GRIFFIN transportation group inc.
traffic engineering | transportation planning

Highway 102 Exit 7 to Oldham Road Corridor Assessment

Nova Scotia Department of Public Works

A Traffic Impact Study

Final Report

Prepared by:

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Prepared for:

NOVA SCOTIA

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December 22, 2025

Att: Dominic Hudlin, P.Eng.
Central District
Nova Scotia Department of Public Works
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Bedford, NS B4A 2W2

RE: Corridor Traffic Study – Highway 102 Exit 7 to Oldham Road

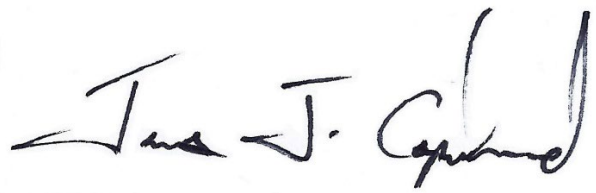
The GRIFFIN transportation group inc. is pleased to present the results of the enclosed traffic study for the Trunk 2 corridor between Highway 102 Exit 7 and Oldham Road, in the community of Enfield. These roads are under the jurisdiction of the Nova Scotia Department of Public Works (NSDPW) and several intersections in this area are nearing capacity during weekday peak periods. Compounding this issue is the significant growth that is planned and expected both within the Municipality of East Hants (MEH) as well as adjacent lands in the Halifax Regional Municipality (HRM).

GRIFFIN has examined the current operations at the study area intersections to understand the extent of any residual capacity. Future population growth was then established and converted into future travel demand on the study area roads for the 2033 and 2043 planning horizon years. Further operational analysis was then completed under future conditions to identify when and where capacity upgrades would be needed.

The results flowing from our analysis suggest that the existing road configuration in the vicinity of the Exit 7 interchange will not have sufficient capacity to accommodate the expected future growth – unless significant widening is implemented along the Trunk 2 corridor. Alternatively, GRIFFIN has identified a new interchange layout offering future benefits that will preserve the long-term functionality of the Exit 7 interchange and connecting roads – without widening the Trunk 2 corridor.

It has been a pleasure working with the project team in completing this study. Feel free to contact the undersigned anytime to further discuss the details of this project.

Sincerely,



James J. Copeland, P.Eng., RSP1
Managing Principal – Traffic & Road Safety Engineer
GRIFFIN transportation group inc.

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1. INTRODUCTION

1.1 Background

The communities of Enfield, Elmsdale, and Lantz are situated within the serviced area of the Municipality of East Hants (MEH) and these communities have experienced a notable increase in population and employment in recent years. These communities are also expected to continue to grow into the future as suburban bedroom communities due to their close proximity to the large employment areas of HRM.

The community of Enfield is within the MEH, but also adjacent to the Halifax Regional Municipality (HRM) boundary which generally runs along the Shubenacadie River. In addition to the expected growth in MEH, there is a notable amount of land within the HRM boundary that could also experience significant residential growth in the future. Vehicle access to this future development in HRM is limited to using Oldham Road as drivers move to/from the Highway 102 Exit 7 interchange. Further, the intersection of Trunk 2 / Oldham Road currently experiences driver delays during the peak commuter times and this is expected to deteriorate over time.

Therefore, the NSDPW has initiated a traffic study to evaluate the existing road network in the vicinity of Exit 7 to understand the expected long-term traffic demand, as well as identify the roadway infrastructure required to accommodate the future traffic over the next 20 years. The focus of this study is on the Trunk 2 corridor, from the Oldham Road intersection through to the Exit 7 interchange area.

The layout of the study area roads and intersections is contained in *Figure 1*.

1.2 Study Objectives

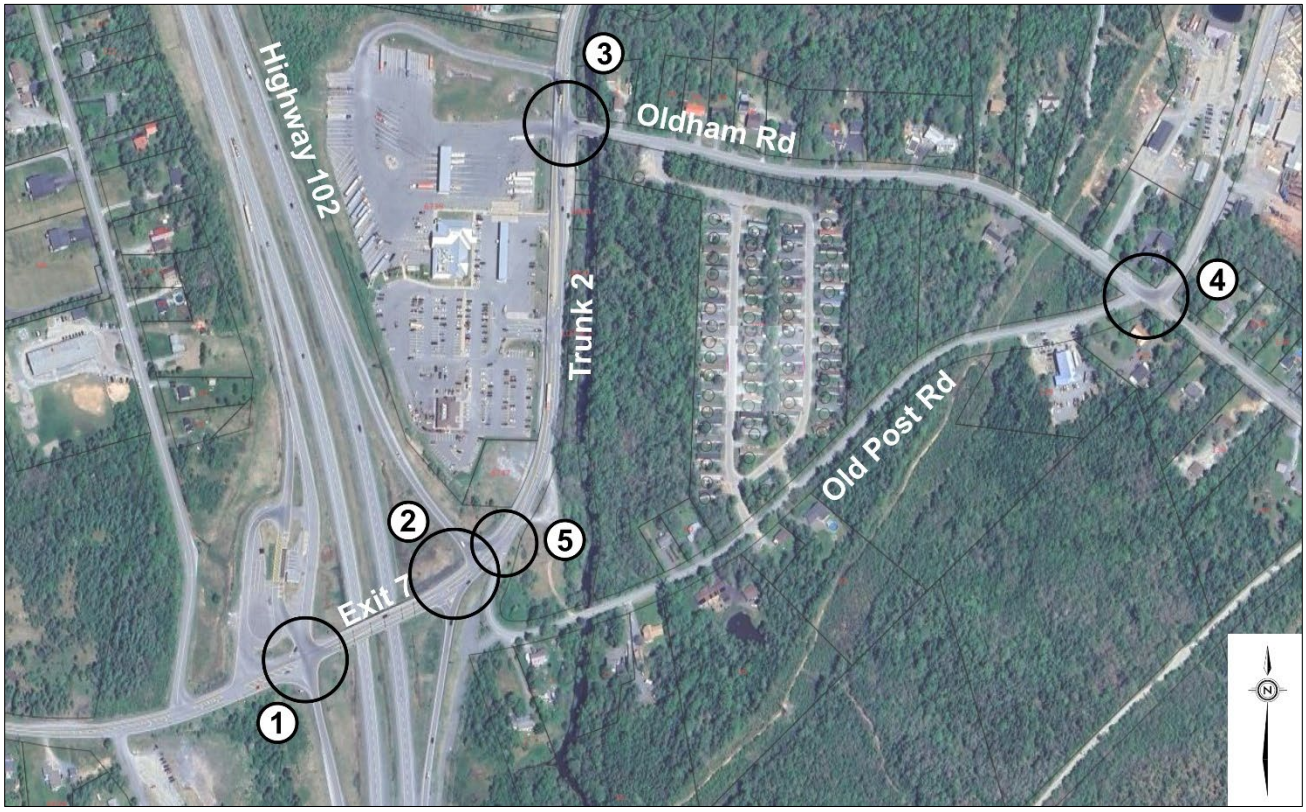
The *GRIFFIN transportation group inc. (GRIFFIN)* was engaged to complete this study through the *HES Standing Offer Doc17051519462* contract. The overall goal of this study is for the consultant to conduct a thorough traffic engineering technical analysis of the existing study area roadway network, identify capacity deficiencies under future growth scenarios, identify road upgrade needs, and quantify the expected costs of these infrastructure upgrades. GRIFFIN achieved this goal through the completion of the following objectives:

- Examine current traffic operations along the Trunk 2 corridor between Exit 7 and Oldham Road and identify any existing operational deficiencies or concerns.
- Develop expected future year traffic volumes for the 2033 and 2043 planning horizons. This process included the planned and approved development within the MEH corridor area as well as development within the adjacent HRM lands.
- Examine the future Exit 7 interchange area under both 2033 and 2043 travel demand scenarios. This process helped to identify where and when the road network will require upgrades.
- Identify all preferred corridor upgrades in the area including the Exit 7 interchange configuration, the Trunk 2 / Oldham Road intersection, Old Post Road connection to Trunk

2, access management opportunities along Trunk 2, and so forth. GRIFFIN also prepared Class D cost estimates for the roadway and intersection upgrades.

The results of GRIFFIN's analytical work carried out for each study objective is presented in the next Sections of this report.

Figure 1: Study Area Road Network



Source: Google Maps

2. EXISTING CONDITIONS

This chapter describes the roadway network, traffic volumes, operating conditions, and other notable characteristics under the baseline conditions.

2.1 The Study Area Road Network

2.1.1 Highway 102

Highway 102 is generally aligned in a north-south direction and is a regional travel corridor linking Halifax to the south with commuter-shed communities such as Elmsdale, Lantz and Truro to the north. This four-lane divided high-speed corridor is also an important commercial goods corridor moving products to/from the Port of Halifax. Therefore, it is important to ensure the long-term viability of this travel corridor is preserved well into the future.

2.1.2 Trunk 2

Although Highway Trunk 2 (Trunk 2) generally has a north-south alignment, through the immediate study area it has an east-west direction. For the purposes of this study we refer to Trunk 2 as having an east-west alignment. It also has core lanes with localized widening for auxiliary turn lanes at the study area intersections. This roadway serves as an important link between Highway 102 and the community of Enfield, and to some degree Elmsdale.

2.1.3 Oldham Road

Oldham Road is a local rural road that is generally aligned in a north-south direction. It has a two-lane, two-way cross-section with narrow gravel shoulders. Oldham road provides a local road connection between Trunk 2 in Enfield with Guysborough Road near the Halifax airport. Generally, there is little through traffic on this corridor given the very curvilinear alignment. Therefore, in the study area, the majority of traffic using Oldham Road is generated by local businesses and residents. It also serves as the primary road connection to the large undeveloped areas of Halifax Regional Municipality (HRM) that are situated east of Highway 102 and south of the Shubenacadie River.

2.1.4 Intersections

Through our scope development discussions with NSDPW it was agreed that the focus of the traffic assessment would be on the intersections in the vicinity of the Exit 7 interchange to ensure this important transportation junction can continue to function well into the future. Therefore, to ensure acceptable traffic operating conditions are maintained, with the added traffic associated with the anticipated growth in population in this area, GRIFFIN explicitly analyzed the following study area intersections:

1. Trunk 2 / Exit 7 SB Ramps
2. Trunk 2 / Exit 7 NB Ramps
3. Trunk 2 / Oldham Road
4. Oldham Road / Old Post Road
5. Trunk 2 / Old Post Road

2.2 Existing Traffic Data and Peak Traffic Volumes

2.2.1 Overview

Following industry best practices, specific hours that experience the highest traffic volumes on the roadway are applied to the analysis steps in the traffic impact study process to identify the capacity needs required to accommodate peak vehicle demands. Ideally the peak hours for this analysis would occur during the peak travel times along the study area roads including the key travel corridors of Trunk 2 and Highway 102.

Historical traffic volume trends suggest there is a notable peak in weekday commuter flows and this appears to be associated with the fact that the study area roads provide an important travel link between the employment areas of Halifax and the residential areas of Enfield. This, combined with an expected increase in travel demand associated with the long-term growth in this area suggests that the weekday morning and afternoon travel peaks are appropriate for use in this analysis.

2.2.2 Data Collection

To facilitate an assessment of the existing and future traffic operations there was a need to develop a set of baseline traffic volumes. As such, GRIFFIN conducted peak period traffic volume counts on Tuesday May 6th and Wednesday 7th, 2025 at the key intersections noted in the previous Section. *Table 1* contains the location and type of data collection completed by GRIFFIN for this study.

Table 1: May 2025 Data Collection Effort

	AM Peak Period Counts	PM Peak Period Counts	24-hour Counts
Turning Movement Counts (at intersections)			
Trunk 2 / Exit 7 SB Ramps	✔	✔	⊘
Trunk 2 / Exit 7 NB Ramps	✔	✔	⊘
Trunk 2 / Oldham Rd	✔	✔	⊘
Oldham Rd / Old Post Rd	✔	✔	⊘
Trunk 2 / Old Post Rd	✔	✔	⊘
Automatic Traffic Recording Units (mid-block counts)			
Trunk 2: At Irving Gas Station	✔	✔	✔
Oldham Rd: South of Trunk 2	✔	✔	✔

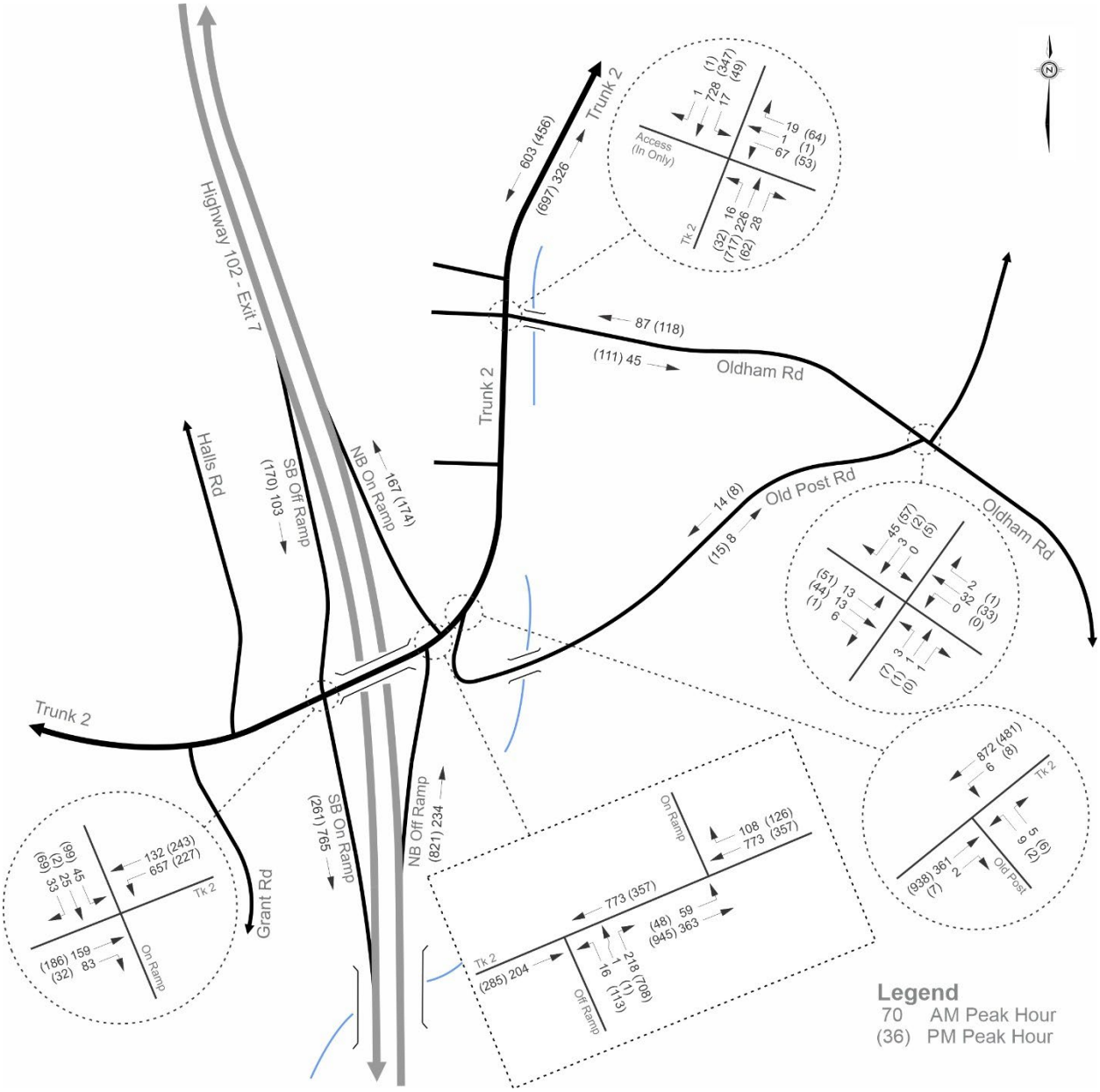
Traffic data were assembled, reviewed, and compared to historical NSDPW daily traffic counts that have been recently recorded. Based on our review, the observed May 2025 daily volumes appeared to be representative of current conditions. May is also considered to be a month that experiences typical and/or average traffic volumes throughout the year and is suitable for use in

travel demand studies. Therefore, GRIFFIN did not apply any seasonal adjustment factors to our field-recorded data that would otherwise account for seasonally low or high volumes.

2.2.3 Baseline Peak Hour Volumes

The final set of 2025 Baseline weekday AM and PM peak hour volumes applied to our analysis is contained in *Figure 2*.

Figure 2: Baseline 2025 Peak Hour Volumes



2.3 Baseline 2025 Intersection Assessment

An intersection capacity analysis process was carried out using the Baseline 2025 traffic volumes (*Figure 2*) as well as the existing lane configurations and traffic control at the key study area intersections. The analysis process used Trafficware's *Synchro 11* software tool following the Transportation Research Board's *Highway Capacity Manual* (HCM) methodology for unsignalized intersections. The results have been summarized in *Table 2*. An expanded summary of results are contained within the detailed capacity analysis reports are provided in *Appendix III*.

Following NSDPW TIS guidelines, the measures of effectiveness used to describe the operational performance of the intersections included the Level of Service (LOS), average vehicle delay, volume-to-capacity ratio (v/c ratio), and 95th percentile queue length (metres) for each approach to the study area intersections.

Table 2: Baseline Intersection Operational Analysis Results

1. Trunk 2 / Exit 7 SB Ramps (west side)						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025	Tk 2 EB Entry: n/a[B]	-	-	Tk 2 EB Entry: n/a[B]	-	-
Stop-controlled,	Tk 2 WB Left: **B** (11.3s)	0.56	30m	Tk 2 WB Left: **A** (8.4s)	0.19	10m
existing lanes	SB Left: **F** (>400s)	1.29	35m	SB Left: **E** (35.8s)	0.49	20m
	SB Th-Rt: **A** (9.2s)	0.04	<10m	SB Th-Rt: **B** (10.3s)	0.10	<10m

2. Trunk 2 / Exit 7 NB Ramps (east side)						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025	Tk 2 EB Left: **B** (10.0s)	0.08	<10m	Tk 2 EB Left: **A** (8.3s)	0.05	<10m
Stop-controlled,	Tk 2 WB Entry: n/a[B]	-	-	Tk 2 WB Entry: n/a[B]	-	-
existing lanes	NB Left: **C** (24.5s)	0.09	<10m	NB Left: **C** (20.6s)	0.35	15m
	NB Th-Rt: **B** (10.7s)	0.27	10m	NB Th-Rt: **F** (57.6s)	1.00	125m

3. Trunk 2 / Oldham Road						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025	Tk 2 EB Left: **A** (9.6s)	0.02	<10m	Tk 2 EB Left: **A** (8.2s)	0.03	<10m
Stop-controlled,	Tk 2 WB Left: **A** (7.9s)	0.02	0m	Tk 2 WB Left: **B** (10.0s)	0.07	<10m
existing lanes	NB Entry: **E** (36.5s)	0.46	20m	NB Entry: **F** (65.7s)	0.73	35m

Table 2 - Continued

4. Oldham Road / Old Post Road						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025	NB Left: **A** (0.0s)	0.00	0m	NB Left: **A** (0.0s)	0.00	0m
Stop-controlled,	SB Left: **A** (7.4s)	0.01	0m	SB Left: **A** (7.4s)	0.04	<10m
existing lanes	EB Entry: **A** (9.4s)	0.01	0m	EB Entry: **B** (10.7s)	0.01	0m
	WB Entry: **A** (8.9s)	0.05	<10m	WB Entry: **A** (9.1s)	0.08	<10m

5. Trunk 2 / Old Post Road						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025	Tk 2 EB Entry: n/a[B]	-	-	Tk 2 EB Entry: n/a[B]	-	-
Stop-controlled,	Tk 2 WB Left: **A** (8.2s)	0.01	0m	Tk 2 WB Left: **B** (10.5s)	0.01	0m
existing lanes	NB Lt-Rt: **C** (23.1s)	0.07	<10m	NB Lt-Rt: **C** (23.3s)	0.04	<10m

A – Queue represents the calculated 95th percentile vehicle queue length in metres.

B – HCM methodology assumes no delay for this first order intersection movement. No results calculated.

The analysis results contained in *Table 2* suggest that drivers are currently experiencing lengthy delay times and long queues for several stop-controlled movements, including:

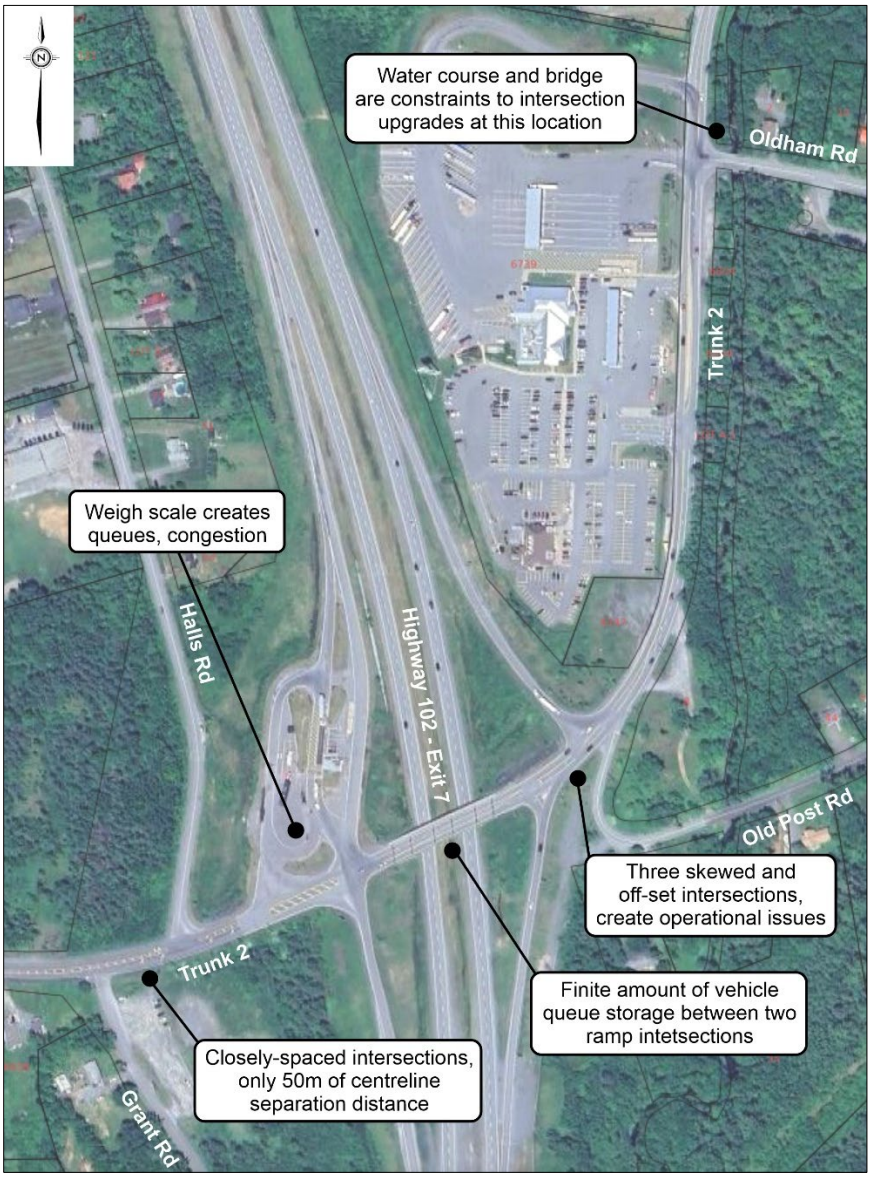
- *Exit 7 Southbound Ramps*: Southbound drivers using the off-ramp waiting to turn onto Trunk 2 experience lengthy peak hour delays with levels of service (LOS) F during the AM peak hour. It is important to note that the observed traffic counts included large trucks using the weigh scale during the AM peak hour; however, the weigh scale was not open during the PM peak hour. Regardless, the high-volume westbound left turn movement limits the number of gaps for southbound drivers to turn onto Trunk 2.
- *Exit 7 Northbound Ramps*: During the weekday PM peak hour there is a very high volume of traffic exiting Highway 102 and turning right onto Trunk 2. Currently, this is a channelized movement with yield-control but the high demand creates a long queue on the ramp of about 125m with driver delays of about 1 minute (LOS F). Although the on-ramp and off-ramp are not aligned, GRIFFIN evaluated this junction in Synchro assuming a four-leg intersection with an off-set between the north and south legs.
- *Oldham Road at Trunk 2*: Drivers making the northbound left turn movement experience delays during the AM peak hour (36.5s, LOS E) and PM peak hour (65.7s, LOS F). Typical vehicle queue lengths range from 20-35m depending on the peak hour and extend across and south of the existing bridge structure on Oldham Road. This narrow bridge is in close proximity to the intersection and limits the opportunity to widen Oldham Road and add auxiliary turn lanes.

Generally, the calculated results contained in *Table 2* appear to be consistent with GRIFFIN's observations during the data collection process. It can be concluded from these analysis results that there is only a limited amount of residual capacity during peak hours of a typical weekday and that intersection capacity upgrades will be required in the short term (i.e. less than 5 years).

2.4 Exit 7 Interchange Area Operational Concerns

Based on the findings flowing from our existing conditions traffic assessment at the key study area intersections it was determined that there are several contributing factors to current and potential traffic flow concerns. These concerns have been raised as they are likely to limit the functionality of the Exit 7 interchange in the very near future. *Figure 3* contains several contributing factors that will need to be addressed at some point in the future.

Figure 3: Existing Traffic Operational Concerns – Highway 102 Exit 7 Interchange Area



3. FUTURE COMMUNITY GROWTH

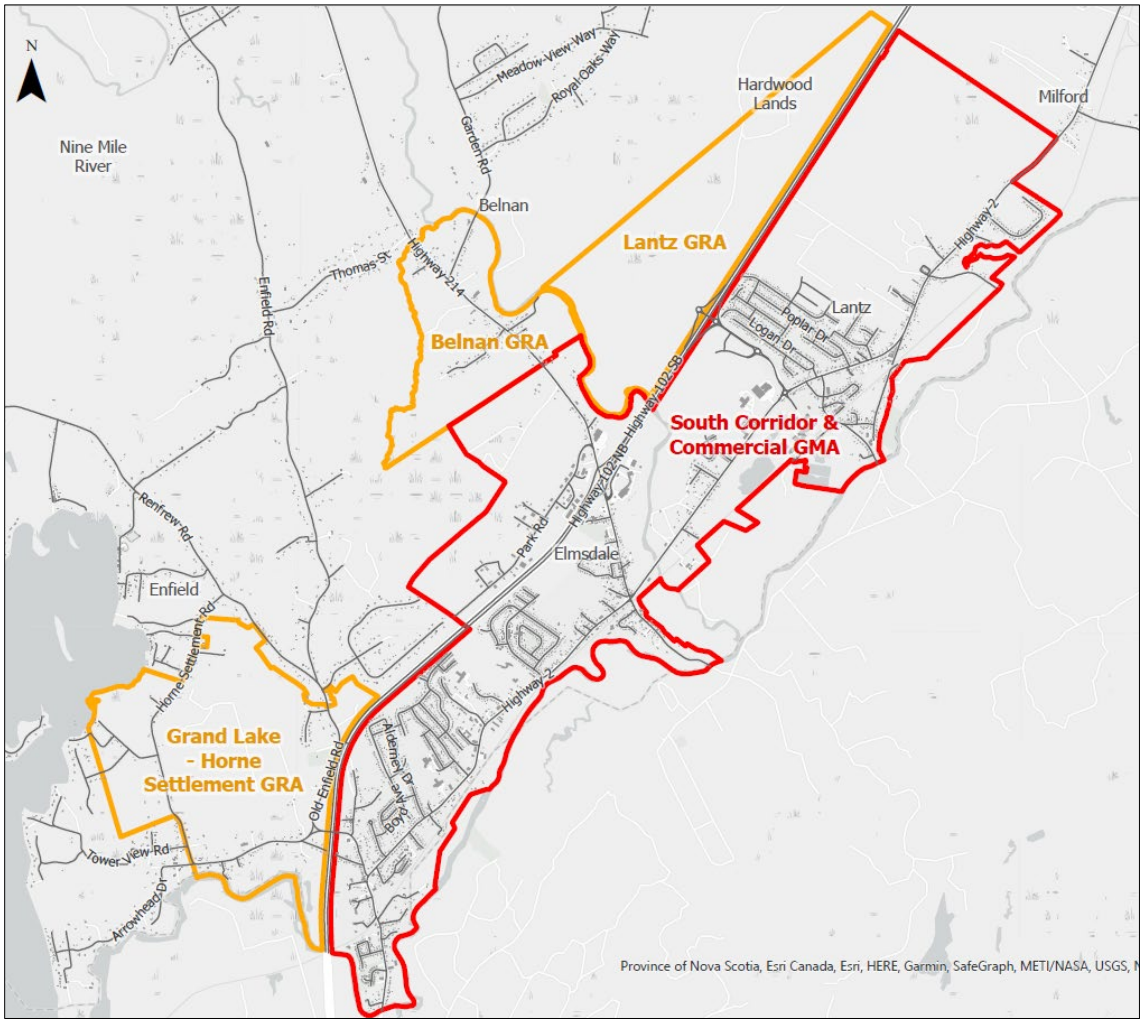
This chapter describes the information used to develop the future settlement patterns and magnitude of growth for the future year planning horizons.

3.1 East Hants Corridor Area

3.1.1 Growth Nodes North and East of Exit 7

GRIFFIN was engaged in 2023 through a joint steering committee comprised of the Nova Scotia Department of Public Works (NSDPW) and the Municipality of East Hants (MEH) to quantify the expected future growth, identify the associated travel demand generated by this growth, and ultimately determine the road infrastructure upgrades that would be required to accommodate this growth. The study focused on the corridor area of the MEH and included the communities from Enfield to Milford.

Figure 4: The 2023 Travel Demand Study Area and MEH Special Planning Areas



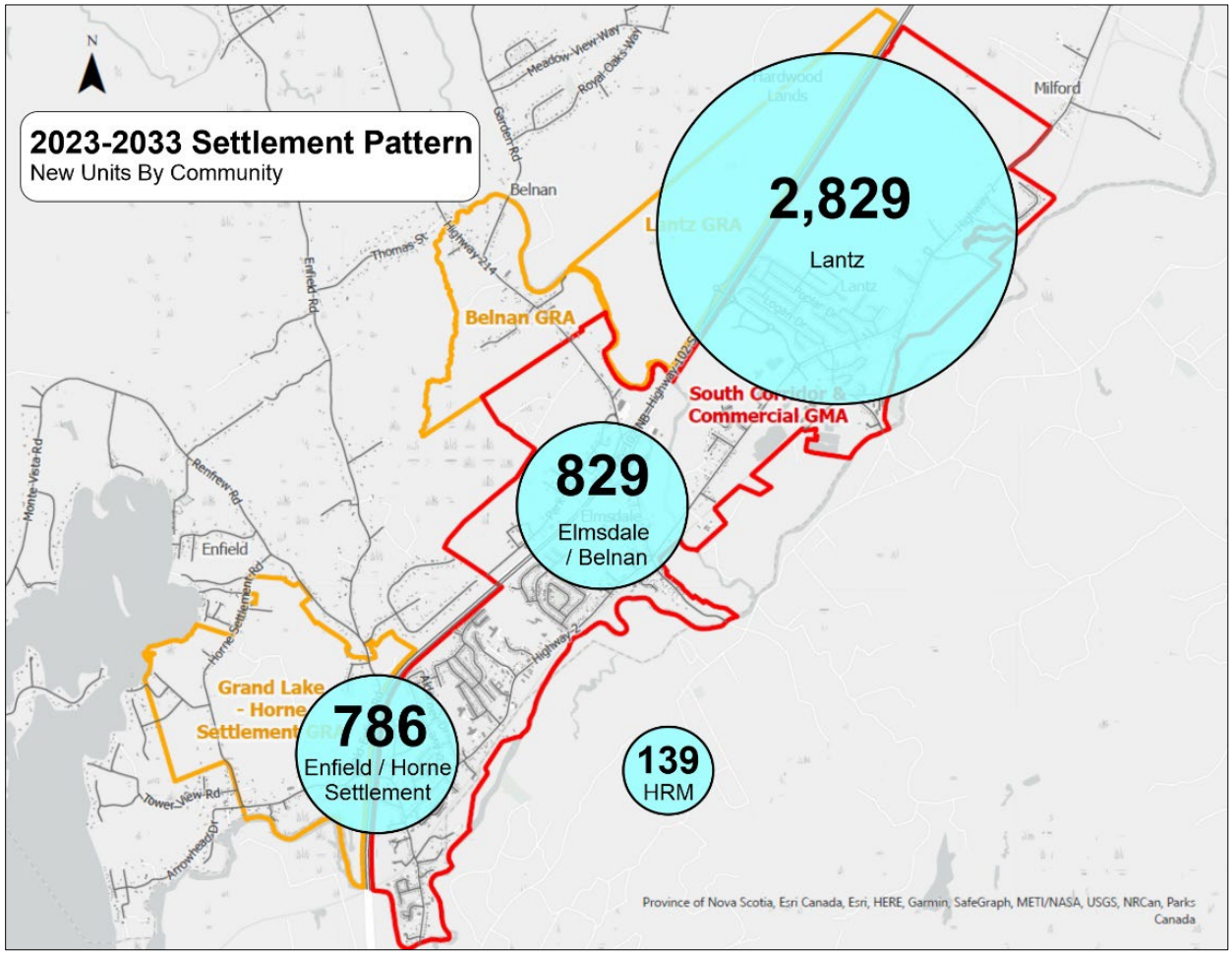
Source: MEH

Figure 4 illustrates the MEH's special planning areas that were included in the 2023 Corridor area study which included the prioritized and serviced Growth Management Area (GMA), plus three unserviced Growth Reserve Areas (GRA). The 2023 travel demand study also included assumed residential growth within the Halifax Regional Municipality (HRM) immediately east of the Shubenacadie River. This earlier study; however, did not include an assessment of the Exit 7 interchange.

3.1.2 *Magnitude and Location of Growth*

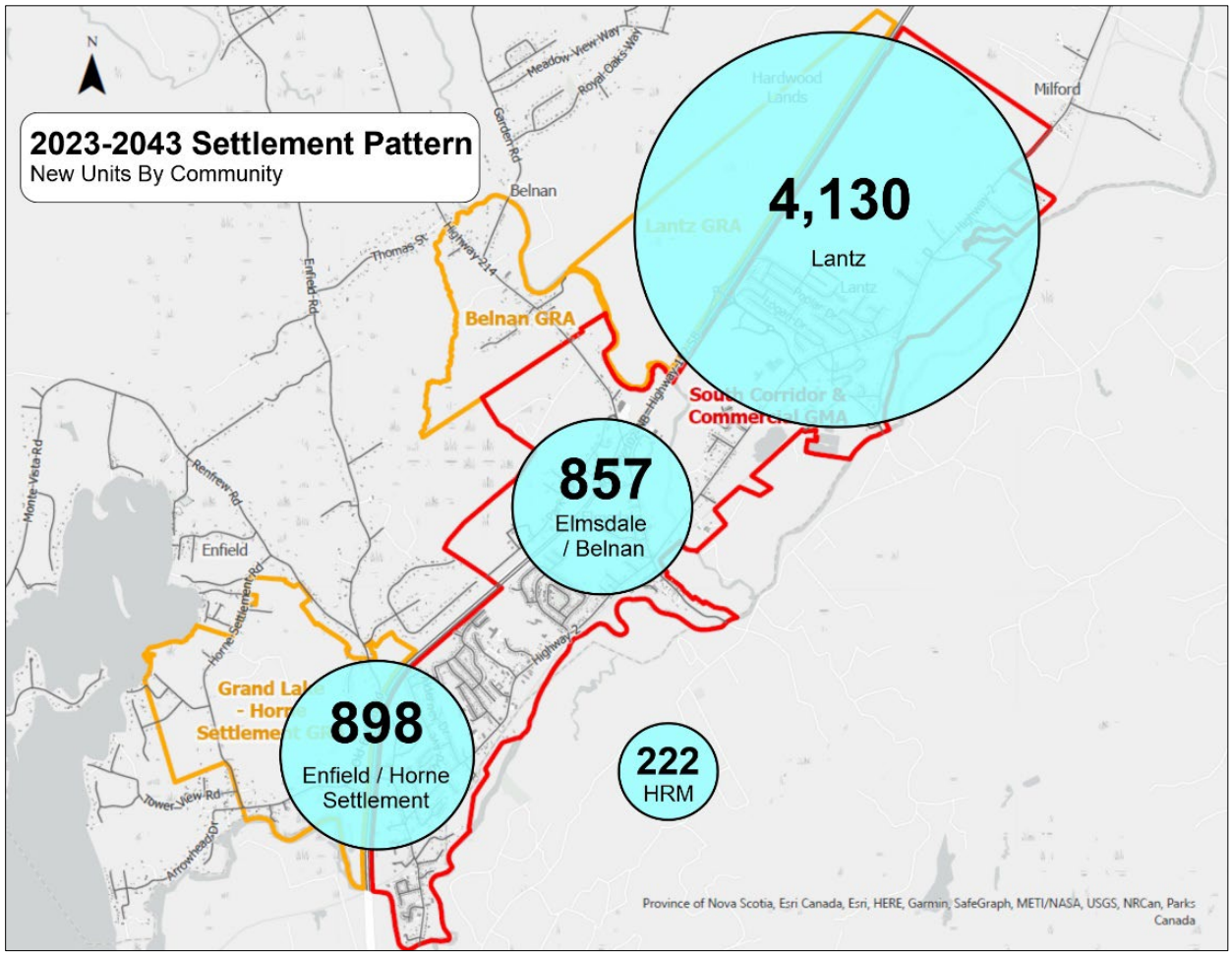
In this previous travel demand study future planning horizon years of 2033 and 2043 were selected as they represented reasonable medium and long-term growth horizon years. Both population and employment estimates were developed and formed into settlement patterns and this process established the foundation of the travel demand calculations. *Figures 5 and 6* contain the forecast residential units that are expected to be added by the 2033 and 2043 planning horizons, respectively.

Figure 5: Forecast Residential Growth by Community – Corridor Area – 2023 to 2033



Source: East Hants Corridor Area Traffic Study Report, March 2024.

Figure 6: Forecast Residential Growth by Community – Corridor Area – 2023 to 2043



Source: East Hants Corridor Area Traffic Study Report, March 2024.

As shown graphically in these Figures, the majority of new residential growth is expected to occur in the community of Lantz. This community is served by two interchange connections to Highway 102, and as such, the traffic generated within this community was not assumed to utilize the Exit 7 interchange. Therefore, the focus of this current Exit 7 study was on the expected traffic increases generated by the growth in the Enfield and HRM lands. This is discussed in more detail in the following Section.

3.2 Future Growth Assumptions

3.2.1 Overview

Land use planning and transportation planning research literature suggests there is a strong correlation between changes in population / employment and traffic volumes and travel demand. Thus, land use planning and transportation practitioners typically use historical growth trends to forecast vehicle demand out to a future planning horizon. This was the approach GRIFFIN had

taken previously as part of the 2023 East Hants corridor area travel demand study, and this same approach was also applied to this current Exit 7 study.

GRIFFIN has taken much of the growth assumptions and settlement pattern forecasts from the previous 2023 study and applied it to this current study due to the fact that it was based on confirmed planning application information from MEH, and to ensure some level of continuity and consistency between the previous and current traffic studies. It should be noted; however, that this Exit 7 study has assumed a higher amount of growth occurring in the HRM lands to the east of the Shubenacadie River relative to the previous study. The decision to both increase and accelerate the expected growth in HRM is based on more up-to-date planning information as well as new assumptions around the connectivity between the Old Post Road and Old Truro Road areas. This is an important assumption to highlight, as the traffic generated by the more up-to-date growth assumption in HRM is expected to increase volumes along Old Post Road, which will in turn increase demand at the Exit 7 interchange. This is based on the fact that the Old Post Road corridor is the nearest and most convenient access point for traffic moving between Exit 7 and the HRM lands.

3.2.2 Future Growth in the Study Area

The residential growth assumptions, by location, that were applied to this current study are contained in *Table 3*.

Table 3: Expected Residential Growth Forecasts for 2033 and 2043 Horizon Years

Location Description	New Units 2025-2033	New Units 2025-2043
MEH GMA[A] - Enfield (serviced)	+599	+599
MEH GRA[B] – Horne Settlement (unserviced)	+187	+299
MEH Rural – Outside of GRA's (unserviced)	+46	+74
HRM Rural – Old Post Road Corridor (unserviced)	+222	+555
Total Residential Units	**+1,054 units**	**+1,527 units**

A – MEH's growth management area, with servicing, higher density, and priority for new development.
B – MEH's growth reserve area with no servicing and lower density.

In summary, our proposed residential settlement patterns contained in *Table 3* indicate that up to 600 units could occur in the short-term along the Trunk 2 corridor, within the service aeras of the community of Enfield. The remaining residential growth – over 900 units – are assumed to occur on unserviced lands, predominantly to the north in Horne Settlement and to the east in HRM. By the 2043 planning horizon, there is reasonable confidence that up to 1,527 new residential units will be built to the north and east of Exit 7 – and these units are likely to contribute to increased traffic demand at the Exit 7 interchange.

The expected future residential growth presented in *Table 3* will occur to the north and east of the Exit 7 interchange. The major growth nodes will add traffic to the following road corridors as drivers move to/from Exit 7.

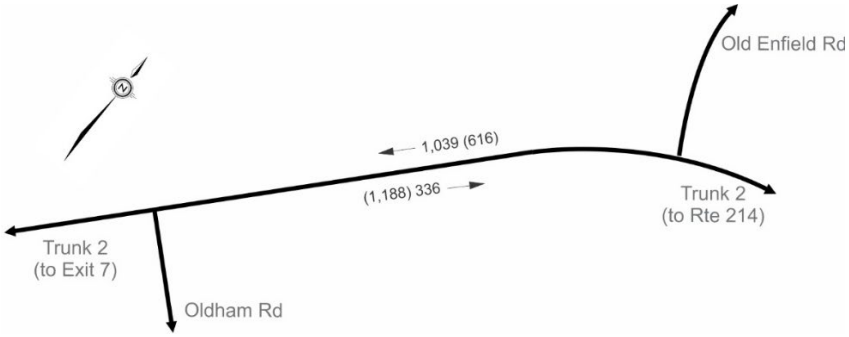
- ***Trunk 2 traffic increases***: Associated with growth in the community of Enfield (GMA), Horne Settlement (GRA), and MEH rural areas.
- ***Old Post Road traffic increases***: Associated with growth in HRM east of the Shubenacadie River.

