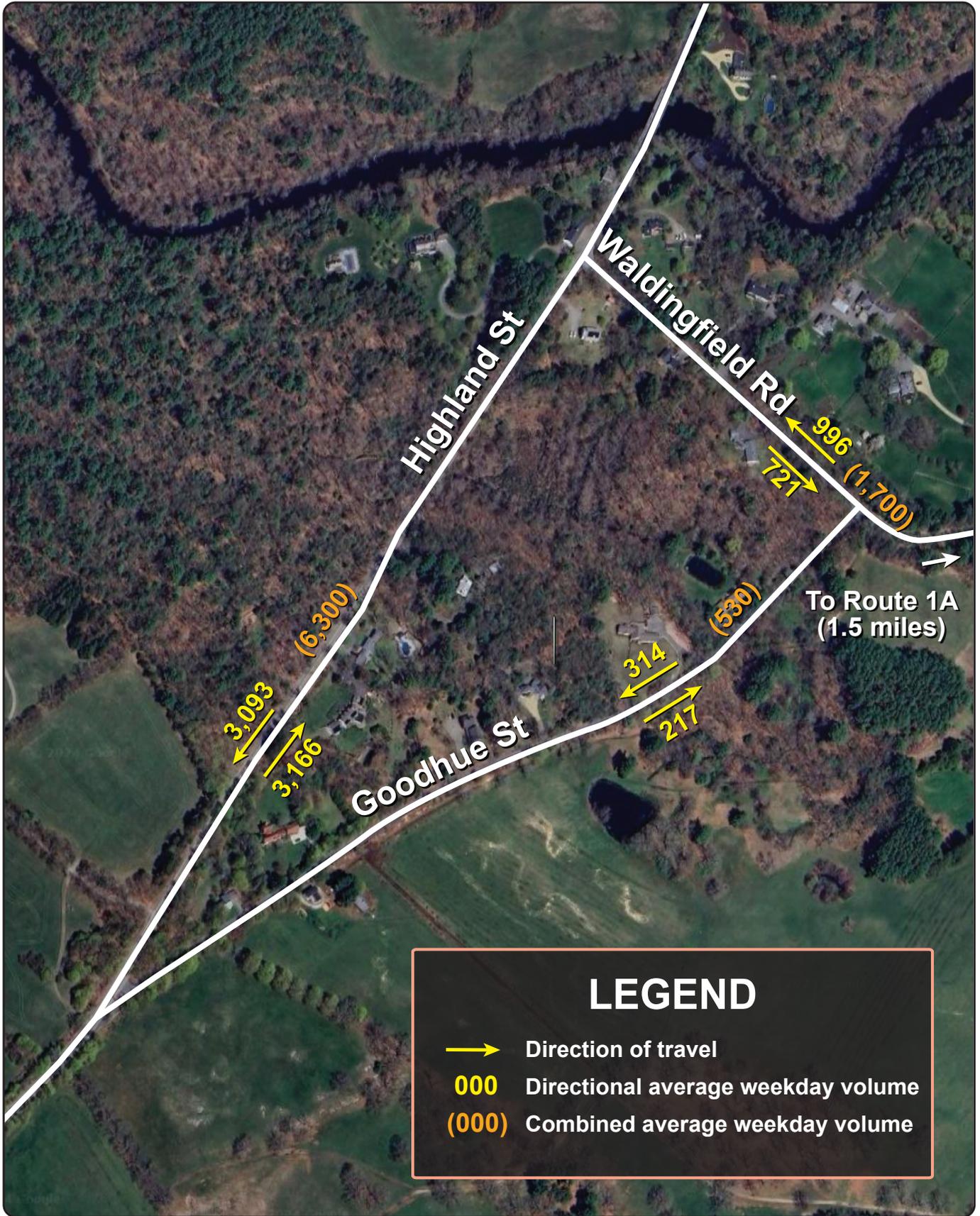
### 4.1 Daily Traffic Volumes

The combined average weekday traffic volumes (Figure 6) in roadway sections near the intersections are described as follows:

- Goodhue Street: 530 vehicles with a split of 314 vehicles (59 percent) southbound towards Highland Street and 217 (41 percent) northbound towards Waldingfield Road
- Highland Street: 6,300 vehicles with a split of 3,093 vehicles (49 percent) southbound and 3,166 (51 percent) northbound
- Waldingfield Road: 1,700 vehicles with a split of 996 vehicles (58 percent) westbound and 721 (42 percent) eastbound

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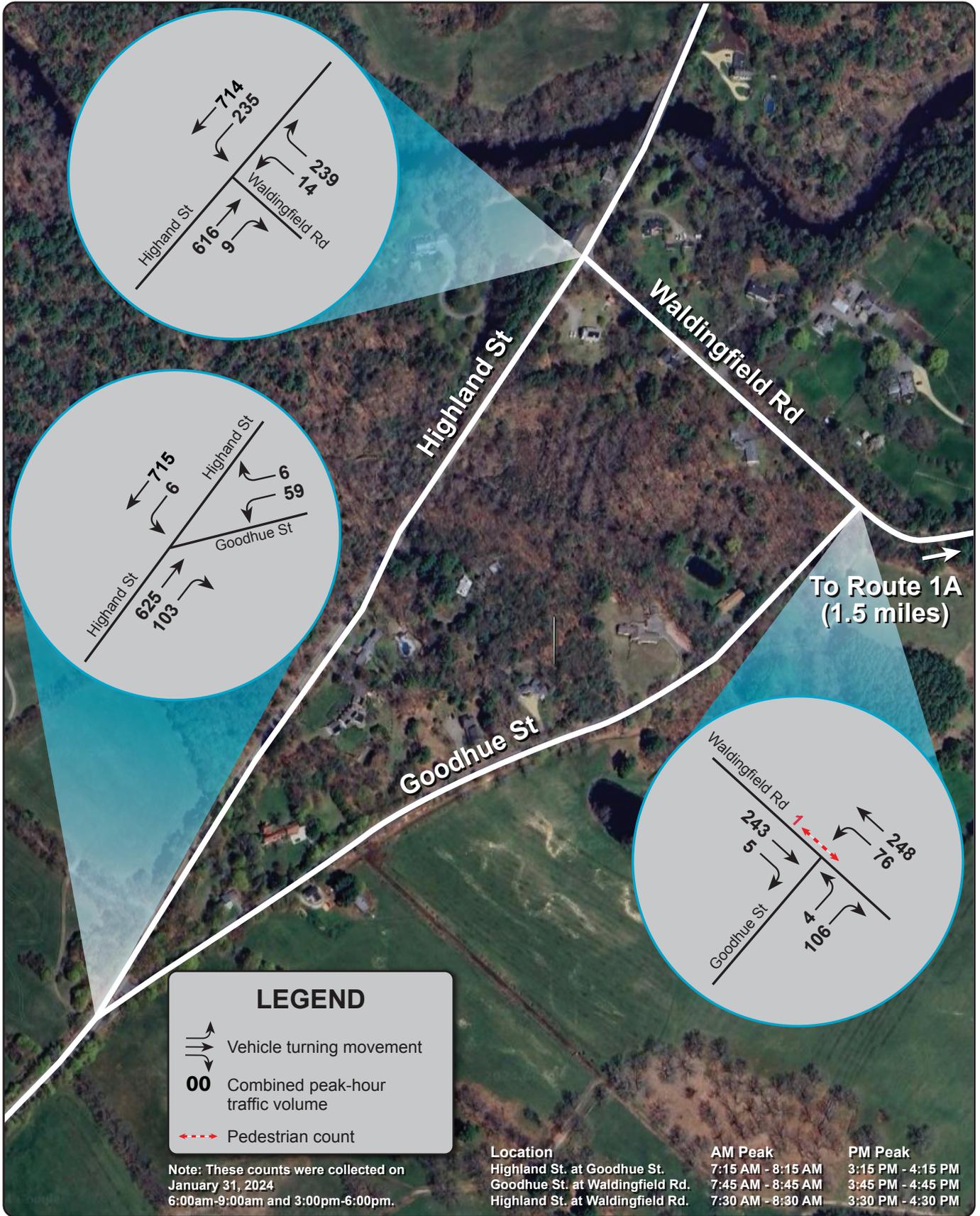
<sup>3</sup> MassDOT IMPACT Portal is a dashboard used for researching crash-related data in Massachusetts. See <https://apps.impact.dot.state.ma.us/cdp/home>.



**Figure 6**  
**Hamilton/Ipswich**  
**Average Annual Daily Traffic (AADT)**

## 4.2 Turning Movement Counts

MPO staff collected TMCs at all three intersections in the study area for the morning peak period (between 6:00 AM and 9:00 AM) and the evening peak period (between 3:00 PM and 6:00 PM). In addition to vehicles, TMCs also include pedestrians and bicyclists traveling through the intersection. We show the TMC data for the three intersections in Figure 7.



**Figure 7**  
**Hamilton/Ipswich**  
**Turning Movement Counts**

The combined peak-hour traffic volume data collected indicates that Goodhue Street is used as a cut-through by drivers traveling to Waldingfield Road from Highland Street, who are avoiding the intersection of Highland Street and Waldingfield Road. Of 200 vehicles that traveled on Goodhue Street, only four vehicles continued westbound, while 106 vehicles traveled eastbound on Waldingfield Road towards Route 1A. This suggests that Goodhue Street is indeed being used as a cut-through by a significant number of people.

Only one pedestrian was observed using the intersection of Goodhue Street and Waldingfield Road when the counts were conducted. However, during the site visit, we noticed a few bicyclists traveling westbound on Waldingfield Road and pedestrians walking from Waldingfield Road onto Goodhue Street.

### 4.3 Vehicle Speeds, Signage, and Pavement Markings

Regulatory signage indicates the traffic regulations of a specific place to road users. Warning signage indicates unexpected roadway conditions on or adjacent to a road in advance to caution road users. An additional emphasis can be provided by placing object markers (Manual on Uniform Traffic Control Devices (MUTCD) Chapter 2C. Section 2C.70-73), delineators (MUTCD Chapter 3G), and/or pavement markings (MUTCD Chapter 3B) to improve safety.<sup>4</sup>

Goodhue Street does not have a posted speed limit. According to the Federal Highway Administration (FHWA), roads without a posted speed limit are automatically assigned a statutory speed limit of 55 miles per hour.<sup>5</sup> Our data indicated that the average speed on Goodhue Street northbound and southbound traffic is 26 mph, much lower than the statutory speed limit. We typically expect that the speed limit should not exceed 25 mph for a local, residential street like Goodhue Street.

Highland Street has a posted speed limit of 40 mph for southbound traffic, while there are no posted speed signs northbound within the extent of the study area. The average speed on Highland Street northbound and southbound was found to be 36 mph, which is within the posted speed limit.

There are posted speed limit signs of 25 mph at Waldingfield Road for eastbound and westbound traffic, however, the posted speed sign for westbound traffic is right at the intersection of Goodhue Street at Waldingfield Road. We found the average speed on Waldingfield Road westbound to be 31 mph and eastbound to be 29 mph, which are both higher than the posted speed limit.

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<sup>4</sup> The Manual on Uniform Traffic Control Devices (MUTCD) is a document issued by the FHWA that specifies the standards for traffic signs, road surface markings, and signals to be designed, installed, and used. See <https://mutcd.fhwa.dot.gov/>.

<sup>5</sup> See the FHWA's Speed Limit Basics, <https://highways.dot.gov/media/13911>.

Other relevant signage in the study area includes the following:

- Stop sign and stop bar at all the three intersections
- “Stop ahead” sign on Goodhue Street southbound, warning vehicles approaching Goodhue Street at Highland Street intersection
- Signage to slow down on Goodhue Street southbound
- “Blind drive” sign Goodhue Street southbound
- “Equestrian Xing” and “Share the Road” signs on Goodhue Street northbound and Highland Street southbound (Figure 8)
- “Caution Blind person” sign on both directions of Waldingfield Road
- “Chicken at play sign” on Goodhue Street southbound and animal crossing signs on Highland Street southbound

**Figure 8**  
**Signage on Highland Street Southbound**



Source: Google Street View (September 2023).

Table 1 summarizes the average speed on each roadway, the percentage of vehicles traveling within the posted speed limit, and the percentage of vehicles going over the speed limit.