Assuming the existing road network remains in place, then the travel demand generated by this above noted growth will cause all new vehicle trips to travel through the Trunk 2 / Oldham Road intersection. If we examine this more closely, we can expect the Enfield / Horne Settlement residential growth to increase through trips along the Trunk 2 corridor, while the HRM residential growth will increase vehicle trips along the Old Post Road-Oldham Road corridor. Thus, the Trunk 2 / Oldham Road intersection was explicitly examined in this study to ensure its long-term functionality. We examine the traffic increases on specific roads in the following Sections.

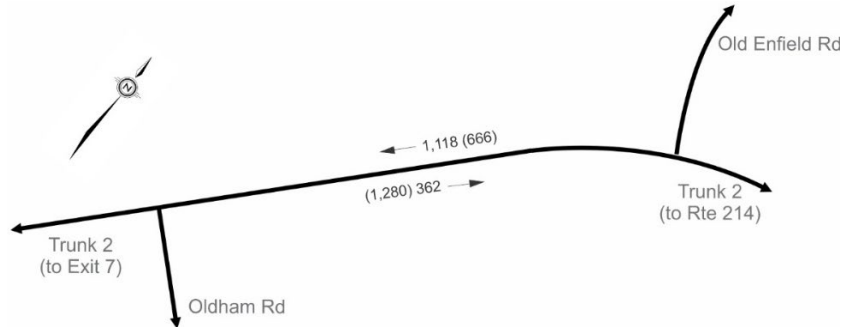
3.2.3 Key Travel Routes – Trunk 2 Corridor

As noted earlier in this report, our goal was to align, and be as consistent as possible, with the previous 2023 population and growth assumptions. Therefore, GRIFFIN has used the same forecast peak hour traffic volumes along Trunk 2 as those developed in the previous study. The previous study had established 2033 and 2043 peak hour volumes on Trunk 2, north of Oldham Road, and we have utilised these same volumes for this Exit 7 study and these are contained in *Figure 7*.

Figure 7: Forecast Trunk 2 Volumes for the 2033 and 2043 Horizon Years



2033 Planning Horizon



2043 Planning Horizon

GRIFFIN has provided a breakdown of the forecast volumes contained in *Figure 7* by providing a comparison of the rate of change in two-way peak hour volumes along Trunk 2, to the north of Oldham Road. The results are provided in *Table 4*.

Table 4: Comparison of Vehicle Growth by Horizon Year – Trunk 2 Two-way Traffic

	2033 Horizon Year		2043 Horizon Year	
	AM Peak Hour	**PM Peak Hour**	**AM Peak Hour**	**PM Peak Hour**
2025 Volume	991 vph	1,178 vph	991 vph	1,178 vph
Future Volume	1,375 vph	1,804 vph	1,480 vph	1,946 vph
Change	+384 vph	+626 vph	+489 vph	+768 vph
Growth Rate	39%	53%	49%	65%
Avg Annual Growth	**4.8% / year**	**6.6% / year**	**2.7% / year**	**3.6% / year**

The expected traffic growth in the Trunk 2 corridor suggests that the rate of change in two-way volumes will be more significant between 2025 and 2033. The rate of growth is expected to continue to increase between 2033 and 2043; however, at a lower rate. In summary, the long-term growth trend in the Trunk 2 corridor between 2025 and 2043 is expected to increase at an approximate average of 3% per year.

3.2.4 Key Travel Routes – Old Post Road Corridor

The growth within the HRM lands immediately east of the Shubenacadie River is expected to increase vehicle travel along Old Post Road – as it was assumed that this would be the most convenient and direct road connection serving these lands. Thus, all new traffic generated by new residential units assumed in this study will travel along Old Post Road to Oldham Road. At this point, drivers have a choice of continuing to travel along Old Post Road toward the Exit 7 interchange – or turn onto Oldham Road to gain access to Trunk 2. Currently, the majority of drivers use Oldham Road to get to Trunk 2, likely due to challenges and delays at the Trunk 2 / Old Post Road intersection.

If the Trunk 2 / Old Post Road intersection were to be consolidated into a new roundabout at Exit 7, then it is expected that Old Post Road would become a much more convenient and direct route to/from the new growth expected to occur on HRM land east of the Shubenacadie River. Therefore, this concept was carried forward to our analysis of future road network upgrades.

4. DEVELOPING FUTURE TRAFFIC VOLUMES

This chapter summarizes the process and assumptions used to develop the future year traffic volumes at Exit 7 for the 2033 and 2043 planning horizons.

4.1 Overview

The future planning horizon chosen for a traffic impact study represents a milestone in the development process. As presented in the previous Section, GRIFFIN developed traffic forecasts for the 2033 and 2043 planning horizon years. This process ensured that the previously established – and previously agreed-upon – growth assumptions for 2033 and 2043 from the Corridor Area Travel Demand Study were carried into this current work for the Exit 7 interchange area.

In addition, GRIFFIN also evaluated two different road network layouts. These included the existing layout – as shown in *Figure 1* – as well as a future road layout that attempted to better accommodate the new traffic generated by the expected increases in residential growth by 2033 and 2043. Thus, GRIFFIN examined the study area intersections for two future development scenarios and two road layouts – as shown in *Table 5*.

Table 5: GRIFFIN's Analysis Matrix

	2025 Current Conditions Scenario	2033 Growth Scenario	2043 Growth Scenario
Road Network 1 Existing Layout	✔	✔	✔
Road Network 2 Future Layout	-	✔	✔

A more detailed description of each analysis scenario conducted by GRIFFIN is provided in *Table 6*.

GRIFFIN's analytical process examined the existing road network (i.e. status quo) under the assumed traffic demands expected by the 2033 and 2043 planning horizon years. The results of this process allowed us to identify locations with insufficient capacity and thus help inform what a future road network would require to ensure the long-term viability of Exit 7.

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Table 6: Development Scenarios and Road Network Options

Planning Horizons	Development / Traffic Scenarios	Roadway Network
2025 Planning Horizon	2025 Existing Conditions	**Network 1** - Existing roadway network and existing Exit 7 interchange configuration
2033 Planning Horizon	2033 Future Traffic Volumes - Planned MEH growth - Planned HRM growth - Removal of weigh scale traffic	**Network 1** - Existing road network and existing Exit 7 interchange configuration
	2033 Future Traffic Volumes - Planned MEH growth - Planned HRM growth - Removal of weigh scale traffic	**Network 2 –** Future road network with new Exit 7 interchange configuration
2043 Planning Horizon	2043 Future Traffic Volumes - Planned MEH growth - Planned HRM growth - Removal of weigh scale traffic	**Network 1** - Existing road network and existing Exit 7 interchange configuration
	2043 Future Traffic Volumes - Planned MEH growth - Planned HRM growth - Removal of weigh scale traffic	**Network 2 –** Future road network with new Exit 7 interchange configuration

4.2 The Future of the Truck Weigh Scale

NSDPW operates a truck weigh scale in the northwest quadrant of the Exit 7 interchange. This location allows NSDPW to monitor large truck weights and dimensions that travel on the southbound lanes of Highway 102, and to some degree Trunk 2.

The location of the weigh scale is in close proximity to the southbound off-ramp of Exit 7 and the ramp intersection with Trunk 2. Thus, there is limited space to accommodate the large trucks, the truck queues, as well as general southbound traffic exiting Highway 102. Further, the exit lane of the truck weigh scale connects to Trunk 2 immediately adjacent to the southbound off-ramp lane, creating a very wide and open intersection width. This situation offers poor driver positive guidance within the intersection area, promotes high-speed turning movements, and causes driver confusion associated with turning priority and rights-of-way.

Through discussions with NSDPW representatives, there are future plans to relocate this truck weigh scale to an alternative location along the Highway 102 southbound lanes. This would be very beneficial from a traffic operations and road safety perspective – particularly at the Trunk 2

/ Exit 7 Southbound Ramp intersection. As such, GRIFFIN has removed the peak hour truck traffic associated with weigh scale for the future 2033 and 2043 planning horizons.

4.3 Future 2033 Peak Hour Traffic Volumes

The future peak hour volumes expected to occur by the 2033 planning horizon were developed based on the following assumptions:

- Growth in the Enfield and Elmsdale communities – as discussed in Section 3 – that would generate vehicle trips moving to/from Exit 7 along the Trunk 2 corridor by 2033,
- Community growth in the Halifax Regional Municipality – as discussed in Section 3 – that would generate vehicle trips moving along Old Post Road, and through Exit 7 by 2033,
- The removal of the truck trips associated with the existing weigh scale immediately west of Exit 7.

GRIFFIN's weekday peak hour travel demand estimates were developed and then distributed across both the existing road Network 1 (i.e. status quo) and a future road Network 2 layout. Generally, the future road Network 2 layout shown in *Figure 9* includes modern roundabouts at the two Exit 7 ramp intersections, the connection of Old Post Road to the east roundabout at Exit 7, as well as improvements along the Old Post Road alignment to improve connectivity and convenience for both residents and businesses.

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Figure 8: Future 2033 Peak Hour Volumes – Existing Road Network 1

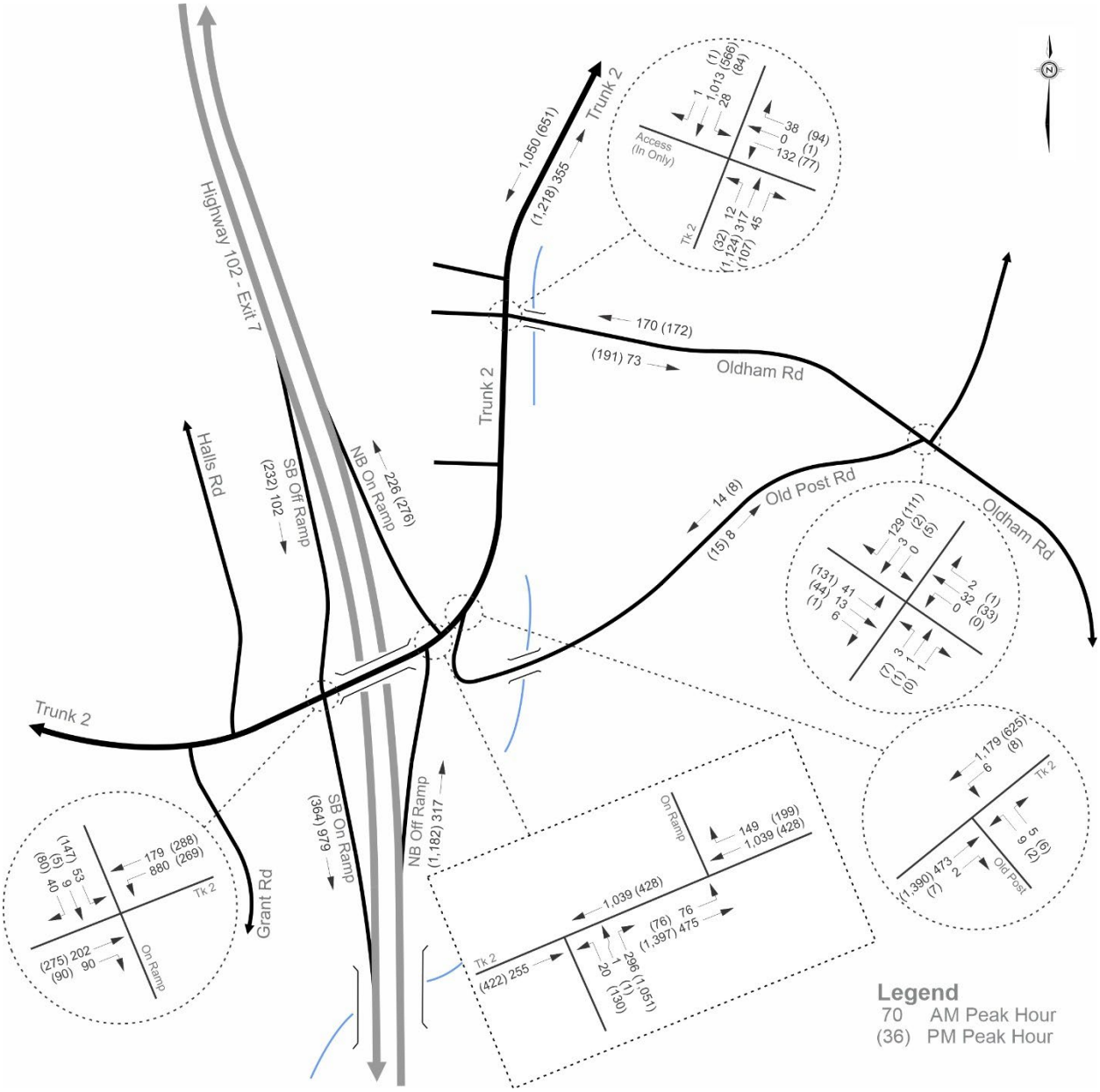
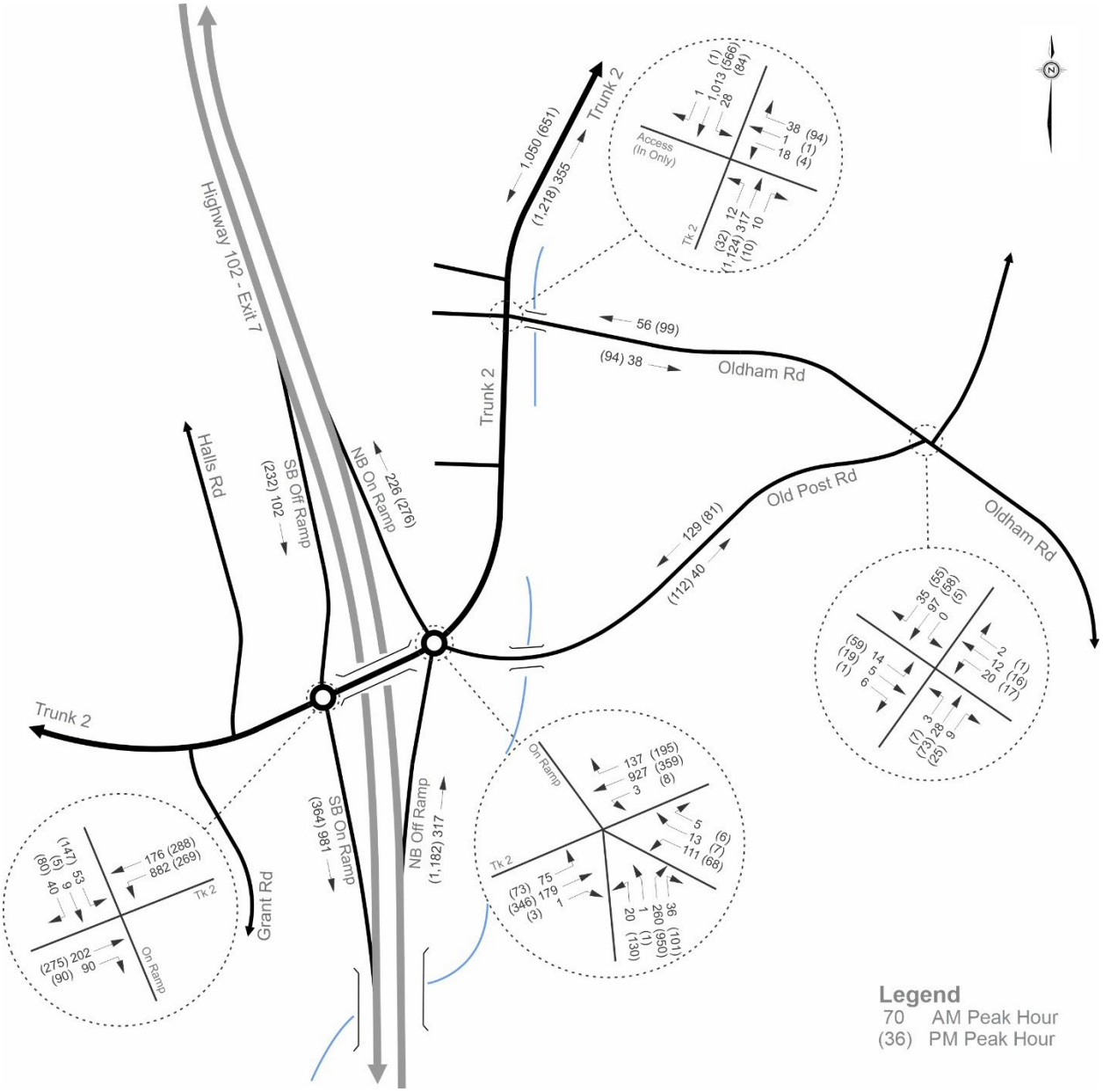


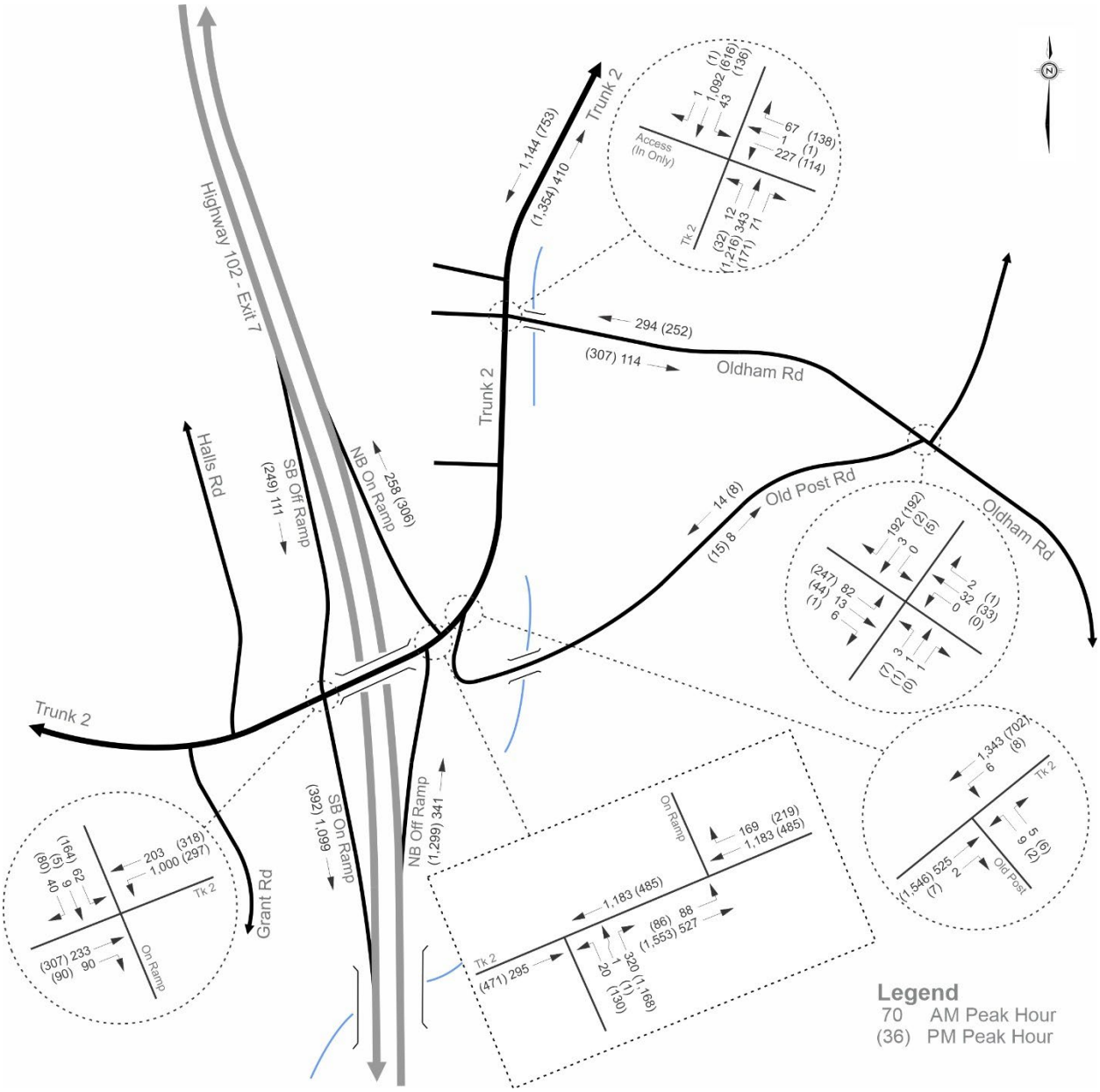
Figure 9: Future 2033 Peak Hour Volumes – Future Road Network 2



4.4 Future 2043 Peak Hour Traffic Volumes

The forecast peak hour volumes expected to occur by the 2043 planning horizon are contained in *Figure 10* (existing road Network 1) and *Figure 11* (future road Network 2). The development of forecast volumes at the 2043 planning horizon followed the same general process to estimate the weekday peak hour trips at the study area intersection as was applied to the interim 2033 horizon year.

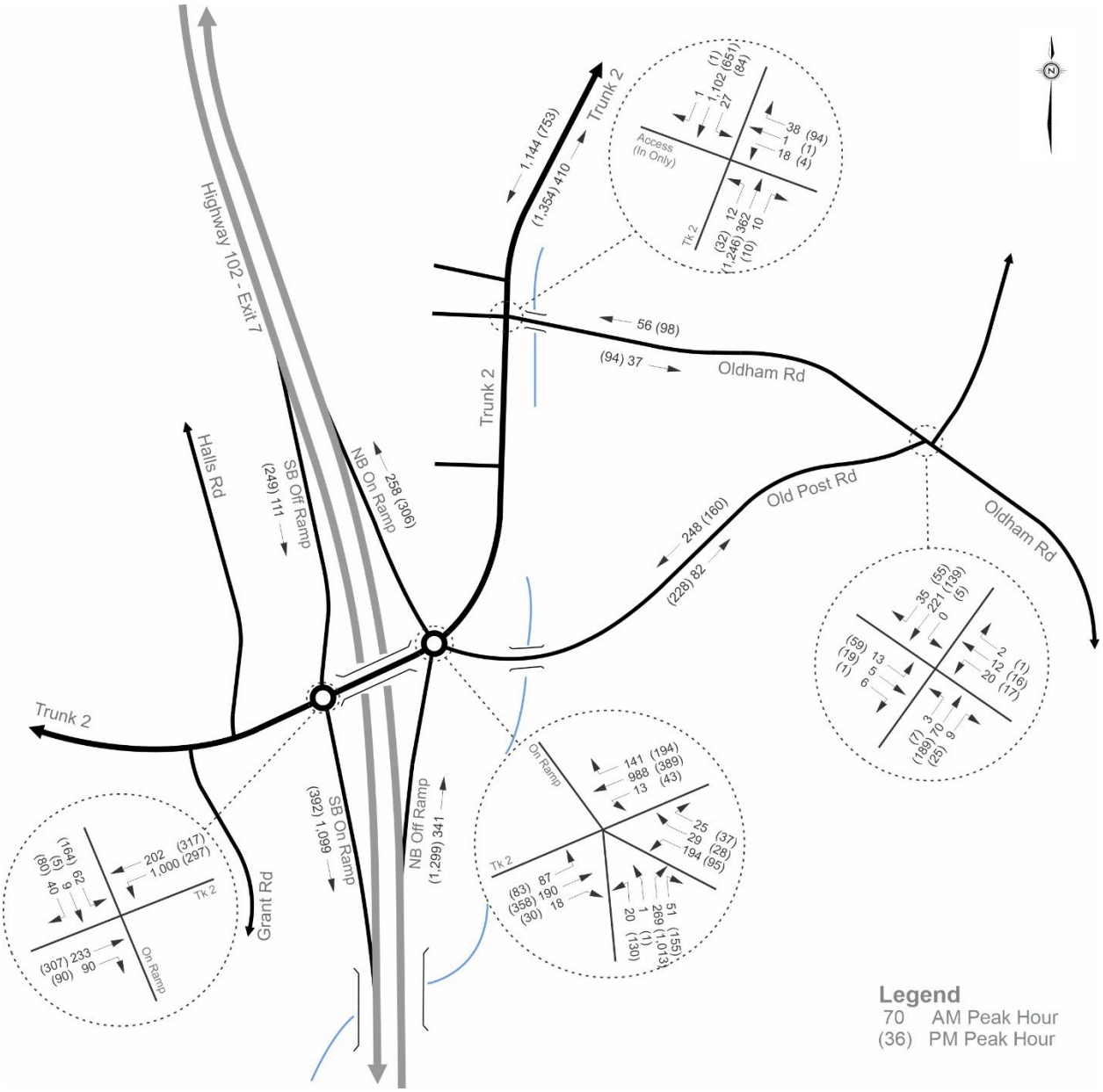
Figure 10: Future 2043 Peak Hour Volumes – Existing Road Network 1



The following key assumptions were used to develop the 2043 peak hour volumes:

- Growth in the Enfield and Elmsdale communities – as discussed in Section 3 – that would generate vehicle trips moving to/from Exit 7 along Trunk 2 corridor by 2043,
- Community growth in the Halifax Regional Municipality – as discussed in Section 3 – that would generate vehicle trips moving along Old Post Road, and through Exit 7 by 2043,
- The removal of the truck trips associated with the existing weigh scale immediately west of Exit 7.

Figure 11: Future 2043 Peak Hour Volumes – Future Road Network 2



5. FUTURE TRAFFIC OPERATIONAL ANALYSES

This chapter summarizes the results of the future year traffic operations analysis, including signal warrants, and intersection capacity reviews.

5.1 Intersection Signal Warrant Assessment

5.1.1 Overview of Signal Warrant Procedure

The initial step in the analysis process identified the need for traffic control upgrades at the stop-controlled unsignalized intersections in the vicinity of Exit 7. This process helps practitioners identify, at a high level, where capacity constraints exist on the network under each development scenario and/or road network layout. GRIFFIN has used the Transportation Association of Canada's (TAC) traffic signal warrant procedure. This methodology is widely used by road agencies across Canada and is a recognized procedure by NSDPW. The TAC calculation process uses a set of average intersection volumes measured over the six highest hours of a typical day. The results of this calculation process include a number of priority points to indicate whether a traffic signal is warranted. When the minor street peak hour traffic volume exceeds 75 vehicles/hour and the number of priority points exceeds 100, the traffic signal warrant is met.

5.1.2 Signal Warrant Results – Trunk 2 Corridor

In order to provide a comprehensive set of results in this study, GRIFFIN has provided the signal warrant results for each stop-controlled intersection along the Trunk 2 corridor as this is the critical travel route to/from the Exit 7 interchange. The results are contained in *Table 7* and detailed signal warrant assessments are contained in *Appendix II*.

Table 7: Summary of Traffic Signal Warrant Calculation Results – Trunk 2 Corridor

Intersection	TAC Signal Warrant Priority Points				
	Network 1 Road Layout (Existing)			Network 2 Road Layout (Future)	
	2025	2033	2043	2033	2043
Trunk 2 / Exit 7 SB Ramps	97	**171**	**211**	*n/a*[A]	*n/a*[A]
Trunk 2 / Exit 7 NB Ramps	96	**201**	**258**	*n/a*[A]	*n/a*[A]
Trunk 2 / Oldham Road	72	**171**	**286**	87	99
Trunk 2 / Old Post Road	23	26	38	*n/a*[A]	*n/a*[A]

A – Assumed to be converted to, or consolidated into, a new modern roundabout intersection. Thus, no results were quantified for this Road Layout Scenario.

The signal warrant results provide an indication of the approximate timing of the need to upgrade stop-controlled intersections to either a roundabout or traffic signals. The differences in priority points also provides a proxy measure of the relative change in operations over time. Generally, the following conclusions were drawn from the signal warrant results:

- *Trunk 2 Corridor*: Given the near-capacity conditions along the Trunk corridor in our study area, it is anticipated that significant corridor-level upgrades will be required to accommodate the planned growth expected by the 2033 planning horizon – assuming the status quo existing road network remains in place. To accommodate this growth the signal warrant results indicate that traffic control upgrades will be required at the two Exit 7 ramp intersections as well as the Oldham Road intersection. Further, the introduction of traffic signals at any intersection along Trunk 2 in this area will interrupt what is currently free-flow traffic. This is expected to reduce the overall vehicle capacity moving to/from Exit 7 which will precipitate the need for widening Trunk 2 beyond its current two-lane, two-way cross-section.
- *Northbound Ramp Intersection*: Since the northbound ramp intersection traffic signal warrant will be met in the very near-term (i.e. likely in the next 1 to 2 years), combined with the close proximity of the Old Post Road intersection, there would be significant long-term operational and safety benefits by consolidating the three off-set intersections into a five-leg modern roundabout intersection. This change is expected to greatly improve operations and safety risks in this area. Of course, the need for a roundabout at one ramp terminal will preclude the ability to use traffic signals at other adjacent intersections due to known operational issues between these two types of traffic control. Thus, it was assumed in our analysis of the future road Network 2 that roundabouts would be implemented at both ramp terminal intersections.
- *Oldham Road Intersection:*
    - *Existing Road Network 1*: The signal warrant results clearly suggest that traffic signals will be required in the very near-term assuming the existing road layout remains in place. Based on short-term population growth forecasts we can expect the signal warrant to be met at the Trunk 2 / Oldham Road intersection around 2027 or 2028. If traffic signals were to be installed at the Oldham Road intersection; however, it would interrupt the free-flow traffic on Trunk 2 and is expected to create significant queues during peak periods. Further, existing physical and environmental constraints at this intersection will make it difficult to install traffic signals and widen Trunk 2 – as noted above.
    - *Future Road Network 2*: The implementation of a new modern roundabout at the Trunk 2 / Northbound ramps / Old Post intersection would provide a new and improved parallel travel route option along Old Post Road. This will help offset travel demand increases in the Trunk 2 corridor. In turn, a new roundabout is also expected to reduce the future traffic demand at the Trunk 2 / Oldham Road

intersection and – as shown in Table 7 – will greatly reduce the signal warrant priority points at this location. Therefore, future road Network 2 is expected to defer significant road infrastructure investments that would otherwise be needed by the 2043 planning horizon.

When we compare the change in the number of priority points between the 2025 and 2033 planning horizon, it is clear that the two stop-controlled ramp intersections at the Exit 7 interchange will reach capacity in the very short-term time period. Therefore, GRIFFIN has assumed NSDPW would need to begin the planning and design for future upgrades at the Exit 7 interchange in the next two to five years. Thus, GRIFFIN did not evaluate the two ramp intersections with stop-control at either the 2033 or 2043 horizon years, as discussed in Section 5.2.

It is also important to note that traffic signals were not considered as an intersection upgrade option at the ramp intersections at Exit 7 as it was necessary to consolidate the three off-set three-leg intersections – including Old Post Road – into a five-leg roundabout on the northeast side of Exit 7. Thus, the introduction of a modern roundabout at one ramp terminal will precipitate the need for a roundabout at the other ramp terminal due to the fact that operational issues will arise with a traffic signal in close proximity to a roundabout.

5.2 Future Road Network Capacity Analysis

An operational performance analysis effort was carried out at the study area intersections for the future 2033 and 2043 planning horizons. A summary of results for the critical intersection movements are contained in *Table 8* and detailed capacity reports are provided in *Appendix III*.

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Table 8: Future Intersection Operational Analysis Results

1. Trunk 2 / Exit 7 SB Ramps (west side)						
	AM Peak Hour			PM Peak Hour		
	Approach: LOS (Delay)	V/C	Queue[A]	Approach: LOS (Delay)	V/C	Queue[A]
Existing 2025	Tk 2 EB Entry: n/a[B]	-	-	Tk 2 EB Entry: n/a[B]	-	-
Network 1	Tk 2 WB Left: **B** (11.3s)	0.56	30m	Tk 2 WB Left: **A** (8.4s)	0.19	10m
stop-control	SB Left: **F** (>400s)	1.29	35m	SB Left: **E** (35.8s)	0.49	20m
existing lanes	SB Th-Rt: **A** (9.2s)	0.04	<10m	SB Th-Rt: **B** (10.3s)	0.10	<10m
Future 2033	Tk 2 EB Entry: **B** (11.6s)	0.42	20m	Tk 2 EB Entry: **A** (5.5s)	0.31	15m
Network 2	Tk 2 WB Entry: **A** (3.7s)	0.54	15m	Tk 2 WB Entry: **A** (2.4s)	0.29	15m
Roundabout	SB Entry: **A** (7.3s)	0.18	10m	SB Entry: **A** (6.0s)	0.29	15m
(Design 1)	NB Entry: n/a[C]	-	-	NB Entry: n/a[C]	-	-
Future 2043	Tk 2 EB Entry: **C** (20.5s)	0.60	40m	Tk 2 EB Entry: **A** (6.0s)	0.36	15m
Network 2	Tk 2 WB Entry: **A** (4.4s)	0.62	25m	Tk 2 WB Entry: **A** (2.5s)	0.31	15m
Roundabout	SB Entry: **A** (9.0s)	0.23	10m	SB Entry: **A** (6.6s)	0.33	15m
(Design 1)	NB Entry: n/a[C]	-	-	NB Entry: n/a[C]	-	-

2. Trunk 2 / Exit 7 NB Ramps (east side)						
	AM Peak Hour			PM Peak Hour		
	Approach: LOS (Delay)	V/C	Queue[A]	Approach: LOS (Delay)	V/C	Queue[A]
Existing 2025	Tk 2 EB Left: **B** (10.0s)	0.08	<10m	Tk 2 EB Left: **A** (8.3s)	0.05	<10m
Network 1	Tk 2 WB Entry: n/a[B]	-	-	Tk 2 WB Entry: n/a[B]	-	-
stop-control	NB Left: **C** (24.5s)	0.09	<10m	NB Left: **C** (20.6s)	0.35	15m
existing lanes	NB Th-Rt: **B** (10.7s)	0.27	10m	NB Th-Rt: **F** (57.6s)	1.00	125m
Future 2033	Tk 2 EB Entry: **A** (2.4s)	0.16	10m	Tk 2 EB Entry: **A** (2.7s)	0.26	10m
Network 2	Tk2WB Entry: **D** (32.5s)	0.94	320m	Tk 2 WB Entry: **A** (5.5s)	0.38	15m
Roundabout	NB Entry: **A** (2.2s)	0.16	10m	NB Entry: **A** (5.7s)	0.65	30m
(5-leg, Design 1)	SB Entry: n/a[C]	-	-	SB Entry: n/a[C]	-	-
	Old Post: **A** (5.0s)[D]	0.16	10m	Old Post: **F** (51.5s)[D]	0.56	40m
Future 2043	Tk 2 EB Entry: **A** (2.5s)	0.18	10m	Tk 2 EB Entry: **A** (2.8s)	0.29	15m
Network 2	Tk 2 WB Entry: **A** (4.6s)	0.58	15m	Tk 2 WB Entry: **A** (2.6s)	0.25	15m
Roundabout	NB Entry: **A** (2.3s)	0.17	<10m	NB Entry: **A** (7.2s)	0.72	40m
(5-leg, Design 2)	SB Entry: n/a[C]	-	-	SB Entry: n/a[C]	-	-
	Old Post: **A** (6.3s)[D]	0.30	15m	Old Post: **E** (43.9s)[D]	0.64	60m

Table 8 – Continued

3. Trunk 2 / Oldham Road						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025 **Network 1** *stop-control* *existing lanes*	Tk 2 EB Left: **A** (9.6s) Tk 2 WB Left: **A** (7.9s) NB Entry: **E** (36.5s)	0.02 0.02 0.46	<10m 0m 20m	Tk 2 EB Left: **A** (8.2s) Tk 2 WB Left: **B** (10.0s) NB Entry: **F** (65.7s)	0.03 0.07 0.73	<10m <10m 35m
Future 2033 **Network 1** *stop-control* *existing lanes*	Tk 2 EB Left: **B** (11.0s) Tk 2 WB Left: **A** (8.3s) NB Entry: **F** (>400s)	0.02 0.03 1.74	<10m <10m 105m	Tk 2 EB Left: **A** (9.0s) Tk 2 WB Left: **B** (13.8s) NB Entry: **F** (>999s)	0.04 0.18 3.53	<10m 10m 145m
Future 2033 **Network 2** *stop-control* *existing lanes*	Tk 2 EB Left: **B** (11.0s) Tk 2 WB Left: **A** (8.1s) NB Entry: **D** (28.7s)	0.02 0.03 0.29	<10m <10m 10m	Tk 2 EB Left: **A** (9.0s) Tk 2 WB Left: **B** (12.9s) NB Entry: **F** (57.0s)	0.04 0.17 0.63	<10m <10m 25m
Future 2043 **Network 1** **Signalized** *(120s cycle)*	Tk 2 EB Entry: **B** (11.2s) Tk2WB Entry: **D** (40.3s) NB Entry: **E** (77.5s) SB Entry: n/a[C]	0.33 0.98 0.98 -	60m 390m 115m -	Tk 2 EB Entry: **F** (88.9s) Tk2 WB Entry: **C** (31.0s) NB Entry: **C** (32.2s) SB Entry: n/a[C]	1.15 1.03 0.55 -	450m 120m 50m -
Future 2043 **Network 2** *stop-control* *existing lanes*	Tk 2 EB Left: **B** (11.4s) Tk 2 WB Left: **A** (8.3s) NB Entry: **E** (36.4s)	0.02 0.03 0.35	<10m <10m 15m	Tk 2 EB Left: **A** (9.3s) Tk 2 WB Left: **C** (14.0s) NB Entry: **F** (94.1s)	0.04 0.19 0.80	<10m 10m 35m

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Table 8 - Continued

4. Oldham Road / Old Post Road						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025	NB Left: **A** (0.0s)	0.00	0m	NB Left: **A** (0.0s)	0.00	0m
Network 1	SB Left: **A** (7.4s)	0.01	0m	SB Left: **A** (7.4s)	0.04	<10m
stop-control	EB Entry: **A** (9.4s)	0.01	0m	EB Entry: **B** (10.7s)	0.01	0m
existing lanes	WB Entry: **A** (8.9s)	0.05	<10m	WB Entry: **A** (9.1s)	0.08	<10m
Future 2033	NB Left: **A** (0.0s)	0.00	0m	NB Left: **A** (0.0s)	0.00	0m
Network 1	SB Left: **A** (7.4s)	0.03	<10m	SB Left: **A** (7.6s)	0.09	<10m
stop-control	EB Entry: **B** (10.4s)	0.01	0m	EB Entry: **B** (13.6s)	0.02	<10m
existing lanes	WB Entry: **A** (9.2s)	0.05	<10m	WB Entry: **A** (9.4s)	0.14	<10m
Future 2033	NB Left: **A** (7.3s)	0.01	0m	NB Left: **A** (7.3s)	0.01	0m
Network 2	SB Left: **A** (7.3s)	0.01	0m	SB Left: **A** (7.4s)	0.04	<10m
stop-control	EB Entry: **A** (9.8s)	0.06	<10m	EB Entry: **B** (11.2s)	0.17	<10m
existing lanes	WB Entry: **B** (10.4s)	0.18	<10m	WB Entry: **B** (10.6s)	0.17	<10m
Future 2043	NB Left: **A** (0.0s)	0.00	0m	NB Left: **A** (0.0s)	0.00	0m
Network 1	SB Left: **A** (7.5s)	0.06	<10m	SB Left: **A** (7.8s)	0.17	<10m
stop-control	EB Entry: **B** (12.5s)	0.01	0m	EB Entry: **C** (21.2s)	0.04	<10m
existing lanes	WB Entry: **B** (10.0s)	0.28	10m	WB Entry: **B** (10.0s)	0.23	10m
Future 2043	NB Left: **A** (7.3s)	0.01	0m	NB Left: **A** (7.3s)	0.01	0m
Network 2	SB Left: **A** (7.3s)	0.01	0m	SB Left: **A** (7.4s)	0.04	<10m
stop-control	EB Entry: **B** (10.4s)	0.12	<10m	EB Entry: **B** (13.6s)	0.37	15m
existing lanes	WB Entry: **B** (12.2s)	0.36	15m	WB Entry: **B** (12.4s)	0.31	10m

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Table 8 - Continued

5. Trunk 2 / Old Post Road						
	AM Peak Hour			**PM Peak Hour**		
	Approach: LOS (Delay)	**V/C**	**Queue[A]**	**Approach: LOS (Delay)**	**V/C**	**Queue[A]**
Existing 2025 **Network 1** *stop-control* *existing lanes*	Tk 2 EB Entry: n/a[B] Tk 2 WB Left: **A** (8.2s) NB Lt-Rt: **C** (23.1s)	- 0.01 0.07	- 0m <10m	Tk 2 EB Entry: n/a[B] Tk 2 WB Left: **B** (10.5s) NB Lt-Rt: **C** (23.3s)	- 0.01 0.04	- 0m <10m
Existing 2033 **Network 1** *stop-control* *existing lanes*	Tk 2 EB Entry: n/a[B] Tk 2 WB Left: **A** (8.5s) NB Lt-Rt: **E** (40.7s)	- 0.01 0.13	- 0m <10m	Tk 2 EB Entry: n/a[B] Tk 2 WB Left: **B** (13.6s) NB Lt-Rt: **E** (48.2s)	- 0.02 0.10	- <10m <10m
Future 2033 **Network 2**	n/a *This intersection consolidated into intersection #2*			n/a *This intersection consolidated into intersection #2*		
Existing 2043 **Network 1** *stop-control* *existing lanes*	Tk 2 EB Entry: n/a[B] Tk 2 WB Left: **A** (8.7s) NB Lt-Rt: **F** (57.9s)	- 0.01 0.18	- 0m <10m	Tk 2 EB Entry: n/a[B] Tk 2 WB Left: **C** (15.0s) NB Lt-Rt: **F** (66.6s)	- 0.02 0.13	- <10m <10m
Future 2043 **Network 2**	n/a *This intersection consolidated into intersection #2*			n/a *This intersection consolidated into intersection #2*		

A – Queue represents the calculated 95th percentile vehicle queue length in metres.
B – HCM methodology assumes no delay for this first order intersection movement.
C – No entering volume, and thus no results can be calculated.
D – Realignment of Old Post Road into this roundabout.