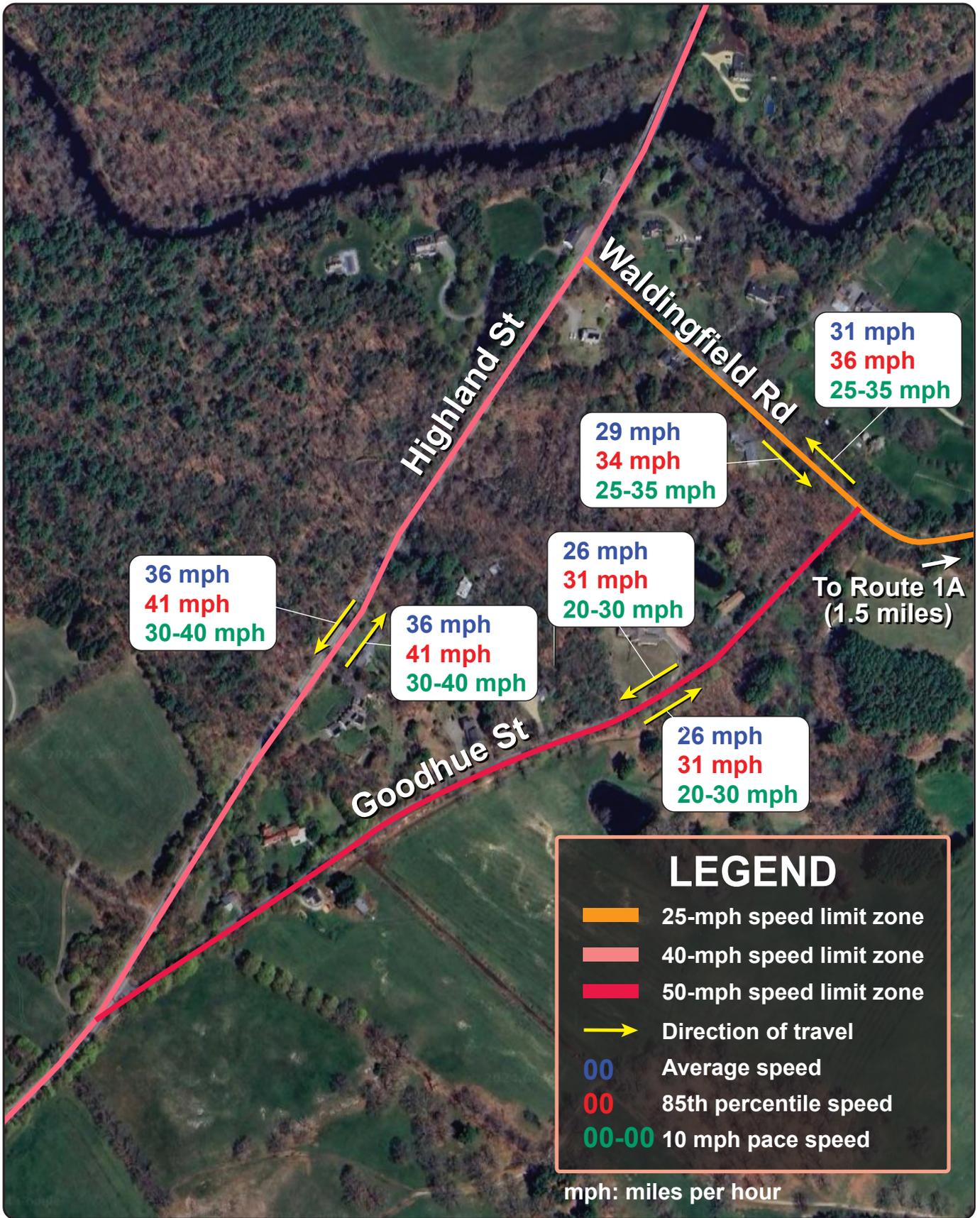
**Table 1**  
**Summary of Speed Data**

<b>Roadway</b>	<b>Posted Speed Limit</b>	<b>Average Speed</b>	<b>Percent of Vehicles Traveling within the Posted Speed Limit</b>	<b>Percent of Vehicles Speeding</b>
Goodhue Street	No posted speed limit	NB: 26 mph SB: 26 mph	NB: 34% SB: 42%	NB: 66% SB: 58%
Highland Street	40 mph	NB: 36 mph SB: 36 mph	NB: 79% SB: 82%	NB: 21% SB: 18%
Waldingfield Road	25 mph	EB: 29 mph WB: 31 mph	NB: 21% SB: 11%	NB: 79% SB: 89%

EB = eastbound. Mph = miles per hour. NB = northbound. SB = southbound. WB = westbound.  
 Source: Boston Region MPO staff.

Figure 9 shows the average speed, 85th percentile speed, 10 mph pace speed, and speed limit zones for the roadways in the study area.<sup>6</sup>

<sup>6</sup> According to FHWA, “The 10 mph pace is the 10 mph range encompassing the greatest percentage of all the measured speeds in a spot speed study.” See the FHWA’s Methods and Practices for Setting Speed Limits: An Informational Report, [https://safety.fhwa.dot.gov/speedmgt/ref\\_mats/fhwasa12004/fhwasa12004.pdf](https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa12004/fhwasa12004.pdf).



**Figure 9**  
**Hamilton/Ipswich**  
**Speed Measurements**

When analyzing existing pavement markings, we observed the presence of both stop bars and stop signs at all three intersections. Town staff mentioned that the pavement markings on Highland Street are refreshed every year. There are no other markings on Goodhue Street and Waldingfield Road; both lane markings and crosswalks are entirely absent.

## 5 PROPOSED IMPROVEMENTS

MPO staff evaluated the existing conditions to propose both short-term and long-term interventions to improve safety in the study area with input from Town staff. These recommendations are described for each intersection.

### 5.1 Goodhue Street at Highland Street

We recommend the following short-term interventions at the intersection of Goodhue Street and Highland Street:

- Since Goodhue Street is currently a non-posted, rural roadway, we recommend that speed limit signs (R2-1) be installed for both directions of Goodhue Street (Figure 10a).
- Replace the “Stop Ahead” sign (W3-1) on Goodhue Street southbound ahead of Highland Street with a new one (Figure 10b) and relocate the sign to appropriate distance from the new intersection (recommended distance is 750 feet, however, this distance is a guideline and may be adjusted based on engineering judgment).
- Add “Reduced Speed Limit Ahead” sign (W3-5) on Highland Street before the intersection of Goodhue Street at Highland Street as a short-term improvement. Redesign the geometry of the intersection in the long-term (Figure 10c).

**Figure 10a**  
**Recommended Speed Limit Sign (R2-1)**



Source: MUTCD (edited by MPO staff).

**Figure 10b**  
**Recommended “Stop Ahead” Sign (W3-1)**



Source: Google Street View (October 2019) (left); MUTCD (right).

**Figure 10c**  
**Recommended “Reduced Speed Limit Ahead” Sign (W3-5)**



Source: MUTCD (edited by MPO staff).

In the long-term, we recommend redesigning the intersection of Goodhue Street at Highland Street. The proposed geometry is shown in Figure 11. This redesign would close the existing right turn onto Goodhue Street from Highland Street, and instead create a T intersection further north. This geometry would require vehicles to slow down before turning onto Goodhue Street. It is recommended that a sidewalk (depending on the available right-of-way) is installed at least on the eastern side of Highland Street, and a crosswalk and pedestrian refuge island at the intersection of Goodhue Street at Highland Street. In case a sidewalk, crosswalk or pedestrian refuge island cannot be installed, a center median at the intersection is recommended to slow down the turning vehicles.



**Figure 11**  
**Hamilton/Ipswich**  
**Proposed recommendations:**  
**Goodhue St at Highland St**

Town staff requested that we assess the installation of a sidewalk along Goodhue Street for pedestrians. Even though the TMCs indicate low pedestrian traffic, we observed a few pedestrians walking along Goodhue Street during our site visit. We recommend conducting exclusive pedestrian and bicyclist counts before proposing a sidewalk on Goodhue Street.

The eastern edge of Goodhue Street seems to be the most suitable location for a sidewalk, if Town staff decide to install one, because there are minimal disruptions (such as electric poles, multiple property lines, and multiple driveways). However, there is a fire hydrant located on that side of the street that would need to be relocated. The minimum width of a sidewalk is three feet, according to the Americans with Disabilities Act (ADA).<sup>7</sup> However, the preferred minimum sidewalk width is five feet<sup>8</sup>.

## 5.2 Goodhue Street at Waldingfield Road

We propose the following short-term interventions at the intersection of Goodhue Street and Waldingfield Road:

- Repave Goodhue Street from the Hamilton-Ipswich town line towards Waldingfield Road and maintain it in good condition (Figure 12a).
- Indicate that Waldingfield Road is a shared roadway by installing a “Share the Road” shared-lane sign (W16-1P) (Figure 12b).
- Relocate the posted speed limit sign on Waldingfield Road westbound farther from the Goodhue Street intersection, placing it closer to the Highland Street intersection on Waldingfield Road eastbound to inform drivers from Goodhue Street and Highland Street about the change in the speed limit (Figure 12c).
- Align the stop sign (R1-1) to the stop bar where Goodhue Street meets Waldingfield Road (Figure 12d).

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<sup>7</sup> See the Americans with Disabilities Act, Section 403.5.1, <https://www.access-board.gov/ada/chapter/ch04/>.

<sup>8</sup> See the Massachusetts Department of Transportation’s directive, Controlling Criteria and Design Justification Process for MassDOT Highway Division Projects, at <https://www.mass.gov/doc/controlling-criteria-and-design-justification-process-for-massdot-highway-division-projects-e/download>.

**Figure 12a**  
**Existing Pavement Condition on Goodhue Street**



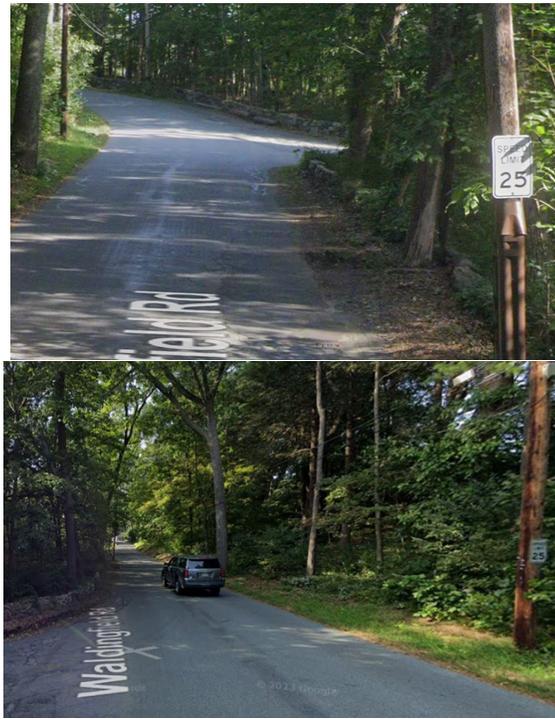
Source: Photograph by MPO staff.

**Figure 12b**  
**Recommended “Share the Road” Sign (W16-1P)**



Source: Bicycle “Three Feet Clearance” Sign Guide.

**Figure 12c**  
**Posted Speed Limit Sign on Waldingfield Road**



Note: Eastbound view (top). Westbound view (bottom).  
Source: Google Street View (September 2023).

**Table 12d**  
**Sight Distance at the Intersection of Goodhue Street and Waldingfield Road**



Source: Photograph by MPO staff.

We recommend the following long-term interventions for this intersection:

- Evaluate surface friction on Waldingfield Road east of the Goodhue Street intersection and perform any high friction surface treatments needed to improve the overall pavement skid resistance under wet or dry conditions.
- Install Chevron Alignment signs (W1-8) (Figure 13) and shoulder and/or centerline rumble strips (MUTCD Section 6M.06) along Waldingfield Road east of the Goodhue Street intersection to alert inattentive drivers through vibration and sound that their vehicle is leaving the travel lane, thereby preventing run-off-the-road crashes.

**Figure 13**  
**Chevron Alignment Sign (W1-8)**



Source: MUTCD.

Figure 14 summarizes the proposed traffic-calming strategies at the intersection of Goodhue Street at Waldingfield Road. Traffic-calming strategies are included to tighten the intersection, thereby reducing excess pavement and improving sight distance for all road users. This redesign recommends that a sidewalk (depending on the available right-of-way) is installed at least on the southern side of Waldingfield Road. This redesign includes a crosswalk with a pedestrian refuge island, which would provide a safe crossing environment for pedestrians and a visual cue to remind drivers to slow down when approaching the intersection and/or making turns. If a sidewalk, crosswalk or pedestrian refuge island cannot be installed, a center median at the intersection is recommended to slow down the turning vehicles.



**Figure 14**  
**Hamilton/Ipswich**  
**Proposed recommendations:**  
**Goodhue St at Waldingfield Rd**

### 5.3 Highland Street at Waldingfield Road

We recommend the following short-term interventions at the intersection of Waldingfield Road and Highland Street:

- Realign the stop sign (R1-1) and stop bar closer to the intersection based on the sight distance.
- Stripe a three- to four-foot-wide shoulder on Waldingfield Road and Goodhue Street, due to the presence of excess pavement (Figure 15).
- Install a speed limit sign (R2-1) on Highland Street northbound.

**Figure 15**  
**Recommended Shoulder**



Source: [Rumble Strip Implementation Guide](#).

We believe that the issues at Waldingfield Road and Highland Street can be addressed with short-term improvements; therefore, we are not proposing any long-term recommendations.

## 6 REIMAGINING GOODHUE STREET AS A ONE-WAY STREET

In addition to proposing short-term and long-term interventions, Town staff had suggested we also evaluate the possibility of converting Goodhue Street to a one-way street southbound.

Instead of a one-way conversion of Goodhue Street, we propose redesigning the geometry of the intersection of Goodhue Street at Highland Street (see Figure 11). The design would close one of the entrances to Goodhue Street and create a T intersection at the other, forcing vehicles to slow down before turning onto Goodhue Street regardless of the direction from which they approach the intersection.

The primary reason for this proposed redesign would be to reduce the use of Goodhue Street as a cut through. Our traffic count data suggests that Goodhue Street is being used as a cut-through by a significant number of people driving to Route 1A and avoiding the intersection of Highland Street and Waldingfield Road.

A secondary reason for the proposed redesign is to narrow the intersection approaches and to reduce speeding along Goodhue Street. Currently, drivers traveling north on Highland Street towards Goodhue Street may not slow down adequately before continuing on Goodhue Street. To further improve safety, stop signs with flashing LEDs (Figure 16) can be installed at all three intersections for better visibility at nighttime.

**Figure 16**  
**Stop Sign with LED Border**



Source: MUTCD Section 2A.11, page 48.

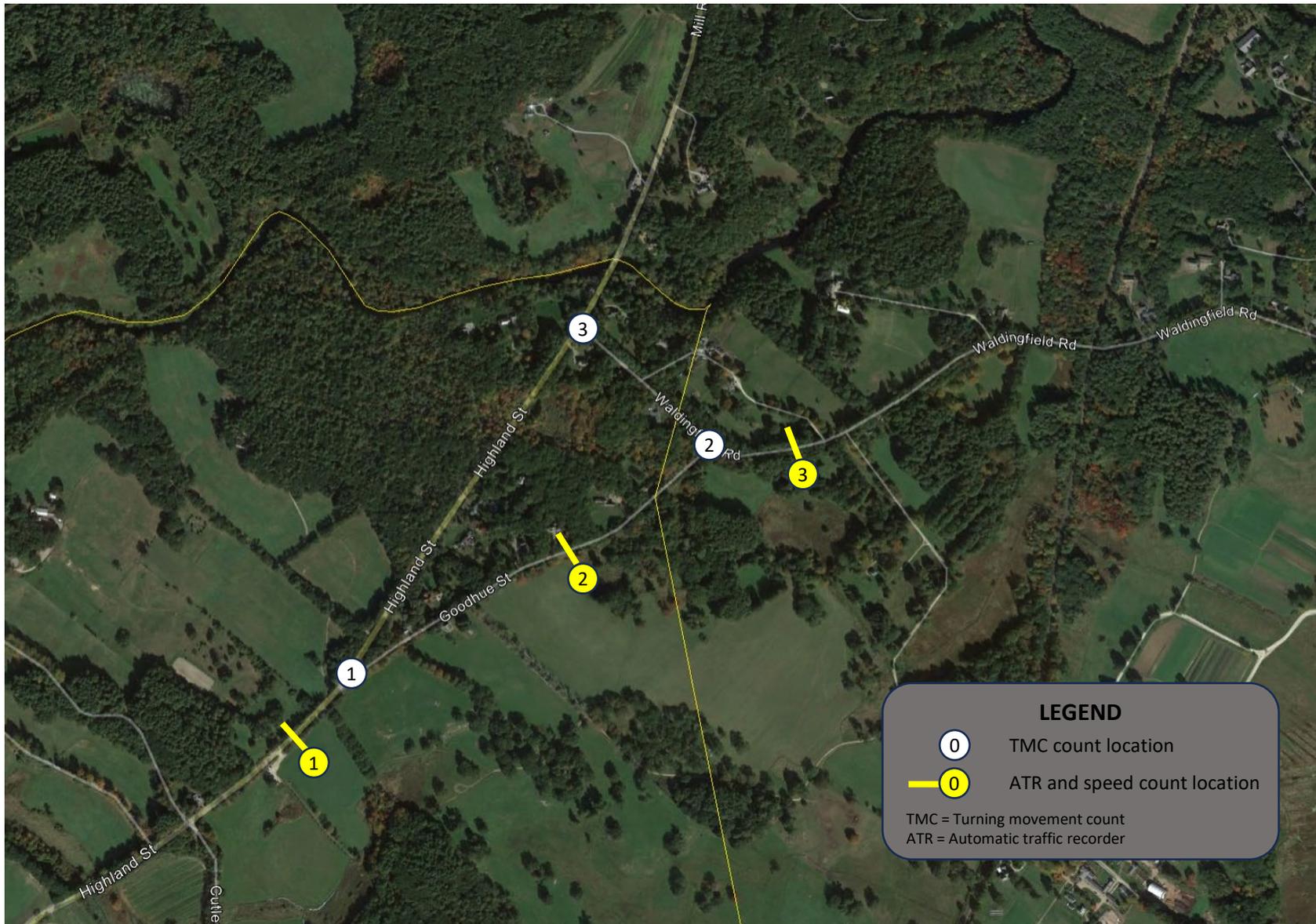
## **7 CONCLUSION**

The Towns of Hamilton and Ipswich requested that the MPO staff examine Goodhue Street and adjacent intersections (at Highland Street and Waldingfield Road) and evaluate vehicle speeding and sight distances issues. They also asked us to study whether Goodhue Street is being used as a cut-through by drivers traveling to Route 1A and other safety concerns. We analyzed the traffic data and came up with inferences based on the results.

The recommendations discussed in this memo are both short-term and long-term solutions. Short-term recommendations include safety improvements that are easy to install and do not require significant time to implement, such as pavement markings and signage that inform and warn drivers of roadway conditions. The long-term recommendations include options for redesigning the intersections of Goodhue Street to address identified challenges. And finally, we discussed whether making Goodhue Street a one-way roadway helps to reduce challenges of the study area. The recommendations discussed in this memo are focused on enhancing safety for people walking, biking, and driving by improving roadway conditions.

**Appendix A**  
**Automatic Traffic Recorder (ATR) and Turning Movement Count (TMC) Locations**

**Figure 1**  
**Hamilton and Ipswich ATR and TMC Count Locations**



**Appendix B**  
**ATR Data**



Imagery ©2024 Airbus, MassGIS, Commonwealth of Massachusetts EDEA, Maxar Technologies, USDA/FPAC/GEO, Map data ©2024 200 ft

ATR 1

TDC PROJECT # S24-003

HAMILTON/IPSUWICH

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 1/30/2024

Page: 1

Station #: 240030000040  
Site ID: 000000000101  
Location: Highland Street NB, south of Goodhue St.  
Direction: NORTH

STA. 1 NB

File: D0130002.prn  
City: Hamilton  
County: speed

TIME	MON	TUE 30	WED 31	THU 1	FRI 2	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00			6	5	6	6			6	17
02:00			2	4	7	4			4	13
03:00			1	1	3	2			2	5
04:00			7	5	7	6			6	19
05:00			12	18	20	17			17	50
06:00			58	50	41	50			50	149
07:00			166	160	148	158			158	474
08:00			271	238	275	261			261	784
09:00			207	234	207	216			216	648
10:00			175	183	185	181			181	543
11:00			172	198	211	194			194	581
12:00			194	178	213	195			195	585
13:00		199	208	197		201			201	604
14:00		190	202	187		193			193	579
15:00		230	251	231		237			237	712
16:00		295	297	302		298			298	894
17:00		274	256	282		271			271	812
18:00		230	212	241		228			228	683
19:00		161	157	142		153			153	460
20:00		101	128	123		117			117	352
21:00		85	91	87		88			88	263
22:00		46	47	65		53			53	158
23:00		30	25	21		25			25	76
24:00		10	14	11		12			12	35
-----										
TOTALS		1851	3159	3163	1323	3166			3166	9496
-----										
% AVG WKDY		58.5	99.8	99.9	41.8					
% AVG WEEK		58.5	99.8	99.9	41.8					
-----										
AM Times			08:00	08:00	08:00	08:00			08:00	
AM Peaks			271	238	275	261			261	
-----										
PM Times		16:00	16:00	16:00		16:00			16:00	
PM Peaks		295	297	302		298			298	

U4

NB 3166  
SB 3093  
          
COMB AWD 6259  
FAC 1.00  
COMB AWT 6,300

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1

Page: 1

Starting: 1/30/2024

STA . 1 SB

Station #: 240030000090

File: D0130004.prn

Site ID: 000000000102

City: Hamilton

Location: Highland Street SB, south of Goodhue St.

County: speed

Direction: SOUTH

TIME	MON	TUE 30	WED 31	THU 1	FRI 2	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00			8	8	8	8			8	24
02:00			2	5	8	5			5	15
03:00			0	0	3	1			1	3
04:00			6	5	6	6			6	17
05:00			11	14	14	13			13	39
06:00			43	42	35	40			40	120
07:00			144	125	121	130			130	390
08:00			274	232	272	259			259	778
09:00			227	272	229	243			243	728
10:00			193	176	194	188			188	563
11:00			173	184	194	184			184	551
12:00			186	174	194	185			185	554
13:00		188	193	179		187			187	560
14:00		185	190	202		192			192	577
15:00		212	239	203		218			218	654
16:00		278	264	292		278			278	834
17:00		262	250	268		260			260	780
18:00		224	200	233		219			219	657
19:00		171	170	157		166			166	498
20:00		106	137	101		115			115	344
21:00		98	86	100		95			95	284
22:00		48	61	64		58			58	173
23:00		31	29	34		31			31	94
24:00		13	14	8		12			12	35
TOTALS		1816	3100	3078	1278	3093			3093	9272
% AVG WKDY		58.7	100.2	99.5	41.3					
% AVG WEEK		58.7	100.2	99.5	41.3					
AM Times			08:00	09:00	08:00	08:00		08:00		
AM Peaks			274	272	272	259		259		
PM Times		16:00	16:00	16:00		16:00		16:00		
PM Peaks		278	264	292		278		278		

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 1/30/2024

Page: 1

Station #: 240030000073  
Site ID: 000000000201  
Location: Goodhue St.NB, south of Waldingfield Rd.  
Direction: NORTH

STA. 2 NB

File: D0130006.prn  
City: Hamilton  
County: speed

TIME	MON	TUE 30	WED 31	THU 1	FRI 2	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00			0	1	0	0			0	1
02:00			0	2	0	1			1	2
03:00			0	0	0	0			0	0
04:00			0	0	0	0			0	0
05:00			0	0	0	0			0	0
06:00			1	2	1	1			1	4
07:00			4	4	2	3			3	10
08:00			19	19	10	16			16	48
09:00			25	22	22	23			23	69
10:00			11	18	10	13			13	39
11:00			5	7	12	8			8	24
12:00			11	16	18	15			15	45
13:00		12	11	15		13			13	38
14:00		12	21	11		15			15	44
15:00		24	20	22		22			22	66
16:00		20	20	23		21			21	63
17:00		23	25	31		26			26	79
18:00		20	14	17		17			17	51
19:00		8	8	4		7			7	20
20:00		4	9	3		5			5	16
21:00		4	7	9		7			7	20
22:00		2	2	1		2			2	5
23:00		2	1	1		1			1	4
24:00		1	2	0		1			1	3
TOTALS		132	216	228	75	217			217	651
% AVG WKDY		60.8	99.5	105.1	34.6					
% AVG WEEK		60.8	99.5	105.1	34.6					
AM Times			09:00	09:00	09:00	09:00		09:00		
AM Peaks			25	22	22	23		23		
PM Times		15:00	17:00	17:00		17:00		17:00		
PM Peaks		24	25	31		26		26		

U7

NB 217  
SB 314  
          
Comb ADT 531  
FAC 1.00  
Comb ADT 530

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 1/30/2024

Page: 1

Station #: 240003000086  
Site ID: 000000000202  
Location: Goodhue St.SB, south of Waldingfield Rd.  
Direction: SOUTH