Our analysis process used the industry-accepted Trafficware *Synchro 11* software tool for signalized/unsignalized intersections, which is based on the methodologies contained in the Transportation Research Board's (TRB) *Highway Capacity Manual*. The roundabouts were evaluated using the Transportation Research Laboratory's (TRL) *Arcady 10* software tool which is preferred by NSDPW.

The results contained in *Table 8* suggest the following:

- ***Southbound Ramps (Intersection #1)***: As noted in the previous Section, the need for a roundabout at this location is due in part to the traffic signal warrant being met, but also precipitated by the need for a new five-leg roundabout serving the northbound ramp intersection on the east side of Exit 7. The analysis results demonstrate that a new 4-leg

multi-lane roundabout at the southbound ramp intersection is expected to be a clear operational improvement over the existing conditions and is expected to adequately accommodate future 2033 and 2043 peak hour volumes. As noted earlier, our analysis assumed NSDPW relocated the truck weigh scale prior to the 2033 planning horizon.

- ***Northbound Ramps (Intersection #2)***: GRIFFIN recommends that a new five-leg modern roundabout be installed at this location to consolidate the three existing off-set intersections, and to alleviate future operational and safety concerns. Implementing a 5-leg multi-lane roundabout is expected to adequately accommodate future 2033 and 2043 peak hour volumes. The implementation of a roundabout at this location will require any future traffic control upgrade at intersection #1 to be restricted to a modern roundabout. Having a mix of traffic signals and a roundabout at Exit 7 is not desirable and is expected to create a future situation with poor traffic operations and queue management issues.
- ***Oldham Road (Intersection #3):*** The expected and on-going growth in this area is expected to trigger the need for traffic signals by 2027 or 2028; however, the adjacent water course and bridge structure are significant constraints. Further, a set of traffic signals at this location under the existing road layout will require widening of the Trunk 2 corridor to a four-lane cross-section to manage long vehicle queues on Trunk 2 – a significant investment. The analysis results also show that if the future road Network 2 layout is implemented, and Old Post Road is connected to a new modern roundabout at Exit 7, then traffic will divert away from Oldham Road. The future road Network 2 layout is expected to allow the Trunk 2 / Oldham Road to function with stop-control well into the future.
- ***Oldham Road / Old Post Road (Intersection #4):*** This two-way stop-controlled intersection has sufficient residual capacity to accommodate the future 2043 long-term travel demand under both the existing and future road layout configurations. This intersection will not require upgrades to add capacity; however, upgrades are likely required to align the off-set east-west legs, improve the skew angles of the east-west legs, and increase the visibility constraints on the corners.
- ***Old Post Road / Trunk 2 (Intersection #5):*** This intersection will require a traffic control upgrade at some point in the future as east-west traffic volumes continue to grow along Trunk 2. Although the TAC signal warrant results suggest that signals are not required by the future 2043 planning horizon, drivers will still experience long delays and increasing risk associated with the skew angle and close proximity to the interchange. To mitigate this, and manage the other adjacent closely-spaced intersections, GRIFFIN recommends consolidating this intersection into a new modern roundabout at the Exit 7 northbound ramp intersection. This solution will eliminate the need to invest in a new set of traffic signals at Old Post Road at some point in the future.

GRIFFIN has reviewed the intersection performance analysis results and identified that the future road Network 2 layout is preferred. This is based on several factors including the ability to defer significant investments along Trunk 2, including the Exit 7 ramp intersections and at Oldham Road; as well as mitigate future expected traffic operational and safety risks in the vicinity of the existing

Old Post Road / Trunk 2 intersection. GRIFFIN has identify the preferred traffic control and lane configurations required to accommodate the future year traffic demand in this area and the associated concept sketches are presented in *Figures 12 and 13* for the 2033 and 2043 horizon years, respectively.

Figure 12: Proposed Exit 7 Network 2 Lane Configuration – 2033 Roadway Infrastructure

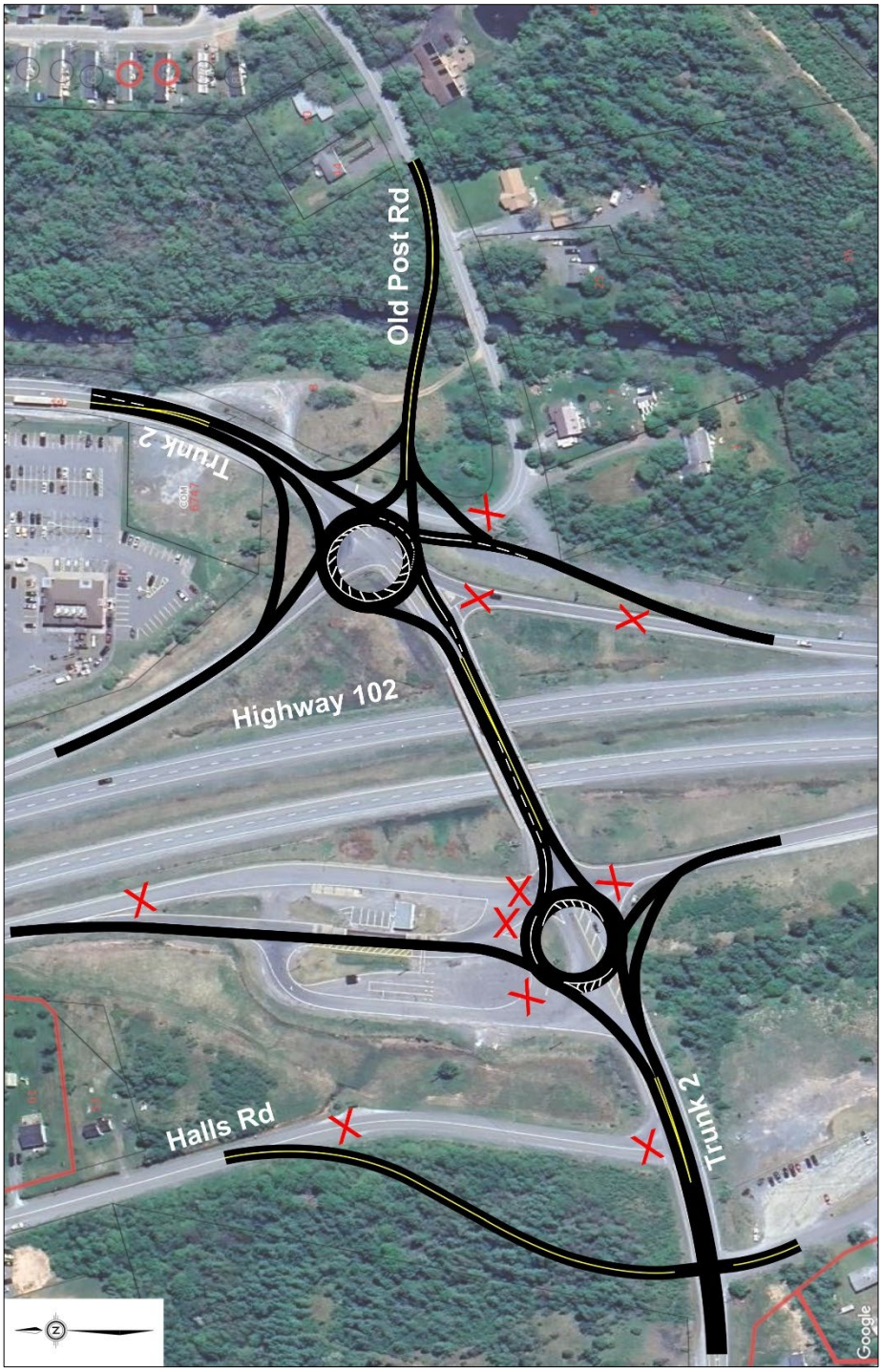
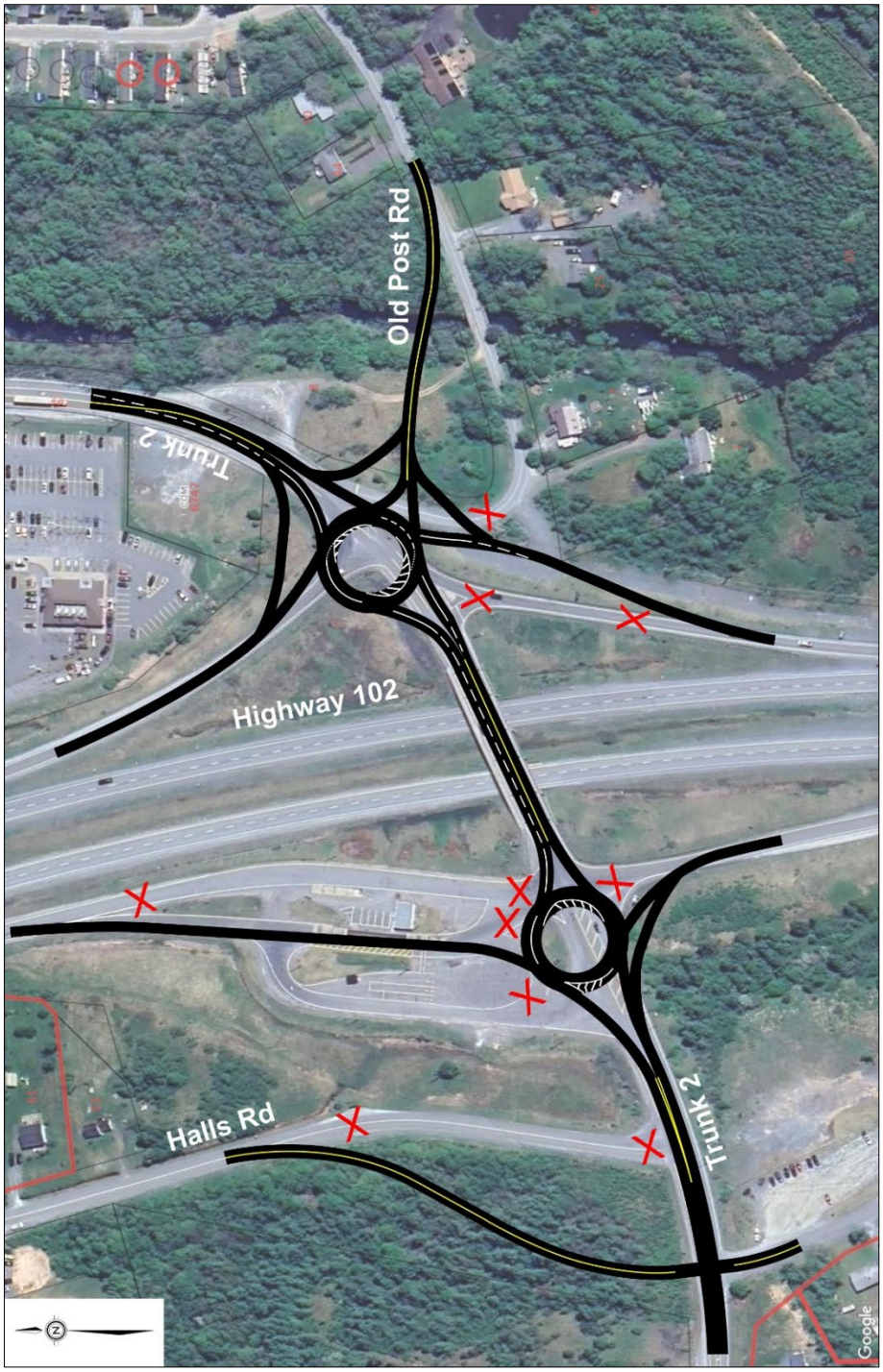


Figure 13: Proposed Exit 7 Network 2 Lane Configuration – 2043 Roadway Infrastructure



6. ROAD INFRASTRUCTURE COST ESTIMATES

This chapter summarizes the road infrastructure upgrades expected to accommodate the growth by 2043, and provides class D cost estimates.

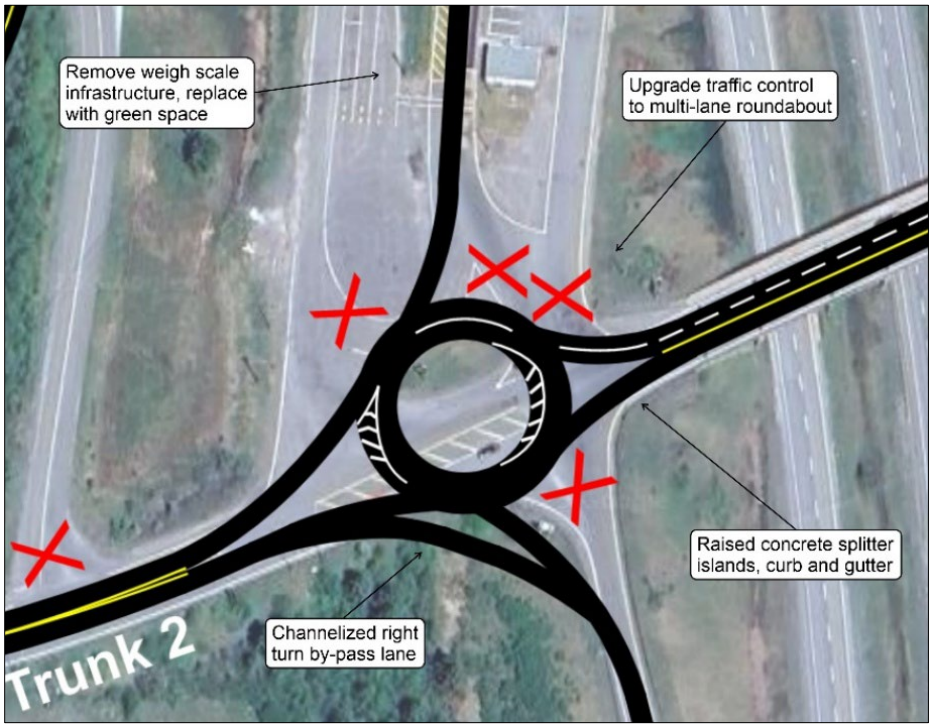
6.1 Overview

GRIFFIN has prepared concept sketches for each study area intersection that is expected to require infrastructure upgrades by the 2043 planning horizon. The necessary infrastructure is based on the assumption that NSDPW moves forward with the future road Network 2 road layout. It should be noted that these illustrations are conceptual and should not be relied upon as design drawings.

For each location, GRIFFIN has also assembled preliminary planning level (class D) infrastructure cost estimates to help facilitate NSDPW's future planning process that will follow the completion of this study. The infrastructure cost estimates contained in this report are considered to be preliminary and have been provided in 2025 dollars. Our class D estimates do not include land acquisition costs or such things as building removal costs. The class D estimates do consider such items as engineering design fees, a construction contingency, traffic control during construction, signage, and so forth.

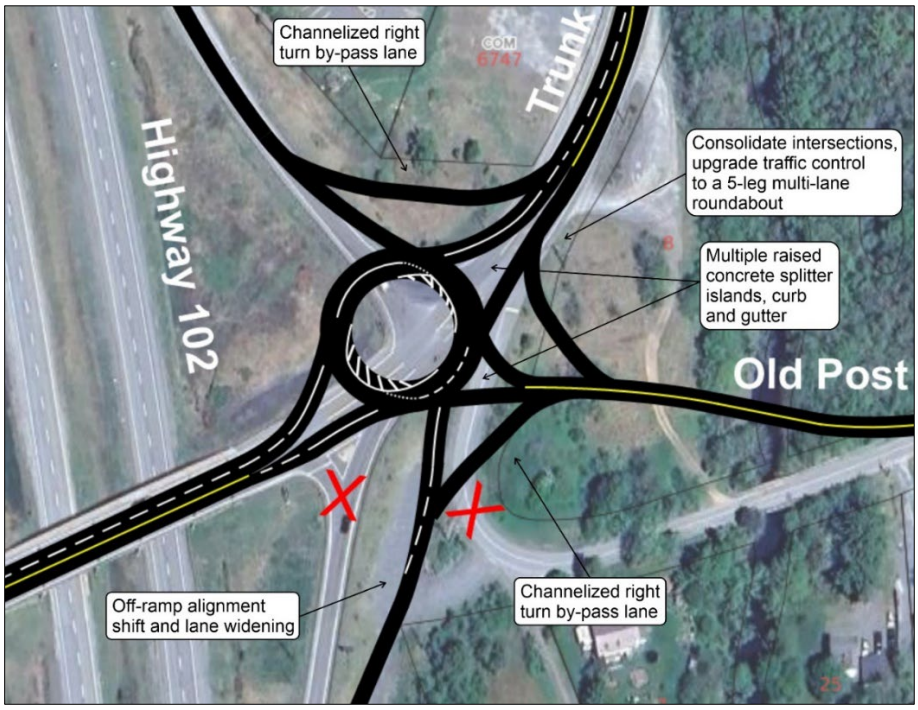
6.2 Infrastructure Upgrades – 2043 Horizon

Figure 14: Exit 7 Southbound Ramp Intersection Upgrades - 2043



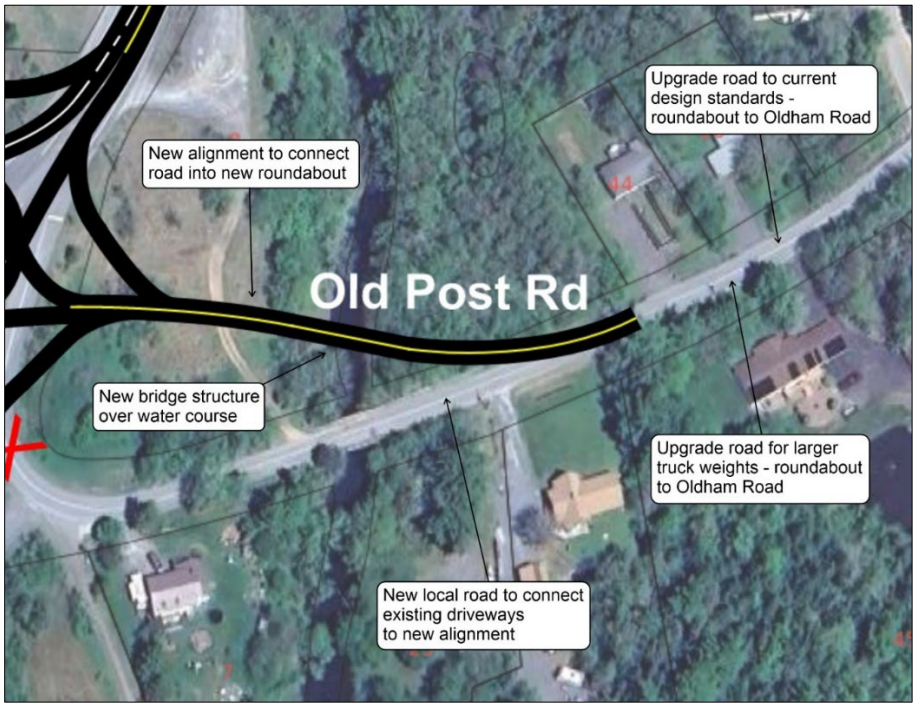
$2,447,600 implementation cost estimate *(Class D, 2025 dollars)*

Figure 15: Exit 7 Northbound Ramp Intersection Upgrades - 2043



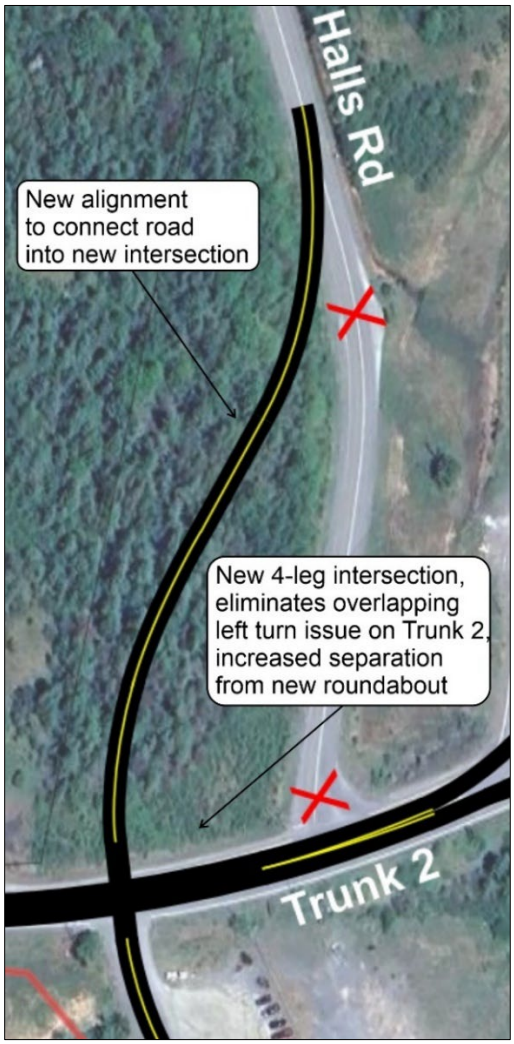
$3,147,000 implementation cost estimate *(Class D, 2025 dollars)*

Figure 16: Old Post Road Corridor Upgrades - 2043



$6,383,000 implementation cost estimate *(Class D, 2025 dollars)*

Figure 17: Halls Road Intersection Upgrades - 2043



$1,177,600 implementation cost estimate *(Class D, 2025 dollars)*

7. CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the salient findings of the analysis and identifies any necessary changes to the transportation infrastructure.

7.1 Conclusions

The following conclusions were gleaned from the analysis carried out for this study:

- *Current Conditions*: The key intersections along the Trunk 2 corridor from Exit 7 to Oldham Road are nearing capacity during the weekday peak periods. The traffic signal warrant priority points for both ramp intersections at the Exit 7 interchange are in the range of 96-97 points, very near the 100 point threshold. The Oldham Road priority points are at 72 points, up from 40 points when it was last evaluated in 2011. In conclusion, the existing intersection infrastructure in this area will require significant upgrades in the next 1 to 3 years, should traffic growth continue.
- *Community Growth*: Building on the 2023 Corridor Area travel demand study, there is expected to be significant population and employment growth in the study area, including within the serviced area of Enfield and Elmsdale, unserviced areas of Horne Settlement, and unserviced areas in HRM southeast of the Shubenacadie River. This planned and expected growth will increase traffic volumes on the study area roads since Exit 7 is the most convenient access point to move to/from the Highway 102 travel corridor in this area.
- *Future Operations – Existing Road Network:* If the existing road layout and existing Exit 7 interchange configuration remains in place (i.e. status quo), it will not have sufficient capacity to accommodate the expected growth by 2033, nor the long-term growth expected by 2043. The following upgrades are expected should the existing road layout remain:
    - *Trunk 2 / Oldham Road Intersection:* This intersection will require an upgrade to either traffic signals or a modern roundabout prior to the 2033 horizon year.; however, the bridge structure and water course immediately adjacent to this intersection are notable constraints. Further, the two-way traffic flow on Trunk 2 will be nearing the flow capacity and the introduction of signals or a roundabout will interrupt this flow and reduce the east-west capacity – creating significant queues on Trunk 2.
    - *Trunk 2 Corridor:* As noted above, the introduction of traffic signals at the Oldham Road intersection – or any intersection in this area – will create significant east-west queues on Trunk 2. Therefore, signalizing these intersections will require widening of the Trunk 2 corridor to a 4-lane cross-section, from Exit 7 through to Old Enfield Road to manage the associated long vehicle queues at each intersection. This will be very costly from a property impact and financial perspective.

- *Closely-spaced Intersections*: The Exit 7 northbound ramp intersection and the existing Old Post Road intersection essentially function as three off-set t-intersections in close proximity. This situation creates operational issues and road safety concerns and will be exacerbated with continued growth in peak period traffic volumes on Trunk 2.

- *Future Operations – Future Road Network 2:* The implementation of a new road layout (Network 2) is proposed to help manage the expected long-term growth and associated increase in traffic volumes moving to/from the Exit 7 interchange. The road layout modifications include:
  - Installing new multi-lane modern roundabouts at both Exit 7 ramp intersections.
  - Implement a 5-leg modern roundabout on the east side of the Exit 7 interchange that consolidates the northbound ramp intersection and the Old Post Road intersection. This will mitigate two key operational concerns:
    - Consolidates the closely-spaced intersections along Trunk 2 into one roundabout.
    - Create a convenient parallel secondary travel corridor along Old Post Road which is expected to divert traffic away from the Trunk 2 / Oldham Road intersection – a deferring upgrades needs at this location.

In summary, the implementation of a new future road Network 2 layout will alleviate multiple traffic operational issues that either currently exist, or will be created with the planned and expected growth in the adjacent communities. The installation of two modern roundabouts at the Exit 7 interchange is expected to adequately accommodate forecast increases in traffic beyond the 2043 panning horizon, as well as integrate the Old Post Road connection at Trunk 2 into a five-leg roundabout. The consolidation of this intersection into a new roundabout at Exit 7 is a key component to road Network 2 as it will offer an alternative and parallel route to the existing Trunk 2 corridor. This will add convenience for residents, add capacity to the overall road system, offer redundancy during an accident, avoid widening Trunk 2 to a four-lane cross-section, and defer the need for upgrades at the Trunk 2 / Oldham Road intersection.

The future road Network 2 road layout also provides the opportunity for NSDPW to implement access management controls along the south side of Trunk 2, from the Exit 7 interchange to Oldham Road.

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7.2 Recommendations

The following recommendations were developed based on the findings flowing from this study:

1. *Relocate the Truck Weigh Scale*: That NSDPW move forward with their planning and design efforts to relocate the truck weigh scale away from the Exit 7 interchange area. This will reduce the volume of truck traffic in the area and improve operating conditions for a short period of time – allowing extra time for the planning and design process for intersection upgrades at the Trunk 2 / Southbound ramp intersection.
2. *Install New Roundabouts*: That NSDPW initiate the planning and design process to convert the existing Exit 7 intersections to multi-lane roundabouts – as per the concept sketches provided in this report. The existing Exit 7 bridge structure is expected to offer sufficient capacity out to the 2043 planning horizon. The southbound ramp roundabout can function with 4-legs, and the northbound ramp roundabout will require 5-legs to incorporate and consolidate Old Post Road at this location.
3. *Upgrade The Old Post Road Corridor*: The installation of a 5-leg roundabout on the east side of Exit 7 should be done in concert with upgrades to Old Post Road from the new roundabout to Oldham Road. This should include a new bridge over the watercourse near civic #25, and a full depth upgrade to accommodate large truck weights and dimensions.
4. *Halls Road Upgrades*: The recommended intersection upgrade at the Trunk 2 / Exit 7 Southbound Ramp intersection provides an opportunity to improve operations along Trunk 2 to the west of the study area. Currently, Halls Road and Grant Road are two closely-spaced t-intersections with a negative off-set left turn issue. Realigning Halls Road to the west to connect to Trunk 2 directly opposite Grant Road eliminates this road safety concern, improves the separation distance to the new roundabout, and likely can be implemented with no additional land acquisition.
5. *Geometric Design Process*: That the geometric design process for the proposed infrastructure changes in the vicinity of Exit 7 follow the most recent NSDPW and TAC geometric design guidelines. In addition, minimum required driver sight distances, corner sight triangles and corner clearances should be confirmed and maintained throughout the design and construction phases of the project. Prior to the start of any roadway or intersection design process, the proponent and their geometric design team will need to identify and confirm an appropriate design vehicle (eg. WB-21 truck, snow removal truck, etc.).
6. *Signs and Pavement Markings*: That all new signage and pavement markings associated with future changes at Exit 7 be installed in accordance with the latest version of the Transportation Association of Canada's (TAC) *Manual of Uniform Traffic Control Devices of Canada* (MUTCDC).
7. *Access Management*: That NSDPW initiate an access management review along Trunk 2, from the Exit 7 interchange to Oldham Road. The existing private commercial driveways can remain; however, it would be prudent to establish a future plan to manage any additional accesses along the south side of the road that would service the vacant lands.

APPENDIX I

Observed Traffic Volumes

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Exit7 SBRamps AM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Tuesday, May 6, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1130	
% Vehs	**% HV-SU**
93.2%	2.7%
% HV-TT	**% Bikes**
4.1%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	Eastbound Tk 2							Westbound Tk 2													SB Off Ramp							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:15 AM	0	0	39	16	0	0	55	0	168	29	0	0	0	197	0	0	0	0	0	0	0	0	10	10	14	0	0	34	286	0
7:30 AM	0	0	36	23	0	0	59	0	206	37	0	0	0	243	0	0	0	0	0	0	0	0	14	4	9	0	0	27	329	0
7:45 AM	0	0	51	30	0	0	81	0	138	37	0	0	0	175	0	0	0	0	0	0	0	0	9	6	8	0	0	23	279	0
8:00 AM	0	0	29	14	0	0	43	0	145	29	0	0	0	174	0	0	0	0	0	0	0	0	12	5	2	0	0	19	236	0

Vehicle Movement Summary

Movement / Details	Eastbound Tk 2							Westbound Tk 2													SB Off Ramp							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	0	155	83	0	0	238	0	657	132	0	0	0	789	0	0	0	0	0	0	0	0	45	25	33	0	0	103	1130	0
PHF	-	-	0.76	0.69	-	-	0.73	-	0.80	0.89	-	-	-	0.81	-	-	-	-	-	-	-	-	0.80	0.63	0.59	-	-	0.76	0.86	-
% Vehs	0.0%	0.0%	97.4%	98.8%				0.0%	98.6%	78.8%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	82.2%	4.0%	90.9%					
% HV-SU	0.0%	0.0%	2.6%	0.0%				0.0%	0.9%	8.3%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	8.9%	12.0%	9.1%				**Need a custom report?**	
% HV-TT	0.0%	0.0%	0.0%	1.2%				0.0%	0.5%	12.9%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	8.9%	84.0%	0.0%				**Contact: support@portablestudies.com**	
% Bank 4	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																									
Time Period	Eastbound Tk 2						Westbound Tk 2												SB Off Ramp						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	39	16	0	0	0	168	29	0	0	0	0	0	0	0	0	0	0	10	10	14	0	0	286	0
7:30 AM	0	0	36	23	0	0	0	206	37	0	0	0	0	0	0	0	0	0	0	14	4	9	0	0	329	0
7:45 AM	0	0	51	30	0	0	0	138	37	0	0	0	0	0	0	0	0	0	0	9	6	8	0	0	279	0
8:00 AM	0	0	29	14	0	0	0	145	29	0	0	0	0	0	0	0	0	0	0	12	5	2	0	0	236	0
8:15 AM	0	1	34	13	0	0	0	108	34	0	0	0	0	0	0	0	0	0	0	13	3	5	0	0	211	0
8:30 AM	0	0	22	11	0	0	0	96	26	0	0	0	0	0	0	0	0	0	0	19	2	9	0	0	185	0
8:45 AM	0	1	34	7	0	0	0	64	26	1	0	0	0	0	0	0	0	0	0	11	6	6	0	0	156	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Exit7 SBRamps PM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Tuesday, May 6, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
858	
% Vehs	**% HV-SU**
94.8%	3.0%
% HV-TT	**% Bikes**
2.1%	0.1%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	Eastbound Tk 2							Westbound Tk 2													SB Off Ramp							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:30 PM	0	0	41	9	0	0	50	0	56	56	0	0	0	112	0	0	0	0	0	0	0	0	28	0	24	0	0	52	214	0
4:45 PM	0	0	47	8	0	0	55	0	47	72	0	0	0	119	0	0	0	0	0	0	0	0	29	0	18	0	0	47	221	0
5:00 PM	0	0	44	9	0	0	53	0	75	62	0	0	0	137	0	0	0	0	0	0	0	0	22	0	13	0	0	35	225	0
5:15 PM	0	0	54	6	0	0	60	0	49	53	0	0	0	102	0	0	0	0	0	0	0	0	20	2	14	0	0	36	198	0

Vehicle Movement Summary

Movement / Details	Eastbound Tk 2							Westbound Tk 2													SB Off Ramp							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	0	186	32	0	0	218	0	227	243	0	0	0	470	0	0	0	0	0	0	0	0	99	2	69	0	0	170	858	0
PHF	-	-	0.86	0.89	-	-	0.91	-	0.76	0.84	-	-	-	0.86	-	-	-	-	-	-	-	-	0.85	0.25	0.72	-	-	0.82	0.95	-
% Vehs	0.0%	0.0%	96.8%	93.8%				0.0%	94.3%	97.5%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	83.8%	100.0%	97.1%					
% HV-SU	0.0%	0.0%	2.7%	6.3%				0.0%	3.1%	2.5%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	4.0%	0.0%	2.9%				**Need a custom report?**	
% HV-TT	0.0%	0.0%	0.0%	0.0%				0.0%	2.6%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	12.1%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.5%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																								
Time Period	Eastbound Tk 2						Westbound Tk 2												SB Off Ramp						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
3:30 PM	0	0	49	10	0	0	0	72	37	0	0	0	0	0	0	0	0	0	0	19	0	9	0	0	196	0
3:45 PM	0	0	39	6	0	0	0	58	41	0	0	0	0	0	0	0	0	0	0	16	0	12	0	0	172	0
4:00 PM	0	0	41	10	0	0	0	57	53	0	0	0	0	0	0	0	0	0	0	22	0	21	0	0	204	0
4:15 PM	0	0	52	12	0	0	0	53	36	0	0	0	0	0	0	0	0	0	0	17	1	18	0	0	189	0
4:30 PM	0	0	41	9	0	0	0	56	56	0	0	0	0	0	0	0	0	0	0	28	0	24	0	0	214	0
4:45 PM	0	0	47	8	0	0	0	47	72	0	0	0	0	0	0	0	0	0	0	29	0	18	0	0	221	0
5:00 PM	0	0	44	9	0	0	0	75	62	0	0	0	0	0	0	0	0	0	0	22	0	13	0	0	225	0
5:15 PM	0	0	54	6	0	0	0	49	53	0	0	0	0	0	0	0	0	0	0	20	2	14	0	0	198	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Trunk2 Exit NB Ramps AM May2025
Location
Enfield, Not Available
Performed By
GRFFIN
Date
Tuesday, May 6, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1304	
% Vehs	**% HV-SU**
92.1%	4.0%
% HV-TT	**% Bikes**
3.9%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	EB Trunk 2							WB Trunk 2							NB Off-Ramp							-							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:15 AM	0	10	40	0	0	0	50	0	0	199	18	0	0	217	0	2	0	49	0	0	51	0	0	0	0	0	0	0	318	0
7:30 AM	0	17	37	0	0	0	54	0	0	228	27	0	0	255	0	6	0	52	0	0	58	0	0	0	0	0	0	0	367	0
7:45 AM	0	17	41	0	0	0	58	0	0	164	31	0	0	195	0	3	0	54	0	0	57	0	0	0	0	0	0	0	310	0
8:00 AM	0	15	27	0	0	0	42	0	0	167	32	0	0	199	0	5	0	63	0	0	68	0	0	0	0	0	0	0	309	0

Vehicle Movement Summary

Movement / Details	EB Trunk 2							WB Trunk 2							NB Off-Ramp							-							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	59	145	0	0	0	204	0	0	758	108	0	0	866	0	16	0	218	0	0	234	0	0	0	0	0	0	0	1304	0
PHF	-	0.87	0.88	-	-	-	0.88	-	-	0.83	0.84	-	-	0.85	-	0.67	-	0.87	-	-	0.86	-	-	-	-	-	-	-	0.89	-
% Vehs	0.0%	94.9%	93.1%	0.0%				0.0%	0.0%	95.0%	83.3%				0.0%	93.8%	0.0%	84.9%				0.0%	0.0%	0.0%	0.0%					
% HV-SU	0.0%	3.4%	4.1%	0.0%				0.0%	0.0%	2.5%	5.6%				0.0%	6.3%	0.0%	8.3%				0.0%	0.0%	0.0%	0.0%				**Need a custom report?**	
% HV-TT	0.0%	1.7%	2.8%	0.0%				0.0%	0.0%	2.5%	11.1%				0.0%	0.0%	0.0%	6.9%				0.0%	0.0%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																								
Time Period	EB Trunk 2						WB Trunk 2						NB Off-Ramp						-						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
7:00 AM	0	4	23	0	0	0	0	0	192	22	0	0	0	1	0	33	0	0	0	0	0	0	0	0	275	0
7:15 AM	0	10	40	0	0	0	0	0	199	18	0	0	0	2	0	49	0	0	0	0	0	0	0	0	318	0
7:30 AM	0	17	37	0	0	0	0	0	228	27	0	0	0	6	0	52	0	0	0	0	0	0	0	0	367	0
7:45 AM	0	17	41	0	0	0	0	0	164	31	0	0	0	3	0	54	0	0	0	0	0	0	0	0	310	0
8:00 AM	0	15	27	0	0	0	0	0	167	32	0	0	0	5	0	63	0	0	0	0	0	0	0	0	309	0
8:15 AM	0	13	34	0	0	0	0	0	135	34	0	0	0	8	0	54	0	0	0	0	0	0	0	0	278	0
8:30 AM	0	10	33	0	0	0	0	0	105	25	0	0	0	8	0	45	0	0	0	0	0	0	0	0	226	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Trunk2 Exit7 NBRamps PM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Tuesday, May 6, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1567	
% Vehs	**% HV-SU**
93.3%	2.5%
% HV-TT	**% Bikes**
4.1%	0.1%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	EB Trunk 2							WB Trunk 2							NB Off Ramp													Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:25 PM	0	13	57	0	0	0	70	0	0	83	30	0	0	113	0	23	0	194	0	0	217	0	0	0	0	0	0	0	400	0
4:40 PM	0	9	67	0	0	0	76	0	0	80	43	0	0	123	0	32	0	184	0	0	216	0	0	0	0	0	0	0	415	0
4:55 PM	0	11	54	0	0	0	65	0	0	95	25	0	0	120	0	31	0	146	0	0	177	0	0	0	0	0	0	0	362	0
5:10 PM	0	15	58	0	0	0	73	0	0	78	28	0	0	106	0	27	0	184	0	0	211	0	0	0	0	0	0	0	390	0

Vehicle Movement Summary

Movement / Details	EB Trunk 2							WB Trunk 2							NB Off Ramp													Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	48	236	0	0	0	284	0	0	336	126	0	0	462	0	113	0	708	0	0	821	0	0	0	0	0	0	0	1567	0
PHF	-	0.80	0.88	-	-	-	0.93	-	-	0.88	0.73	-	-	0.94	-	0.88	-	0.91	-	-	0.95	-	-	-	-	-	-	-	0.94	-
% Vehs	0.0%	95.8%	91.1%	0.0%				0.0%	0.0%	94.3%	81.0%				0.0%	99.1%	0.0%	94.6%				0.0%	0.0%	0.0%	0.0%					
% HV-SU	0.0%	4.2%	3.0%	0.0%				0.0%	0.0%	4.2%	3.2%				0.0%	0.9%	0.0%	1.6%				0.0%	0.0%	0.0%	0.0%				**Need a custom report?**	
% HV-TT	0.0%	0.0%	5.5%	0.0%				0.0%	0.0%	1.5%	15.9%				0.0%	0.0%	0.0%	3.8%				0.0%	0.0%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.4%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																									
Time Period	EB Trunk 2						WB Trunk 2						NB Off Ramp												Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
3:55 PM	0	8	44	0	0	0	0	0	72	26	0	0	0	17	0	119	0	0	0	0	0	0	0	0	286	0
4:10 PM	0	16	49	0	0	0	0	0	81	37	0	0	0	18	0	184	0	0	0	0	0	0	0	0	385	0
4:25 PM	0	13	57	0	0	0	0	0	83	30	0	0	0	23	0	194	0	0	0	0	0	0	0	0	400	0
4:40 PM	0	9	67	0	0	0	0	0	80	43	0	0	0	32	0	184	0	0	0	0	0	0	0	0	415	0
4:55 PM	0	11	54	0	0	0	0	0	95	25	0	0	0	31	0	146	0	0	0	0	0	0	0	0	362	0
5:10 PM	0	15	58	0	0	0	0	0	78	28	0	0	0	27	0	184	0	0	0	0	0	0	0	0	390	0
5:25 PM	0	12	56	0	0	0	0	0	59	37	0	0	0	20	0	180	0	0	0	0	0	0	0	0	364	0
5:40 PM	0	1	15	0	0	0	0	0	27	8	0	0	0	5	0	37	0	0	0	0	0	0	0	0	93	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Trunk2 OldhamRd AM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Wednesday, May 7, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1104	
% Vehs	**% HV-SU**
91.9%	4.1%
% HV-TT	**% Bikes**
4.0%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	EB Trunk 2							WB Trunk 2							NB Oldham Rd							SB Truck Entrance							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:15 AM	0	5	64	5	0	0	74	0	6	181	0	0	0	187	0	20	0	6	0	0	26	0	0	0	1	0	0	1	288	0
7:30 AM	0	1	48	3	0	0	52	0	3	191	1	0	0	195	0	23	0	5	0	0	28	0	0	0	0	0	0	0	275	0
7:45 AM	0	4	68	10	0	0	82	0	5	188	0	0	0	193	0	13	1	3	0	0	17	0	0	0	0	0	0	0	292	0
8:00 AM	0	6	46	10	0	0	62	0	3	168	0	0	0	171	0	11	0	5	0	0	16	0	0	0	0	0	0	0	249	0