STA. 2 SB

File: D0130008.prn  
City: Hamilton  
County: speed

TIME	MON	TUE 30	WED 31	THU 1	FRI 2	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00			0	1	0	0			0	1
02:00			0	1	1	1			1	2
03:00			0	0	0	0			0	0
04:00			0	0	0	0			0	0
05:00			0	0	0	0			0	0
06:00			2	5	2	3			3	9
07:00			4	4	3	4			4	11
08:00			43	34	37	38			38	114
09:00			28	33	25	29			29	86
10:00			16	21	17	18			18	54
11:00			13	14	16	14			14	43
12:00			12	20	16	16			16	48
13:00		13	21	24		19			19	58
14:00		16	30	16		21			21	62
15:00		24	30	27		27			27	81
16:00		29	31	33		31			31	93
17:00		27	26	37		30			30	90
18:00		25	17	19		20			20	61
19:00		16	18	17		17			17	51
20:00		8	18	11		12			12	37
21:00		7	9	8		8			8	24
22:00		4	4	2		3			3	10
23:00		3	2	1		2			2	6
24:00		2	2	0		1			1	4
TOTALS		174	326	328	117	314			314	945
% AVG WKDY		55.4	103.8	104.5	37.3					
% AVG WEEK		55.4	103.8	104.5	37.3					
AM Times			08:00	08:00	08:00	08:00		08:00		
AM Peaks			43	34	37	38		38		
PM Times		16:00	16:00	17:00		16:00		16:00		
PM Peaks		29	31	37		31		31		

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 1/30/2024

Page: 1

Station #: 240030000108  
Site ID: 000000000203  
Location: Waldingfield Rd. EB, East of Goodhue St.  
Direction: EAST

STA 3EB

File: D0130010.prn  
City: Ipswich  
County: speed

TIME	MON	TUE 30	WED 31	THU 1	FRI 2	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00			0	0	0	0			0	0
02:00			0	3	1	1			1	4
03:00			0	0	1	0			0	1
04:00			0	0	0	0			0	0
05:00			3	3	2	3			3	8
06:00			4	7	5	5			5	16
07:00			28	29	21	26			26	78
08:00			94	82	74	83			83	250
09:00			113	102	106	107			107	321
10:00			80	92	73	82			82	245
11:00			57	43	51	50			50	151
12:00			47	67	49	54			54	163
13:00		58	56	51		55			55	165
14:00		63	81	47		64			64	191
15:00		70	73	63		69			69	206
16:00		84	101	96		94			94	281
17:00		99	115	105		106			106	319
18:00		90	92	74		85			85	256
19:00		48	47	49		48			48	144
20:00		27	32	21		27			27	80
21:00		18	17	19		18			18	54
22:00		10	12	9		10			10	31
23:00		6	9	5		7			7	20
24:00		4	2	0		2			2	6
TOTALS		577	1063	967	383	996			996	2990
% AVG WKDY		57.9	106.7	97.1	38.5					
% AVG WEEK		57.9	106.7	97.1	38.5					
AM Times			09:00	09:00	09:00	09:00		09:00		
AM Peaks			113	102	106	107		107		
PM Times		17:00	17:00	17:00		17:00		17:00		
PM Peaks		99	115	105		106		106		

U7

EB 996  
WB 721

COMB AWD 1717

FAC 1.00

COMB ADT 1,700

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 1/30/2024

Page: 1

Station #: 230040000145  
Site ID: 000000000204  
Location: Waldingfield Rd. WB, East of Goodhue St.  
Direction: WEST

*STA. 3 WB*

File: D0130012.prn  
City: Ipswich  
County: speed

TIME	MON	TUE 30	WED 31	THU 1	FRI 2	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00			0	0	0	0			0	0
02:00			0	1	1	1			1	2
03:00			0	0	1	0			0	1
04:00			0	0	0	0			0	0
05:00			3	3	2	3			3	8
06:00			3	7	4	5			5	14
07:00			15	9	11	12			12	35
08:00			64	44	51	53			53	159
09:00			46	49	46	47			47	141
10:00			40	36	33	36			36	109
11:00			43	26	36	35			35	105
12:00			29	38	37	35			35	104
13:00		36	46	50		44			44	132
14:00		48	68	42		53			53	158
15:00		58	64	51		58			58	173
16:00		79	77	82		79			79	238
17:00		88	93	100		94			94	281
18:00		79	79	79		79			79	237
19:00		36	39	41		39			39	116
20:00		24	26	18		23			23	68
21:00		13	10	12		12			12	35
22:00		6	9	6		7			7	21
23:00		6	5	4		5			5	15
24:00		2	1	0		1			1	3
TOTALS		475	760	698	222	721			721	2155
% AVG WKDY		65.9	105.4	96.8	30.8					
% AVG WEEK		65.9	105.4	96.8	30.8					
AM Times			08:00	09:00	08:00	08:00		08:00		
AM Peaks			64	49	51	53		53		
PM Times		17:00	17:00	17:00		17:00		17:00		
PM Peaks		88	93	100		94		94		

**Appendix C**  
**TMCs Goodhue Street at Highland Street**

249821-A (Highland Street at Goodhue Street)... - TMC

Wed Jan 31, 2024

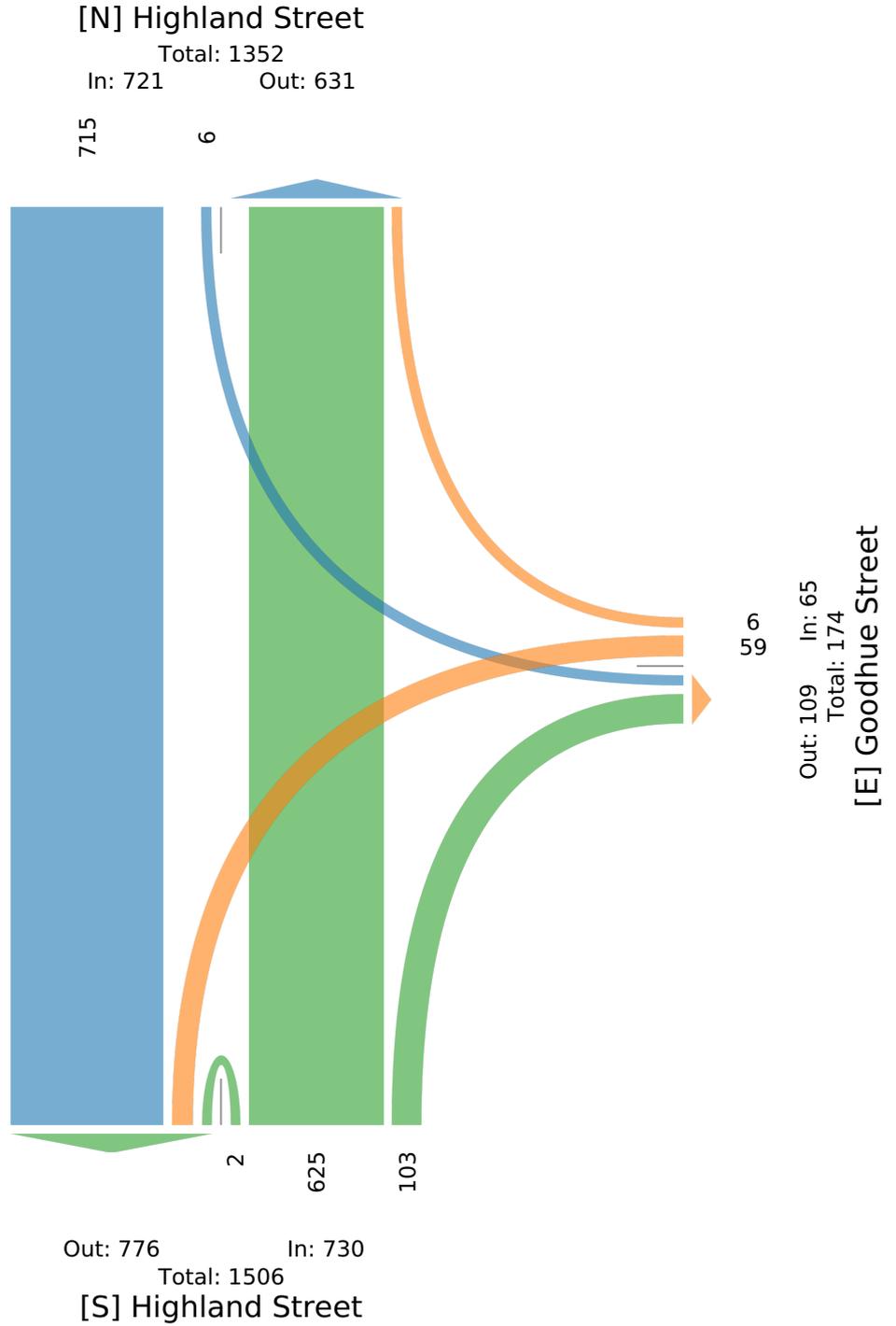
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1148459, Location: 42.651084, -70.868012

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



**Appendix D**  
**TMCs Goodhue Street at Waldingfield Road**

249821-B (Goodhue Street at Waldingfield Roa... - TMC

Wed Jan 31, 2024

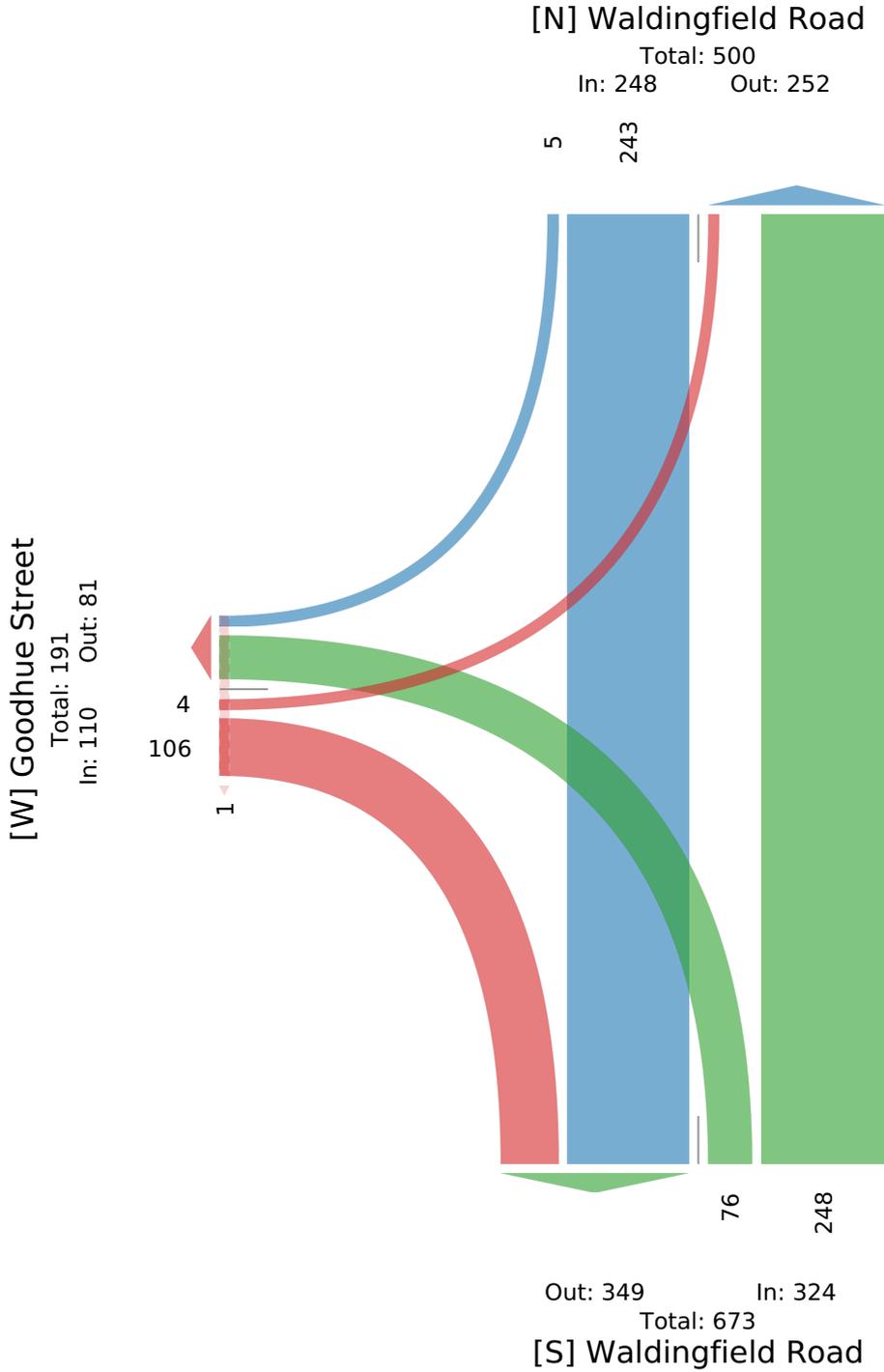
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1148460, Location: 42.655067, -70.859665