Vehicle Movement Summary

Movement / Details	EB Trunk 2							WB Trunk 2							NB Oldham Rd							SB Truck Entrance							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	16	226	28	0	0	270	0	17	728	1	0	0	746	0	67	1	19	0	0	87	0	0	0	1	0	0	1	1104	0
PHF	-	0.67	0.83	0.70	-	-	0.82	-	0.71	0.95	0.25	-	-	0.96	-	0.73	0.25	0.79	-	-	0.78	-	-	-	0.25	-	-	0.25	0.95	-
% Vehs	0.0%	0.0%	92.9%	82.1%				0.0%	70.6%	94.8%	0.0%				0.0%	91.0%	100.0%	94.7%				0.0%	0.0%	0.0%	0.0%					
% HV-SU	0.0%	18.8%	6.6%	14.3%				0.0%	11.8%	2.1%	100.0%				0.0%	6.0%	0.0%	0.0%				0.0%	0.0%	0.0%	100.0%				**Need a custom report?**	
% HV-TT	0.0%	81.3%	0.4%	3.6%				0.0%	17.6%	3.2%	0.0%				0.0%	3.0%	0.0%	5.3%				0.0%	0.0%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																								
Time Period	EB Trunk 2						WB Trunk 2						NB Oldham Rd						SB Truck Entrance						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
7:00 AM	0	3	33	3	0	0	0	8	174	0	0	0	0	21	0	3	0	0	0	0	0	0	0	0	245	0
7:15 AM	0	5	64	5	0	0	0	6	181	0	0	0	0	20	0	6	0	0	0	0	0	1	0	0	288	0
7:30 AM	0	1	48	3	0	0	0	3	191	1	0	0	0	23	0	5	0	0	0	0	0	0	0	0	275	0
7:45 AM	0	4	68	10	0	0	0	5	188	0	0	0	0	13	1	3	0	0	0	0	0	0	0	0	292	0
8:00 AM	0	6	46	10	0	0	0	3	168	0	0	0	0	11	0	5	0	0	0	0	0	0	0	0	249	0
8:15 AM	0	4	59	6	0	0	0	5	124	2	0	0	0	15	0	6	0	0	0	0	0	0	0	0	221	0
8:30 AM	0	3	60	9	0	0	0	8	106	0	0	0	0	14	0	5	0	0	0	0	0	0	0	0	205	0
8:45 AM	0	7	60	8	0	0	0	4	74	1	0	0	0	10	0	7	0	0	0	0	0	1	0	0	172	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Trunk2 Oldham PM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Wednesday, May 7, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1326	
% Vehs	**% HV-SU**
93.5%	2.4%
% HV-TT	**% Bikes**
4.1%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	EB Trunk 2							WB Trunk 2							NB Oldham Rd							SB Truck Entrance							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:15 PM	0	4	196	11	0	0	211	0	13	79	0	0	0	92	0	11	0	9	0	0	20	0	0	0	0	0	0	0	323	0
4:30 PM	0	9	171	20	0	0	200	0	11	70	0	0	0	81	0	8	0	10	0	0	18	0	0	0	0	0	0	0	299	0
4:45 PM	0	7	186	19	0	0	212	0	16	115	1	0	0	132	0	10	0	12	0	0	22	0	0	0	0	0	0	0	366	0
5:00 PM	0	12	164	12	0	0	188	0	9	83	0	0	0	92	0	24	1	33	0	0	58	0	0	0	0	0	0	0	338	0

Vehicle Movement Summary

Movement / Details	EB Trunk 2							WB Trunk 2							NB Oldham Rd							SB Truck Entrance							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	32	717	62	0	0	811	0	49	347	1	0	0	397	0	53	1	64	0	0	118	0	0	0	0	0	0	0	1326	0
PHF	-	0.67	0.91	0.78	-	-	0.96	-	0.77	0.75	0.25	-	-	0.75	-	0.55	0.25	0.48	-	-	0.51	-	-	-	-	-	-	-	0.91	-
% Vehs	0.0%	9.4%	97.9%	100.0%				0.0%	95.9%	91.6%	0.0%				0.0%	92.5%	0.0%	92.2%				0.0%	0.0%	0.0%	0.0%					
% HV-SU	0.0%	6.3%	2.1%	0.0%				0.0%	0.0%	2.9%	0.0%				0.0%	3.8%	0.0%	4.7%				0.0%	0.0%	0.0%	0.0%				**Need a custom report?**	
% HV-TT	0.0%	84.4%	0.0%	0.0%				0.0%	4.1%	5.5%	100.0%				0.0%	3.8%	100.0%	3.1%				0.0%	0.0%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																								
Time Period	EB Trunk 2						WB Trunk 2						NB Oldham Rd						SB Truck Entrance						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
4:00 PM	0	5	152	19	0	0	0	13	66	0	0	0	0	13	1	16	0	0	0	0	0	1	0	0	286	0
4:15 PM	0	4	196	11	0	0	0	13	79	0	0	0	0	11	0	9	0	0	0	0	0	0	0	0	323	0
4:30 PM	0	9	171	20	0	0	0	11	70	0	0	0	0	8	0	10	0	0	0	0	0	0	0	0	299	0
4:45 PM	0	7	186	19	0	0	0	16	115	1	0	0	0	10	0	12	0	0	0	0	0	0	0	0	366	0
5:00 PM	0	12	164	12	0	0	0	9	83	0	0	0	0	24	1	33	0	0	0	0	0	0	0	0	338	0
5:15 PM	0	11	164	16	0	0	0	4	73	0	0	0	0	11	0	3	0	0	0	0	0	0	0	0	282	0
5:30 PM	0	5	150	14	0	0	0	8	71	0	0	0	0	12	1	9	0	0	0	0	0	0	0	0	270	0
5:45 PM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
OldhamOldPost AM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Wednesday, May 7, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
119	
% Vehs	**% HV-SU**
84.9%	8.4%
% HV-TT	**% Bikes**
6.7%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	Old Post EB							Old Post WB							Oldham NB							Oldham SB							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:05 AM	0	0	0	1	0	0	1	0	0	0	12	0	0	12	0	0	7	0	0	0	7	0	1	3	0	0	0	4	24	0
7:20 AM	0	1	0	0	0	0	1	0	0	1	11	0	0	12	0	0	9	2	0	0	11	0	4	5	0	0	0	9	33	0
7:35 AM	0	0	1	0	0	0	1	0	0	1	16	0	0	17	0	0	9	0	0	0	9	0	2	0	3	0	0	5	32	0
7:50 AM	0	2	0	0	0	0	2	0	0	1	6	0	0	7	0	0	7	0	0	0	7	0	6	5	3	0	0	14	30	0

Vehicle Movement Summary

Movement / Details	Old Post EB							Old Post WB							Oldham NB							Oldham SB							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	3	1	1	0	0	5	0	0	3	45	0	0	48	0	0	32	2	0	0	34	0	13	13	6	0	0	32	119	0
PHF	-	0.38	0.25	0.25	-	-	0.63	-	-	0.75	0.70	-	-	0.71	-	-	0.89	0.25	-	-	0.77	-	0.54	0.65	0.50	-	-	0.57	0.90	-
% Vehs	0.0%	33.3%	100.0%	0.0%				0.0%	0.0%	100.0%	86.7%				0.0%	0.0%	100.0%	0.0%				0.0%	69.2%	76.9%	100.0%					
% HV-SU	0.0%	66.7%	0.0%	100.0%				0.0%	0.0%	0.0%	4.4%				0.0%	0.0%	0.0%	100.0%				0.0%	0.0%	23.1%	0.0%				**Need a custom report?**	
% HV-TT	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	8.9%				0.0%	0.0%	0.0%	0.0%				0.0%	30.8%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																								
Time Period	Old Post EB						Old Post WB						Oldham NB						Oldham SB						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
7:05 AM	0	0	0	1	0	0	0	0	0	12	0	0	0	0	7	0	0	0	0	1	3	0	0	0	24	0
7:20 AM	0	1	0	0	0	0	0	0	1	11	0	0	0	0	9	2	0	0	0	4	5	0	0	0	33	0
7:35 AM	0	0	1	0	0	0	0	0	1	16	0	0	0	0	9	0	0	0	0	2	0	3	0	0	32	0
7:50 AM	0	2	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	0	0	6	5	3	0	0	30	0
8:05 AM	0	1	0	0	0	0	0	0	1	10	0	0	0	0	5	1	0	0	0	4	1	1	0	0	24	0
8:20 AM	0	0	0	0	0	0	0	0	1	4	0	0	0	0	2	0	0	0	0	3	0	0	0	0	10	0

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
OldhamOldPost PM May2025
Location
Enfield, Not Available
Performed By
GRIFFIN
Date
Wednesday, May 7, 2025

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
202	
% Vehs	**% HV-SU**
94.6%	2.5%
% HV-TT	**% Bikes**
3.0%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	Old Post EB							Old Post WB							Oldham NB							Oldham SB							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:10 PM	0	0	1	0	0	0	1	0	1	1	5	0	0	7	0	0	11	0	0	0	11	0	13	13	0	0	0	26	45	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	0	5	0	0	0	5	0	13	5	0	0	0	18	34	0
4:40 PM	0	0	0	0	0	0	0	0	2	0	9	0	0	11	0	0	7	0	0	0	7	0	17	12	0	0	0	29	47	0
4:55 PM	0	7	0	0	0	0	7	0	2	1	32	0	0	35	0	0	10	1	0	0	11	0	8	14	1	0	0	23	76	0

Vehicle Movement Summary

Movement / Details	Old Post EB							Old Post WB							Oldham NB							Oldham SB							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	7	1	0	0	0	8	0	5	2	57	0	0	64	0	0	33	1	0	0	34	0	51	44	1	0	0	96	202	0
PHF	-	0.25	0.25	-	-	-	0.29	-	0.63	0.50	0.45	-	-	0.46	-	-	0.75	0.25	-	-	0.77	-	0.75	0.79	0.25	-	-	0.83	0.66	-
% Vehs	0.0%	100.0%	100.0%	0.0%				0.0%	80.0%	100.0%	93.0%				0.0%	0.0%	90.9%	100.0%				0.0%	96.1%	97.7%	100.0%					
% HV-SU	0.0%	0.0%	0.0%	0.0%				0.0%	20.0%	0.0%	0.0%				0.0%	0.0%	9.1%	0.0%				0.0%	0.0%	2.3%	0.0%				**Need a custom report?**	
% HV-TT	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	7.0%				0.0%	0.0%	0.0%	0.0%				0.0%	3.9%	0.0%	0.0%				**Contact: support@portablestudies.com**	
% Bikes	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Combined																									
Time Period	Old Post EB						Old Post WB						Oldham NB						Oldham SB						Total	
	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	U	L	T	R	P1	P2	Vehicles	Peds
4:10 PM	0	0	1	0	0	0	0	1	1	5	0	0	0	0	11	0	0	0	0	13	13	0	0	0	45	0
4:25 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	0	5	0	0	0	0	13	5	0	0	0	34	0
4:40 PM	0	0	0	0	0	0	0	2	0	9	0	0	0	0	7	0	0	0	0	17	12	0	0	0	47	0
4:55 PM	0	7	0	0	0	0	0	2	1	32	0	0	0	0	10	1	0	0	0	8	14	1	0	0	76	0
5:10 PM	0	2	0	0	0	0	0	0	0	12	0	0	0	1	8	0	0	0	0	5	6	0	0	0	34	0
5:25 PM	0	1	1	1	0	0	0	0	0	4	0	0	0	0	2	0	0	0	0	7	5	0	0	0	21	0

For Project:	Trunk2 Enfield May 2025				
Project Notes:	Trunk 2 at IrvingStation May 2025				
Location/Name:	Northbound (incoming)				
Report Generated:	5/8/2025	4:56:06 PM			
Speed Intervals	1 km/h				
Time Intervals	Instant				
Traffic Report From	5/6/2025	6:00:00 AM	through	5/8/2025	2:59:59 PM
85th Percentile Speed	65 km/h				
85th Percentile Vehicles	10951				
Max Speed	89 km/h	on	5/6/2025	7:01:34 PM	
Total Vehicles	12883				
AADT:	5424				

Volumes - weekly counts

	Time	5 Day	7 Day
Average Daily		4294	4294
AM Peak	11:00 AM	288	288
PM Peak	4:00 PM	675	675

Speed

Speed Limit:	60		
85th Percentile Speed:	65		
50th Percentile Speed:	57		
10 km/h Pace Interval:	55.0 km/h	to	65.0 km/h
Average Speed:	55.81		

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	N/A	1948	1749	796	N/A	N/A	N/A
% over limit	N/A	35.6	35.0	33.1	N/A	N/A	N/A
Avg Speeder	N/A	65.1	65.0	65.3	N/A	N/A	N/A
Avg Speed	N/A	56.2	55.8	54.9	N/A	N/A	N/A

Class Counts

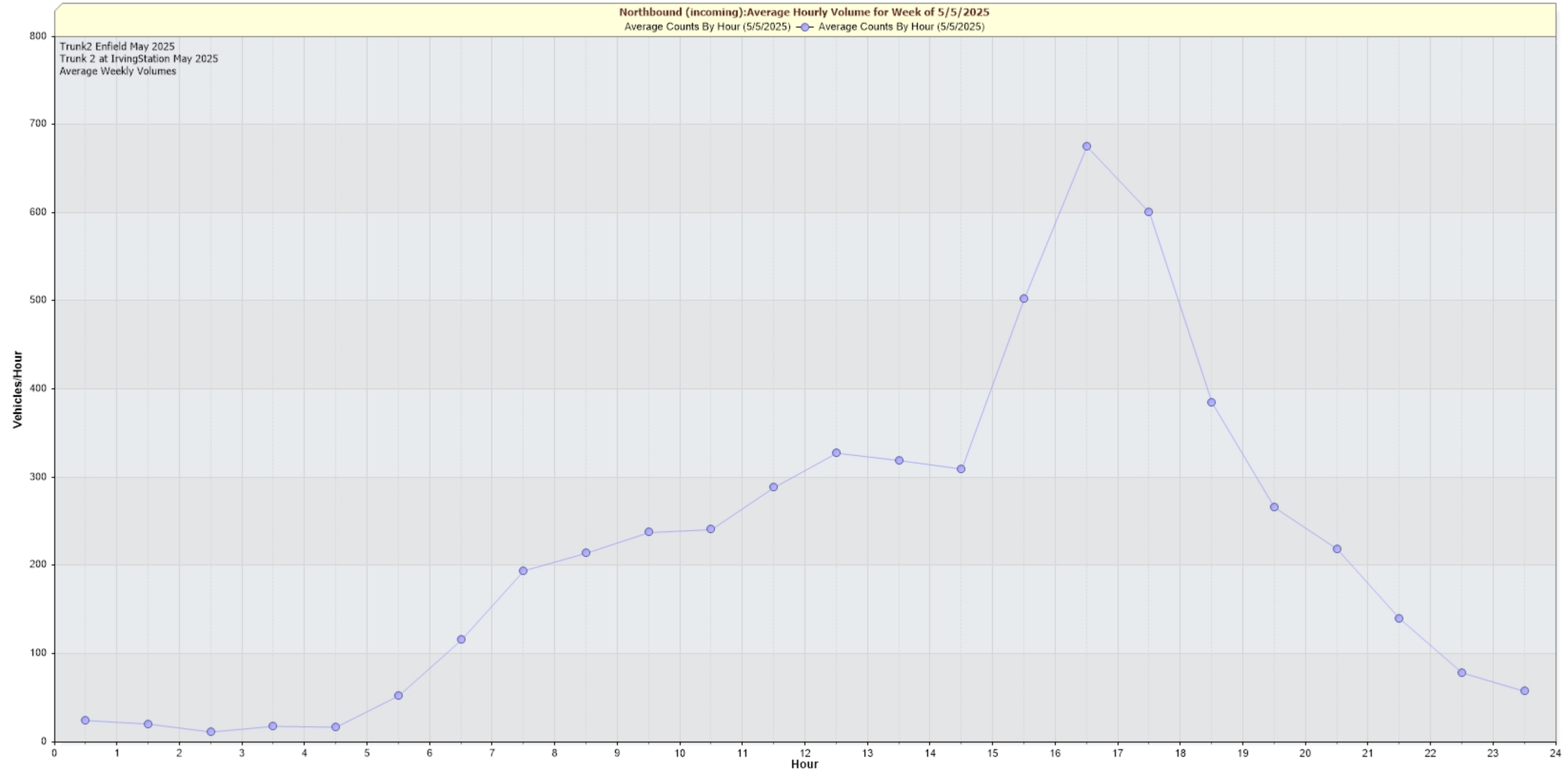
	Number	%
VEH_SM	3	0
VEH_MED	11617	90.2
VEH_LG	1263	9.8

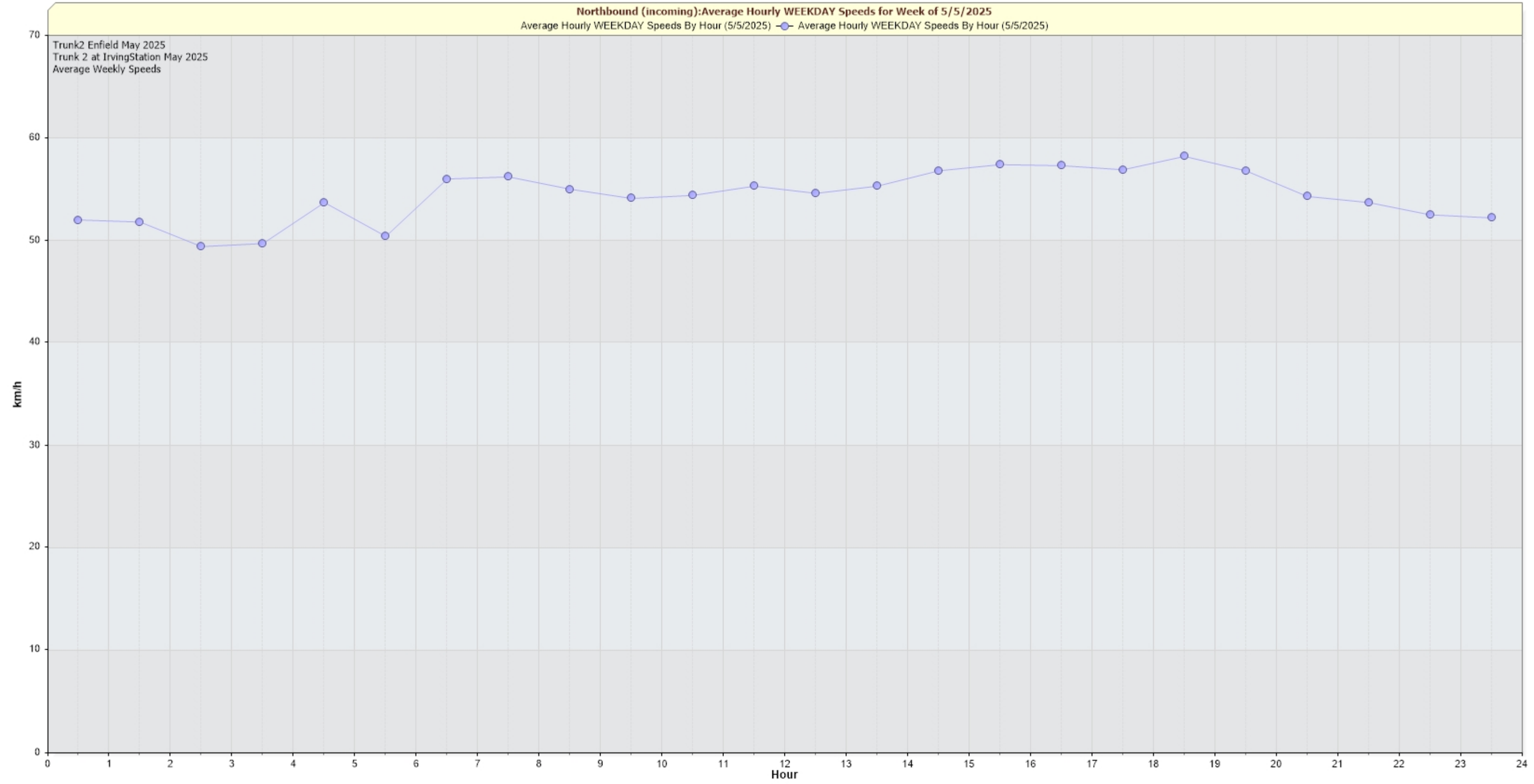
[VEH_SM=motorcycle, VEH_MED = sedan, VEH_LG = truck]

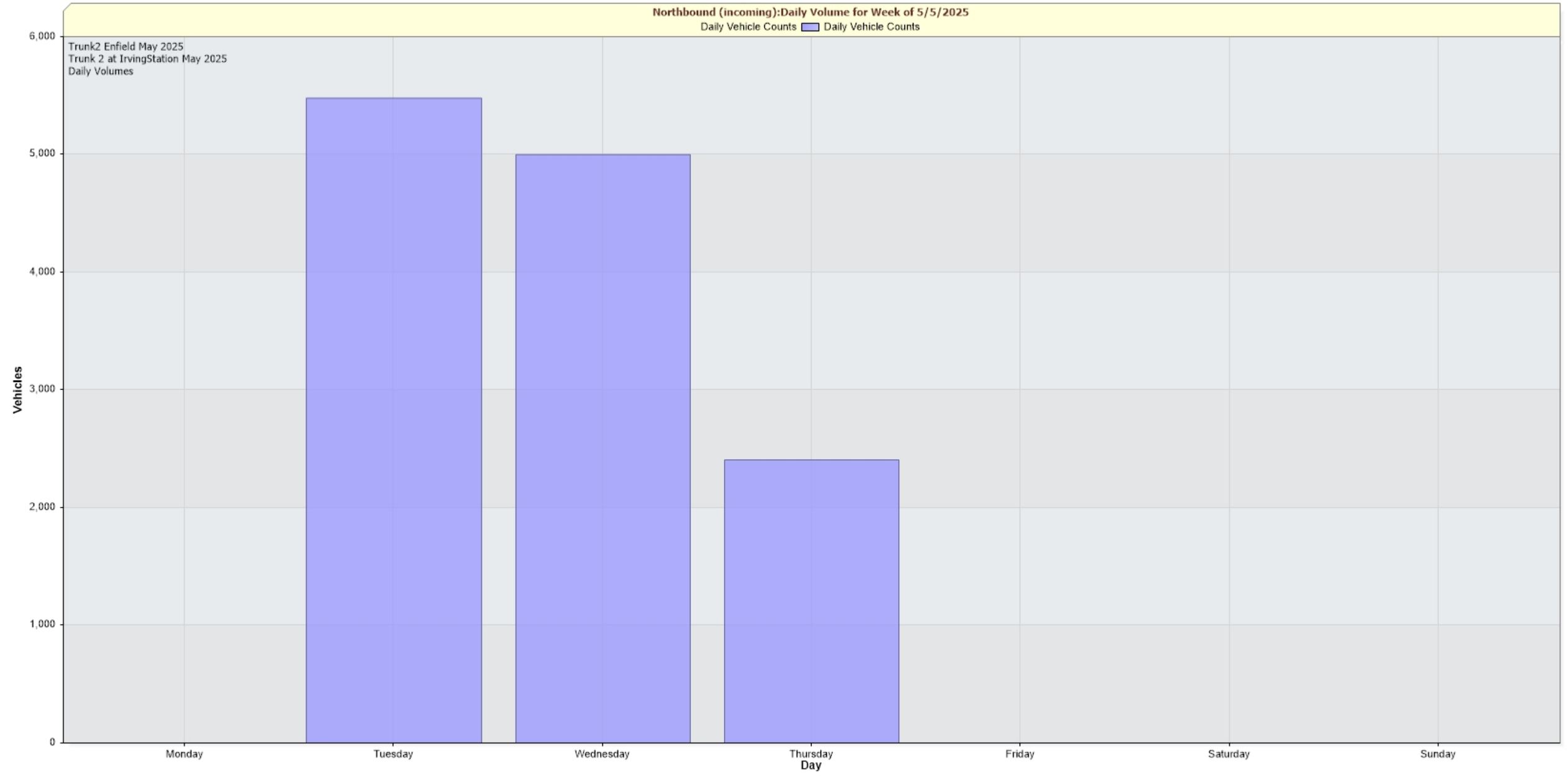
Northbound (incoming) Weekly Counts
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025

from Tue-May-06-2025-06-00-AM to Thu-May-08-2025-02-59-PM

	5/5/2025	to	5/11/2025							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week	Weekend	Week Day 85%
Hour	5/5/2025	5/6/2025	5/7/2025	5/8/2025	5/9/2025	5/10/2025	5/11/2025	Day Avg	Avg	Avg Speed
0 - 1	*	*	23	26	*	*	*	24.5	0	63.75
1 - 2	*	*	22	19	*	*	*	20.5	0	57.5
2 - 3	*	*	14	9	*	*	*	11.5	0	58
3 - 4	*	*	20	16	*	*	*	18	0	55.75
4 - 5	*	*	17	17	*	*	*	17	0	61.5
5 - 6	*	*	55	50	*	*	*	52.5	0	63
6 - 7	*	90	129	128	*	*	*	115.67	0	66.33
7 - 8	*	210	179	194	*	*	*	194.33	0	65.43
8 - 9	*	231	183	229	*	*	*	214.33	0	63.87
9 - 10	*	249	213	251	*	*	*	237.67	0	63.1
10 - 11	*	273	240	210	*	*	*	241	0	64
11 - 12	*	282	264	320	*	*	*	288.67	0	63.97
12 - 13	*	341	279	363	*	*	*	327.67	0	63.33
13 - 14	*	323	305	330	*	*	*	319.33	0	64.07
14 - 15	*	364	322	243	*	*	*	309.67	0	65.1
15 - 16	*	514	492	*	*	*	*	503	0	64
16 - 17	*	718	633	*	*	*	*	675.5	0	63.9
17 - 18	*	663	538	*	*	*	*	600.5	0	64.55
18 - 19	*	407	363	*	*	*	*	385	0	66.95
19 - 20	*	294	238	*	*	*	*	266	0	65.5
20 - 21	*	233	205	*	*	*	*	219	0	63.95
21 - 22	*	153	127	*	*	*	*	140	0	62.65
22 - 23	*	83	74	*	*	*	*	78.5	0	61.15
23 - 24	*	51	64	*	*	*	*	57.5	0	60.75
Totals	0	5479	4999	2405	0	0	0			
% of Total	0%	42.53%	38.8%	18.67%	0%	0%	0%			


Northbound (incoming):Average Hourly Volume for Week of 5/5/2025
Average Counts By Hour (5/5/2025)
Average Counts By Hour (5/5/2025)
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025
Average Weekly Volumes
Vehicles/Hour
Hour
0
100
200
300
400
500
600
700
800
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Northbound (incoming):Average Hourly WEEKDAY Speeds for Week of 5/5/2025
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025
Average Weekly Speeds
km/h
Hour
0
10
20
30
40
50
60
70
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Northbound (incoming):Daily Volume for Week of 5/5/2025
Daily Vehicle Counts
Daily Vehicle Counts
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025
Daily Volumes
6,000
5,000
4,000
3,000
2,000
1,000
0
Vehicles
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Day

For Project:	Trunk2 Enfield May 2025				
Project Notes:	Trunk 2 at IrvingStation May 2025				
Location/Name:	Southbound (outgoing)				
Report Generated:	5/8/2025	4:56:06 PM			
Speed Intervals	1 km/h				
Time Intervals	Instant				
Traffic Report From	5/6/2025	6:00:00 AM	through	5/8/2025	2:59:59 PM
85th Percentile Speed	60 km/h				
85th Percentile Vehicles	11970				
Max Speed	139 km/h	on	5/7/2025	12:59:20 PM	
Total Vehicles	14082				
AADT:	5929				

Volumes - weekly counts

	Time	5 Day	7 Day
Average Daily		4694	4694
AM Peak	7:00 AM	670	670
PM Peak	4:00 PM	342	342

Speed

Speed Limit:	60		
85th Percentile Speed:	60		
50th Percentile Speed:	51		
10 km/h Pace Interval:	50.0 km/h	to	60.0 km/h
Average Speed:	50.78		

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	N/A	752	862	380	N/A	N/A	N/A
% over limit	N/A	14.8	15.8	10.8	N/A	N/A	N/A
Avg Speeder	N/A	64.7	65.5	65.3	N/A	N/A	N/A
Avg Speed	N/A	51.2	51.4	49.3	N/A	N/A	N/A

Class Counts

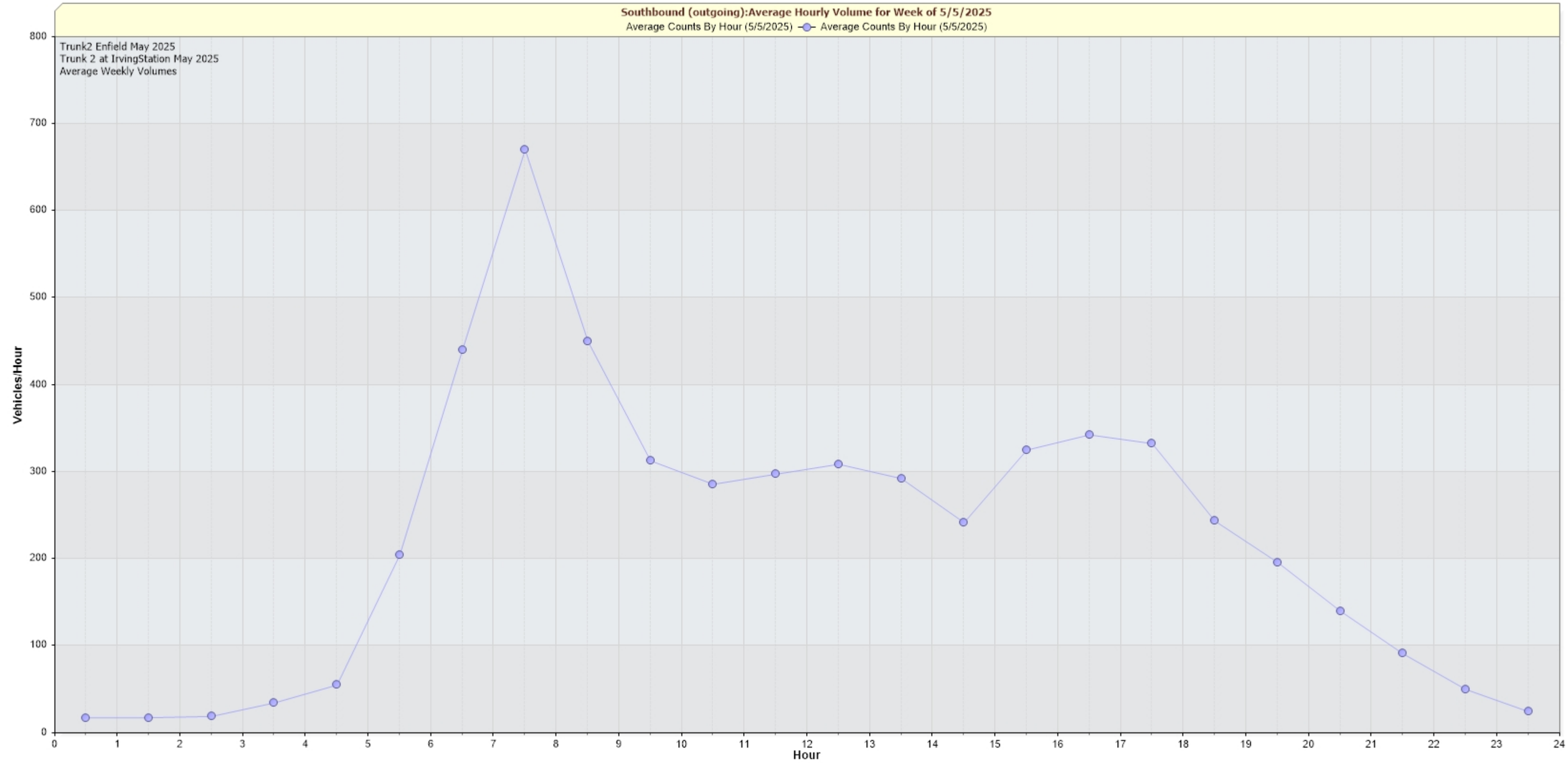
	Number	%
VEH_SM	225	1.6
VEH_MED	12817	91
VEH_LG	1040	7.4

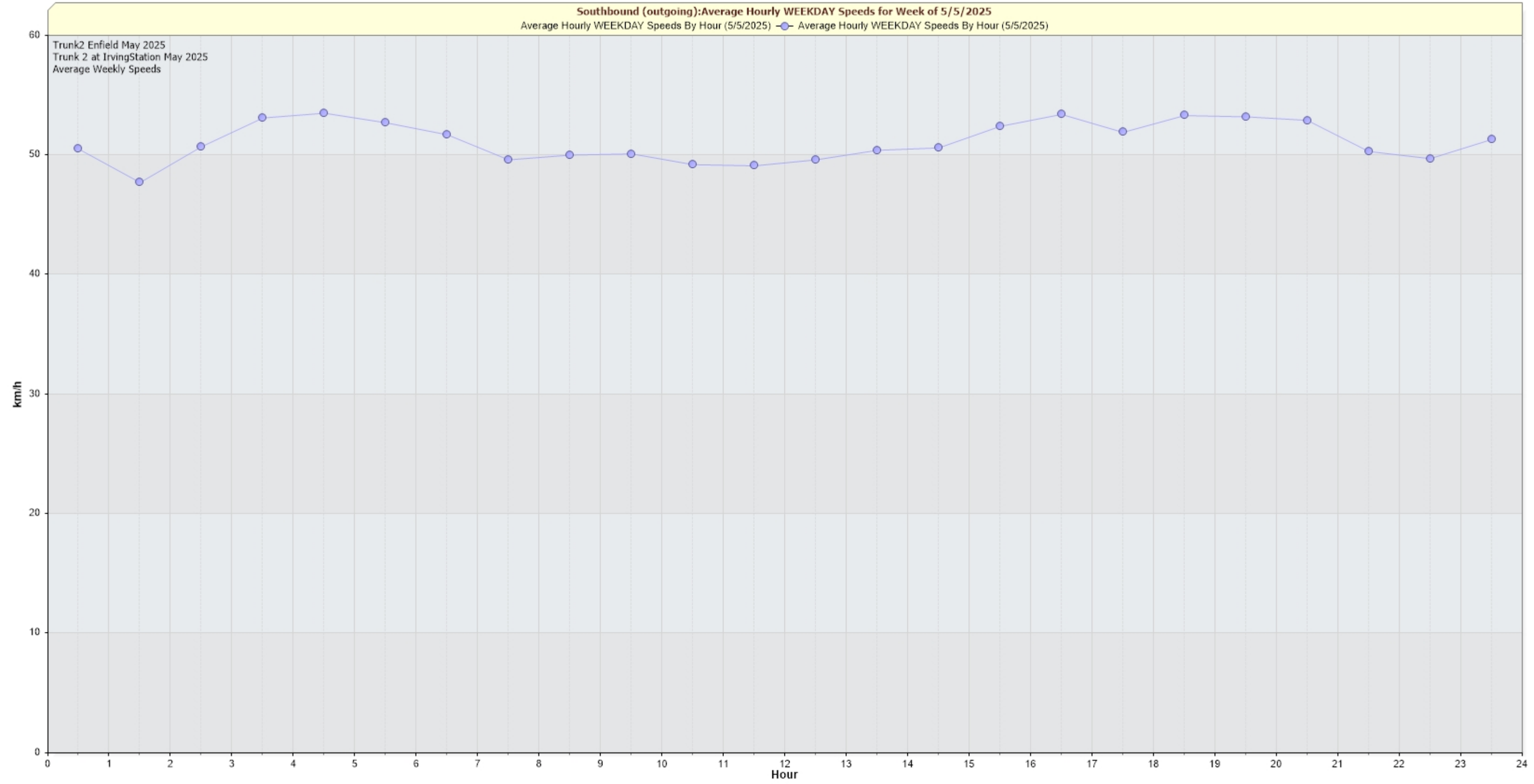
[VEH_SM=motorcycle, VEH_MED = sedan, VEH_LG = truck]

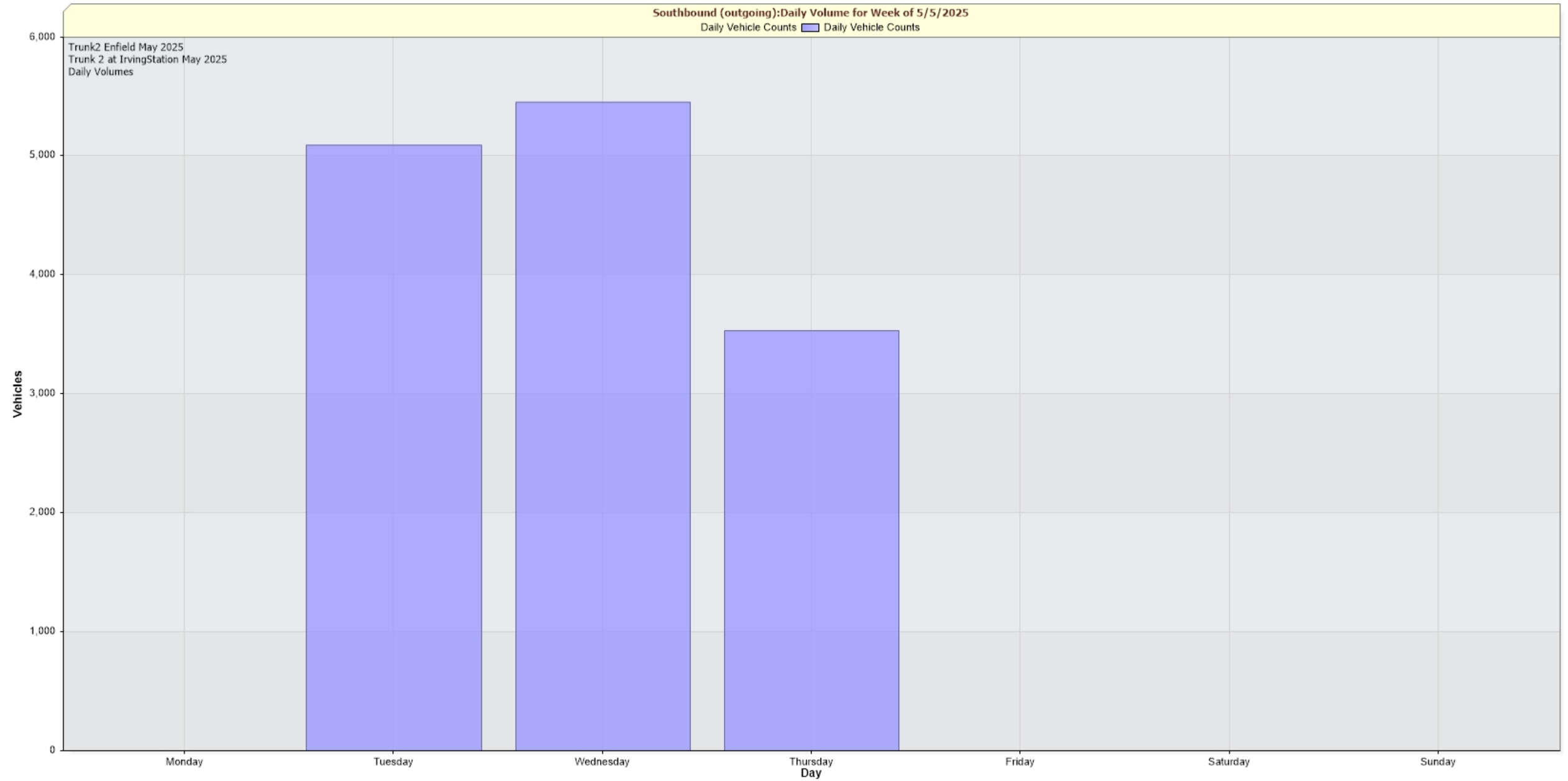
Southbound (outgoing) Weekly Counts
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025

from Tue-May-06-2025-06-00-AM to Thu-May-08-2025-02-59-PM

	5/5/2025	to	5/11/2025							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week	Weekend	Week Day 85%
Hour	5/5/2025	5/6/2025	5/7/2025	5/8/2025	5/9/2025	5/10/2025	5/11/2025	Day Avg	Avg	Avg Speed
0 - 1	*	*	16	19	*	*	*	17.5	0	64.25
1 - 2	*	*	16	19	*	*	*	17.5	0	57.25
2 - 3	*	*	19	19	*	*	*	19	0	65.5
3 - 4	*	*	38	31	*	*	*	34.5	0	62
4 - 5	*	*	57	53	*	*	*	55	0	64.75
5 - 6	*	*	204	205	*	*	*	204.5	0	62.25
6 - 7	*	366	478	476	*	*	*	440	0	60.27
7 - 8	*	664	655	692	*	*	*	670.33	0	58.3
8 - 9	*	468	452	430	*	*	*	450	0	58.27
9 - 10	*	334	313	291	*	*	*	312.67	0	59.37
10 - 11	*	279	288	290	*	*	*	285.67	0	57.67
11 - 12	*	293	300	299	*	*	*	297.33	0	57.47
12 - 13	*	313	323	290	*	*	*	308.67	0	57.77
13 - 14	*	317	285	275	*	*	*	292.33	0	58.77
14 - 15	*	294	286	145	*	*	*	241.67	0	59.5
15 - 16	*	342	308	*	*	*	*	325	0	60.7
16 - 17	*	336	349	*	*	*	*	342.5	0	61.25
17 - 18	*	342	323	*	*	*	*	332.5	0	60.65
18 - 19	*	234	253	*	*	*	*	243.5	0	62.25
19 - 20	*	209	183	*	*	*	*	196	0	61.9
20 - 21	*	145	135	*	*	*	*	140	0	62.85
21 - 22	*	94	88	*	*	*	*	91	0	61.5
22 - 23	*	47	53	*	*	*	*	50	0	60.65
23 - 24	*	17	32	*	*	*	*	24.5	0	60.5
Totals	0	5094	5454	3534	0	0	0			
% of Total	0%	36.17%	38.73%	25.1%	0%	0%	0%			


Southbound (outgoing):Average Hourly Volume for Week of 5/5/2025
Average Counts By Hour (5/5/2025)
Average Counts By Hour (5/5/2025)
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025
Average Weekly Volumes
Vehicles/Hour
Hour
0
100
200
300
400
500
600
700
800
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Southbound (outgoing):Average Hourly WEEKDAY Speeds for Week of 5/5/2025
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025
Average Weekly Speeds
km/h
Hour
0
10
20
30
40
50
60
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Southbound (outgoing):Daily Volume for Week of 5/5/2025
Daily Vehicle Counts
Daily Vehicle Counts
Trunk2 Enfield May 2025
Trunk 2 at IrvingStation May 2025
Daily Volumes
6,000
5,000
4,000
3,000
2,000
1,000
0
Vehicles
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Day