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



**Appendix E**  
**TMCs Highland Street at Waldingfield Road**

249821-C (Highland Street at Waldingfield Ro... - TMC

Wed Jan 31, 2024

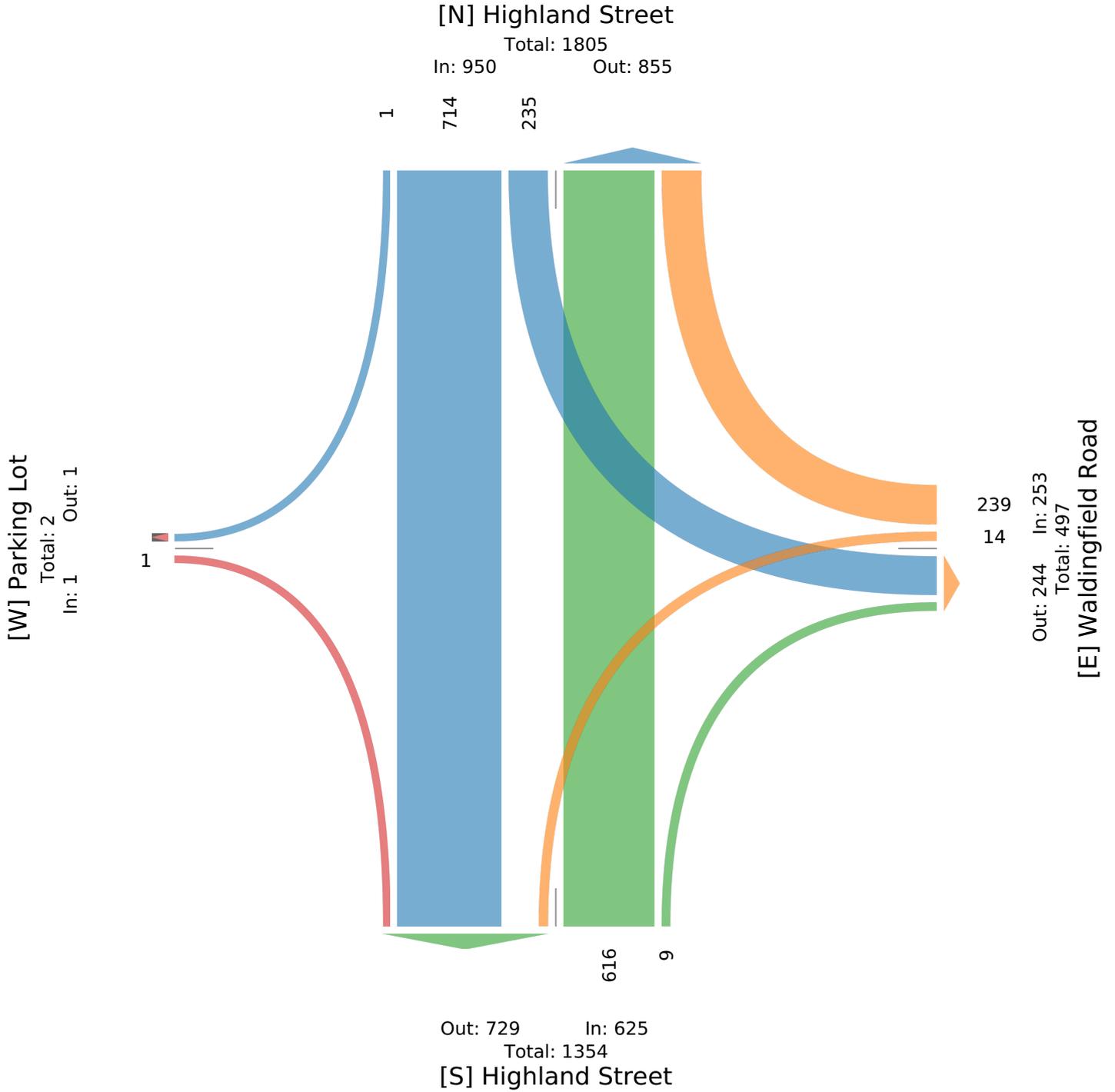
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1148463, Location: 42.657162, -70.86275

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



**Appendix F**  
**Speed Data**

Mass Highway Department

SPEED SUMMARY  
Tue 1/30/2024

STA. 1 NB

Station #: 240030000040  
Site ID: 00000000101  
Location: Highland Street NB, south of Goodhue St.  
Direction: NORTH  
Lane: 1

File: D0130002.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
13:00	11	1	1	5	22	31	78	43	3	0	0	1	0	3	199
14:00	2	0	0	0	5	22	114	17	8	0	0	0	0	22	190
15:00	16	0	2	1	7	35	108	53	2	0	0	0	0	6	230
16:00	15	1	3	7	14	39	170	32	3	0	0	0	0	11	295
17:00	14	0	2	1	6	45	158	41	1	0	0	0	0	6	274
18:00	9	0	0	2	4	62	131	14	2	0	0	0	0	6	230
19:00	11	0	0	0	8	31	94	17	0	0	0	0	0	0	161
20:00	2	0	0	0	0	25	52	17	0	0	5	0	0	0	101
21:00	0	0	0	0	4	19	46	10	6	0	0	0	0	0	85
22:00	0	0	0	0	1	7	28	9	1	0	0	0	0	0	46
23:00	0	0	0	0	0	2	17	6	5	0	0	0	0	0	30
24:00	0	0	0	0	0	4	5	1	0	0	0	0	0	0	10
DAY TOTAL	80	2	8	16	71	322	1001	260	31	0	5	1	0	54	1851
PERCENTS	4.3%	0.1%	0.4%	0.9%	3.8%	17.4%	54.1%	14.0%	1.7%	0.0%	0.3%	0.1%	0.0%	2.9%	100.0%

Statistical Information...

15th Percentile Speed  
32.5 mph

85th Percentile Speed  
40.8 mph

Median Speed  
37.2 mph

Average Speed  
36.9 mph

10 MPH Pace Speed  
30 mph to 40 mph  
1323 vehicles in pace  
Representing 77.1% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 1/31/2024

Page: 2

Station #: 240030000040  
Site ID: 000000000101  
Location: Highland Street NB, south of Goodhue St.  
Direction: NORTH  
Lane: 1

File: D0130002.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	3	1	1	1	0	0	0	0	0	6
02:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	2	4	0	1	0	0	0	0	0	7
05:00	0	0	0	0	0	1	8	1	2	0	0	0	0	0	12
06:00	0	0	0	0	0	0	37	21	0	0	0	0	0	0	58
07:00	3	0	0	0	7	30	88	37	1	0	0	0	0	0	166
08:00	42	0	5	1	17	52	134	18	2	0	0	0	0	0	271
09:00	12	0	0	0	9	32	124	27	1	0	0	0	2	0	207
10:00	6	5	0	6	8	51	76	19	3	0	0	0	0	1	175
11:00	26	0	0	0	3	26	99	13	0	0	0	0	0	5	172
12:00	11	0	0	6	16	25	101	23	0	0	0	0	0	12	194
13:00	24	2	1	16	2	32	93	19	0	0	0	0	0	19	208
14:00	24	0	0	11	6	24	90	23	3	0	0	0	8	13	202
15:00	27	0	0	5	5	32	122	40	0	1	0	0	0	19	251
16:00	30	0	1	9	11	42	156	26	8	0	0	0	0	14	297
17:00	22	0	0	3	10	50	115	33	0	0	0	0	0	23	256
18:00	11	0	1	0	2	46	121	16	0	0	1	0	0	14	212
19:00	12	3	0	0	0	19	96	24	0	0	0	0	0	3	157
20:00	6	0	0	0	2	9	82	24	0	0	0	0	0	5	128
21:00	2	0	0	0	0	4	62	21	0	0	0	0	0	2	91
22:00	0	0	0	0	0	6	22	17	0	0	0	0	0	2	47
23:00	0	0	0	0	0	7	11	3	2	0	0	0	0	2	25
24:00	2	0	0	0	0	1	6	5	0	0	0	0	0	0	14
DAY TOTAL	260	10	8	57	98	495	1650	411	24	1	1	0	10	134	3159
PERCENTS	8.2%	0.3%	0.3%	1.8%	3.1%	15.7%	52.2%	13.0%	0.8%	0.0%	0.0%	0.0%	0.3%	4.2%	100.0%

Statistical Information..

15th Percentile Speed  
32.5 mph

85th Percentile Speed  
40.4 mph

Median Speed  
37.2 mph

Average Speed  
36.8 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2145 vehicles in pace  
Representing 77.6% of the total vehicles

Vehicles > 65 MPH  
10  
0.4%

Mass Highway Department

SPEED SUMMARY  
Thu 2/1/2024

Station #: 240030000040  
Site ID: 000000000101  
Location: Highland Street NB, south of Goodhue St.  
Direction: NORTH  
Lane: 1

File: D0130002.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	1	3	1	0	0	0	0	0	0	5
02:00	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	2	1	0	2	0	0	0	0	0	5
05:00	0	0	0	0	1	0	15	1	1	0	0	0	0	0	18
06:00	0	0	0	0	0	20	16	14	0	0	0	0	0	0	50
07:00	16	0	0	0	2	25	86	26	3	0	0	0	0	2	160
08:00	17	0	6	1	2	39	137	25	9	0	0	0	0	2	238
09:00	12	1	0	0	0	54	116	37	0	0	0	0	0	14	234
10:00	9	0	2	9	4	20	96	29	2	0	0	0	0	12	183
11:00	14	3	0	11	8	21	92	39	2	0	0	0	0	8	198
12:00	4	6	0	2	2	35	89	19	0	0	0	0	1	20	178
13:00	11	0	0	3	17	27	72	36	0	0	0	0	0	31	197
14:00	19	2	0	4	6	29	81	25	0	0	0	1	0	20	187
15:00	21	0	0	4	6	17	128	29	0	0	0	0	0	26	231
16:00	32	1	1	5	8	46	128	36	0	2	1	0	2	40	302
17:00	24	2	2	6	2	56	140	21	0	0	0	0	0	29	282
18:00	18	0	0	0	8	40	133	13	0	0	0	0	0	29	241
19:00	8	0	0	0	5	19	78	23	0	0	0	0	0	9	142
20:00	5	0	1	0	1	19	82	11	2	0	0	0	0	2	123
21:00	3	1	0	0	0	15	40	15	7	0	0	0	0	6	87
22:00	4	1	0	0	2	11	31	12	0	0	0	0	0	4	65
23:00	0	0	0	0	0	0	10	7	0	1	0	0	0	3	21
24:00	0	0	0	0	0	1	4	3	3	0	0	0	0	0	11
DAY TOTAL	217	17	12	45	74	497	1583	422	31	3	1	1	3	257	3163
PERCENTS	6.9%	0.5%	0.4%	1.4%	2.3%	15.7%	50.0%	13.3%	1.0%	0.1%	0.0%	0.0%	0.1%	8.1%	100.0%

Statistical Information...

15th Percentile Speed  
32.6 mph

85th Percentile Speed  
40.7 mph

Median Speed  
37.2 mph

Average Speed  
36.8 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2080 vehicles in pace  
Representing 77.4% of the total vehicles

Vehicles > 65 MPH  
3  
0.1%

Mass Highway Department

SPEED SUMMARY  
 Fri 2/2/2024

Station #: 240030000040  
 Site ID: 000000000101  
 Location: Highland Street NB, south of Goodhue St.  
 Direction: NORTH  
 Lane: 1

File: D0130002.prn  
 City: Hamilton  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	3	3	0	0	0	0	0	0	6
02:00	0	0	0	0	0	1	4	2	0	0	0	0	0	0	7
03:00	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
04:00	0	0	0	0	0	2	2	0	3	0	0	0	0	0	7
05:00	0	0	0	4	0	8	5	3	0	0	0	0	0	0	20
06:00	0	0	0	0	1	7	23	10	0	0	0	0	0	0	41
07:00	7	0	0	0	0	36	63	35	0	0	0	0	0	7	148
08:00	32	0	0	4	3	56	138	34	2	0	0	0	0	6	275
09:00	15	0	0	3	4	34	114	21	7	0	0	0	0	9	207
10:00	13	0	0	15	2	23	85	13	4	0	0	0	4	26	185
11:00	10	3	0	7	9	52	65	36	0	1	0	0	0	28	211
12:00	11	5	8	33	7	30	80	9	1	0	1	5	2	21	213
DAY TOTAL	88	8	8	66	26	250	582	168	17	1	1	5	6	97	1323
PERCENTS	6.7%	0.6%	0.6%	5.0%	2.0%	18.9%	44.0%	12.7%	1.3%	0.1%	0.1%	0.4%	0.5%	7.3%	100.0%

Statistical Information...