For Project:	OldhamRd Enfield May 2025				
Project Notes:	Oldham Rd East of Jonah				
Location/Name:	Westbound (incoming)				
Report Generated:	5/8/2025	4:58:14 PM			
Speed Intervals	1 km/h				
Time Intervals	Instant				
Traffic Report From	5/6/2025	6:00:00 AM	through	5/8/2025	2:59:59 PM
85th Percentile Speed	68 km/h				
85th Percentile Vehicles	1879				
Max Speed	100 km/h	on	5/6/2025	6:43:00 AM	
Total Vehicles	2211				
AADT:	930				

Volumes - weekly counts

	Time	5 Day	7 Day
Average Daily		737	737
AM Peak	7:00 AM	87	87
PM Peak	5:00 PM	90	90

Speed

Speed Limit:	60		
85th Percentile Speed:	68		
50th Percentile Speed:	60		
10 km/h Pace Interval:	56.0 km/h	to	66.0 km/h
Average Speed:	59.03		

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	N/A	416	394	232	N/A	N/A	N/A
% over limit	N/A	47.8	47.2	45.8	N/A	N/A	N/A
Avg Speeder	N/A	66.8	66.5	66.8	N/A	N/A	N/A
Avg Speed	N/A	59.1	59.2	58.6	N/A	N/A	N/A

Class Counts

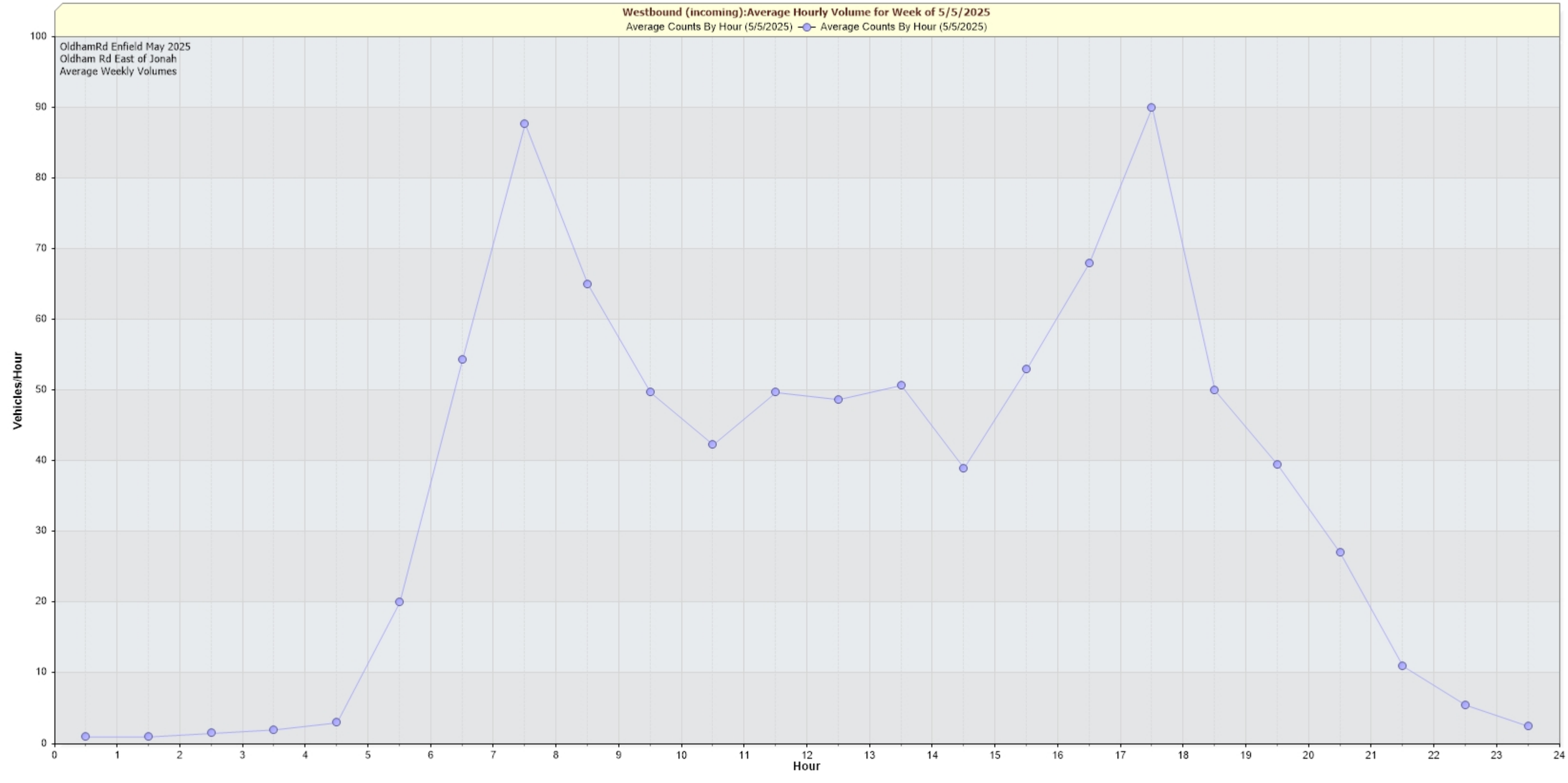
	Number	%
VEH_SM	46	2.1
VEH_MED	1974	89.3
VEH_LG	191	8.6

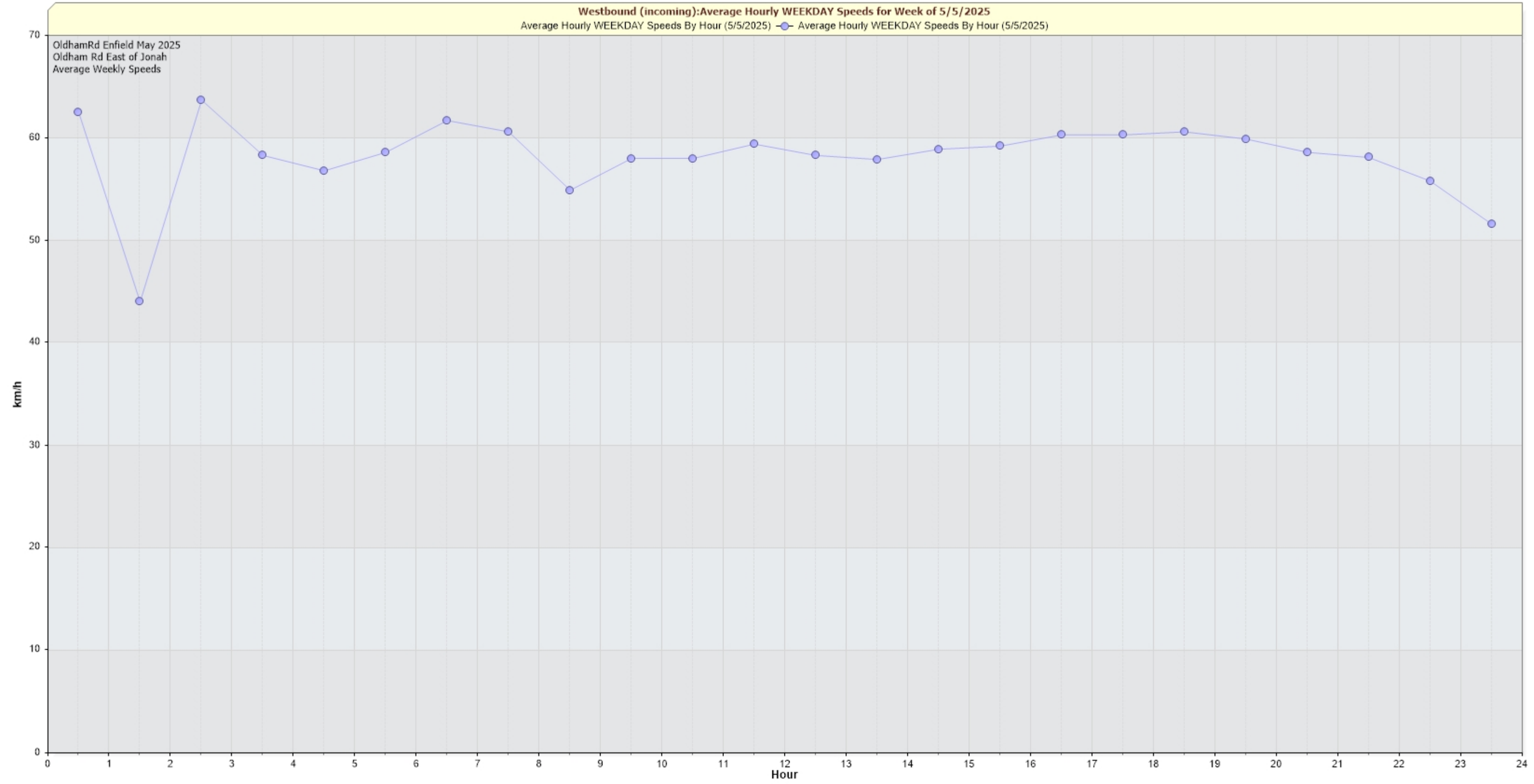
[VEH_SM=motorcycle, VEH_MED = sedan, VEH_LG = truck]

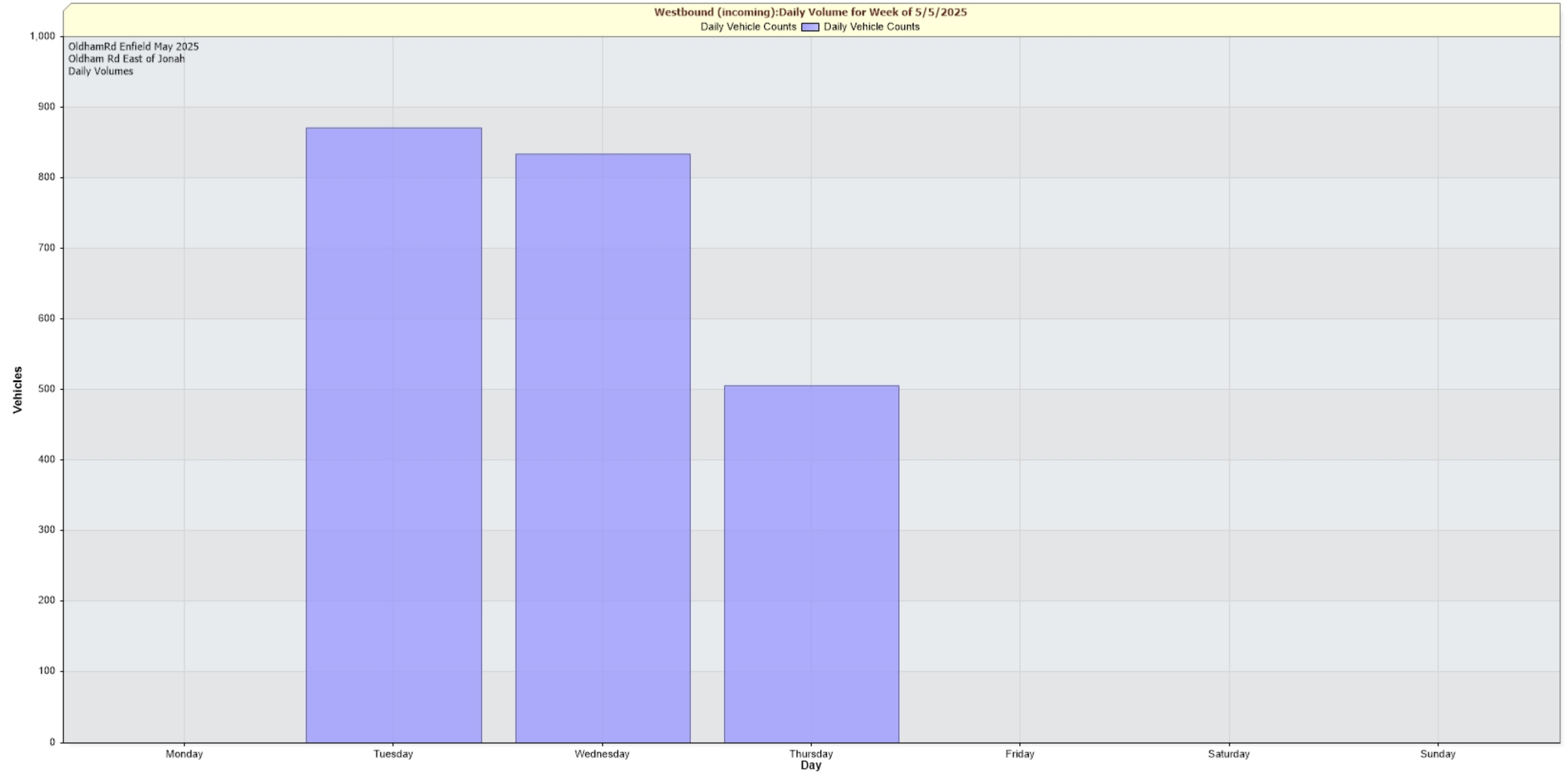
Westbound (incoming) Weekly Counts
OldhamRd Enfield May 2025
Oldham Rd East of Jonah

from Tue-May-06-2025-06-00-AM to Thu-May-08-2025-02-59-PM

	5/5/2025	to	5/11/2025							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week	Weekend	Week Day 85%
Hour	5/5/2025	5/6/2025	5/7/2025	5/8/2025	5/9/2025	5/10/2025	5/11/2025	Day Avg	Avg	Avg Speed
0 - 1	*	*	1	1	*	*	*	1	0	62.5
1 - 2	*	*	1	1	*	*	*	1	0	44
2 - 3	*	*	2	1	*	*	*	1.5	0	64.5
3 - 4	*	*	3	1	*	*	*	2	0	67.5
4 - 5	*	*	4	2	*	*	*	3	0	59.5
5 - 6	*	*	24	16	*	*	*	20	0	68.75
6 - 7	*	46	58	59	*	*	*	54.33	0	69.27
7 - 8	*	102	81	80	*	*	*	87.67	0	68.57
8 - 9	*	66	62	67	*	*	*	65	0	65.6
9 - 10	*	42	54	53	*	*	*	49.67	0	67.27
10 - 11	*	50	34	43	*	*	*	42.33	0	66
11 - 12	*	45	49	55	*	*	*	49.67	0	67.37
12 - 13	*	64	34	48	*	*	*	48.67	0	66.5
13 - 14	*	53	49	50	*	*	*	50.67	0	68.33
14 - 15	*	41	47	29	*	*	*	39	0	65.93
15 - 16	*	51	55	*	*	*	*	53	0	67
16 - 17	*	63	73	*	*	*	*	68	0	67.4
17 - 18	*	90	90	*	*	*	*	90	0	67.65
18 - 19	*	51	49	*	*	*	*	50	0	69
19 - 20	*	53	26	*	*	*	*	39.5	0	68.75
20 - 21	*	37	17	*	*	*	*	27	0	66.5
21 - 22	*	11	11	*	*	*	*	11	0	61
22 - 23	*	5	6	*	*	*	*	5.5	0	60.25
23 - 24	*	1	4	*	*	*	*	2.5	0	60.5
Totals	0	871	834	506	0	0	0			
% of Total	0%	39.39%	37.72%	22.89%	0%	0%	0%			


Westbound (incoming):Average Hourly Volume for Week of 5/5/2025
Average Counts By Hour (5/5/2025)
Average Counts By Hour (5/5/2025)
OldhamRd Enfield May 2025
Oldham Rd East of Jonah
Average Weekly Volumes
Vehicles/Hour
Hour
0
10
20
30
40
50
60
70
80
90
100
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24


Westbound (incoming):Average Hourly WEEKDAY Speeds for Week of 5/5/2025
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
OldhamRd Enfield May 2025
Oldham Rd East of Jonah
Average Weekly Speeds
km/h
Hour
0
10
20
30
40
50
60
70
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Westbound (incoming):Daily Volume for Week of 5/5/2025
Daily Vehicle Counts
Daily Vehicle Counts
OldhamRd Enfield May 2025
Oldham Rd East of Jonah
Daily Volumes
1,000
900
800
700
600
500
400
300
200
100
0
Vehicles
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Day

For Project:	OldhamRd Enfield May 2025				
Project Notes:	Oldham Rd East of Jonah				
Location/Name:	Eastbound (outgoing)				
Report Generated:	5/8/2025	4:58:14 PM			
Speed Intervals	1 km/h				
Time Intervals	Instant				
Traffic Report From	5/6/2025	6:00:00 AM	through	5/8/2025	2:59:59 PM
85th Percentile Speed	65 km/h				
85th Percentile Vehicles	1986				
Max Speed	96 km/h	on	5/6/2025	7:52:57 PM	
Total Vehicles	2336				
AADT:	983				

Volumes - weekly counts

	Time	5 Day	7 Day
Average Daily		778	778
AM Peak	8:00 AM	53	53
PM Peak	4:00 PM	112	112

Speed

Speed Limit:	60		
85th Percentile Speed:	65		
50th Percentile Speed:	57		
10 km/h Pace Interval:	51.0 km/h	to	61.0 km/h
Average Speed:	56.23		

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	N/A	282	299	154	N/A	N/A	N/A
% over limit	N/A	30.1	32.6	32.0	N/A	N/A	N/A
Avg Speeder	N/A	65.9	66.6	65.9	N/A	N/A	N/A
Avg Speed	N/A	56.1	56.6	55.8	N/A	N/A	N/A

Class Counts

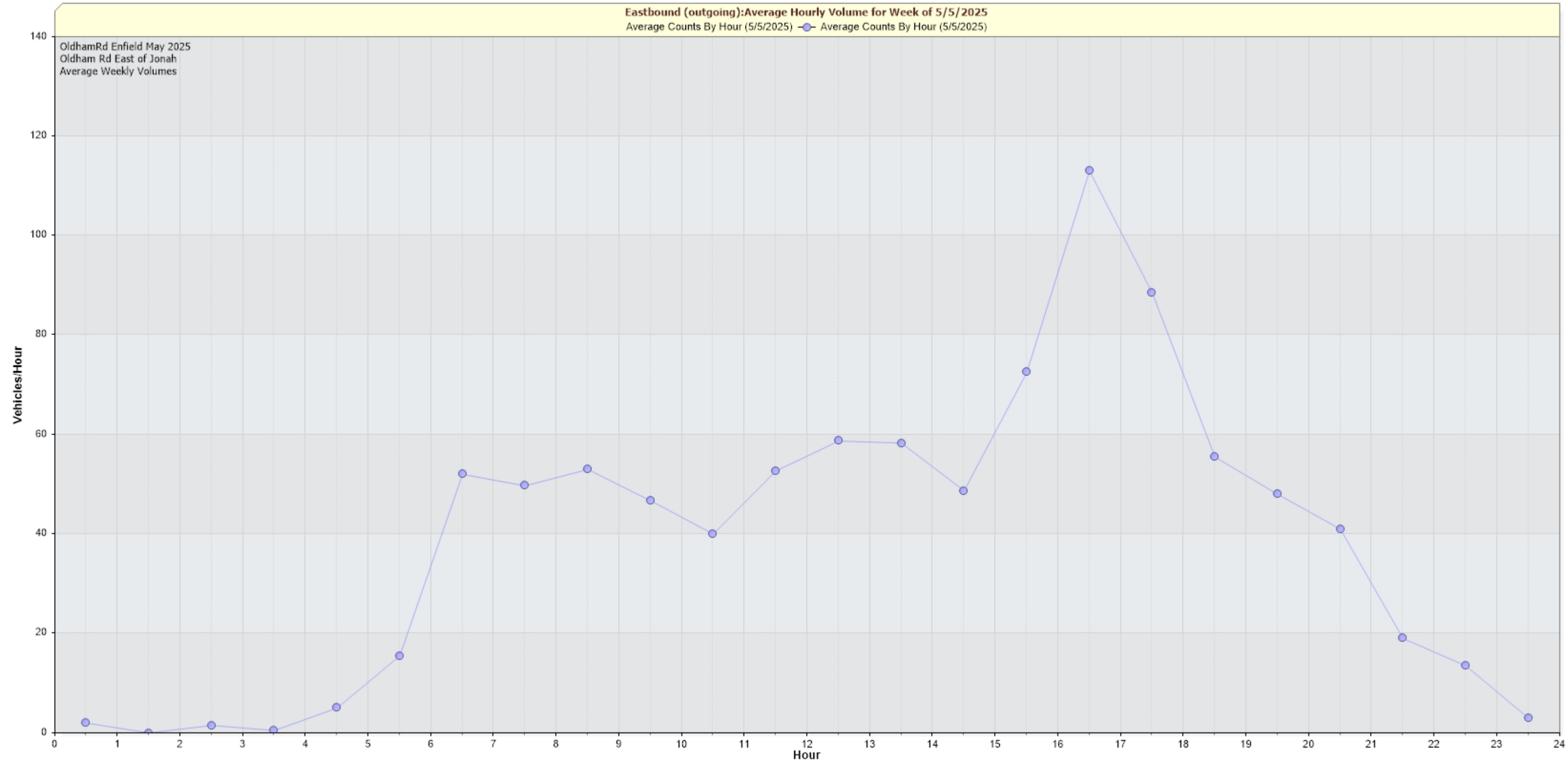
	Number	%
VEH_SM	95	4.1
VEH_MED	2067	88.5
VEH_LG	174	7.4

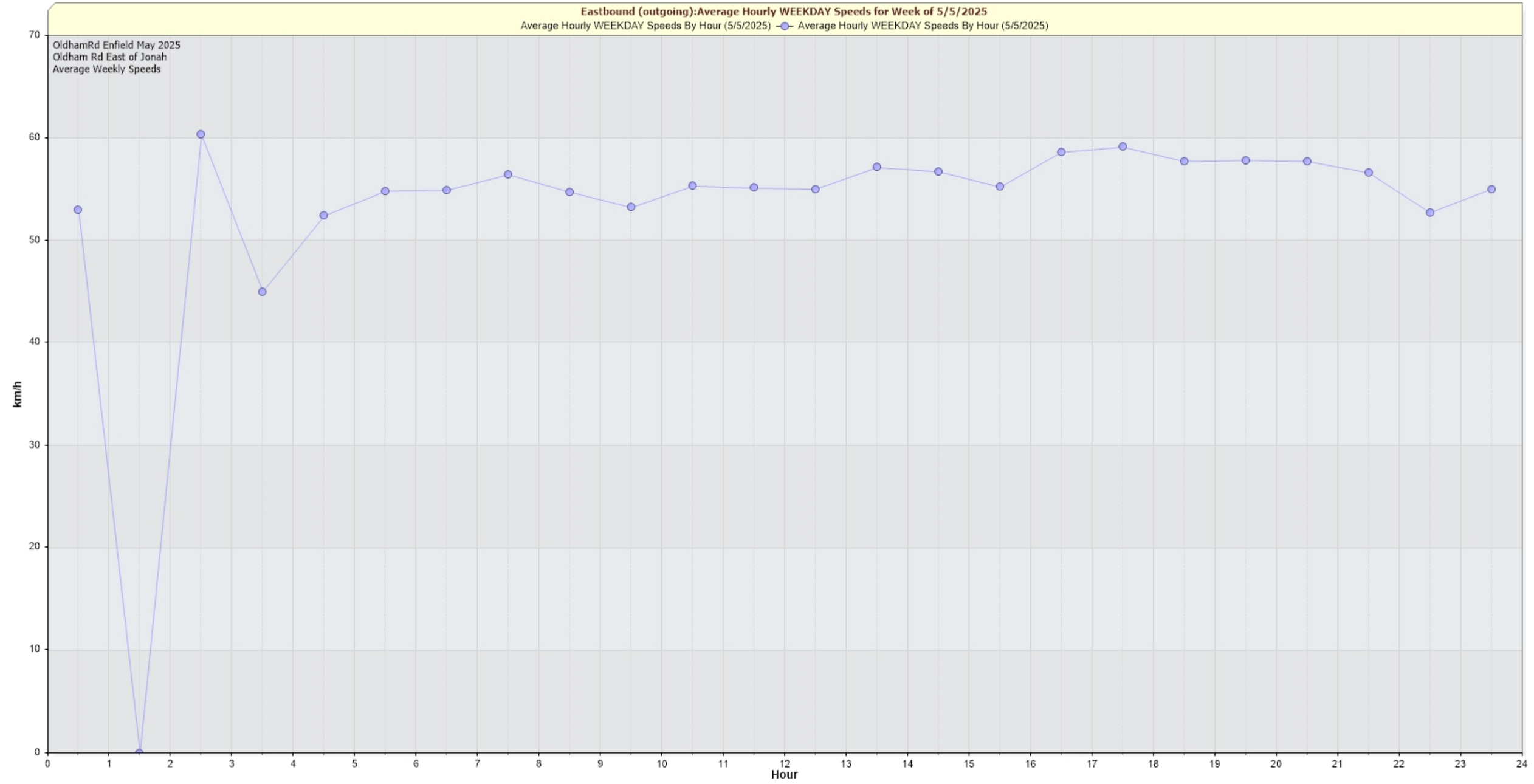
[VEH_SM=motorcycle, VEH_MED = sedan, VEH_LG = truck]

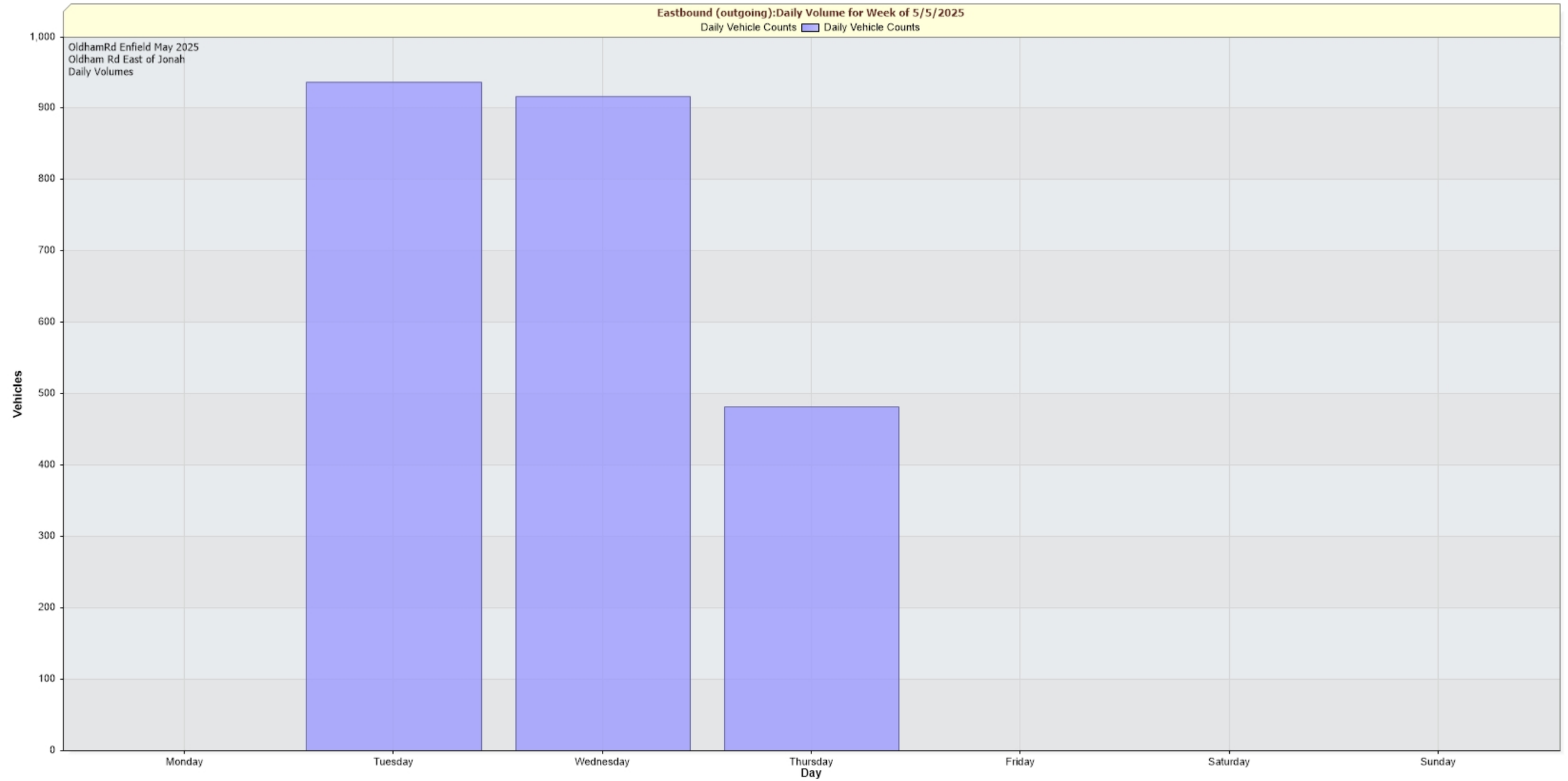
Eastbound (outgoing) Weekly Counts
OldhamRd Enfield May 2025
Oldham Rd East of Jonah

from Tue-May-06-2025-06-00-AM to Thu-May-08-2025-02-59-PM

	5/5/2025	to	5/11/2025							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week	Weekend	Week Day 85%
Hour	5/5/2025	5/6/2025	5/7/2025	5/8/2025	5/9/2025	5/10/2025	5/11/2025	Day Avg	Avg	Avg Speed
0 - 1	*	*	2	2	*	*	*	2	0	67
1 - 2	*	*	0	0	*	*	*	0	0	0
2 - 3	*	*	1	2	*	*	*	1.5	0	60
3 - 4	*	*	1	0	*	*	*	0.5	0	45
4 - 5	*	*	5	5	*	*	*	5	0	58.5
5 - 6	*	*	18	13	*	*	*	15.5	0	62
6 - 7	*	46	58	52	*	*	*	52	0	63.1
7 - 8	*	49	43	57	*	*	*	49.67	0	65.5
8 - 9	*	41	54	64	*	*	*	53	0	63.17
9 - 10	*	49	40	51	*	*	*	46.67	0	62.5
10 - 11	*	34	47	39	*	*	*	40	0	63.13
11 - 12	*	52	53	53	*	*	*	52.67	0	64.17
12 - 13	*	65	62	49	*	*	*	58.67	0	65.67
13 - 14	*	57	52	66	*	*	*	58.33	0	64.57
14 - 15	*	61	56	29	*	*	*	48.67	0	65.4
15 - 16	*	72	73	*	*	*	*	72.5	0	63.35
16 - 17	*	115	111	*	*	*	*	113	0	65.4
17 - 18	*	102	75	*	*	*	*	88.5	0	66.75
18 - 19	*	69	42	*	*	*	*	55.5	0	64.15
19 - 20	*	41	55	*	*	*	*	48	0	65
20 - 21	*	46	36	*	*	*	*	41	0	65
21 - 22	*	23	15	*	*	*	*	19	0	63.5
22 - 23	*	13	14	*	*	*	*	13.5	0	59.25
23 - 24	*	2	4	*	*	*	*	3	0	55.5
Totals	0	937	917	482	0	0	0			
% of Total	0%	40.11%	39.26%	20.63%	0%	0%	0%			


Eastbound (outgoing):Average Hourly Volume for Week of 5/5/2025
Average Counts By Hour (5/5/2025)
Average Counts By Hour (5/5/2025)
OldhamRd Enfield May 2025
Oldham Rd East of Jonah
Average Weekly Volumes
Vehicles/Hour
Hour
0
20
40
60
80
100
120
140
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Eastbound (outgoing):Average Hourly WEEKDAY Speeds for Week of 5/5/2025
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
Average Hourly WEEKDAY Speeds By Hour (5/5/2025)
OldhamRd Enfield May 2025
Oldham Rd East of Jonah
Average Weekly Speeds
km/h
Hour
0
10
20
30
40
50
60
70
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


Eastbound (outgoing):Daily Volume for Week of 5/5/2025
Daily Vehicle Counts
Daily Vehicle Counts
OldhamRd Enfield May 2025
Oldham Rd East of Jonah
Daily Volumes
1,000
900
800
700
600
500
400
300
200
100
0
Vehicles
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Day

APPENDIX II

TAC Traffic Signal Warrant Results

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	**Trunk 2**	**Direction (EW or NS)**	**EW**
Side Street (name)	**Exit 7 SB Ramps**	**Direction (EW or NS)**	**NS**
Quadrant / Int #	**Enfield**	**Comments**	**2025 Volumes Existing I/C Layout Existing Intersection Config.**

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Road Authority:	**NSDPW**
City:	**HRM**
Analysis Date:	**Sept 2025**
Count Date:	**May 2025**
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1		1				2,000	1
Trunk 2	EB					1		2,000	1
Exit 7 SB Ramps	NB								
Exit 7 SB Ramps	SB	1		1			1		
							n		
							n		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

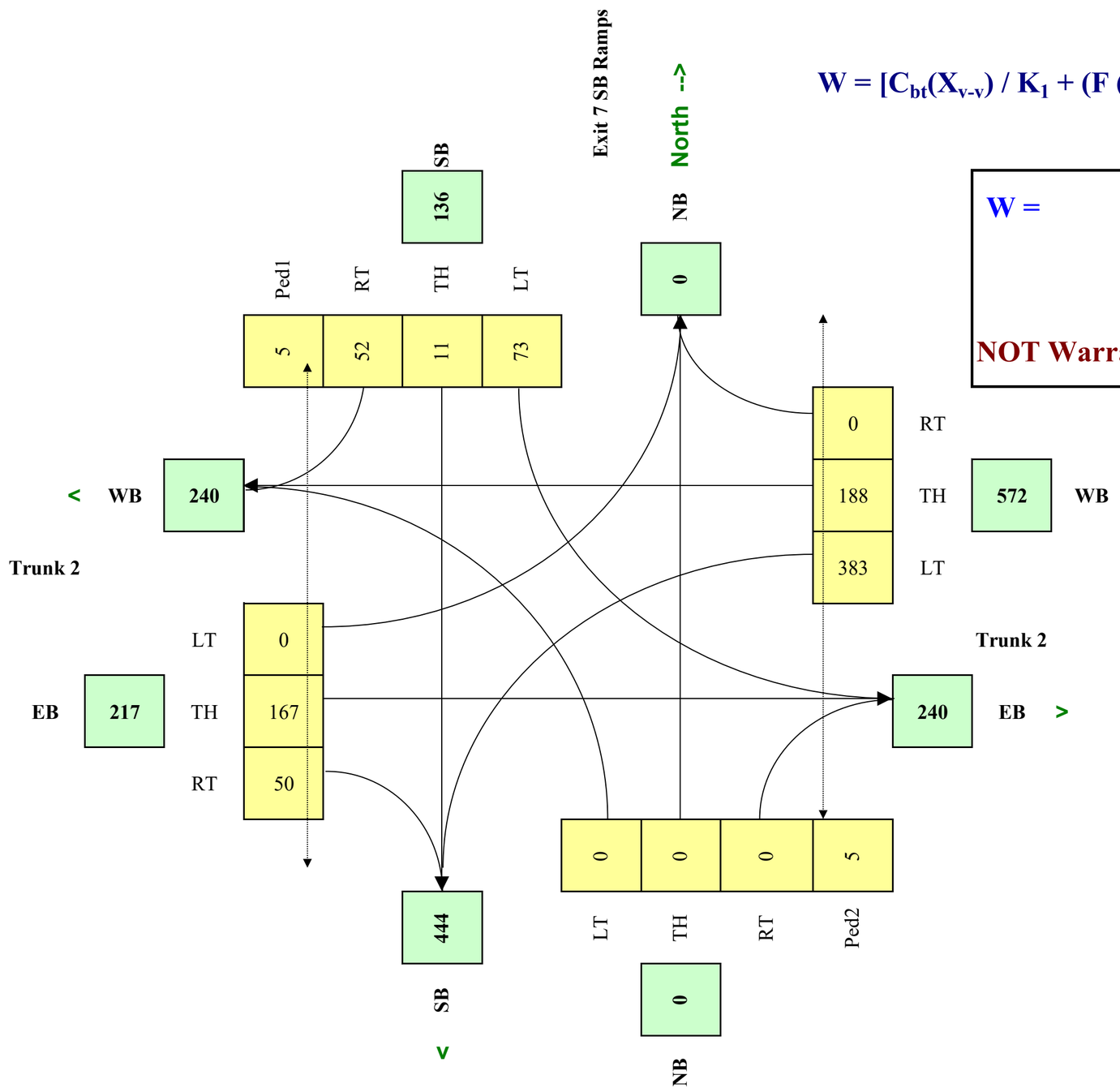
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Exit 7 SB Ramps	NS		5.0%	n	

Set Peak Hours

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S Side**
7:00 - 8:00	0	0	0	60	33	44	874	176	0	0	211	110	5	5	5	5
8:00 - 9:00	0	0	0	45	25	33	657	132	0	0	159	83	5	5	5	5
12:00 - 13:00	0	0	0	69	1	48	158	169	0	0	130	22	5	5	5	5
13:00 - 14:00	0	0	0	74	2	52	170	182	0	0	140	24	5	5	5	5
16:00 - 17:00	0	0	0	99	2	69	227	243	0	0	186	32	5	5	5	5
17:00 - 18:00	0	0	0	93	2	65	213	228	0	0	174	30	5	5	5	5
Total (6-hour peak)	**0**	**0**	**0**	**440**	**65**	**311**	**2,299**	**1,130**	**0**	**0**	**1,000**	**301**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**0**	**0**	**0**	**73**	**11**	**52**	**383**	**188**	**0**	**0**	**167**	**50**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W = **97** **89** **8**

Veh *Ped*

NOT Warranted

RESET SHEET

Traffic Signal Warrant Spreadsheet - v3H © 2007 Transportation Association of Canada

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	**Trunk 2**	**Direction (EW or NS)**	**EW**
Side Street (name)	**Exit 7 SB Ramps**	**Direction (EW or NS)**	**NS**
Quadrant / Int #	**Enfield**	**Comments**	**2033 Volumes Existing I/C Layout Existing Intersection Config.**

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Road Authority:	**NSDPW**
City:	**HRM**
Analysis Date:	**Sept 2025**
Count Date:	**May 2025**
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1		1				2,000	1
Trunk 2	EB					1		2,000	1
Exit 7 SB Ramps	NB								
Exit 7 SB Ramps	SB	1		1			1		
							n		
							n		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

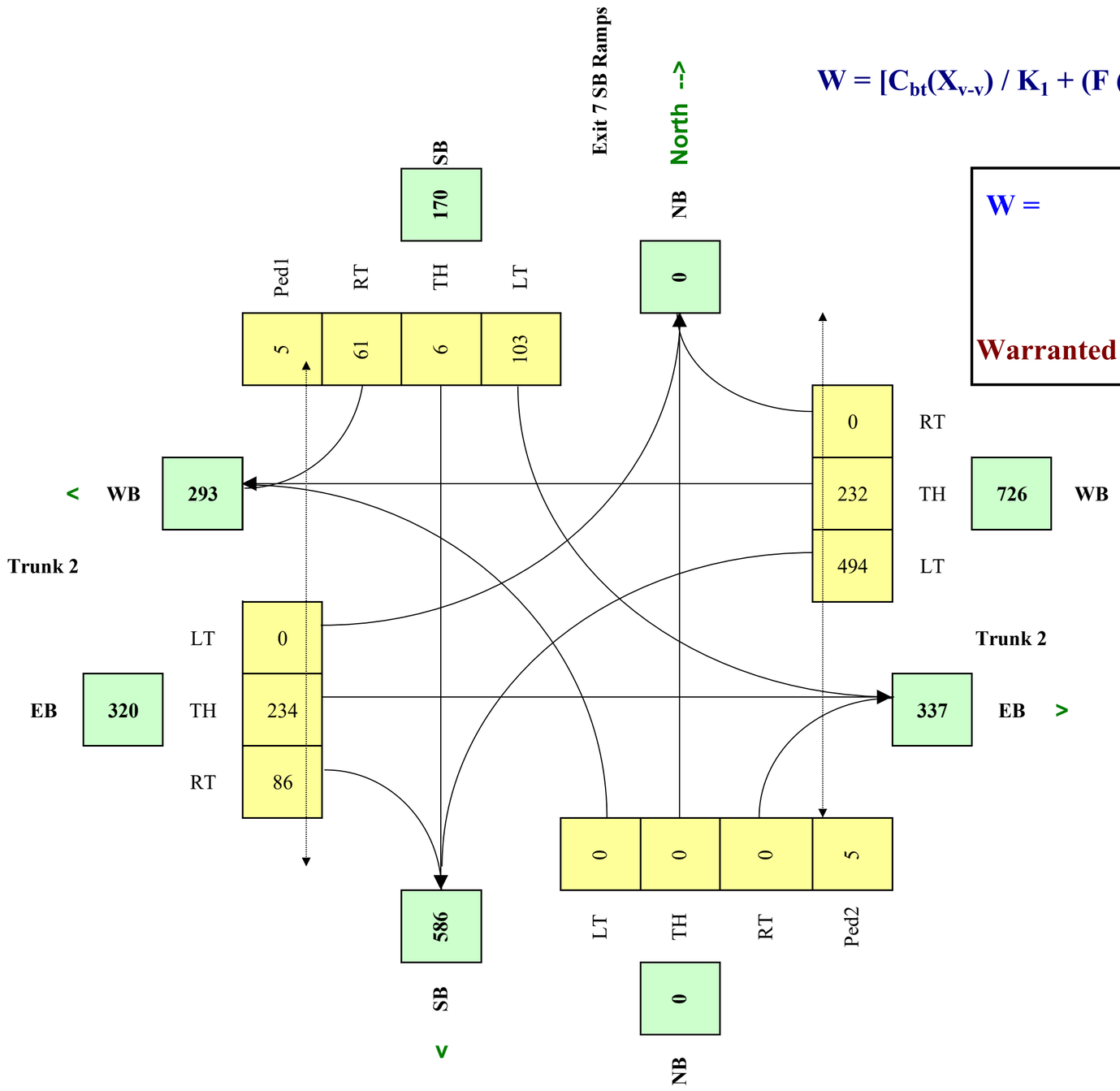
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Exit 7 SB Ramps	NS		5.0%	n	