15th Percentile Speed  
 31.3 mph

85th Percentile Speed  
 40.8 mph

Median Speed  
 36.8 mph

Average Speed  
 36.2 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 832 vehicles in pace  
 Representing 73.1% of the total vehicles

Vehicles > 65 MPH  
 6  
 0.5%

Mass Highway Department

SPEED SUMMARY  
Tue 1/30/2024

Page: 1

Station #: 240030000090  
Site ID: 000000000102  
Location: Highland Street SB, south of Goodhue St.  
Direction: SOUTH  
Lane: 1

STA 1 SB

File: D0130004.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
13:00	13	0	0	3	12	57	82	17	0	0	0	0	0	4	188
14:00	12	1	3	1	17	37	86	19	1	0	0	0	6	2	185
15:00	12	0	3	12	16	70	78	20	0	0	0	0	0	1	212
16:00	11	1	3	10	31	55	109	50	0	0	0	0	8	0	278
17:00	21	0	4	10	22	76	108	15	6	0	0	0	0	0	262
18:00	19	0	0	2	3	57	111	28	1	2	0	0	0	1	224
19:00	7	0	0	0	0	42	79	40	0	0	0	0	0	3	171
20:00	1	0	0	0	9	27	39	25	5	0	0	0	0	0	106
21:00	2	0	0	0	12	21	31	28	4	0	0	0	0	0	98
22:00	0	0	0	0	0	19	15	14	0	0	0	0	0	0	48
23:00	0	0	0	0	0	0	27	4	0	0	0	0	0	0	31
24:00	0	0	0	0	0	0	6	7	0	0	0	0	0	0	13
DAY TOTAL	98	2	13	38	122	461	771	267	17	2	0	0	14	11	1816
PERCENTS	5.4%	0.1%	0.7%	2.1%	6.7%	25.4%	42.5%	14.7%	0.9%	0.1%	0.0%	0.0%	0.8%	0.6%	100.0%

Statistical Information...

15th Percentile Speed  
30.9 mph

85th Percentile Speed  
40.8 mph

Median Speed  
36.4 mph

Average Speed  
36.1 mph

10 MPH Pace Speed  
30 mph to 40 mph  
1232 vehicles in pace  
Representing 72.2% of the total vehicles

Vehicles > 65 MPH  
14  
0.8%

Mass Highway Department

SPEED SUMMARY  
Wed 1/31/2024

Station #: 240030000090  
Site ID: 00000000102  
Location: Highland Street SB, south of Goodhue St.  
Direction: SOUTH  
Lane: 1

File: D0130004.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
02:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	0	0	4	0	1	0	0	0	0	0	6
05:00	0	0	0	0	0	2	5	1	2	0	1	0	0	0	11
06:00	0	0	0	0	1	2	22	12	6	0	0	0	0	0	43
07:00	0	0	3	0	4	43	59	32	3	0	0	0	0	0	144
08:00	12	0	0	0	24	58	142	36	2	0	0	0	0	0	274
09:00	15	0	0	5	15	45	128	16	0	1	0	0	0	2	227
10:00	2	0	4	3	22	51	85	22	0	0	0	0	0	4	193
11:00	4	0	0	4	16	47	89	7	2	0	0	0	0	4	173
12:00	8	0	0	0	20	50	88	14	1	0	1	2	0	2	186
13:00	5	0	0	13	10	40	84	36	0	1	0	4	0	0	193
14:00	14	0	0	4	17	64	76	14	0	0	0	0	1	0	190
15:00	26	3	0	6	12	49	110	26	0	0	1	0	4	2	239
16:00	20	1	0	3	17	63	117	31	5	0	0	2	0	5	264
17:00	34	0	0	4	10	68	97	36	1	0	0	0	0	0	250
18:00	16	1	0	0	0	64	94	25	0	0	0	0	0	0	200
19:00	6	0	0	0	3	23	96	40	0	0	0	0	0	2	170
20:00	4	3	0	0	0	19	66	42	3	0	0	0	0	0	137
21:00	0	8	0	3	2	6	35	30	2	0	0	0	0	0	86
22:00	4	0	0	0	0	11	23	21	2	0	0	0	0	0	61
23:00	0	0	0	0	0	0	22	7	0	0	0	0	0	0	29
24:00	0	0	0	0	0	0	9	5	0	0	0	0	0	0	14
DAY TOTAL	170	16	7	46	173	705	1461	453	30	2	3	8	5	21	3100
PERCENTS	5.5%	0.5%	0.2%	1.5%	5.6%	22.7%	47.1%	14.6%	1.0%	0.1%	0.1%	0.3%	0.2%	0.7%	100.0%

Statistical Information...

15th Percentile Speed  
31.4 mph

85th Percentile Speed  
40.7 mph

Median Speed  
36.7 mph

Average Speed  
36.3 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2166 vehicles in pace  
Representing 74.5% of the total vehicles

Vehicles > 65 MPH  
5  
0.2%

Mass Highway Department

SPEED SUMMARY  
Thu 2/1/2024

Page: 3

Station #: 240030000090  
Site ID: 000000000102  
Location: Highland Street SB, south of Goodhue St.  
Direction: SOUTH  
Lane: 1

File: D0130004.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	4	1	3	0	0	0	0	0	0	8
02:00	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	3	2	0	0	0	0	0	5
05:00	0	0	0	0	0	2	2	0	6	0	1	3	0	0	14
06:00	1	0	0	0	4	3	17	16	1	0	0	0	0	0	42
07:00	7	0	0	0	2	19	66	28	3	0	0	0	0	0	125
08:00	21	0	0	0	4	57	108	41	1	0	0	0	0	0	232
09:00	24	3	0	2	7	57	123	52	2	0	0	0	0	2	272
10:00	5	0	0	0	12	33	109	15	0	0	0	2	0	0	176
11:00	9	0	1	2	9	44	90	20	0	0	5	0	0	4	184
12:00	8	0	0	2	5	36	93	25	1	0	0	0	0	4	174
13:00	13	6	0	4	12	34	67	36	1	0	0	0	0	6	179
14:00	11	3	1	6	12	47	89	18	0	0	0	0	0	15	202
15:00	23	0	0	2	27	41	94	10	2	1	0	0	1	2	203
16:00	20	2	2	7	25	71	103	49	4	1	0	0	0	8	292
17:00	37	0	6	0	7	50	130	28	1	0	0	0	0	9	268
18:00	23	0	0	0	7	43	130	25	1	0	0	0	0	4	233
19:00	11	0	0	0	7	25	69	35	2	2	0	0	0	6	157
20:00	4	0	0	0	1	20	43	28	5	0	0	0	0	0	101
21:00	3	0	0	0	4	21	45	24	1	0	0	0	0	2	100
22:00	0	0	0	0	1	22	32	4	5	0	0	0	0	0	64
23:00	0	0	0	0	0	0	11	23	0	0	0	0	0	0	34
24:00	0	0	0	0	0	0	1	7	0	0	0	0	0	0	8
DAY TOTAL	220	14	10	25	146	629	1423	495	38	4	6	5	1	62	3078
PERCENTS	7.1%	0.5%	0.3%	0.8%	4.7%	20.4%	46.2%	16.1%	1.2%	0.1%	0.2%	0.2%	0.0%	2.0%	100.0%

Statistical Information...

15th Percentile Speed  
31.8 mph

85th Percentile Speed  
41.3 mph

Median Speed  
37.0 mph

Average Speed  
36.7 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2052 vehicles in pace  
Representing 73.4% of the total vehicles

Vehicles > 65 MPH  
1  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 2/2/2024

Station #: 240030000090  
 Site ID: 00000000102  
 Location: Highland Street SB, south of Goodhue St.  
 Direction: SOUTH  
 Lane: 1

File: D0130004.prn  
 City: Hamilton  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	2	4	2	0	0	0	0	0	8
02:00	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
03:00	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
04:00	0	0	0	0	0	0	0	2	0	0	0	0	0	4	6
05:00	0	0	0	2	0	0	3	9	0	0	0	0	0	0	14
06:00	1	0	1	0	0	1	26	6	0	0	0	0	0	0	35
07:00	6	0	0	0	1	24	55	28	5	0	0	0	0	2	121
08:00	13	0	0	3	5	59	147	33	0	0	0	1	0	11	272
09:00	15	0	2	2	19	51	110	24	0	0	0	0	0	6	229
10:00	6	0	1	4	10	64	84	15	2	0	0	1	0	7	194
11:00	9	0	2	4	21	36	94	18	2	0	0	0	0	8	194
12:00	7	3	9	24	24	40	48	26	2	0	0	0	0	11	194
DAY TOTAL	57	3	15	39	80	275	569	176	13	0	0	2	0	49	1278
PERCENTS	4.5%	0.2%	1.2%	3.1%	6.3%	21.5%	44.5%	13.8%	1.0%	0.0%	0.0%	0.2%	0.0%	3.8%	100.0%

Statistical Information...

15th Percentile Speed  
 30.7 mph

85th Percentile Speed  
 40.4 mph

Median Speed  
 36.5 mph

Average Speed  
 35.7 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 844 vehicles in pace  
 Representing 72.0% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 1/30/2024

Page: 1

STA. 2 NB

Station #: 240030000073  
Site ID: 00000000201  
Location: Goodhue St.NB, south of Waldingfield Rd.  
Direction: NORTH  
Lane: 1

File: D0130006.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
13:00	0	1	1	2	5	3	0	0	0	0	0	0	0	0	12
14:00	0	2	3	6	1	0	0	0	0	0	0	0	0	0	12
15:00	2	2	3	4	10	3	0	0	0	0	0	0	0	0	24
16:00	0	0	2	6	10	2	0	0	0	0	0	0	0	0	20
17:00	0	1	3	2	12	5	0	0	0	0	0	0	0	0	23
18:00	0	0	2	7	8	3	0	0	0	0	0	0	0	0	20
19:00	0	0	0	1	3	4	0	0	0	0	0	0	0	0	8
20:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
21:00	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4
22:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
24:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
DAY TOTAL	2	6	14	33	54	22	1	0	0	0	0	0	0	0	132
PERCENTS	1.5%	4.5%	10.6%	25.0%	40.9%	16.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
19.8 mph

85th Percentile Speed  
30.8 mph

Median Speed  
26.1 mph

Average Speed  
25.4 mph

10 MPH Pace Speed  
20 mph to 30 mph  
87 vehicles in pace  
Representing 66.9% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 1/31/2024

Station #: 240030000073  
Site ID: 000000000201  
Location: Goodhue St.NB, south of Waldingfield Rd.  
Direction: NORTH  
Lane: 1

File: D0130006.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:00	0	0	1	0	1	2	0	0	0	0	0	0	0	0	4
08:00	0	0	1	7	6	5	0	0	0	0	0	0	0	0	19
09:00	0	0	1	9	11	4	0	0	0	0	0	0	0	0	25
10:00	0	1	0	4	4	2	0	0	0	0	0	0	0	0	11
11:00	0	0	0	1	3	1	0	0	0	0	0	0	0	0	5
12:00	0	0	1	2	4	3	1	0	0	0	0	0	0	0	11
13:00	0	0	2	3	3	2	1	0	0	0	0	0	0	0	11
14:00	0	0	4	7	8	2	0	0	0	0	0	0	0	0	21
15:00	0	0	1	3	12	3	1	0	0	0	0	0	0	0	20
16:00	0	0	0	1	6	11	2	0	0	0	0	0	0	0	20
17:00	0	1	0	3	15	6	0	0	0	0	0	0	0	0	25
18:00	0	0	0	3	9	2	0	0	0	0	0	0	0	0	14
19:00	0	0	0	2	2	4	0	0	0	0	0	0	0	0	8
20:00	0	0	0	2	3	2	2	0	0	0	0	0	0	0	9
21:00	0	0	0	0	2	5	0	0	0	0	0	0	0	0	7
22:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
24:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
DAY TOTAL	0	2	11	48	90	57	8	0	0	0	0	0	0	0	216
PERCENTS	0.0%	0.9%	5.1%	22.2%	41.7%	26.4%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
22.0 mph

85th Percentile Speed  
32.9 mph

Median Speed  
27.6 mph

Average Speed  
27.4 mph

10 MPH Pace Speed  
25 mph to 35 mph  
147 vehicles in pace  
Representing 68.1% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 2/1/2024

Station #: 240030000073  
Site ID: 000000000201  
Location: Goodhue St.NB, south of Waldingfield Rd.  
Direction: NORTH  
Lane: 1

File: D0130006.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
07:00	0	1	0	0	3	0	0	0	0	0	0	0	0	0	4
08:00	0	1	0	3	10	4	0	1	0	0	0	0	0	0	19
09:00	0	0	0	3	11	8	0	0	0	0	0	0	0	0	22
10:00	0	0	3	2	10	3	0	0	0	0	0	0	0	0	18
11:00	0	0	0	3	4	0	0	0	0	0	0	0	0	0	7
12:00	0	0	0	1	9	5	1	0	0	0	0	0	0	0	16
13:00	0	0	0	4	7	3	1	0	0	0	0	0	0	0	15
14:00	0	1	0	2	6	2	0	0	0	0	0	0	0	0	11
15:00	0	0	1	8	9	4	0	0	0	0	0	0	0	0	22
16:00	0	3	1	3	12	3	1	0	0	0	0	0	0	0	23
17:00	0	0	1	2	21	6	1	0	0	0	0	0	0	0	31
18:00	0	0	0	6	6	3	2	0	0	0	0	0	0	0	17
19:00	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4
20:00	0	0	0	1	0	2	0	0	0	0	0	0	0	0	3
21:00	0	0	0	0	5	1	3	0	0	0	0	0	0	0	9
22:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
24:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY TOTAL	0	6	6	38	119	48	10	1	0	0	0	0	0	0	228
PERCENTS	0.0%	2.6%	2.6%	16.7%	52.2%	21.1%	4.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
22.9 mph

85th Percentile Speed  
32.6 mph

Median Speed  
27.7 mph

Average Speed  
27.6 mph

10 MPH Pace Speed  
25 mph to 35 mph  
167 vehicles in pace  
Representing 73.2% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 2/2/2024

Station #: 240030000073  
 Site ID: 00000000201  
 Location: Goodhue St.NB, south of Waldingfield Rd.  
 Direction: NORTH  
 Lane: 1

File: D0130006.prn  
 City: Hamilton  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
07:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
08:00	1	0	1	3	2	3	0	0	0	0	0	0	0	0	10
09:00	0	0	2	5	10	2	3	0	0	0	0	0	0	0	22
10:00	4	0	0	2	3	1	0	0	0	0	0	0	0	0	10
11:00	0	1	1	2	7	1	0	0	0	0	0	0	0	0	12
12:00	0	2	3	6	6	1	0	0	0	0	0	0	0	0	18
DAY TOTAL	5	3	7	18	30	9	3	0	0	0	0	0	0	0	75
PERCENTS	6.7%	4.0%	9.3%	24.0%	40.0%	12.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 20.1 mph

85th Percentile Speed  
 30.8 mph

Median Speed  
 26.2 mph

Average Speed  
 25.7 mph

10 MPH Pace Speed  
 20 mph to 30 mph  
 48 vehicles in pace  
 Representing 68.6% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 1/30/2024

STA. 2 SB

Station #: 240003000086  
Site ID: 00000000202  
Location: Goodhue St.SB, south of Waldingfield Rd.  
Direction: SOUTH  
Lane: 1

File: D0130008.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
13:00	0	0	0	5	5	3	0	0	0	0	0	0	0	0	13
14:00	1	0	2	6	6	1	0	0	0	0	0	0	0	0	16
15:00	1	0	6	6	8	3	0	0	0	0	0	0	0	0	24
16:00	0	0	2	10	12	5	0	0	0	0	0	0	0	0	29
17:00	10	0	0	10	5	2	0	0	0	0	0	0	0	0	27
18:00	0	0	0	4	19	2	0	0	0	0	0	0	0	0	25
19:00	2	0	0	9	3	2	0	0	0	0	0	0	0	0	16
20:00	0	0	0	2	1	5	0	0	0	0	0	0	0	0	8
21:00	0	0	0	2	3	0	0	0	2	0	0	0	0	0	7
22:00	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4
23:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
24:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
DAY TOTAL	14	0	10	54	63	31	0	0	2	0	0	0	0	0	174
PERCENTS	8.0%	0.0%	5.7%	31.0%	36.2%	17.8%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information.

15th Percentile Speed  
21.3 mph

85th Percentile Speed  
31.5 mph

Median Speed  
26.3 mph

Average Speed  
26.4 mph

10 MPH Pace Speed  
20 mph to 30 mph  
117 vehicles in pace  
Representing 73.1% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 1/31/2024

Page: 2

Station #: 240003000086  
Site ID: 000000000202  
Location: Goodhue St.SB, south of Waldingfield Rd.  
Direction: SOUTH  
Lane: 1

File: D0130008.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
07:00	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
08:00	0	0	2	10	27	4	0	0	0	0	0	0	0	0	43
09:00	0	1	7	7	6	4	3	0	0	0	0	0	0	0	28
10:00	0	1	8	1	3	3	0	0	0	0	0	0	0	0	16
11:00	0	0	4	4	1	2	2	0	0	0	0	0	0	0	13
12:00	0	0	1	6	5	0	0	0	0	0	0	0	0	0	12
13:00	0	0	4	4	11	2	0	0	0	0	0	0	0	0	21
14:00	0	0	2	15	11	2	0	0	0	0	0	0	0	0	30
15:00	0	0	6	9	9	6	0	0	0	0	0	0	0	0	30
16:00	0	0	0	15	10	2	4	0	0	0	0	0	0	0	31
17:00	7	0	2	2	11	1	3	0	0	0	0	0	0	0	26
18:00	0	0	0	9	4	0	3	1	0	0	0	0	0	0	17
19:00	0	2	0	4	9	3	0	0	0	0	0	0	0	0	18
20:00	0	0	0	6	7	5	0	0	0	0	0	0	0	0	18
21:00	0	0	5	0	4	0	0	0	0	0	0	0	0	0	9
22:00	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
23:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
24:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
DAY TOTAL	7	4	41	97	126	35	15	1	0	0	0	0	0	0	326
PERCENTS	2.1%	1.2%	12.6%	29.8%	38.7%	10.7%	4.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
20.2 mph

85th Percentile Speed  
30.5 mph

Median Speed  
25.7 mph

Average Speed  
25.6 mph

10 MPH Pace Speed  
20 mph to 30 mph  
223 vehicles in pace  
Representing 69.9% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 2/1/2024

Page: 3

Station #: 240003000086  
Site ID: 00000000202  
Location: Goodhue St.SB, south of Waldingfield Rd.  
Direction: SOUTH  
Lane: 1

File: D0130008.prn  
City: Hamilton  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	3	2	0	0	0	0	0	0	0	0	0	5
07:00	0	0	0	2	0	2	0	0	0	0	0	0	0	0	4
08:00	0	0	0	16	14	4	0	0	0	0	0	0	0	0	34
09:00	0	0	4	4	12	9	4	0	0	0	0	0	0	0	33
10:00	0	0	1	10	4	6	0	0	0	0	0	0	0	0	21
11:00	0	0	2	3	8	1	0	0	0	0	0	0	0	0	14
12:00	0	0	0	5	13	2	0	0	0	0	0	0	0	0	20
13:00	3	0	0	6	10	3	2	0	0	0	0	0	0	0	24
14:00	0	1	0	3	10	1	0	1	0	0	0	0	0	0	16
15:00	0	4	2	4	13	4	0	0	0	0	0	0	0	0	27
16:00	0	1	4	13	8	6	0	0	1	0	0	0	0	0	33
17:00	0	0	5	6	13	11	2	0	0	0	0	0	0	0	37
18:00	0	0	0	7	8	3	1	0	0	0	0	0	0	0	19
19:00	0	0	0	1	6	6	2	2	0	0	0	0	0	0	17
20:00	0	0	2	2	2	0	4	1	0	0	0	0	0	0	11
21:00	0	0	7	0	1	0	0	0	0	0	0	0	0	0	8
22:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
24:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY TOTAL	3	6	27	85	129	58	15	4	1	0	0	0	0	0	328
PERCENTS	0.9%	1.8%	8.2%	25.9%	39.3%	17.7%	4.6%	1.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
20.9 mph

85th Percentile Speed  
32.5 mph

Median Speed  
26.7 mph

Average Speed  
26.7 mph

10 MPH Pace Speed  
20 mph to 30 mph  
214 vehicles in pace  
Representing 65.8% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 2/2/2024

Station #: 240003000086  
 Site ID: 00000000202  
 Location: Goodhue St.SB, south of Waldingfield Rd.  
 Direction: SOUTH  
 Lane: 1

File: D0130008.prn  
 City: Hamilton  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
07:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
08:00	0	1	1	10	17	7	1	0	0	0	0	0	0	0	37
09:00	0	0	1	10	7	7	0	0	0	0	0	0	0	0	25
10:00	0	0	4	2	9	2	0	0	0	0	0	0	0	0	17
11:00	1	0	0	8	7	0	0	0	0	0	0	0	0	0	16
12:00	0	0	0	6	9	0	1	0	0	0	0	0	0	0	16
DAY TOTAL	1	1	6	39	52	16	2	0	0	0	0	0	0	0	117
PERCENTS	0.9%	0.9%	5.1%	33.3%	44.4%	13.7%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 21.3 mph

85th Percentile Speed  
 30.2 mph

Median Speed  
 26.2 mph

Average Speed  
 26.0 mph

10 MPH Pace Speed  
 20 mph to 30 mph  
 91 vehicles in pace  
 Representing 78.4% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 1/30/2024

Page: 1

STA. 3 EB

Station #: 240030000108  
Site ID: 000000000203  
Location: Waldingfield Rd. EB, East of Goodhue St.  
Direction: EAST  
Lane: 1

File: D0130010.prn  
City: Ipswich  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
13:00	6	5	5	5	20	10	3	0	0	0	0	0	2	2	58
14:00	0	0	3	15	28	11	6	0	0	0	0	0	0	0	63
15:00	0	0	5	15	32	14	4	0	0	0	0	0	0	0	70
16:00	0	1	2	22	40	12	6	1	0	0	0	0	0	0	84
17:00	0	0	2	11	43	35	7	1	0	0	0	0	0	0	99
18:00	0	2	3	18	36	27	2	2	0	0	0	0	0	0	90
19:00	0	0	2	11	18	13	4	0	0	0	0	0	0	0	48
20:00	0	0	2	9	7	3	3	2	1	0	0	0	0	0	27
21:00	0	0	2	2	10	2	1	0	1	0	0	0	0	0	18
22:00	0	0	0	1	3	6	0	0	0	0	0	0	0	0	10
23:00	0	0	0	0	2	2	2	0	0	0	0	0	0	0	6
24:00	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4
DAY TOTAL	6	8	26	110	242	135	38	6	2	0	0	0	2	2	577
PERCENTS	1.0%	1.4%	4.5%	19.1%	41.9%	23.4%	6.6%	1.0%	0.3%	0.0%	0.0%	0.0%	0.3%	0.3%	100.0%

Statistical Information...

15th Percentile Speed  
22.3 mph

85th Percentile Speed  
33.6 mph

Median Speed  
27.9 mph

Average Speed  
28.1 mph

10 MPH Pace Speed  
25 mph to 35 mph  
377 vehicles in pace  
Representing 66.3% of the total vehicles

Vehicles > 65 MPH  
2  
0.4%

Mass Highway Department

SPEED SUMMARY  
Wed 1/31/2024

Station #: 240030000108  
Site ID: 00000000203  
Location: Waldingfield Rd. EB, East of Goodhue St.  
Direction: EAST  
Lane: 1

File: D0130010.prn  
City: Ipswich  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3
06:00	0	0	0	1	2	0	1	0	0	0	0	0	0	0	4
07:00	0	0	0	2	13	8	0	1	0	0	0	0	0	4	28
08:00	0	0	1	22	40	20	8	1	0	0	0	0	2	0	94
09:00	0	0	7	19	55	30	2	0	0	0	0	0	0	0	113
10:00	1	0	1	10	39	19	5	0	0	0	0	1	0	4	80
11:00	0	0	1	7	18	22	7	0	0	0	0	0	2	0	57
12:00	0	0	1	13	19	13	1	0	0	0	0	0	0	0	47
13:00	0	0	1	4	28	19	3	1	0	0	0	0	0	0	56
14:00	0	5	3	15	28	20	6	0	0	0	0	0	0	4	81
15:00	0	0	2	11	28	23	8	0	0	0	0	0	1	0	73
16:00	0	0	2	11	40	31	11	2	0	0	0	0	0	4	101
17:00	0	0	1	18	39	31	12	2	0	0	0	4	4	4	115
18:00	0	0	1	10	42	26	6	3	0	0	0	0	0	4	92
19:00	0	0	0	5	16	18	3	1	0	0	0	0	2	2	47
20:00	0	0	1	1	13	11	3	1	0	0	0	0	0	2	32
21:00	0	0	0	4	9	4	0	0	0	0	0	0	0	0	17
22:00	0	0	1	0	5	4	1	1	0	0	0	0	0	0	12
23:00	0	0	0	0	3	5	1	0	0	0	0	0	0	0	9
24:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
DAY TOTAL	1	5	23	153	439	307	78	13	0	0	0	5	11	28	1063
PERCENTS	0.1%	0.5%	2.2%	14.4%	41.3%	28.9%	7.3%	1.2%	0.0%	0.0%	0.0%	0.5%	1.0%	2.6%	100.0%

Statistical Information...