Set Peak Hours

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S Side**
7:00 - 8:00	0	0	0	70	12	53	1170	238	0	0	269	120	5	5	5	5
8:00 - 9:00	0	0	0	53	9	40	880	179	0	0	202	90	5	5	5	5
12:00 - 13:00	0	0	0	102	3	56	188	201	0	0	192	63	5	5	5	5
13:00 - 14:00	0	0	0	110	4	60	202	216	0	0	206	68	5	5	5	5
16:00 - 17:00	0	0	0	147	5	80	269	288	0	0	275	90	5	5	5	5
17:00 - 18:00	0	0	0	138	5	75	252	270	0	0	258	84	5	5	5	5
Total (6-hour peak)	**0**	**0**	**0**	**620**	**38**	**364**	**2,961**	**1,392**	**0**	**0**	**1,402**	**515**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**0**	**0**	**0**	**103**	**6**	**61**	**494**	**232**	**0**	**0**	**234**	**86**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	**171**	**162**	**9**
		Veh	***Ped***

Warranted

RESET SHEET

Traffic Signal Warrant Spreadsheet - v3H © 2007 Transportation Association of Canada

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	**Trunk 2**	**Direction (EW or NS)**	**EW**
Side Street (name)	**Exit 7 SB Ramps**	**Direction (EW or NS)**	**NS**
Quadrant / Int #	**Enfield**	**Comments**	**2043 Volumes Existing I/C Layout Existing Intersection Config.**

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Road Authority:	**NSDPW**
City:	**HRM**
Analysis Date:	**Sept 2025**
Count Date:	**May 2025**
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1		1				2,000	1
Trunk 2	EB					1		2,000	1
Exit 7 SB Ramps	NB								
Exit 7 SB Ramps	SB	1		1			1		
							n		
							n		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

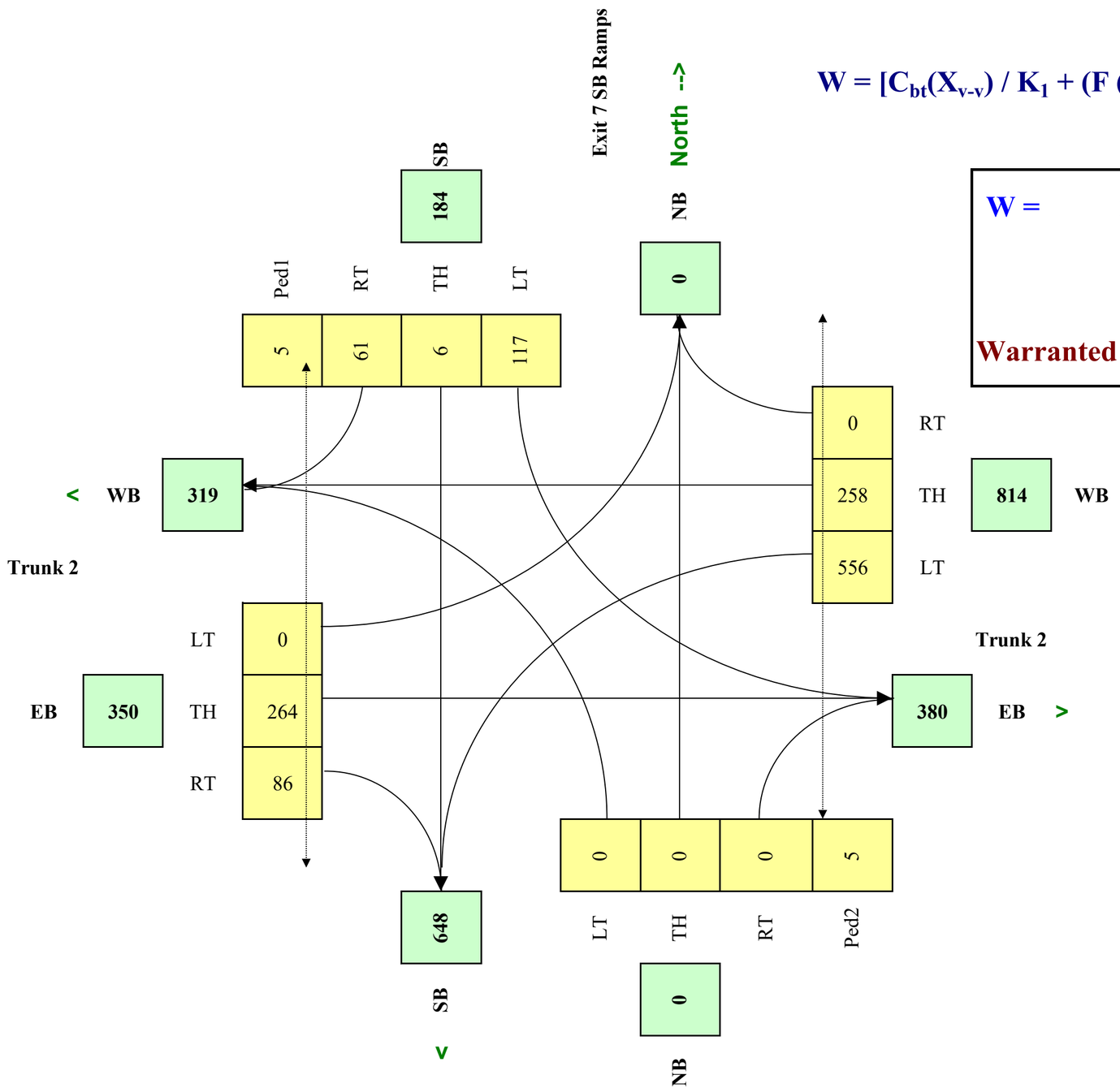
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Exit 7 SB Ramps	NS		5.0%	n	

Set Peak Hours

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S Side**
7:00 - 8:00	0	0	0	82	12	53	1330	270	0	0	310	120	5	5	5	5
8:00 - 9:00	0	0	0	62	9	40	1000	203	0	0	233	90	5	5	5	5
12:00 - 13:00	0	0	0	114	3	56	207	222	0	0	214	63	5	5	5	5
13:00 - 14:00	0	0	0	123	4	60	223	239	0	0	230	68	5	5	5	5
16:00 - 17:00	0	0	0	164	5	80	297	318	0	0	307	90	5	5	5	5
17:00 - 18:00	0	0	0	154	5	75	279	298	0	0	288	84	5	5	5	5
Total (6-hour peak)	**0**	**0**	**0**	**699**	**38**	**364**	**3,336**	**1,550**	**0**	**0**	**1,582**	**515**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**0**	**0**	**0**	**117**	**6**	**61**	**556**	**258**	**0**	**0**	**264**	**86**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	**211**	**201**	**10**
		Veh	***Ped***

Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Exit 7 NB Ramps
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2025 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	Sept 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1		1				2,000	1
Trunk 2	EB					1		2,000	1
Exit 7 NB Ramps	NB	1				1			
Exit 7 NB Ramps	SB								
Are the Exit 7 NB Ramps NB right turns significantly impeded by through movements? (y/n)							n		
							n		

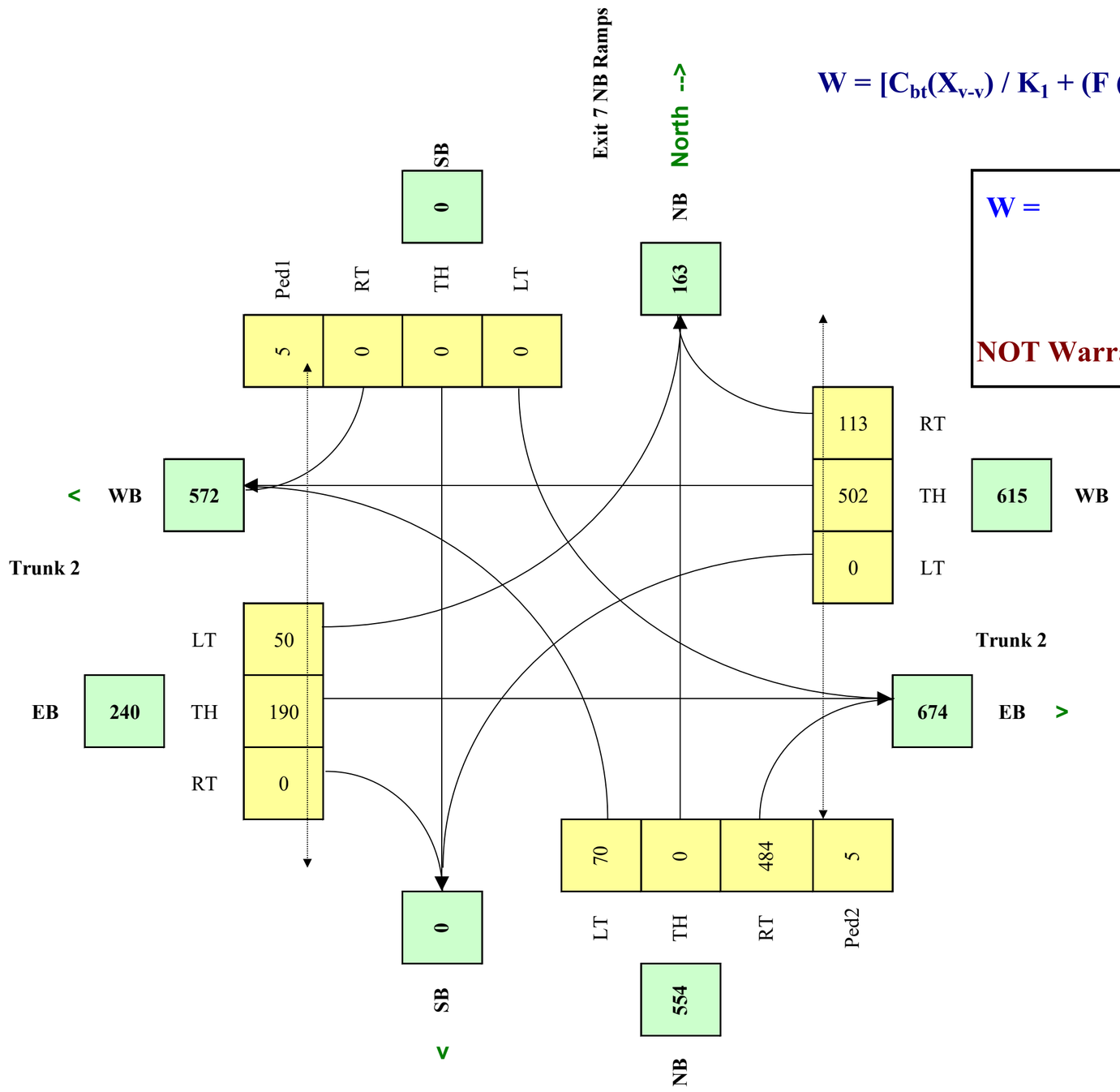
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Exit 7 NB Ramps	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	21	0	290	0	0	0	0	1028	144	78	193	0	5	5	5	5
8:00 - 9:00	16	0	218	0	0	0	0	773	108	59	145	0	5	5	5	5
12:00 - 13:00	79	0	494	0	0	0	0	249	88	33	165	0	5	5	5	5
13:00 - 14:00	85	0	531	0	0	0	0	268	95	36	178	0	5	5	5	5
16:00 - 17:00	113	0	708	0	0	0	0	357	126	48	237	0	5	5	5	5
17:00 - 18:00	106	0	664	0	0	0	0	335	118	45	222	0	5	5	5	5
Total (6-hour peak)	**420**	**0**	**2,905**	**0**	**0**	**0**	**0**	**3,010**	**679**	**299**	**1,140**	**0**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**70**	**0**	**484**	**0**	**0**	**0**	**0**	**502**	**113**	**50**	**190**	**0**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	96	84	12
		Veh	*Ped*

NOT Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Exit 7 NB Ramps
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2033 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	Sept 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1		1				2,000	1
Trunk 2	EB					1		2,000	1
Exit 7 NB Ramps	NB	1				1			
Exit 7 NB Ramps	SB								
Are the Exit 7 NB Ramps NB right turns significantly impeded by through movements? (y/n)							n		
							n		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

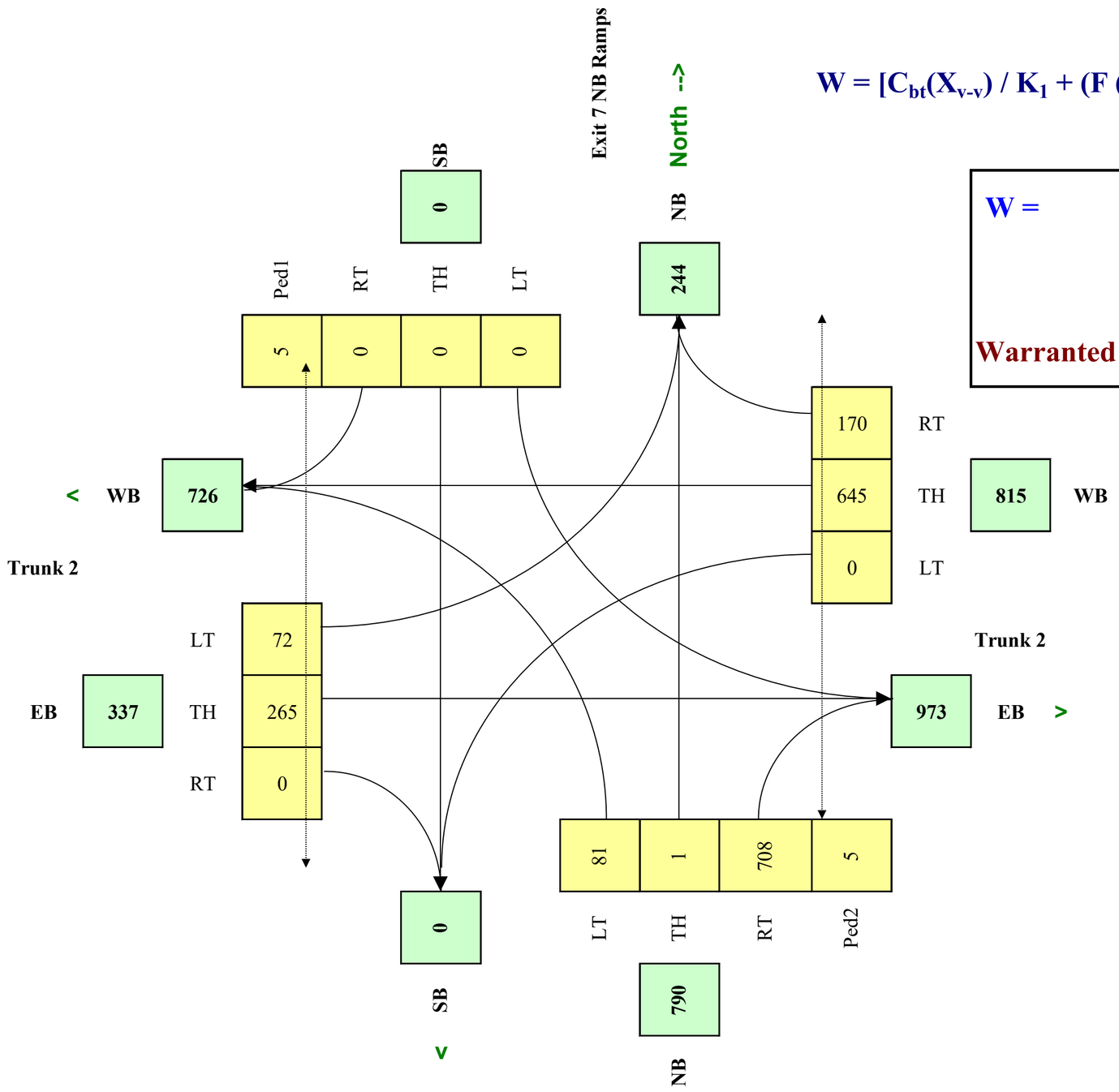
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Exit 7 NB Ramps	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	27	1	394	0	0	0	0	1382	198	101	238	0	5	5	5	5
8:00 - 9:00	20	1	296	0	0	0	0	1039	149	76	179	0	5	5	5	5
12:00 - 13:00	91	1	733	0	0	0	0	298	139	53	241	0	5	5	5	5
13:00 - 14:00	98	1	788	0	0	0	0	321	149	57	260	0	5	5	5	5
16:00 - 17:00	130	1	1051	0	0	0	0	428	199	76	346	0	5	5	5	5
17:00 - 18:00	122	1	986	0	0	0	0	401	187	71	324	0	5	5	5	5
Total (6-hour peak)	**488**	**6**	**4,248**	**0**	**0**	**0**	**0**	**3,869**	**1,021**	**434**	**1,588**	**0**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**81**	**1**	**708**	**0**	**0**	**0**	**0**	**645**	**170**	**72**	**265**	**0**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	201	185	16
		Veh	*Ped*

Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Exit 7 NB Ramps
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2043 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	Sept 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1		1				2,000	1
Trunk 2	EB					1		2,000	1
Exit 7 NB Ramps	NB	1				1			
Exit 7 NB Ramps	SB								
Are the Exit 7 NB Ramps NB right turns significantly impeded by through movements? (y/n)							n		
							n		

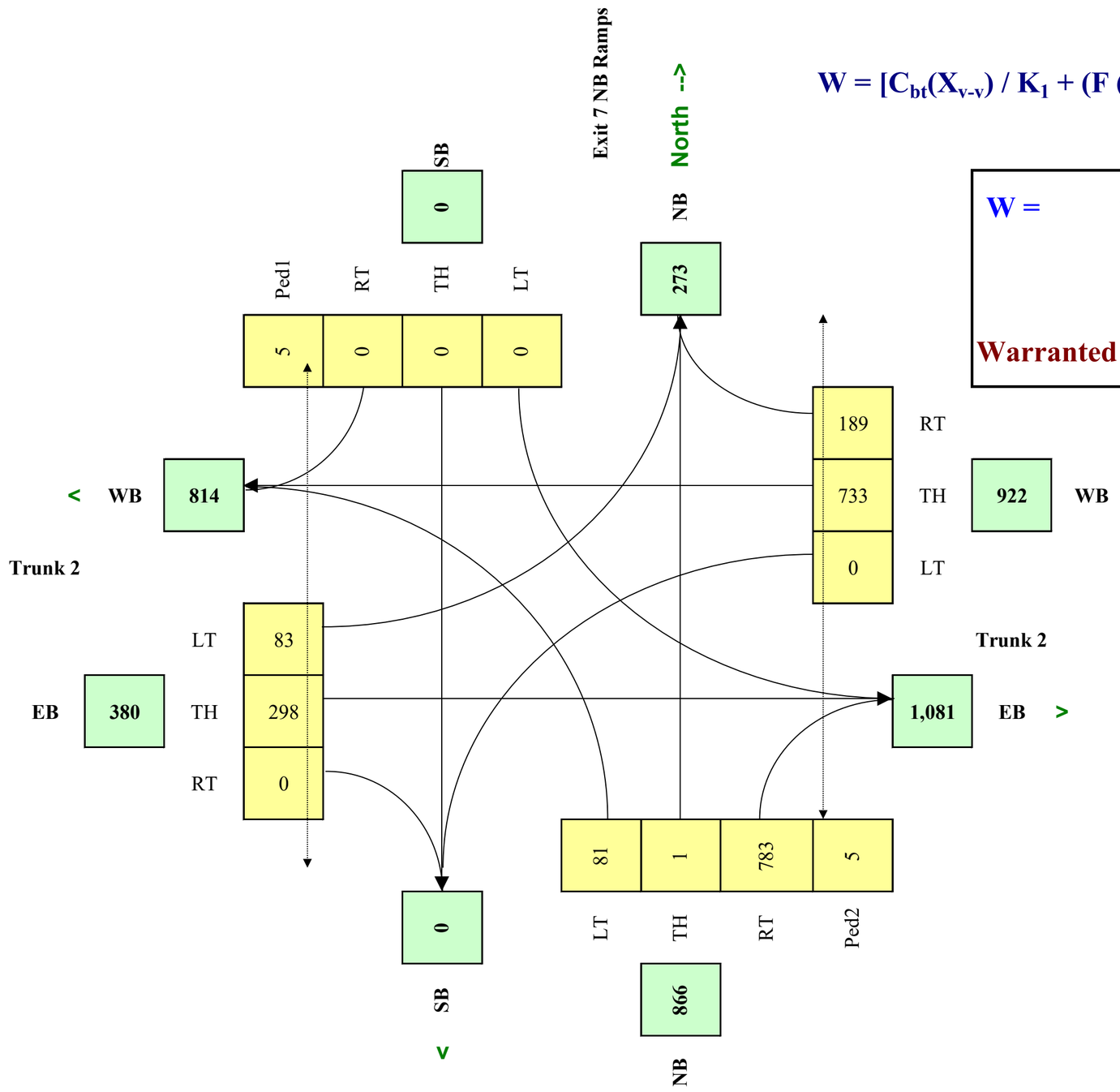
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Exit 7 NB Ramps	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	27	1	426	0	0	0	0	1573	225	117	275	0	5	5	5	5
8:00 - 9:00	20	1	320	0	0	0	0	1183	169	88	207	0	5	5	5	5
12:00 - 13:00	91	1	814	0	0	0	0	338	153	60	268	0	5	5	5	5
13:00 - 14:00	98	1	876	0	0	0	0	364	164	65	289	0	5	5	5	5
16:00 - 17:00	130	1	1168	0	0	0	0	485	219	86	385	0	5	5	5	5
17:00 - 18:00	122	1	1095	0	0	0	0	455	205	81	361	0	5	5	5	5
Total (6-hour peak)	**488**	**6**	**4,699**	**0**	**0**	**0**	**0**	**4,398**	**1,135**	**497**	**1,785**	**0**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**81**	**1**	**783**	**0**	**0**	**0**	**0**	**733**	**189**	**83**	**298**	**0**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	258	240	18
		Veh	*Ped*

Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Oldham Rd
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2011 Volumes (from GENIVAR TIS Report)

Road Authority:	NSDPW
City:	HRM
Analysis Date:	June 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB		1					2,000	1
Trunk 2	EB					1		2,000	1
Oldham Rd	NB				1				
Oldham Rd	SB								
Are the Oldham Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

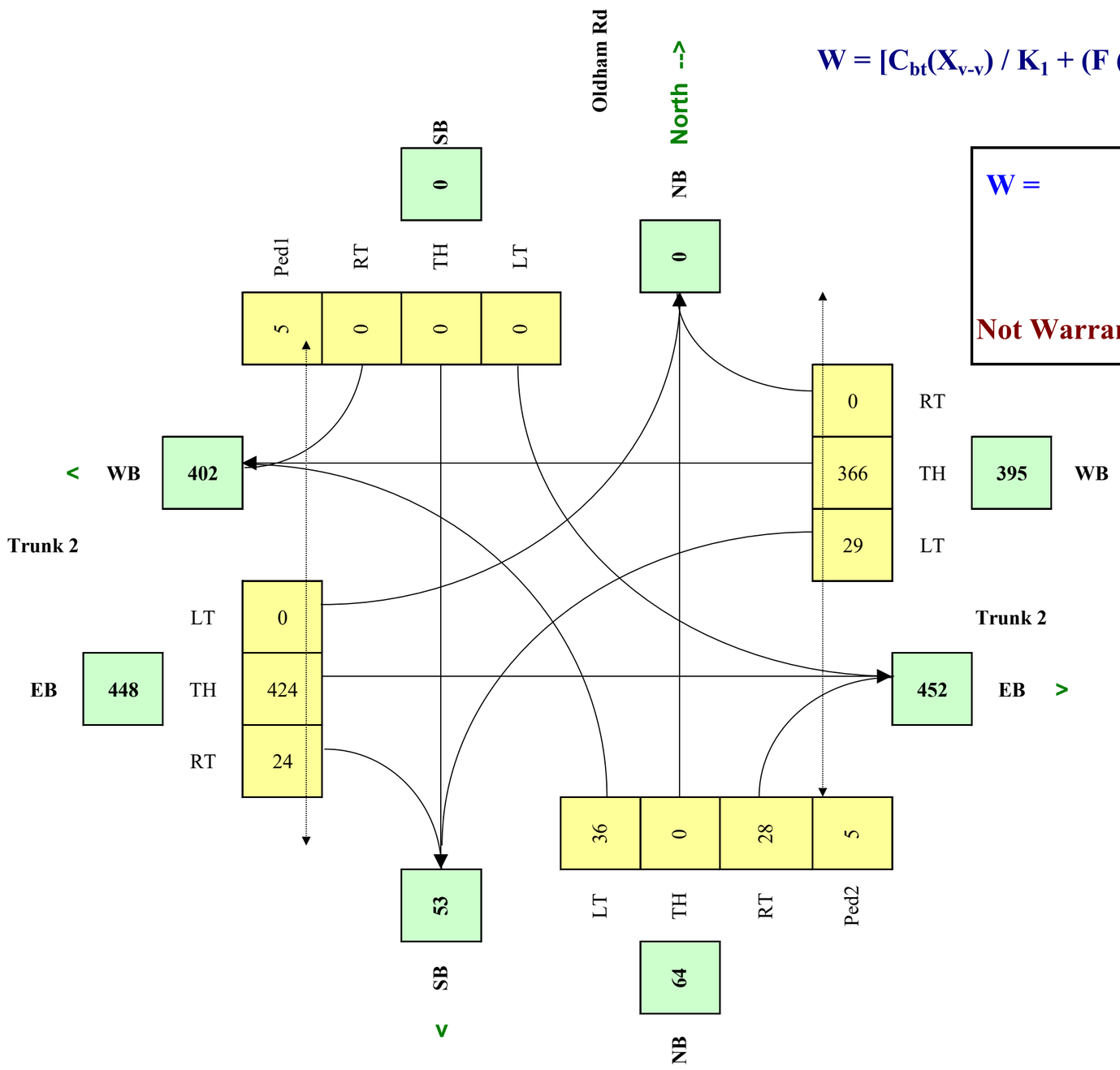
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Oldham Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	67	0	28	0	0	0	17	750	0	0	193	25	5	5	5	5
8:00 - 9:00	50	0	21	0	0	0	13	564	0	0	145	19	5	5	5	5
12:00 - 13:00	20	0	24	0	0	0	29	182	0	0	454	21	5	5	5	5
13:00 - 14:00	22	0	26	0	0	0	32	196	0	0	488	23	5	5	5	5
16:00 - 17:00	29	0	35	0	0	0	42	261	0	0	651	30	5	5	5	5
17:00 - 18:00	27	0	33	0	0	0	39	245	0	0	611	28	5	5	5	5
Total (6-hour peak)	**215**	**0**	**167**	**0**	**0**	**0**	**172**	**2,198**	**0**	**0**	**2,542**	**146**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**36**	**0**	**28**	**0**	**0**	**0**	**29**	**366**	**0**	**0**	**424**	**24**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	40	31	9
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Oldham Rd
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2025 Volumes Existing Road Network Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	June 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1				1		2,000	1
Trunk 2	EB	1				1		2,000	1
Oldham Rd	NB				1				
Oldham Rd	SB						1		
Are the Oldham Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

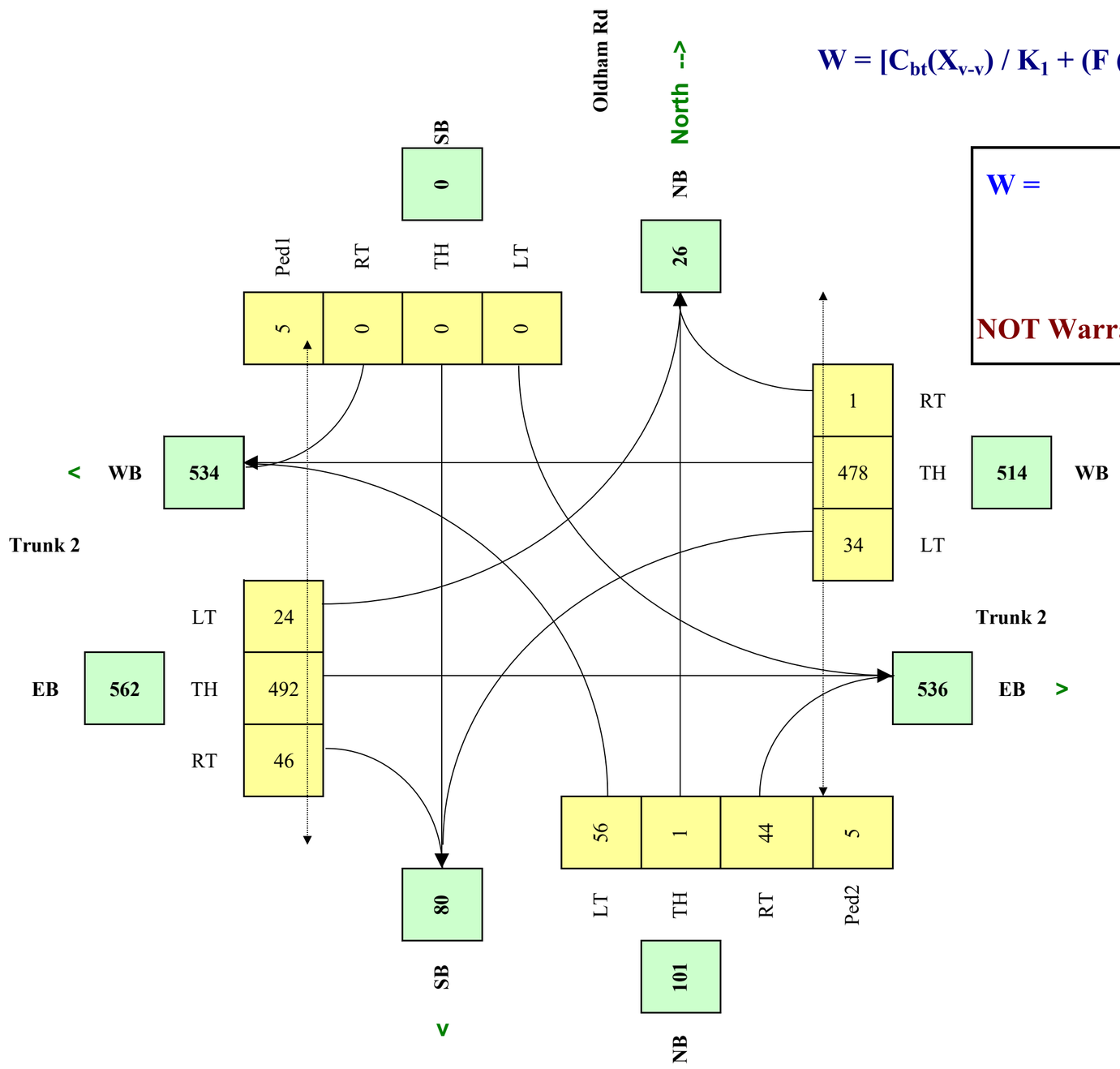
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Oldham Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	89	1	25	0	0	0	23	968	1	21	301	37	5	5	5	5
8:00 - 9:00	67	1	19	0	0	0	17	728	1	16	226	28	5	5	5	5
12:00 - 13:00	37	1	45	0	0	0	34	242	1	22	500	43	5	5	5	5
13:00 - 14:00	40	1	48	0	0	0	37	260	1	24	538	47	5	5	5	5
16:00 - 17:00	53	1	64	0	0	0	49	347	1	32	717	62	5	5	5	5
17:00 - 18:00	50	1	60	0	0	0	46	325	1	30	672	58	5	5	5	5
Total (6-hour peak)	**336**	**6**	**261**	**0**	**0**	**0**	**206**	**2,870**	**6**	**145**	**2,954**	**275**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**56**	**1**	**44**	**0**	**0**	**0**	**34**	**478**	**1**	**24**	**492**	**46**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	72	60	12
		Veh	*Ped*

NOT Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	**Trunk 2**
Side Street (name)	**Oldham Rd**
Quadrant / Int #	**Enfield**
for Warrant Calculation Results, please hit 'Page Down'	**CHECK SHEET**

Direction (EW or NS)	**EW**
Direction (EW or NS)	**NS**
Comments	**2033 Volumes Existing I/C Layout Existing Intersection Config.**

Road Authority:	**NSDPW**
City:	**HRM**
Analysis Date:	**June 2025**
Count Date:	**May 2025**
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1				1		2,000	1
Trunk 2	EB	1				1		2,000	1
Oldham Rd	NB				1				
Oldham Rd	SB						1		
Are the Oldham Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

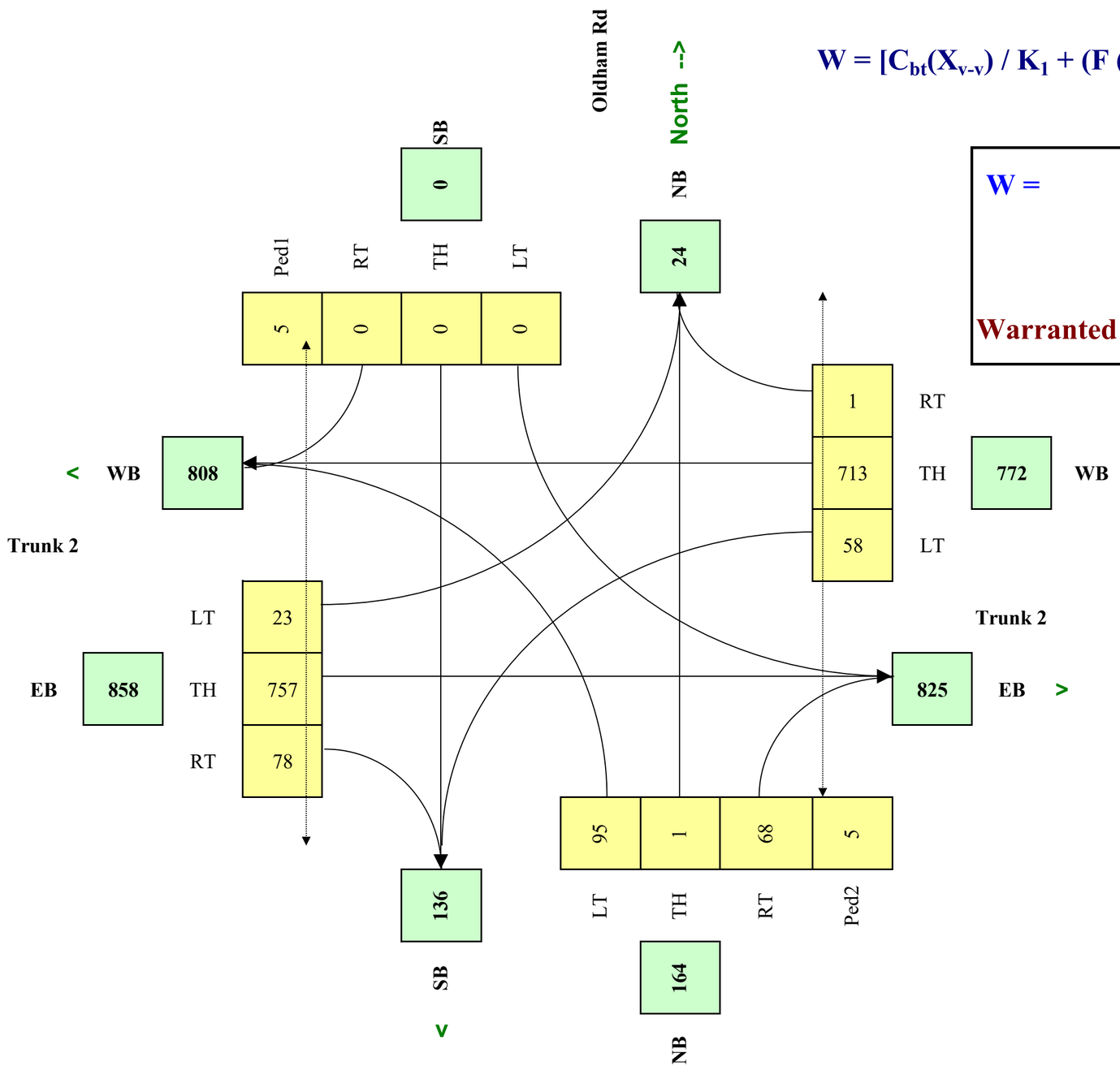
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Oldham Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S Side**
7:00 - 8:00	176	0	51	0	0	0	37	1347	1	16	422	60	5	5	5	5
8:00 - 9:00	132	0	38	0	0	0	28	1013	1	12	317	45	5	5	5	5
12:00 - 13:00	54	1	66	0	0	0	59	395	1	22	784	75	5	5	5	5
13:00 - 14:00	58	1	71	0	0	0	63	425	1	24	843	80	5	5	5	5
16:00 - 17:00	77	1	94	0	0	0	84	566	1	32	1124	107	5	5	5	5
17:00 - 18:00	72	1	88	0	0	0	79	531	1	30	1054	100	5	5	5	5
Total (6-hour peak)	**569**	**4**	**408**	**0**	**0**	**0**	**350**	**4,277**	**6**	**136**	**4,544**	**467**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**95**	**1**	**68**	**0**	**0**	**0**	**58**	**713**	**1**	**23**	**757**	**78**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	171	152	19
		Veh	*Ped*

Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Oldham Rd
Quadrant / Int #	Enfield
	CHECK SHEET

for Warrant Calculation Results, please hit 'Page Down'

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2033 Volumes New I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	June 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1				1		2,000	1
Trunk 2	EB	1				1		2,000	1
Oldham Rd	NB				1				
Oldham Rd	SB						1		
Are the Oldham Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

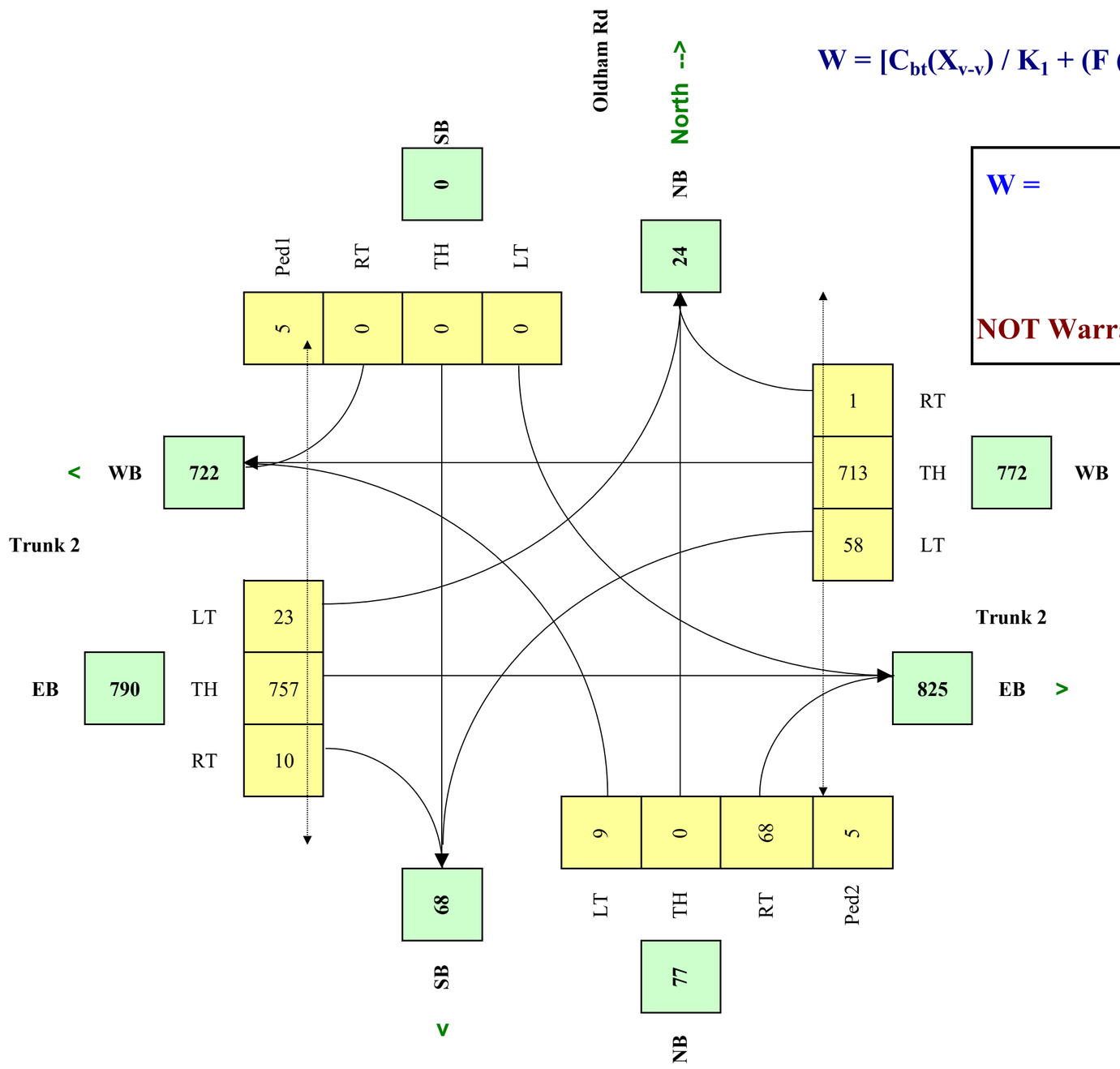
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Oldham Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	24	0	51	0	0	0	37	1347	1	16	422	13	5	5	5	5
8:00 - 9:00	18	0	38	0	0	0	28	1013	1	12	317	10	5	5	5	5
12:00 - 13:00	3	0	66	0	0	0	59	395	1	22	784	7	5	5	5	5
13:00 - 14:00	3	0	71	0	0	0	63	425	1	24	843	8	5	5	5	5
16:00 - 17:00	4	0	94	0	0	0	84	566	1	32	1124	10	5	5	5	5
17:00 - 18:00	4	0	88	0	0	0	79	531	1	30	1054	9	5	5	5	5
Total (6-hour peak)	**56**	**0**	**408**	**0**	**0**	**0**	**350**	**4,277**	**6**	**136**	**4,544**	**57**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**9**	**0**	**68**	**0**	**0**	**0**	**58**	**713**	**1**	**23**	**757**	**10**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	87	69	18
		Veh	*Ped*

NOT Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Oldham Rd
Quadrant / Int #	Enfield
	CHECK SHEET

for Warrant Calculation Results, please hit 'Page Down'

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2043 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	June 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1				1		2,000	1
Trunk 2	EB	1				1		2,000	1
Oldham Rd	NB				1				
Oldham Rd	SB						1		
Are the Oldham Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

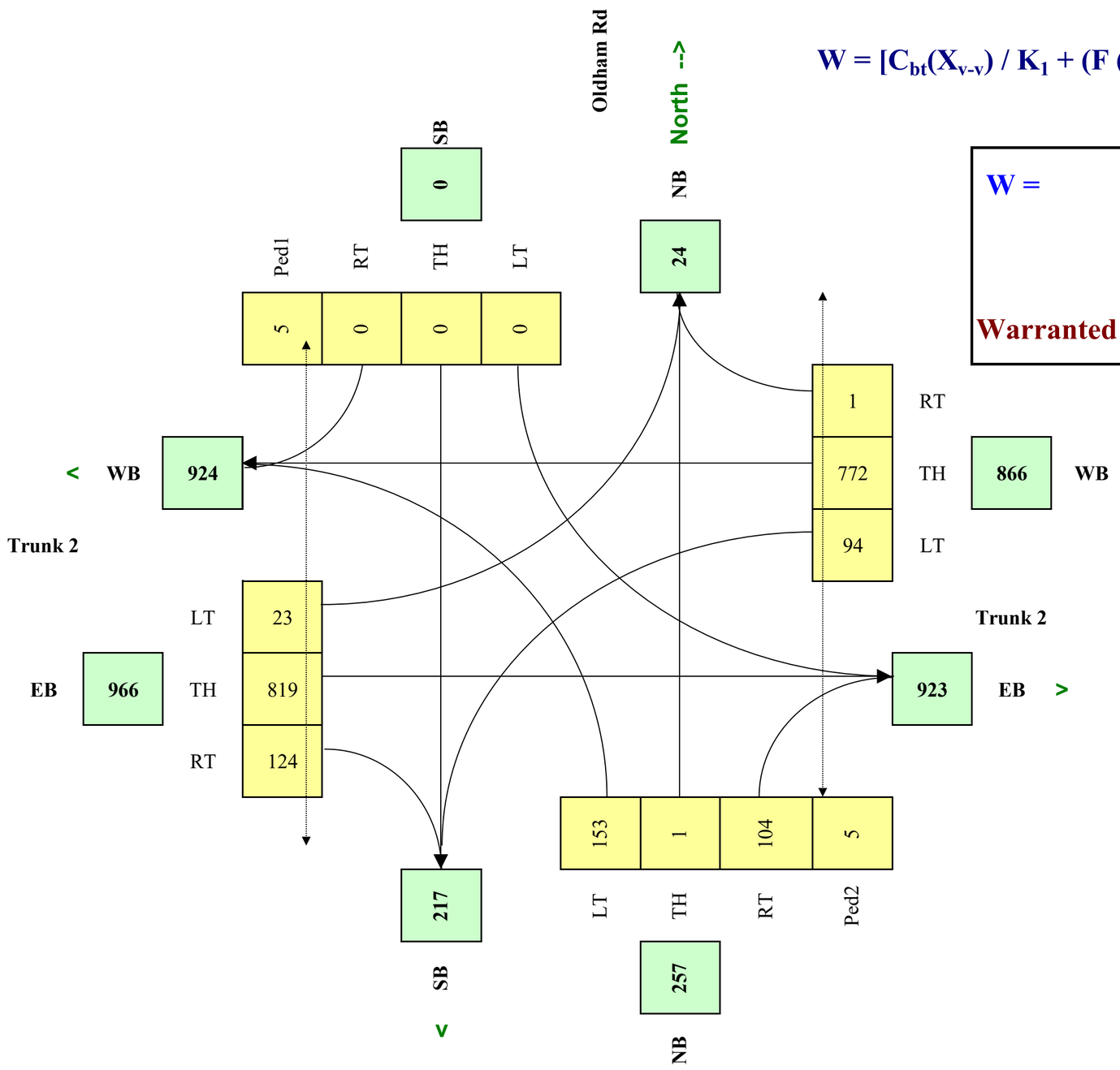
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Oldham Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	302	0	89	0	0	0	57	1452	1	16	456	94	5	5	5	5
8:00 - 9:00	227	0	67	0	0	0	43	1092	1	12	343	71	5	5	5	5
12:00 - 13:00	79	1	96	0	0	0	95	429	1	22	848	119	5	5	5	5
13:00 - 14:00	86	1	104	0	0	0	102	462	1	24	912	128	5	5	5	5
16:00 - 17:00	114	1	138	0	0	0	136	616	1	32	1216	171	5	5	5	5
17:00 - 18:00	107	1	129	0	0	0	128	578	1	30	1140	160	5	5	5	5
Total (6-hour peak)	**915**	**4**	**623**	**0**	**0**	**0**	**561**	**4,629**	**6**	**136**	**4,915**	**743**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**153**	**1**	**104**	**0**	**0**	**0**	**94**	**772**	**1**	**23**	**819**	**124**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	286	265	21
		Veh	*Ped*

Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	**Trunk 2**
Side Street (name)	**Oldham Rd**
Quadrant / Int #	**Enfield**

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	**EW**
Direction (EW or NS)	**NS**
Comments	**2043 Volumes New I/C Layout Existing Intersection Config.**

Road Authority:	**NSDPW**
City:	**HRM**
Analysis Date:	**June 2025**
Count Date:	**May 2025**
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB	1				1		2,000	1
Trunk 2	EB	1				1		2,000	1
Oldham Rd	NB				1				
Oldham Rd	SB						1		
Are the Oldham Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

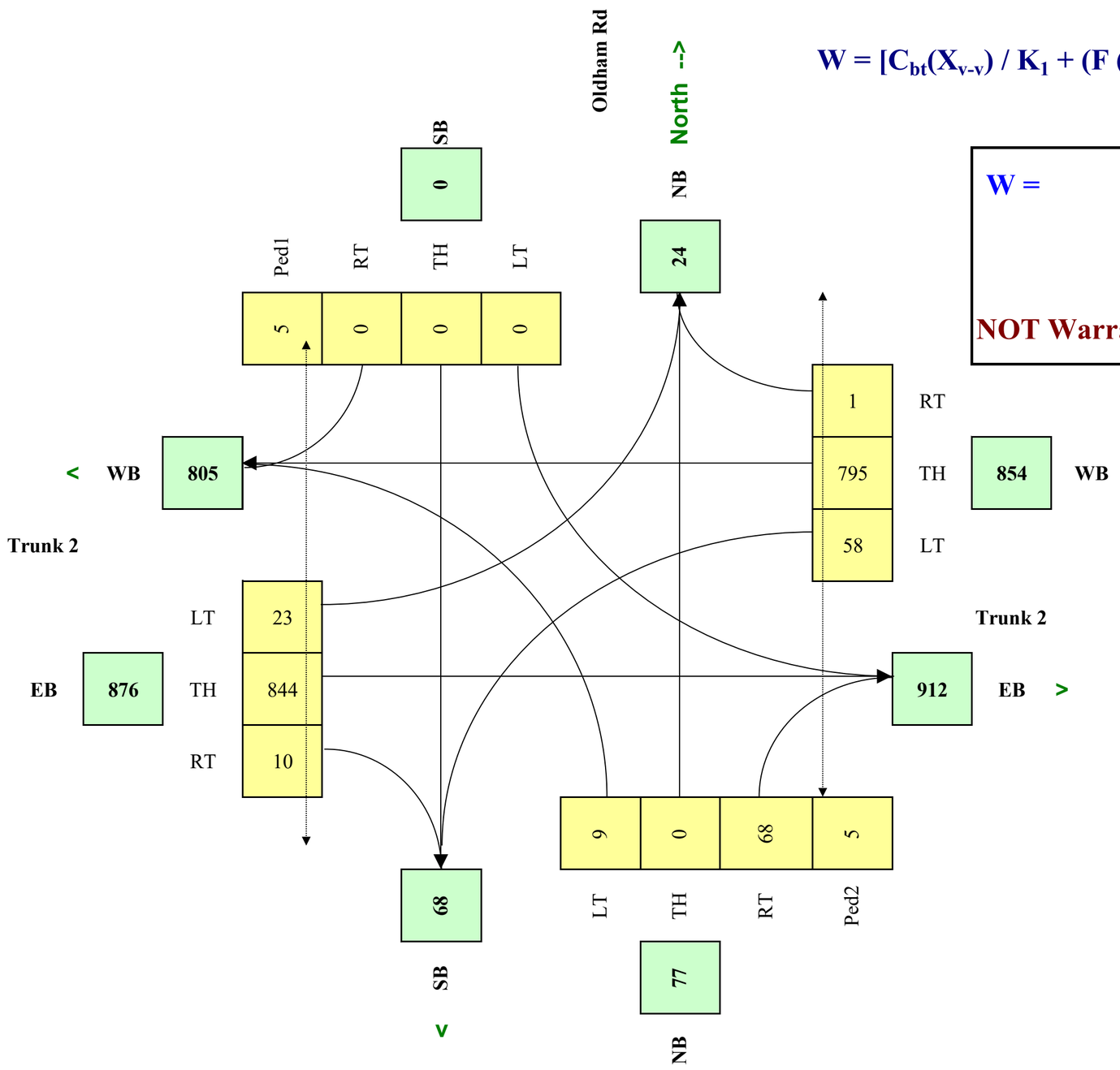
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Oldham Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S Side**
7:00 - 8:00	24	0	51	0	0	0	36	1466	1	16	481	13	5	5	5	5
8:00 - 9:00	18	0	38	0	0	0	27	1102	1	12	362	10	5	5	5	5
12:00 - 13:00	3	0	66	0	0	0	59	454	1	22	869	7	5	5	5	5
13:00 - 14:00	3	0	71	0	0	0	63	488	1	24	935	8	5	5	5	5
16:00 - 17:00	4	0	94	0	0	0	84	651	1	32	1246	10	5	5	5	5
17:00 - 18:00	4	0	88	0	0	0	79	611	1	30	1169	9	5	5	5	5
Total (6-hour peak)	**56**	**0**	**408**	**0**	**0**	**0**	**348**	**4,772**	**6**	**136**	**5,062**	**57**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**9**	**0**	**68**	**0**	**0**	**0**	**58**	**795**	**1**	**23**	**844**	**10**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	99	79	20
		Veh	*Ped*

NOT Warranted

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Old Post Rd
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2025 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	Sept 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB		1					2,000	1
Trunk 2	EB					1		2,000	1
Old Post Rd	NB				1				
Old Post Rd	SB								
Are the Old Post Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

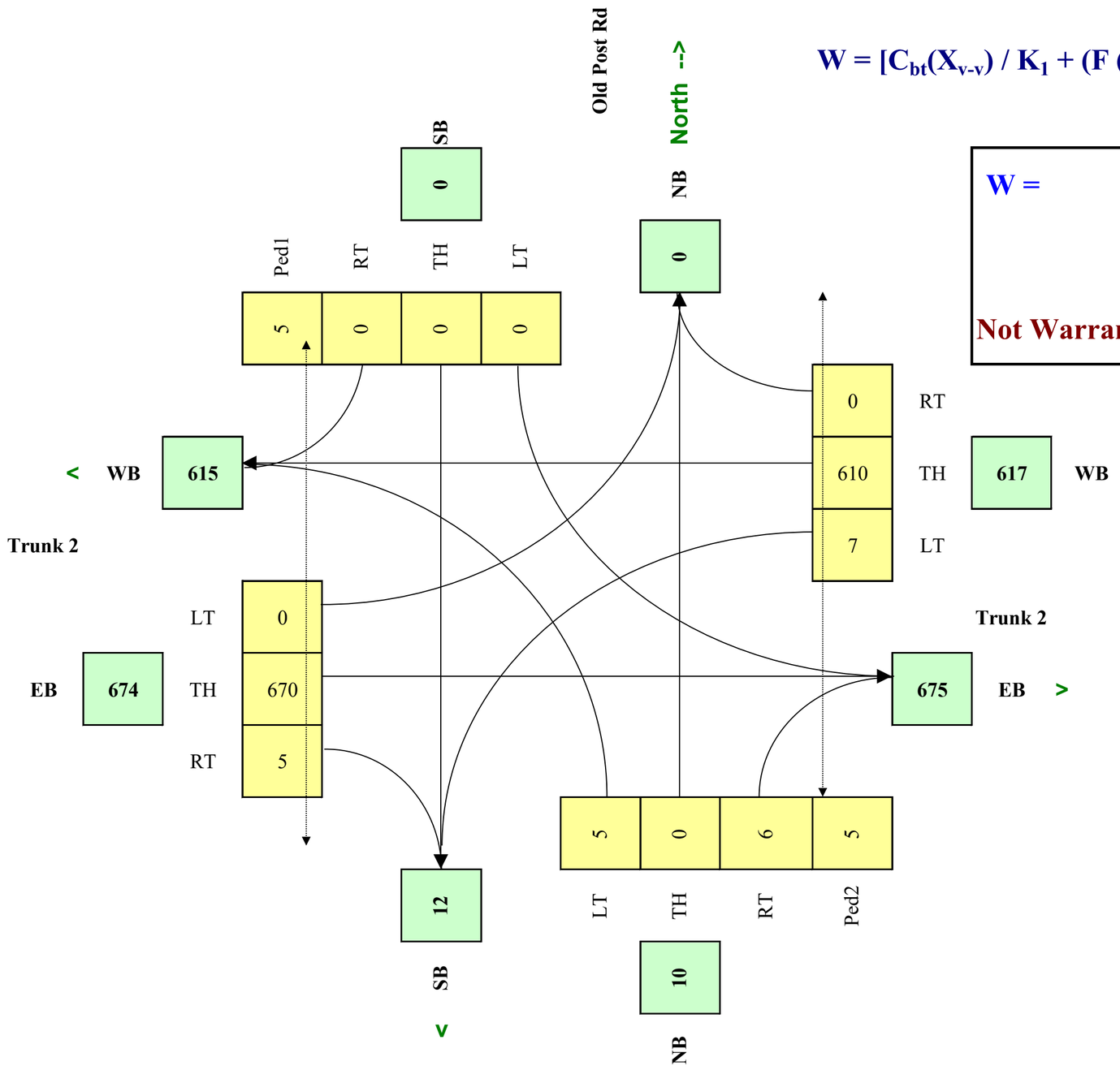
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Old Post Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	12	0	7	0	0	0	8	1160	0	0	480	3	5	5	5	5
8:00 - 9:00	9	0	5	0	0	0	6	872	0	0	361	2	5	5	5	5
12:00 - 13:00	1	0	4	0	0	0	6	335	0	0	654	5	5	5	5	5
13:00 - 14:00	2	0	5	0	0	0	6	361	0	0	704	5	5	5	5	5
16:00 - 17:00	2	0	6	0	0	0	8	481	0	0	938	7	5	5	5	5
17:00 - 18:00	2	0	6	0	0	0	8	451	0	0	880	7	5	5	5	5
Total (6-hour peak)	**28**	**0**	**33**	**0**	**0**	**0**	**42**	**3,660**	**0**	**0**	**4,017**	**29**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**5**	**0**	**6**	**0**	**0**	**0**	**7**	**610**	**0**	**0**	**670**	**5**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	23	9	14
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Old Post Rd
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2033 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	Sept 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB		1					2,000	1
Trunk 2	EB					1		2,000	1
Old Post Rd	NB				1				
Old Post Rd	SB								
Are the Old Post Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

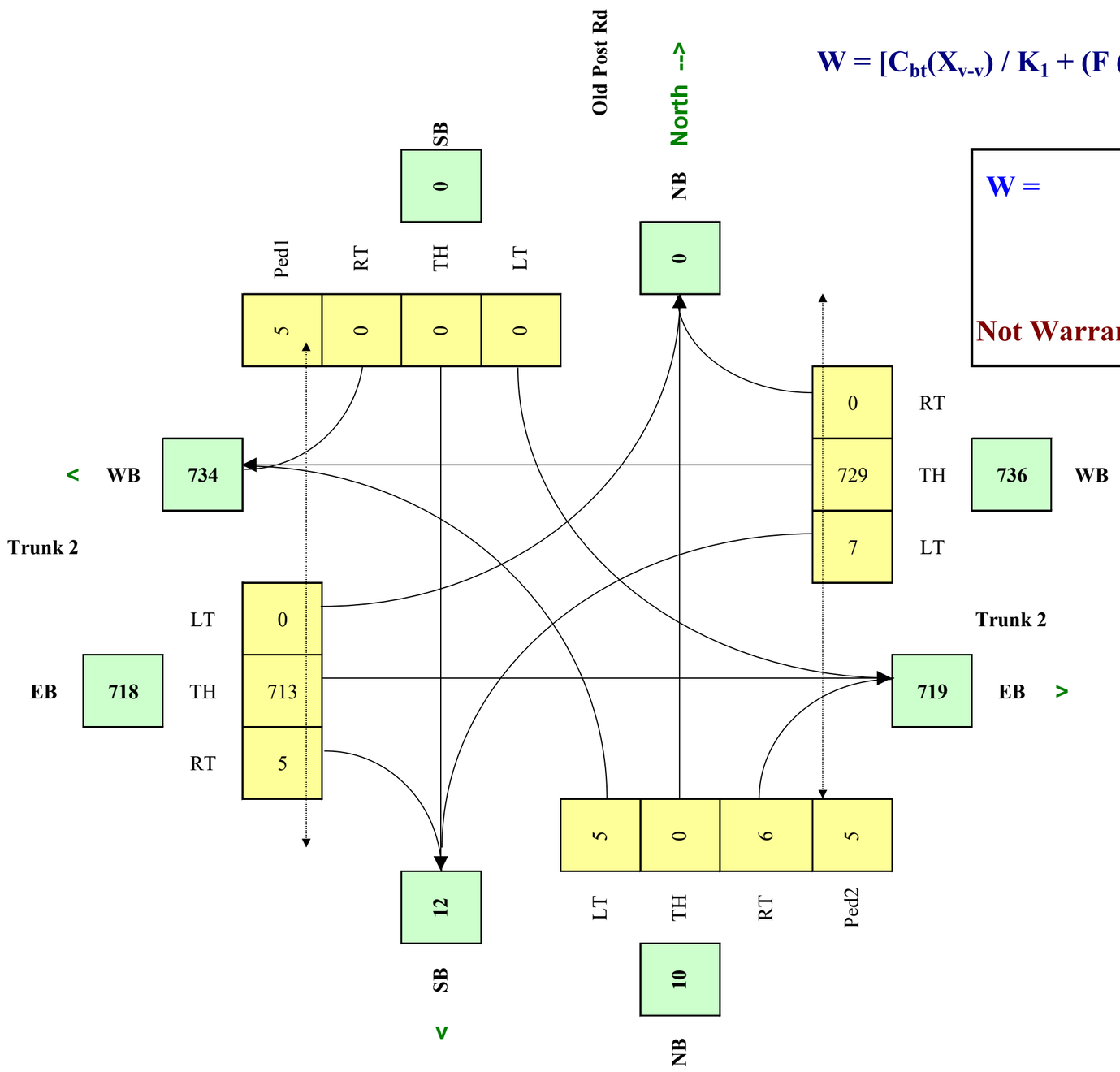
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Old Post Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	12	0	7	0	0	0	8	1568	0	0	629	3	5	5	5	5
8:00 - 9:00	9	0	5	0	0	0	6	1179	0	0	473	2	5	5	5	5
12:00 - 13:00	1	0	4	0	0	0	6	335	0	0	654	5	5	5	5	5
13:00 - 14:00	2	0	5	0	0	0	6	361	0	0	704	5	5	5	5	5
16:00 - 17:00	2	0	6	0	0	0	8	481	0	0	938	7	5	5	5	5
17:00 - 18:00	2	0	6	0	0	0	8	451	0	0	880	7	5	5	5	5
Total (6-hour peak)	**28**	**0**	**33**	**0**	**0**	**0**	**42**	**4,375**	**0**	**0**	**4,278**	**29**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**5**	**0**	**6**	**0**	**0**	**0**	**7**	**729**	**0**	**0**	**713**	**5**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	26	9	17
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

NSDPW - Traffic Signal Warrant Analysis

Main Street (name)	Trunk 2
Side Street (name)	Old Post Rd
Quadrant / Int #	Enfield

for Warrant Calculation Results, please hit 'Page Down'

CHECK SHEET

Direction (EW or NS)	EW
Direction (EW or NS)	NS
Comments	2043 Volumes Existing I/C Layout Existing Intersection Config.

Road Authority:	NSDPW
City:	HRM
Analysis Date:	Sept 2025
Count Date:	May 2025
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Trunk 2	WB		1					2,000	1
Trunk 2	EB					1		2,000	1
Old Post Rd	NB				1				
Old Post Rd	SB								
Are the Old Post Rd NB right turns significantly impeded by through movements? (y/n)							n		
							n		

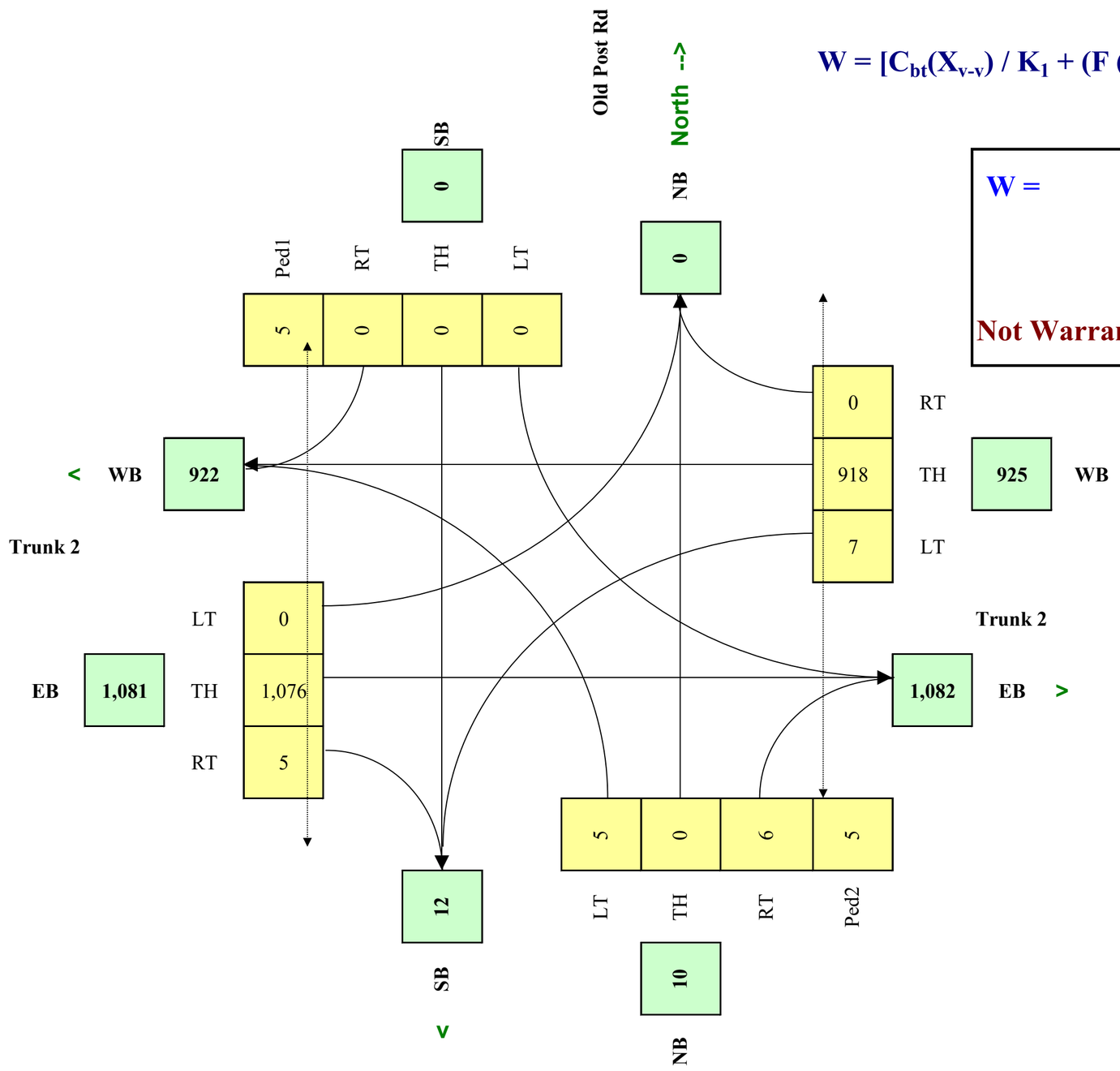
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	20,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Trunk 2	EW	60	5.0%	n	0.0
Old Post Rd	NS		5.0%	n	

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	12	0	7	0	0	0	8	1786	0	0	698	3	5	5	5	5
8:00 - 9:00	9	0	5	0	0	0	6	1343	0	0	525	2	5	5	5	5
12:00 - 13:00	1	0	4	0	0	0	6	489	0	0	1078	5	5	5	5	5
13:00 - 14:00	2	0	5	0	0	0	6	527	0	0	1160	5	5	5	5	5
16:00 - 17:00	2	0	6	0	0	0	8	702	0	0	1546	7	5	5	5	5
17:00 - 18:00	2	0	6	0	0	0	8	658	0	0	1450	7	5	5	5	5
Total (6-hour peak)	**28**	**0**	**33**	**0**	**0**	**0**	**42**	**5,505**	**0**	**0**	**6,457**	**29**	**30**	**30**	**30**	**30**
Average (6-hour peak)	**5**	**0**	**6**	**0**	**0**	**0**	**7**	**918**	**0**	**0**	**1,076**	**5**	**5**	**5**	**5**	**5**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	38	15	23
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

APPENDIX III

Intersection Performance Analysis

Existing 2025 Results

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	159	83	657	132	0	0	0	0	45	25	33
Future Vol, veh/h	0	159	83	657	132	0	0	0	0	45	25	33
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	-	-	-	50	-	-	-	-	-	20	-	30
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	0	173	90	714	143	0	0	0	0	49	27	36

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	268	0	0	1794	1839	148
Stage 1	-	-	-	-	-	-	1571	1571	-
Stage 2	-	-	-	-	-	-	223	268	-
Critical Hdwy	-	-	-	4.15	-	-	6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.55	-
Follow-up Hdwy	-	-	-	2.245	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	0	-	-	1278	-	0	87	74	891
Stage 1	0	-	-	-	-	0	185	168	-
Stage 2	0	-	-	-	-	0	807	682	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1278	-	-	~ 38	0	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 38	0	-
Stage 1	-	-	-	-	-	-	185	0	-
Stage 2	-	-	-	-	-	-	356	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	9.4	
HCM LOS			-

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	-	1278	-	38	-	886
HCM Lane V/C Ratio	-	-	0.559	-	1.287	-	0.04
HCM Control Delay (s)	-	-	11.3	-	$ 407.4	-	9.2
HCM Lane LOS	-	-	B	-	F	-	A
HCM 95th %tile Q(veh)	-	-	3.6	-	5	-	0.1

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

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	186	32	227	243	0	0	0	0	99	2	69
Future Vol, veh/h	0	186	32	227	243	0	0	0	0	99	2	69
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	-	-	-	50	-	-	-	-	-	20	-	30
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	0	202	35	247	264	0	0	0	0	108	2	75

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	0	242	0	0			983	1000	269
Stage 1	-	-	-	-	-	-			758	758	-
Stage 2	-	-	-	-	-	-			225	242	-
Critical Hdwy	-	-	-	4.15	-	-			6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-			5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.45	5.55	-
Follow-up Hdwy	-	-	-	2.245	-	-			3.545	4.045	3.345
Pot Cap-1 Maneuver	0	-	-	1307	-	0			272	240	762
Stage 1	0	-	-	-	-	0			457	411	-
Stage 2	0	-	-	-	-	0			805	700	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	1307	-	-			221	0	758
Mov Cap-2 Maneuver	-	-	-	-	-	-			221	0	-
Stage 1	-	-	-	-	-	-			457	0	-
Stage 2	-	-	-	-	-	-			653	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	4.1	
HCM LOS			-

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	-	1307	-	221	-	758
HCM Lane V/C Ratio	-	-	0.189	-	0.487	-	0.099
HCM Control Delay (s)	-	-	8.4	-	35.8	-	10.3
HCM Lane LOS	-	-	A	-	E	-	B
HCM 95th %tile Q(veh)	-	-	0.7	-	2.4	-	0.3

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	145	0	0	773	108	16	1	218	0	0	0
Future Vol, veh/h	59	145	0	0	773	108	16	1	218	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	Yield	-	-	None
Storage Length	30	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	64	158	0	0	840	117	17	1	237	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	845	0	-	-	-	0	1131	1131	163
Stage 1	-	-	-	-	-	-	286	286	-
Stage 2	-	-	-	-	-	-	845	845	-
Critical Hdwy	4.15	-	-	-	-	-	6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.55	-
Follow-up Hdwy	2.245	-	-	-	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	779	-	0	0	-	0	222	201	874
Stage 1	-	-	0	0	-	0	756	670	-
Stage 2	-	-	0	0	-	0	416	375	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	779	-	-	-	-	-	203	0	870
Mov Cap-2 Maneuver	-	-	-	-	-	-	203	0	-
Stage 1	-	-	-	-	-	-	694	0	-
Stage 2	-	-	-	-	-	-	414	0	-

Approach	EB	WB	NB
HCM Control Delay, s	2.9	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT
Capacity (veh/h)	203	870	779	-	-
HCM Lane V/C Ratio	0.091	0.272	0.082	-	-
HCM Control Delay (s)	24.5	10.7	10	-	-
HCM Lane LOS	C	B	B	-	-
HCM 95th %tile Q(veh)	0.3	1.1	0.3	-	-

Intersection	
Int Delay, s/veh	29.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	237	0	0	357	126	113	1	708	0	0	0
Future Vol, veh/h	48	237	0	0	357	126	113	1	708	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	Yield	-	-	None
Storage Length	30	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	52	258	0	0	388	137	123	1	770	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	393	0	-	-	-	0	755	755	263
Stage 1	-	-	-	-	-	-	362	362	-
Stage 2	-	-	-	-	-	-	393	393	-
Critical Hdwy	4.15	-	-	-	-	-	6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.55	-
Follow-up Hdwy	2.245	-	-	-	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	1149	-	0	0	-	0	372	334	~ 768
Stage 1	-	-	0	0	-	0	698	620	-
Stage 2	-	-	0	0	-	0	676	601	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	1149	-	-	-	-	-	353	0	~ 764
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	0	-
Stage 1	-	-	-	-	-	-	667	0	-
Stage 2	-	-	-	-	-	-	673	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.4	0	52.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT
Capacity (veh/h)	353	764	1149	-	-
HCM Lane V/C Ratio	0.351	1.007	0.045	-	-
HCM Control Delay (s)	20.6	57.6	8.3	-	-
HCM Lane LOS	C	F	A	-	-
HCM 95th %tile Q(veh)	1.5	17.3	0.1	-	-

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

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	226	28	17	728	1	67	1	19	0	0	0
Future Vol, veh/h	16	226	28	17	728	1	67	1	19	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	17	246	30	18	791	1	73	1	21	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	797	0	0	281	0	0	1133	1133	271	1144	1148	802
Stage 1	-	-	-	-	-	-	300	300	-	833	833	-
Stage 2	-	-	-	-	-	-	833	833	-	311	315	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	812	-	-	1264	-	-	178	200	761	175	196	379
Stage 1	-	-	-	-	-	-	703	660	-	359	379	-
Stage 2	-	-	-	-	-	-	359	379	-	693	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	808	-	-	1258	-	-	171	191	753	163	187	375
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	191	-	163	187	-
Stage 1	-	-	-	-	-	-	685	643	-	350	372	-
Stage 2	-	-	-	-	-	-	352	372	-	655	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	36.5	0
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	206	808	-	-	1258	-	-	-
HCM Lane V/C Ratio	0.459	0.022	-	-	0.015	-	-	-
HCM Control Delay (s)	36.5	9.6	-	-	7.9	-	-	0
HCM Lane LOS	E	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	2.2	0.1	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	717	62	49	347	1	53	1	64	0	0	0
Future Vol, veh/h	32	717	62	49	347	1	53	1	64	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	35	779	67	53	377	1	58	1	70	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	383	0	0	851	0	0	1377	1377	823	1412	1410	388
Stage 1	-	-	-	-	-	-	888	888	-	489	489	-
Stage 2	-	-	-	-	-	-	489	489	-	923	921	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1159	-	-	775	-	-	120	143	369	114	136	654
Stage 1	-	-	-	-	-	-	334	358	-	555	544	-
Stage 2	-	-	-	-	-	-	555	544	-	319	345	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1153	-	-	771	-	-	110	128	365	84	122	647
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	128	-	84	122	-
Stage 1	-	-	-	-	-	-	322	345	-	536	504	-
Stage 2	-	-	-	-	-	-	514	504	-	248	333	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.2	65.7	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	177	1153	-	-	771	-	-	-
HCM Lane V/C Ratio	0.725	0.03	-	-	0.069	-	-	-
HCM Control Delay (s)	65.7	8.2	-	-	10	-	-	0
HCM Lane LOS	F	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	4.5	0.1	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	1	0	3	45	0	32	2	13	13	6
Future Vol, veh/h	3	1	1	0	3	45	0	32	2	13	13	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	1	1	0	3	49	0	35	2	14	14	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	118	93	28	93	95	46	26	0	0	42	0	0
Stage 1	51	51	-	41	41	-	-	-	-	-	-	-
Stage 2	67	42	-	52	54	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	851	791	1039	883	789	1015	1569	-	-	1548	-	-
Stage 1	954	846	-	966	855	-	-	-	-	-	-	-
Stage 2	936	854	-	953	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	793	776	1028	866	774	1005	1561	-	-	1540	-	-
Mov Cap-2 Maneuver	793	776	-	866	774	-	-	-	-	-	-	-
Stage 1	949	834	-	961	851	-	-	-	-	-	-	-
Stage 2	883	850	-	937	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	8.9	0	3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1561	-	-	827	987	1540	-	-
HCM Lane V/C Ratio	-	-	-	0.007	0.053	0.009	-	-
HCM Control Delay (s)	0	-	-	9.4	8.9	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	1	0	5	2	57	0	33	1	51	44	1
Future Vol, veh/h	7	1	0	5	2	57	0	33	1	51	44	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	1	0	5	2	62	0	36	1	55	48	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	238	206	59	206	206	47	54	0	0	42	0	0
Stage 1	164	164	-	42	42	-	-	-	-	-	-	-
Stage 2	74	42	-	164	164	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	710	685	998	745	685	1014	1532	-	-	1548	-	-
Stage 1	831	757	-	965	854	-	-	-	-	-	-	-
Stage 2	928	854	-	831	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	639	653	988	716	653	1004	1524	-	-	1540	-	-
Mov Cap-2 Maneuver	639	653	-	716	653	-	-	-	-	-	-	-
Stage 1	827	725	-	960	850	-	-	-	-	-	-	-
Stage 2	864	850	-	795	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	9.1	0	3.9
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	641	958	1540	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.073	0.036	-	-
HCM Control Delay (s)	0	-	-	10.7	9.1	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	361	2	6	872	9	5
Future Vol, veh/h	361	2	6	872	9	5
Conflicting Peds, #/hr	0	5	5	0	5	5
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, %	5	5	5	5	5	5
Mvmt Flow	392	2	7	948	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	399	0	1365	403
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	967	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1144	-	160	641
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	364	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1138	-	156	635
Mov Cap-2 Maneuver	-	-	-	-	156	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	357	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	23.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	-	-	1138	-
HCM Lane V/C Ratio	0.071	-	-	0.006	-
HCM Control Delay (s)	23.1	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	938	7	8	481	2	6
Future Vol, veh/h	938	7	8	481	2	6
Conflicting Peds, #/hr	0	5	5	0	5	5
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, %	5	5	5	5	5	5
Mvmt Flow	1020	8	9	523	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1033	0	1575	1034
Stage 1	-	-	-	-	1029	-
Stage 2	-	-	-	-	546	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	661	-	119	278
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	574	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	658	-	116	275
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	560	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	23.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	658	-
HCM Lane V/C Ratio	0.042	-	-	0.013	-
HCM Control Delay (s)	23.3	-	-	10.5	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

2033 Future Growth Scenario Results
Option 1 – Existing Road Layout

Intersection	
Int Delay, s/veh	47.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	317	45	28	1013	1	132	0	38	0	0	0
Future Vol, veh/h	12	317	45	28	1013	1	132	0	38	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	13	345	49	30	1101	1	143	0	41	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1107	0	0	399	0	0	1568	1568	380	1588	1592	1112
Stage 1	-	-	-	-	-	-	401	401	-	1167	1167	-
Stage 2	-	-	-	-	-	-	1167	1167	-	421	425	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	620	-	-	1144	-	-	~ 89	109	660	86	106	250
Stage 1	-	-	-	-	-	-	620	596	-	233	264	-
Stage 2	-	-	-	-	-	-	233	264	-	604	581	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	617	-	-	1138	-	-	~ 85	103	653	77	100	247
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 85	103	-	77	100	-
Stage 1	-	-	-	-	-	-	604	581	-	227	256	-
Stage 2	-	-	-	-	-	-	226	256	-	551	566	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	$ 439.9	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	106	617	-	-	1138	-	-	-
HCM Lane V/C Ratio	1.743	0.021	-	-	0.027	-	-	-
HCM Control Delay (s)	$ 439.9	11	-	-	8.2	-	-	0
HCM Lane LOS	F	B	-	-	A	-	-	A
HCM 95th %tile Q(veh)	14.6	0.1	-	-	0.1	-	-	-

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

Intersection	
Int Delay, s/veh	107.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	1124	107	84	566	1	77	1	94	0	0	0
Future Vol, veh/h	32	1124	107	84	566	1	77	1	94	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	35	1222	116	91	615	1	84	1	102	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	621	0	0	1343	0	0	2158	2158	1290	2210	2216	626
Stage 1	-	-	-	-	-	-	1355	1355	-	803	803	-
Stage 2	-	-	-	-	-	-	803	803	-	1407	1413	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	945	-	-	503	-	-	~ 34	47	197	31	43	479
Stage 1	-	-	-	-	-	-	182	215	-	373	392	-
Stage 2	-	-	-	-	-	-	373	392	-	170	201	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	940	-	-	500	-	-	~ 28	37	195	12	34	474
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 28	37	-	12	34	-
Stage 1	-	-	-	-	-	-	174	206	-	357	319	-
Stage 2	-	-	-	-	-	-	304	319	-	77	193	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.8	$ 1298.3	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	53	940	-	-	500	-	-	-
HCM Lane V/C Ratio	3.527	0.037	-	-	0.183	-	-	-
HCM Control Delay (s)	$ 1298.3	9	-	-	13.8	-	-	0
HCM Lane LOS	F	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	20.2	0.1	-	-	0.7	-	-	-

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

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	1	0	3	129	0	32	2	41	13	6
Future Vol, veh/h	3	1	1	0	3	129	0	32	2	41	13	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	1	1	0	3	140	0	35	2	45	14	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	226	155	28	155	157	46	26	0	0	42	0	0
Stage 1	113	113	-	41	41	-	-	-	-	-	-	-
Stage 2	113	42	-	114	116	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	723	731	1039	805	730	1015	1569	-	-	1548	-	-
Stage 1	885	796	-	966	855	-	-	-	-	-	-	-
Stage 2	885	854	-	884	794	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	599	702	1028	777	701	1005	1561	-	-	1540	-	-
Mov Cap-2 Maneuver	599	702	-	777	701	-	-	-	-	-	-	-
Stage 1	881	768	-	961	851	-	-	-	-	-	-	-
Stage 2	755	850	-	851	766	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.2	0	5.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1561	-	-	675	995	1540	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.144	0.029	-	-
HCM Control Delay (s)	0	-	-	10.4	9.2	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	1	0	5	2	111	0	33	1	131	44	1
Future Vol, veh/h	7	1	0	5	2	111	0	33	1	131	44	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	1	0	5	2	121	0	36	1	142	48	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	441	380	59	380	380	47	54	0	0	42	0	0
Stage 1	338	338	-	42	42	-	-	-	-	-	-	-
Stage 2	103	42	-	338	338	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	521	548	998	572	548	1014	1532	-	-	1548	-	-
Stage 1	670	635	-	965	854	-	-	-	-	-	-	-
Stage 2	896	854	-	670	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	419	491	988	524	491	1004	1524	-	-	1540	-	-
Mov Cap-2 Maneuver	419	491	-	524	491	-	-	-	-	-	-	-
Stage 1	667	572	-	960	850	-	-	-	-	-	-	-
Stage 2	782	850	-	602	572	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	9.4	0	5.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	427	950	1540	-	-
HCM Lane V/C Ratio	-	-	-	0.02	0.135	0.092	-	-
HCM Control Delay (s)	0	-	-	13.6	9.4	7.6	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.3	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	473	2	6	1179	9	5
Future Vol, veh/h	473	2	6	1179	9	5
Conflicting Peds, #/hr	0	5	5	0	5	5
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, %	5	5	5	5	5	5
Mvmt Flow	514	2	7	1282	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	521	0	1821	525
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	1301	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1030	-	84	547
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	251	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1025	-	81	541
Mov Cap-2 Maneuver	-	-	-	-	81	-
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	244	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	40.7
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	116	-	-	1025	-
HCM Lane V/C Ratio	0.131	-	-	0.006	-
HCM Control Delay (s)	40.7	-	-	8.5	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1390	7	8	625	2	6
Future Vol, veh/h	1390	7	8	625	2	6
Conflicting Peds, #/hr	0	5	5	0	5	5
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, %	5	5	5	5	5	5
Mvmt Flow	1511	8	9	679	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1524	0	2222	1525
Stage 1	-	-	-	-	1520	-
Stage 2	-	-	-	-	702	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	429	-	47	143
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	486	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	427	-	45	142
Mov Cap-2 Maneuver	-	-	-	-	45	-
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	467	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	48.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	92	-	-	427	-
HCM Lane V/C Ratio	0.095	-	-	0.02	-
HCM Control Delay (s)	48.2	-	-	13.6	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

2033 Future Growth
Scenario Results
Network 2 – New Road Layout

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Arcady_1_Exit7SBRamps_2033.j10
Path: C:\Users\copel\OneDrive\Desktop\GRIFFIN\Projects\2025\2503 - Enfield Exit 7 Traffic Study\Analysis\Arcady
Report generation date: 10/6/2025 10:43:23 AM