15th Percentile Speed  
24.2 mph

85th Percentile Speed  
34.2 mph

Median Speed  
28.8 mph

Average Speed  
29.5 mph

10 MPH Pace Speed  
25 mph to 35 mph  
746 vehicles in pace  
Representing 72.1% of the total vehicles

Vehicles > 65 MPH  
11  
1.1%

SPEED SUMMARY  
Thu 2/1/2024

Station #: 240030000108  
 Site ID: 000000000203  
 Location: Waldingfield Rd., EB, East of Goodhue St.  
 Direction: EAST  
 Lane: 1

File: D0130010.prn  
 City: Ipswich  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3
06:00	0	0	0	1	5	0	0	1	0	0	0	0	0	0	7
07:00	0	0	1	4	14	6	0	0	0	0	0	4	0	0	29
08:00	1	0	2	9	38	22	5	0	0	0	0	2	0	3	82
09:00	1	0	2	13	50	26	6	1	0	0	0	0	0	3	102
10:00	0	0	2	17	39	19	5	0	0	0	0	0	2	8	92
11:00	0	0	1	12	18	9	0	1	0	0	0	2	0	0	43
12:00	0	0	0	15	29	14	3	0	0	0	0	0	2	4	67
13:00	0	0	1	14	22	12	1	1	0	0	0	0	0	0	51
14:00	1	0	1	16	14	5	5	3	0	0	0	0	0	2	47
15:00	0	0	1	11	29	19	3	0	0	0	0	0	0	0	63
16:00	1	0	2	22	29	19	8	3	0	0	0	0	0	12	96
17:00	0	0	6	16	44	25	2	3	1	0	0	2	2	4	105
18:00	1	1	1	14	28	18	8	3	0	0	0	0	0	0	74
19:00	0	0	2	11	17	13	4	2	0	0	0	0	0	0	49
20:00	0	0	2	3	9	4	3	0	0	0	0	0	0	0	21
21:00	0	0	0	2	11	5	1	0	0	0	0	0	0	0	19
22:00	0	0	0	0	7	1	0	0	1	0	0	0	0	0	9
23:00	0	0	1	1	2	1	0	0	0	0	0	0	0	0	5
24:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY TOTAL	5	1	25	181	406	221	54	18	2	0	0	10	8	36	967
PERCENTS	0.5%	0.1%	2.6%	18.7%	42.0%	22.9%	5.6%	1.9%	0.2%	0.0%	0.0%	1.0%	0.8%	3.7%	100.0%

Statistical Information...

15th Percentile Speed  
23.1 mph

85th Percentile Speed  
33.9 mph

Median Speed  
28.2 mph

Average Speed  
29.1 mph

10 MPH Pace Speed  
25 mph to 35 mph  
627 vehicles in pace  
Representing 67.7% of the total vehicles

Vehicles > 65 MPH  
8  
0.9%

Mass Highway Department

SPEED SUMMARY  
 Fri 2/2/2024

Station #: 240030000108  
 Site ID: 000000000203  
 Location: Waldingfield Rd. EB, East of Goodhue St.  
 Direction: EAST  
 Lane: 1

File: D0130010.prn  
 City: Ipswich  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
06:00	0	0	0	0	3	0	1	1	0	0	0	0	0	0	5
07:00	0	1	1	2	9	6	0	0	0	0	0	0	0	2	21
08:00	0	0	2	9	32	18	9	0	0	0	0	2	0	2	74
09:00	0	0	2	15	58	19	8	0	0	0	0	0	0	4	106
10:00	1	0	1	10	40	15	0	0	0	0	0	0	0	6	73
11:00	0	0	4	8	26	9	4	0	0	0	0	0	0	0	51
12:00	1	0	2	9	24	10	0	1	0	0	0	0	0	2	49
DAY TOTAL	2	1	12	53	193	79	23	2	0	0	0	2	0	16	383
PERCENTS	0.5%	0.3%	3.1%	13.8%	50.4%	20.6%	6.0%	0.5%	0.0%	0.0%	0.0%	0.5%	0.0%	4.2%	100.0%

Statistical Information...

15th Percentile Speed  
 23.9 mph

85th Percentile Speed  
 33.3 mph

Median Speed  
 28.0 mph

Average Speed  
 28.4 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 272 vehicles in pace  
 Representing 74.5% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 1/30/2024

Page: 1

STA. 3WB

Station #: 230040000145  
Site ID: 000000000204  
Location: Waldingfield Rd. WB, East of Goodhue St.  
Direction: WEST  
Lane: 1

File: D0130012.prn  
City: Ipswich  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
13:00	4	6	3	5	7	8	3	0	0	0	0	0	0	0	36
14:00	0	0	1	6	21	14	6	0	0	0	0	0	0	0	48
15:00	0	0	3	8	20	20	6	1	0	0	0	0	0	0	58
16:00	0	1	1	6	28	38	4	1	0	0	0	0	0	0	79
17:00	0	0	0	5	34	37	11	1	0	0	0	0	0	0	88
18:00	0	0	1	7	28	33	8	2	0	0	0	0	0	0	79
19:00	0	0	1	0	19	11	5	0	0	0	0	0	0	0	36
20:00	0	0	0	7	5	7	2	2	0	1	0	0	0	0	24
21:00	0	0	1	2	7	2	0	0	1	0	0	0	0	0	13
22:00	0	0	0	0	3	2	1	0	0	0	0	0	0	0	6
23:00	0	0	0	0	2	3	1	0	0	0	0	0	0	0	6
24:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
DAY TOTAL	4	7	11	46	176	175	47	7	1	1	0	0	0	0	475
PERCENTS	0.8%	1.5%	2.3%	9.7%	37.1%	36.8%	9.9%	1.5%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
25.2 mph

85th Percentile Speed  
34.6 mph

Median Speed  
29.9 mph

Average Speed  
29.7 mph

10 MPH Pace Speed  
25 mph to 35 mph  
351 vehicles in pace  
Representing 74.5% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 1/31/2024

Station #: 230040000145  
Site ID: 000000000204  
Location: Waldingfield Rd. WB, East of Goodhue St.  
Direction: WEST  
Lane: 1

File: D0130012.prn  
City: Ipswich  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
06:00	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
07:00	0	0	0	0	6	8	0	1	0	0	0	0	0	0	15
08:00	0	0	0	5	18	27	11	3	0	0	0	0	0	0	64
09:00	0	0	1	5	16	15	8	1	0	0	0	0	0	0	46
10:00	0	0	0	6	13	14	7	0	0	0	0	0	0	0	40
11:00	0	0	1	3	13	15	10	1	0	0	0	0	0	0	43
12:00	0	0	0	6	9	12	2	0	0	0	0	0	0	0	29
13:00	0	1	2	5	8	25	4	1	0	0	0	0	0	0	46
14:00	0	3	5	11	17	24	6	0	0	0	0	0	0	2	68
15:00	0	0	1	7	19	27	8	2	0	0	0	0	0	0	64
16:00	0	0	1	8	22	27	11	4	0	0	0	2	2	0	77
17:00	0	0	0	3	25	45	19	1	0	0	0	0	0	0	93
18:00	0	0	0	3	30	28	14	4	0	0	0	0	0	0	79
19:00	0	0	0	3	12	18	6	0	0	0	0	0	0	0	39
20:00	0	0	0	1	10	7	7	0	1	0	0	0	0	0	26
21:00	0	0	1	2	3	3	1	0	0	0	0	0	0	0	10
22:00	0	0	1	0	3	4	0	1	0	0	0	0	0	0	9
23:00	0	0	0	0	1	3	1	0	0	0	0	0	0	0	5
24:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
DAY TOTAL	0	4	13	68	228	304	117	19	1	0	0	2	2	2	760
PERCENTS	0.0%	0.5%	1.7%	8.9%	30.0%	40.0%	15.4%	2.5%	0.1%	0.0%	0.0%	0.3%	0.3%	0.3%	100.0%

Statistical Information...

15th Percentile Speed 25.6 mph	85th Percentile Speed 36.2 mph
Median Speed 31.1 mph	Average Speed 31.0 mph
10 MPH Pace Speed 25 mph to 35 mph 532 vehicles in pace Representing 70.2% of the total vehicles	Vehicles > 65 MPH 2 0.3%

Mass Highway Department

SPEED SUMMARY  
Thu 2/1/2024

Page: 3

Station #: 230040000145  
Site ID: 00000000204  
Location: Waldingfield Rd. WB, East of Goodhue St.  
Direction: WEST  
Lane: 1

File: D0130012.prn  
City: Ipswich  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
06:00	0	0	0	1	3	2	0	1	0	0	0	0	0	0	7
07:00	0	0	1	2	3	1	2	0	0	0	0	0	0	0	9
08:00	0	0	1	3	10	25	4	1	0	0	0	0	0	0	44
09:00	0	0	1	1	14	19	10	4	0	0	0	0	0	0	49
10:00	1	0	0	4	13	11	6	1	0	0	0	0	0	0	36
11:00	0	0	1	1	12	10	2	0	0	0	0	0	0	0	26
12:00	0	0	1	3	10	14	6	0	0	0	0	0	2	2	38
13:00	1	1	1	2	18	19	7	1	0	0	0	0	0	0	50
14:00	0	0	1	7	13	12	6	1	2	0	0	0	0	0	42
15:00	0	0	1	5	12	24	3	3	0	0	0	0	1	2	51
16:00	1	0	0	6	25	32	12	2	0	0	0	2	2	0	82
17:00	0	1	2	11	31	34	15	4	0	0	0	0	0	2	100
18:00	0	1	1	6	27	30	12	2	0	0	0	0	0	0	79
19:00	0	0	2	4	10	13	10	2	0	0	0	0	0	0	41
20:00	0	0	1	3	8	3	3	0	0	0	0	0	0	0	18
21:00	0	0	0	0	4	7	1	0	0	0	0	0	0	0	12
22:00	0	0	0	0	4	1	0	0	0	1	0	0	0	0	6
23:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
24:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY TOTAL	3	3	14	60	218	262	100	22	2	1	0	2	5	6	698
PERCENTS	0.4%	0.4%	2.0%	8.6%	31.2%	37.5%	14.3%	3.2%	0.3%	0.1%	0.0%	0.3%	0.7%	0.9%	100.0%

Statistical Information...

15th Percentile Speed  
25.6 mph

85th Percentile Speed  
36.4 mph

Median Speed  
31.0 mph

Average Speed  
31.1 mph

10 MPH Pace Speed  
25 mph to 35 mph  
480 vehicles in pace  
Representing 69.7% of the total vehicles

Vehicles > 65 MPH  
5  
0.7%

Mass Highway Department

SPEED SUMMARY  
 Fri 2/2/2024

Station #: 230040000145  
 Site ID: 000000000204  
 Location: Waldingfield Rd. WB, East of Goodhue St.  
 Direction: WEST  
 Lane: 1

File: D0130012.prn  
 City: Ipswich  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	250	Total
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
06:00	0	0	0	0	2	0	1	1	0	0	0	0	0	0	4
07:00	0	0	1	3	6	1	0	0	0	0	0	0	0	0	11
08:00	0	0	0	1	17	20	9	1	0	0	0	2	1	0	51
09:00	0	0	0	3	18	16	8	1	0	0	0	0	0	0	46
10:00	0	0	1	3	11	13	5	0	0	0	0	0	0	0	33
11:00	1	0	0	2	13	10	5	1	0	0	0	2	0	2	36
12:00	0	0	2	1	15	13	4	0	0	0	0	0	2	0	37
DAY TOTAL	1	0	4	13	83	75	32	5	0	0	0	4	3	2	222
PERCENTS	0.5%	0.0%	1.8%	5.9%	37.4%	33.8%	14.4%	2.3%	0.0%	0.0%	0.0%	1.8%	1.4%	0.9%	100.0%

Statistical Information...

15th Percentile Speed  
 26.0 mph

85th Percentile Speed  
 36.8 mph

Median Speed  
 30.6 mph

Average Speed  
 31.7 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 158 vehicles in pace  
 Representing 72.1% of the total vehicles

Vehicles > 65 MPH  
 3  
 1.4%