Summary of intersection performance

	AM									PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersect LOS
	2033 Design - 2033																
Leg SB	D1	0.2	0.8	7.34	0.18	A	5.53	A	22 % [Leg Tk2EB]	D2	0.4	1.6	5.95	0.29	A	4.07	A
Leg Tk2EB		0.7	2.2	11.58	0.42	B					0.4	1.8	5.45	0.31	A		
Leg Tk2WB		1.2	1.7	3.69	0.54	A					0.4	1.4	2.37	0.29	A		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

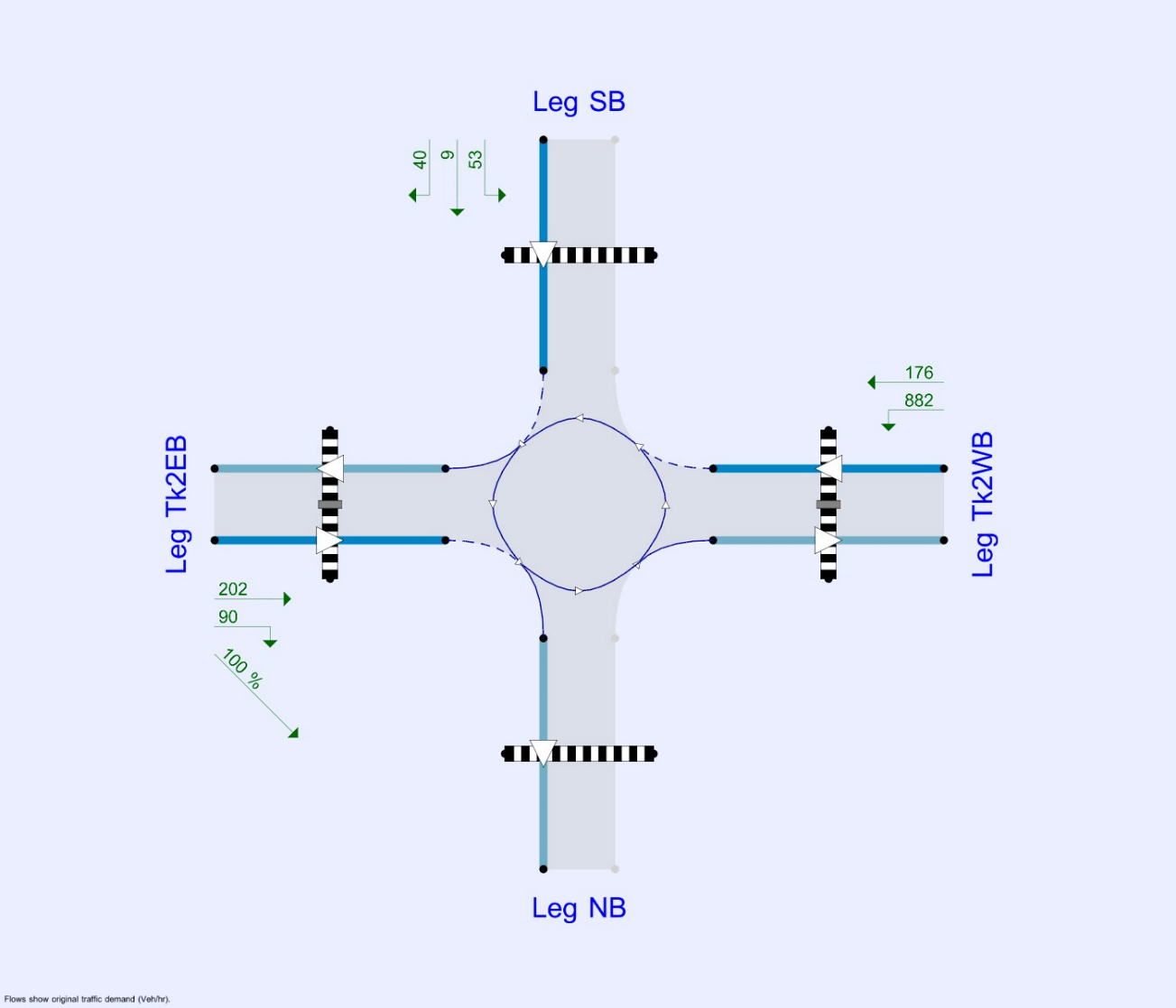
File summary

File Description

Title	Hwy 102 Exit 7 Traffic Study
Location	Enfield
Site number	1
Date	10/5/2025
Version	2033 Horizon - Option 2 Layout
Status	(new file)
Identifier	
Client	NSDPW
Jobnumber	
Analyst	GRIFFIN
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The intersection diagram reflects the last run of Intersections.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	V/C Ratio Threshold	Average Delay threshold (s)	Queue threshold (PCE)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
7.00	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033	AM	PHF	00:00	01:00	15	✓
D2	2033	PM	PHF	00:00	01:00	15	✓

Analysis Set Details

ID	Name	Description	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	2033 Design	4-leg layout	✓	100.000	100.000

2033 Design - 2033, AM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	Leg Tk2EB - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	SBRamp	Standard Roundabout		SB, Tk2EB, NB, Tk2WB	5.53	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	22	Leg Tk2EB	5.53	A

Legs

Legs

Leg	Name	Description	No yield line
SB	OffRamp SB		
Tk2EB	Tk2 EB		
NB	OnRamp NB		
Tk2WB	Tk2 WB		

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
SB	3.50	4.00	30.0	30.0	55.0	20.0	✓	
Tk2EB	3.50	4.00	30.0	30.0	55.0	20.0		
NB								✓
Tk2WB	7.00	7.00	0.0	30.0	55.0	20.0		

Bypass

Leg	Leg has bypass	Bypass utilisation (%)
SB		
Tk2EB	✓	100
NB		
Tk2WB		

Unsignalled Pedestrian Crossing Crossings

Leg	Space between crossing and intersection entry (Unsignalled Pedestrian Crossing) (PCE)	Vehicles queueing on exit (Unsignalled Pedestrian Crossing) (PCE)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
SB	1.00	1.00		Distance	4.00	2.86				
Tk2EB	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86
NB		1.00		Distance	4.00	2.86				
Tk2WB	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Leg	Final slope	Final intercept (PCE/hr)
SB	0.519	1266
Tk2EB	0.519	1266
NB		
Tk2WB	0.695	2229

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033	AM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
SB		PHF	✓	102	100.000
Tk2EB		PHF	✓	292	100.000
NB					
Tk2WB		PHF	✓	1058	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
SB	102	0.92	SecondQuarter
Tk2EB	292	0.92	SecondQuarter
NB			
Tk2WB	1058	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00
Tk2WB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	0	40	9	53
	Tk2EB	0	0	90	202
	NB	0	0	0	0
	Tk2WB	0	176	882	0

Vehicle Mix

Truck Percentages

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	5	5	5	5
	Tk2EB	5	5	5	5
	NB	5	5	5	5
	Tk2WB	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
SB	0.18	7.34	0.2	0.8	A	102	102
Tk2EB	0.42	11.58	0.7	2.2	B	292	202
NB							
Tk2WB	0.54	3.69	1.2	1.7	A	1058	1058

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	96	96	24	0	0	993	5.00	683	0.141	95	0	0.0	0.2	6.117	
Tk2EB	275	190	48	85	0	886	5.00	636	0.299	189	203	0.0	0.4	8.022	
NB						238	5.00				836				
Tk2WB	997	997	249	0	0	0	5.00	2123	0.469	993	238	0.0	0.9	3.178	

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
SB	111	111	28	0	0	1149	5.00	601	0.184	111	0	0.2	0.2	7.335
Tk2EB	317	220	55	98	0	1025	5.00	528	0.416	218	234	0.4	0.7	11.579
NB						276	5.00				967			
Tk2WB	1150	1150	288	0	0	0	5.00	2123	0.542	1149	276	0.9	1.2	3.690

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	105	105	26	0	0	1089	5.00	633	0.166	105	0	0.2	0.2	6.826	
Tk2EB	300	208	52	93	0	972	5.00	570	0.365	208	222	0.7	0.6	9.981	
NB						263	5.00				917				
Tk2WB	1089	1089	272	0	0	0	5.00	2123	0.513	1089	263	1.2	1.1	3.485	

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	96	96	24	0	0	997	5.00	681	0.141	96	0	0.2	0.2	6.155	
Tk2EB	275	190	48	85	0	890	5.00	633	0.301	191	204	0.6	0.4	8.161	
NB						241	5.00				840				
Tk2WB	997	997	249	0	0	0	5.00	2123	0.469	997	241	1.1	0.9	3.202	

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.16	0.00	0.00	0.16	0.16			N/A	N/A
Tk2EB	0.42	0.00	0.00	0.42	0.42			N/A	N/A
NB									
Tk2WB	0.88	0.09	0.87	1.29	1.71			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.22	0.03	0.26	0.46	0.49			N/A	N/A
Tk2EB	0.70	0.03	0.26	0.70	0.70			N/A	N/A
NB									
Tk2WB	1.17	0.03	0.26	1.17	1.17			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.20	0.03	0.27	0.49	0.83			N/A	N/A
Tk2EB	0.58	0.03	0.28	0.68	2.18			N/A	N/A
NB									
Tk2WB	1.06	0.03	0.26	1.06	1.06			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.17	0.00	0.00	0.17	0.17			N/A	N/A
Tk2EB	0.44	0.03	0.32	1.05	1.27			N/A	N/A
NB									
Tk2WB	0.89	0.54	1.00	1.40	1.45			N/A	N/A

2033 Design - 2033, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	SBRamp	Standard Roundabout		SB, Tk2EB, NB, Tk2WB	4.07	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	83	Leg SB	4.07	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033	PM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
SB		PHF	✓	232	100.000
Tk2EB		PHF	✓	365	100.000
NB					
Tk2WB		PHF	✓	557	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
SB	232	0.92	SecondQuarter
Tk2EB	365	0.92	SecondQuarter
NB			
Tk2WB	557	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00
Tk2WB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	0	80	5	147
	Tk2EB	0	0	90	275
	NB	0	0	0	0
	Tk2WB	0	288	269	0

Vehicle Mix

Truck Percentages

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	5	5	5	5
	Tk2EB	5	5	5	5
	NB	5	5	5	5
	Tk2WB	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
SB	0.29	5.95	0.4	1.6	A	232	232
Tk2EB	0.31	5.45	0.4	1.8	A	365	275
NB							
Tk2WB	0.29	2.37	0.4	1.4	A	557	557

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	219	219	55	0	0	523	5.00	907	0.241	217	0	0.0	0.3	5.210	
Tk2EB	344	259	65	85	0	395	5.00	993	0.261	258	346	0.0	0.4	4.884	
NB						395	5.00				257				
Tk2WB	525	525	131	0	0	0	5.00	2123	0.247	523	395	0.0	0.3	2.248	

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	252	252	63	0	0	605	5.00	856	0.295	252	0	0.3	0.4	5.951	
Tk2EB	397	299	75	98	0	457	5.00	958	0.312	299	400	0.4	0.4	5.451	
NB						458	5.00				298				
Tk2WB	605	605	151	0	0	0	5.00	2123	0.285	605	458	0.3	0.4	2.371	

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	239	239	60	0	0	573	5.00	876	0.272	239	0	0.4	0.4	5.650	
Tk2EB	376	283	71	93	0	433	5.00	972	0.291	283	379	0.4	0.4	5.226	
NB						434	5.00				282				
Tk2WB	573	573	143	0	0	0	5.00	2123	0.270	573	434	0.4	0.4	2.324	

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	219	219	55	0	0	525	5.00	906	0.241	219	0	0.4	0.3	5.242	
Tk2EB	344	259	65	85	0	397	5.00	993	0.261	259	347	0.4	0.4	4.910	
NB						398	5.00				258				
Tk2WB	525	525	131	0	0	0	5.00	2123	0.247	525	398	0.4	0.3	2.254	

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.32	0.00	0.00	0.32	0.32			N/A	N/A
Tk2EB	0.35	0.00	0.00	0.35	0.35			N/A	N/A
NB									
Tk2WB	0.33	0.00	0.00	0.33	0.33			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.41	0.03	0.25	0.46	0.48			N/A	N/A
Tk2EB	0.45	0.03	0.25	0.46	0.48			N/A	N/A
NB									
Tk2WB	0.40	0.03	0.25	0.45	0.48			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.38	0.03	0.30	1.19	1.61			N/A	N/A
Tk2EB	0.41	0.03	0.29	1.17	1.82			N/A	N/A
NB									
Tk2WB	0.37	0.03	0.31	1.24	1.38			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.32	0.00	0.00	0.32	0.32			N/A	N/A
Tk2EB	0.36	0.00	0.00	0.36	0.36			N/A	N/A
NB									
Tk2WB	0.33	0.00	0.00	0.33	0.33			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Arcady_2_Exit7NBRamps_2033.j10
Path: C:\Users\copel\OneDrive\Desktop\GRIFFIN\Projects\2025\2503 - Enfield Exit 7 Traffic Study\Analysis\Arcady
Report generation date: 10/6/2025 10:46:40 AM

Summary of intersection performance

	AM									PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersect LOS
	2033 Design - 2033																
Leg Post	D1	0.2	0.5	5.02	0.16	A	20.72	C	1 % [Leg Tk2WB]	D2	1.1	5.3	51.50	0.56	F	6.76	A
Leg Tk2WB		9.4	45.7	32.50	0.94	D					0.6	2.0	5.53	0.38	A		
Leg Tk2EB		0.2	0.5	2.39	0.16	A					0.3	1.4	2.71	0.26	A		
Leg NB		0.2	0.5	2.22	0.16	A					1.9	3.6	5.73	0.65	A		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

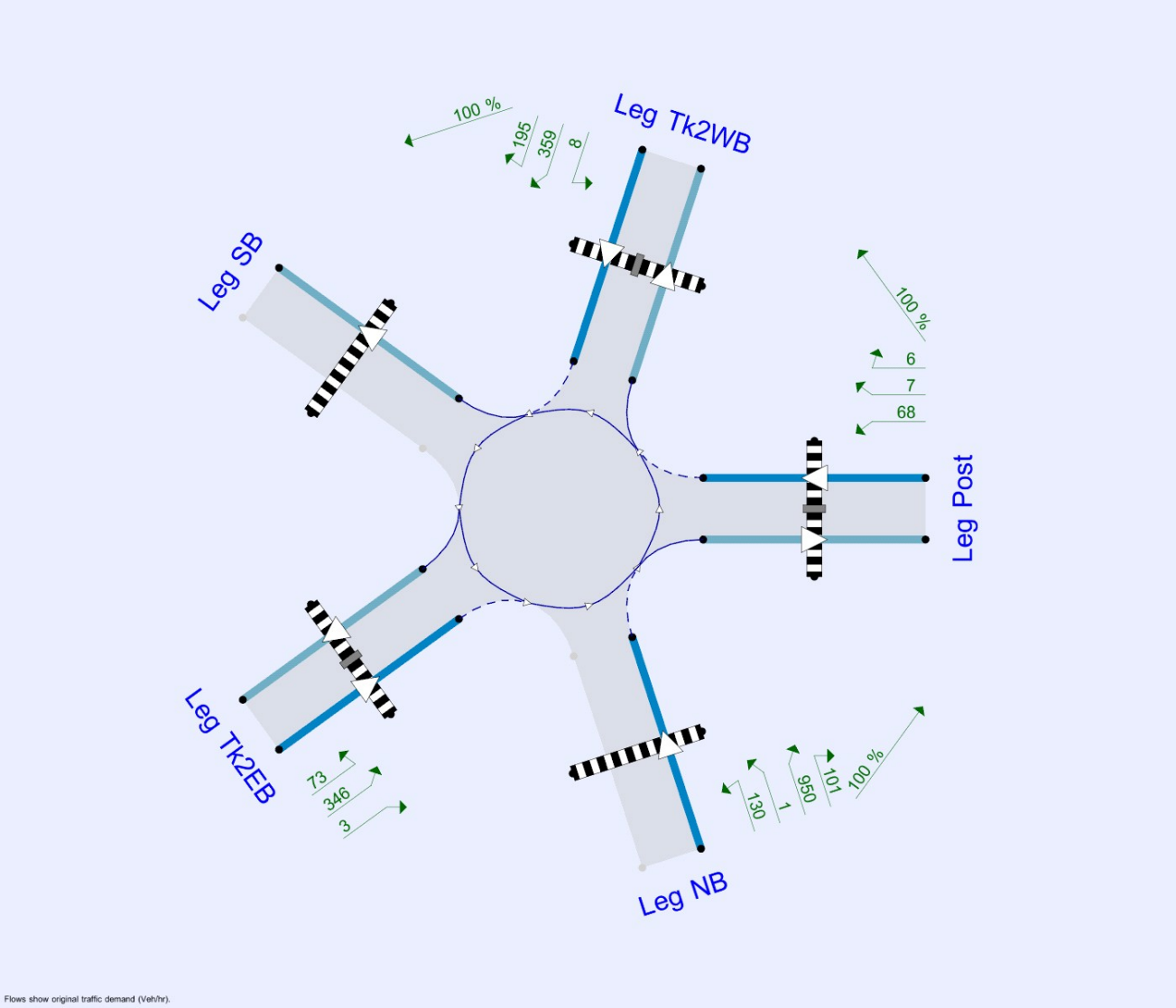
File summary

File Description

Title	Hwy 102 Exit 7 Traffic Study
Location	Enfield
Site number	2
Date	10/5/2025
Version	2033 Horizon - Option 2 Layout
Status	(new file)
Identifier	
Client	NSDPW
Jobnumber	
Analyst	GRIFFIN
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The intersection diagram reflects the last run of Intersections.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	V/C Ratio Threshold	Average Delay threshold (s)	Queue threshold (PCE)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033	AM	PHF	00:00	01:00	15	✓
D2	2033	PM	PHF	00:00	01:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	2033 Design	✓	100.000	100.000

2033 Design - 2033, AM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	Leg SB - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		Post, Tk2WB, SB, Tk2EB, NB	20.72	C

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	1	Leg Tk2WB	20.72	C

Legs

Legs

Leg	Name	Description	No yield line
Post	Old Post NWB		
Tk2WB	Tk2 WB		
SB	On-Ramp SB		
Tk2EB	Tk2 EB		
NB	Off-Ramp NB		

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
Post	3.50	4.00	30.0	30.0	55.0	20.0		
Tk2WB	3.50	4.00	30.0	30.0	55.0	20.0		
SB								✓
Tk2EB	3.50	7.00	30.0	30.0	55.0	20.0		
NB	7.00	7.00	0.0	30.0	55.0	20.0	✓	

Bypass

Leg	Leg has bypass	Bypass utilisation (%)
Post	✓	100
Tk2WB	✓	100
SB		
Tk2EB		
NB	✓	100

Unsignalled Pedestrian Crossing Crossings

Leg	Space between crossing and intersection entry (Unsignalled Pedestrian Crossing) (PCE)	Vehicles queueing on exit (Unsignalled Pedestrian Crossing) (PCE)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Post	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86
Tk2WB	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86
SB		1.00		Distance	4.00	2.86				
Tk2EB	1.00	1.00	✓	Distance			7.00	5.00	4.00	2.86
NB	1.00	1.00		Distance	7.00	5.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Leg	Final slope	Final intercept (PCE/hr)
Post	0.519	1266
Tk2WB	0.519	1266
SB		
Tk2EB	0.639	1926
NB	0.695	2229

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2033	AM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Post		PHF	✓	129	100.000
Tk2WB		PHF	✓	1067	100.000
SB					
Tk2EB		PHF	✓	255	100.000
NB		PHF	✓	317	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
Post	129	0.92	SecondQuarter
Tk2WB	1067	0.92	SecondQuarter
SB			
Tk2EB	255	0.92	SecondQuarter
NB	317	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
Post	[PHF]	5.00
Tk2WB	[PHF]	5.00
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
Post	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	0	5	13	111	0
	Tk2WB	3	0	137	927	0
	SB	0	0	0	0	0
	Tk2EB	1	179	75	0	0
	NB	36	260	1	20	0

Vehicle Mix

Truck Percentages

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	5	5	5	5	5
	Tk2WB	5	5	5	5	5
	SB	5	5	5	5	5
	Tk2EB	5	5	5	5	5
	NB	5	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
Post	0.16	5.02	0.2	0.5	A	129	124
Tk2WB	0.94	32.50	9.4	45.7	D	1067	930
SB							
Tk2EB	0.16	2.39	0.2	0.5	A	255	255
NB	0.16	2.22	0.2	0.5	A	317	281

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	122	117	29	5	34	503	5.00	905	0.129	116	4	0.0	0.1	4.563
Tk2WB	1005	876	219	129	5	206	5.00	1098	0.798	862	413	0.0	3.6	14.458
SB						984	5.00				84			
Tk2EB	240	240	60	0	0	3	5.00	1784	0.135	240	982	0.0	0.2	2.329
NB	299	265	66	34	0	242	5.00	1955	0.135	264	0	0.0	0.2	2.129

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	140	135	34	5	39	581	5.00	852	0.158	135	4	0.1	0.2	5.019
Tk2WB	1160	1011	253	149	5	239	5.00	1081	0.935	988	477	3.6	9.4	32.498
SB						1130	5.00				97			
Tk2EB	277	277	69	0	0	3	5.00	1784	0.155	277	1127	0.2	0.2	2.388
NB	345	305	76	39	0	280	5.00	1928	0.158	305	0	0.2	0.2	2.217

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	133	128	32	5	37	551	5.00	873	0.146	128	4	0.2	0.2	4.832
Tk2WB	1098	957	239	141	5	226	5.00	1087	0.880	961	452	9.4	8.3	30.011
SB						1096	5.00				92			
Tk2EB	262	262	66	0	0	3	5.00	1784	0.147	262	1093	0.2	0.2	2.367
NB	326	289	72	37	0	266	5.00	1939	0.149	289	0	0.2	0.2	2.182

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	122	117	29	5	34	504	5.00	904	0.129	117	4	0.2	0.1	4.576
Tk2WB	1005	876	219	129	5	207	5.00	1097	0.798	892	414	8.3	4.3	18.705
SB						1016	5.00				84			
Tk2EB	240	240	60	0	0	3	5.00	1784	0.135	240	1013	0.2	0.2	2.333
NB	299	265	66	34	0	243	5.00	1954	0.135	265	0	0.2	0.2	2.130

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.15	0.00	0.00	0.15	0.15			N/A	N/A
Tk2WB	3.65	0.08	1.45	9.64	14.20			N/A	N/A
SB									
Tk2EB	0.16	0.00	0.00	0.16	0.16			N/A	N/A
NB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.19	0.03	0.26	0.46	0.48			N/A	N/A
Tk2WB	9.37	0.07	1.56	27.08	42.74			N/A	N/A
SB									
Tk2EB	0.18	0.03	0.25	0.46	0.48			N/A	N/A
NB	0.19	0.03	0.25	0.46	0.48			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.17	0.03	0.25	0.45	0.48			N/A	N/A
Tk2WB	8.30	0.04	0.37	19.03	45.73			N/A	N/A
SB									
Tk2EB	0.17	0.03	0.25	0.45	0.48			N/A	N/A
NB	0.18	0.03	0.25	0.45	0.48			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.15	0.00	0.00	0.15	0.15			N/A	N/A
Tk2WB	4.27	0.03	0.35	9.08	23.16			N/A	N/A
SB									
Tk2EB	0.16	0.00	0.00	0.16	0.16			N/A	N/A
NB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

2033 Design - 2033, PM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	Leg Post - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		Post, Tk2WB, SB, Tk2EB, NB	6.76	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-4	Leg Post	6.76	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2033	PM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Post		PHF	✓	81	100.000
Tk2WB		PHF	✓	562	100.000
SB					
Tk2EB		PHF	✓	422	100.000
NB		PHF	✓	1182	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
Post	81	0.92	SecondQuarter
Tk2WB	562	0.92	SecondQuarter
SB			
Tk2EB	422	0.92	SecondQuarter
NB	1182	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
Post	[PHF]	5.00
Tk2WB	[PHF]	5.00
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
Post	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	0	6	7	68	0
	Tk2WB	8	0	195	359	0
	SB	0	0	0	0	0
	Tk2EB	3	346	73	0	0
	NB	101	950	1	130	0

Vehicle Mix

Truck Percentages

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	5	5	5	5	5
	Tk2WB	5	5	5	5	5
	SB	5	5	5	5	5
	Tk2EB	5	5	5	5	5
	NB	5	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
Post	0.56	51.50	1.1	5.3	F	81	75
Tk2WB	0.38	5.53	0.6	2.0	A	562	367
SB							
Tk2EB	0.26	2.71	0.3	1.4	A	422	422
NB	0.65	5.73	1.9	3.6	A	1182	1081

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	76	71	18	6	95	1407	5.00	268	0.263	69	10	0.0	0.3	17.980
Tk2WB	529	346	86	184	6	261	5.00	1070	0.323	344	1216	0.0	0.5	4.946
SB						529	5.00				76			
Tk2EB	398	398	99	0	0	7	5.00	1784	0.223	396	521	0.0	0.3	2.591
NB	1113	1018	255	95	0	404	5.00	1842	0.553	1013	0	0.0	1.2	4.318

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	88	82	20	7	110	1628	5.00	146	0.560	78	12	0.3	1.1	51.497
Tk2WB	611	399	100	212	7	300	5.00	1049	0.380	398	1406	0.5	0.6	5.526
SB						610	5.00				88			
Tk2EB	459	459	115	0	0	9	5.00	1784	0.257	458	602	0.3	0.3	2.715
NB	1285	1175	294	110	0	467	5.00	1798	0.653	1172	0	1.2	1.9	5.728

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	83	77	19	6	104	1545	5.00	189	0.409	79	11	1.1	0.7	33.212
Tk2WB	578	378	94	201	6	289	5.00	1055	0.358	378	1335	0.6	0.6	5.319
SB						583	5.00				84			
Tk2EB	434	434	109	0	0	8	5.00	1784	0.243	434	575	0.3	0.3	2.668
NB	1216	1112	278	104	0	443	5.00	1816	0.613	1113	0	1.9	1.6	5.136

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	76	71	18	6	95	1415	5.00	264	0.268	72	10	0.7	0.4	18.935
Tk2WB	529	346	86	184	6	264	5.00	1068	0.324	346	1222	0.6	0.5	4.991
SB						534	5.00				76			
Tk2EB	398	398	99	0	0	8	5.00	1784	0.223	398	526	0.3	0.3	2.596
NB	1113	1018	255	95	0	405	5.00	1841	0.553	1020	0	1.6	1.3	4.388

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.35	0.00	0.00	0.35	0.35			N/A	N/A
Tk2WB	0.47	0.00	0.00	0.47	0.47			N/A	N/A
SB									
Tk2EB	0.29	0.00	0.00	0.29	0.29			N/A	N/A
NB	1.22	0.06	0.83	2.60	3.64			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	1.13	0.03	0.30	1.37	5.32			N/A	N/A
Tk2WB	0.61	0.03	0.25	0.61	0.61			N/A	N/A
SB									
Tk2EB	0.34	0.03	0.25	0.45	0.48			N/A	N/A
NB	1.85	0.03	0.26	1.85	1.85			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.73	0.03	0.29	1.17	3.14			N/A	N/A
Tk2WB	0.56	0.03	0.28	0.56	1.95			N/A	N/A
SB									
Tk2EB	0.32	0.03	0.31	1.13	1.43			N/A	N/A
NB	1.60	0.03	0.26	1.60	1.60			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.38	0.03	0.34	1.18	1.38			N/A	N/A
Tk2WB	0.48	0.00	0.00	0.48	0.48			N/A	N/A
SB									
Tk2EB	0.29	0.00	0.00	0.29	0.29			N/A	N/A
NB	1.25	0.14	1.12	1.95	2.58			N/A	N/A

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	317	10	28	1013	1	18	0	38	0	0	0
Future Vol, veh/h	12	317	10	28	1013	1	18	0	38	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	13	345	11	30	1101	1	20	0	41	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1107	0	0	361	0	0	1549	1549	361	1569	1554	1112
Stage 1	-	-	-	-	-	-	382	382	-	1167	1167	-
Stage 2	-	-	-	-	-	-	1167	1167	-	402	387	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	620	-	-	1181	-	-	91	112	677	88	111	250
Stage 1	-	-	-	-	-	-	634	607	-	233	264	-
Stage 2	-	-	-	-	-	-	233	264	-	619	604	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	617	-	-	1175	-	-	87	106	670	79	105	247
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	106	-	79	105	-
Stage 1	-	-	-	-	-	-	618	591	-	227	256	-
Stage 2	-	-	-	-	-	-	226	256	-	566	588	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	28.7	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	212	617	-	-	1175	-	-	-
HCM Lane V/C Ratio	0.287	0.021	-	-	0.026	-	-	-
HCM Control Delay (s)	28.7	11	-	-	8.1	-	-	0
HCM Lane LOS	D	B	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.1	-	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	1124	10	84	566	1	4	0	94	0	0	0
Future Vol, veh/h	32	1124	10	84	566	1	4	0	94	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	35	1222	11	91	615	1	4	0	102	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	621	0	0	1238	0	0	2106	2106	1238	2157	2111	626
Stage 1	-	-	-	-	-	-	1303	1303	-	803	803	-
Stage 2	-	-	-	-	-	-	803	803	-	1354	1308	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	945	-	-	552	-	-	37	50	211	34	50	479
Stage 1	-	-	-	-	-	-	195	227	-	373	392	-
Stage 2	-	-	-	-	-	-	373	392	-	182	226	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	940	-	-	549	-	-	31	40	209	15	40	474
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	40	-	15	40	-
Stage 1	-	-	-	-	-	-	187	217	-	357	325	-
Stage 2	-	-	-	-	-	-	310	325	-	89	217	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.7	57	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	169	940	-	-	549	-	-	-
HCM Lane V/C Ratio	0.63	0.037	-	-	0.166	-	-	-
HCM Control Delay (s)	57	9	-	-	12.9	-	-	0
HCM Lane LOS	F	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	3.5	0.1	-	-	0.6	-	-	-

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	28	9	0	97	35	20	12	2	14	5	6
Future Vol, veh/h	3	28	9	0	97	35	20	12	2	14	5	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	30	10	0	105	38	22	13	2	15	5	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	179	108	19	127	110	24	17	0	0	20	0	0
Stage 1	44	44	-	63	63	-	-	-	-	-	-	-
Stage 2	135	64	-	64	47	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	776	776	1051	839	775	1044	1581	-	-	1577	-	-
Stage 1	963	852	-	940	837	-	-	-	-	-	-	-
Stage 2	861	836	-	939	850	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	648	750	1040	783	749	1033	1573	-	-	1569	-	-
Mov Cap-2 Maneuver	648	750	-	783	749	-	-	-	-	-	-	-
Stage 1	945	839	-	922	821	-	-	-	-	-	-	-
Stage 2	709	820	-	883	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.4	4.3	4.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1573	-	-	790	808	1569	-	-
HCM Lane V/C Ratio	0.014	-	-	0.055	0.178	0.01	-	-
HCM Control Delay (s)	7.3	0	-	9.8	10.4	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.6	0	-	-

Intersection	
Int Delay, s/veh	8.9

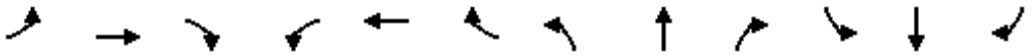
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	73	25	5	58	55	17	16	1	59	19	1
Future Vol, veh/h	7	73	25	5	58	55	17	16	1	59	19	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	79	27	5	63	60	18	17	1	64	21	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	275	214	32	267	214	28	27	0	0	23	0	0
Stage 1	155	155	-	59	59	-	-	-	-	-	-	-
Stage 2	120	59	-	208	155	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	671	678	1033	680	678	1039	1568	-	-	1573	-	-
Stage 1	840	764	-	945	840	-	-	-	-	-	-	-
Stage 2	877	840	-	787	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	556	636	1023	569	636	1028	1560	-	-	1565	-	-
Mov Cap-2 Maneuver	556	636	-	569	636	-	-	-	-	-	-	-
Stage 1	826	729	-	929	826	-	-	-	-	-	-	-
Stage 2	750	826	-	651	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	10.6	3.7	5.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	692	769	1565	-	-
HCM Lane V/C Ratio	0.012	-	-	0.165	0.167	0.041	-	-
HCM Control Delay (s)	7.3	0	-	11.2	10.6	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.6	0.1	-	-

2043 Future Growth Scenario Results
Option 1 – Existing Road Layout

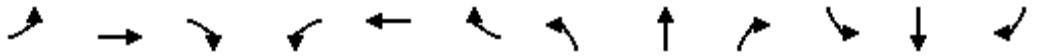


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	343	71	43	1092	1	227	0	67	0	0	0
Future Volume (vph)	12	343	71	43	1092	1	227	0	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		30.0	30.0		0.0	50.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	1		0	0		0
Taper Length (m)	20.0			20.0			20.0			20.0		
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			0.96	0.99	1.00		0.98	0.96				
Frt			0.850					0.850				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1719	1810	1538	1719	1809	0	1719	1469	0	0	1810	0
Flt Permitted	0.052			0.485			0.757					
Satd. Flow (perm)	94	1810	1469	871	1809	0	1349	1469	0	0	1810	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82					536				
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		93.2			93.1			56.6			44.2	
Travel Time (s)		6.7			6.7			4.1			3.2	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)			5			5			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	373	77	47	1187	1	247	0	73	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	373	77	47	1188	0	247	73	0	0	0	0
Turn Type	pm+pt	NA	custom	pm+pt	NA		Perm	NA				
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		4	6			4			8		
Detector Phase	5	2	4	1	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	26.0	26.0	12.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	12.0	80.0	28.0	12.0	80.0		28.0	28.0		28.0	28.0	
Total Split (%)	10.0%	66.7%	23.3%	10.0%	66.7%		23.3%	23.3%		23.3%	23.3%	
Maximum Green (s)	6.0	74.0	22.0	6.0	74.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max	None	None	Max		None	None		Max	Max	
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		5	5		5		5	5		5	5	
Act Effct Green (s)	78.8	74.1	22.0	81.2	78.8		22.0	22.0				
Actuated g/C Ratio	0.67	0.63	0.19	0.69	0.67		0.19	0.19				
v/c Ratio	0.09	0.33	0.23	0.07	0.98		0.98	0.10				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	6.3	11.6	9.9	5.3	41.8		100.3	0.3				
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Total Delay	6.3	11.6	9.9	5.3	41.8		100.3	0.3				
LOS	A	B	A	A	D		F	A				
Approach Delay		11.2			40.5			77.5				
Approach LOS		B			D			E				
Queue Length 50th (m)	0.8	39.7	0.0	2.9	204.8		58.7	0.0				
Queue Length 95th (m)	2.5	57.1	11.7	6.1	#387.7		#110.9	0.0				
Internal Link Dist (m)		69.2			69.1			32.6			20.2	
Turn Bay Length (m)	40.0		30.0	30.0			50.0					
Base Capacity (vph)	145	1141	342	644	1212		252	711				
Starvation Cap Reductn	0	0	0	0	0		0	0				
Spillback Cap Reductn	0	0	0	0	0		0	0				
Storage Cap Reductn	0	0	0	0	0		0	0				
Reduced v/c Ratio	0.09	0.33	0.23	0.07	0.98		0.98	0.10				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 117.6			
Natural Cycle: 110			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 39.6		Intersection LOS: D	
Intersection Capacity Utilization 86.8%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Oldham/Access & Tk 2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	1216	171	136	616	1	114	1	138	0	0	0
Future Volume (vph)	32	1216	171	136	616	1	114	1	138	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		30.0	30.0		0.0	50.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	1		0	0		0
Taper Length (m)	20.0			20.0			20.0			20.0		
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			0.96		1.00		0.98	0.95				
Frt			0.850					0.851				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1719	1810	1538	1719	1809	0	1719	1470	0	0	1810	0
Flt Permitted	0.324			0.050			0.757					
Satd. Flow (perm)	586	1810	1480	90	1809	0	1349	1470	0	0	1810	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82					141				
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		93.2			93.1			56.6			44.2	
Travel Time (s)		6.7			6.7			4.1			3.2	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Confl. Bikes (#/hr)			5			5			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	1322	186	148	670	1	124	1	150	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	1322	186	148	671	0	124	151	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA				
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6			4			8		
Detector Phase	5	2	2	1	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	26.0	26.0	12.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	12.0	82.0	82.0	12.0	82.0		26.0	26.0		26.0	26.0	
Total Split (%)	10.0%	68.3%	68.3%	10.0%	68.3%		21.7%	21.7%		21.7%	21.7%	
Maximum Green (s)	6.0	76.0	76.0	6.0	76.0		20.0	20.0		20.0	20.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max	Max	None	Max		Max	Max		Max	Max	
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0		12.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		5	5		5		5	5		5	5	
Act Effct Green (s)	82.0	76.0	76.0	84.4	80.8		20.0	20.0				
Actuated g/C Ratio	0.68	0.63	0.63	0.70	0.67		0.17	0.17				
v/c Ratio	0.08	1.15	0.19	1.03	0.55		0.55	0.42				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	4.9	102.9	5.5	111.5	13.3		56.3	12.3				
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Total Delay	4.9	102.9	5.5	111.5	13.3		56.3	12.3				
LOS	A	F	A	F	B		E	B				
Approach Delay		88.9			31.0			32.2				
Approach LOS		F			C			C				
Queue Length 50th (m)	2.0	~366.9	9.0	~23.1	85.6		27.1	2.0				
Queue Length 95th (m)	4.6	#446.8	18.1	#65.0	118.7		47.2	20.3				
Internal Link Dist (m)		69.2			69.1			32.6			20.2	
Turn Bay Length (m)	40.0		30.0	30.0			50.0					
Base Capacity (vph)	457	1146	967	144	1217		224	362				
Starvation Cap Reductn	0	0	0	0	0		0	0				
Spillback Cap Reductn	0	0	0	0	0		0	0				
Storage Cap Reductn	0	0	0	0	0		0	0				
Reduced v/c Ratio	0.08	1.15	0.19	1.03	0.55		0.55	0.42				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Natural Cycle: 120			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 65.0		Intersection LOS: E	
Intersection Capacity Utilization 103.2%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Oldham/Access & Tk 2

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	1	1	0	3	253	0	32	2	82	13	6
Future Vol, veh/h	3	1	1	0	3	253	0	32	2	82	13	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	1	1	0	3	275	0	35	2	89	14	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	381	243	28	243	245	46	26	0	0	42	0	0
Stage 1	201	201	-	41	41	-	-	-	-	-	-	-
Stage 2	180	42	-	202	204	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	571	654	1039	705	652	1015	1569	-	-	1548	-	-
Stage 1	794	729	-	966	855	-	-	-	-	-	-	-
Stage 2	815	854	-	793	727	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	391	610	1028	665	608	1005	1561	-	-	1540	-	-
Mov Cap-2 Maneuver	391	610	-	665	608	-	-	-	-	-	-	-
Stage 1	790	682	-	961	851	-	-	-	-	-	-	-
Stage 2	587	850	-	740	680	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	10	0	6.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1561	-	-	486	997	1540	-	-
HCM Lane V/C Ratio	-	-	-	0.011	0.279	0.058	-	-
HCM Control Delay (s)	0	-	-	12.5	10	7.5	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	1.1	0.2	-	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	1	0	5	2	192	0	33	1	247	44	1
Future Vol, veh/h	7	1	0	5	2	192	0	33	1	247	44	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	1	0	5	2	209	0	36	1	268	48	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	737	632	59	632	632	47	54	0	0	42	0	0
Stage 1	590	590	-	42	42	-	-	-	-	-	-	-
Stage 2	147	42	-	590	590	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	330	394	998	389	394	1014	1532	-	-	1548	-	-
Stage 1	489	490	-	965	854	-	-	-	-	-	-	-
Stage 2	849	854	-	489	490	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	222	320	988	331	320	1004	1524	-	-	1540	-	-
Mov Cap-2 Maneuver	222	320	-	331	320	-	-	-	-	-	-	-
Stage 1	487	400	-	960	850	-	-	-	-	-	-	-
Stage 2	667	850	-	398	400	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.2	10	0	6.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	231	936	1540	-	-
HCM Lane V/C Ratio	-	-	-	0.038	0.231	0.174	-	-
HCM Control Delay (s)	0	-	-	21.2	10	7.8	0	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0.6	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	525	2	6	1343	9	5
Future Vol, veh/h	525	2	6	1343	9	5
Conflicting Peds, #/hr	0	5	5	0	5	5
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, %	5	5	5	5	5	5
Mvmt Flow	571	2	7	1460	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	578	0	2056	582
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	1479	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	981	-	60	507
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	205	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	976	-	57	502
Mov Cap-2 Maneuver	-	-	-	-	57	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	196	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	57.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	83	-	-	976	-
HCM Lane V/C Ratio	0.183	-	-	0.007	-
HCM Control Delay (s)	57.9	-	-	8.7	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1546	7	8	702	2	6
Future Vol, veh/h	1546	7	8	702	2	6
Conflicting Peds, #/hr	0	5	5	0	5	5
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, %	5	5	5	5	5	5
Mvmt Flow	1680	8	9	763	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1693	0	2475	1694
Stage 1	-	-	-	-	1689	-
Stage 2	-	-	-	-	786	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	369	-	32	113
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	444	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	367	-	30	112
Mov Cap-2 Maneuver	-	-	-	-	30	-
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	423	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	66.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	67	-	-	367	-
HCM Lane V/C Ratio	0.13	-	-	0.024	-
HCM Control Delay (s)	66.6	-	-	15	0
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

2043 Future Growth
Scenario Results
Network 2 – New Road Layout

Junctions 10

ARCADY 10 - Roundabout Module

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Report generation date: 10/6/2025 10:44:48 AM

Summary of intersection performance

	AM									PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersect LOS
	2043 Design - 2043																
Leg SB	D1	0.3	1.3	9.01	0.23	A	7.88	A	7 % [Leg Tk2EB]	D2	0.5	1.9	6.55	0.33	A	4.40	A
Leg Tk2EB		1.4	5.1	20.50	0.60	C					0.6	2.0	6.02	0.36	A		
Leg Tk2WB		1.6	3.0	4.39	0.62	A					0.5	1.9	2.47	0.31	A		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

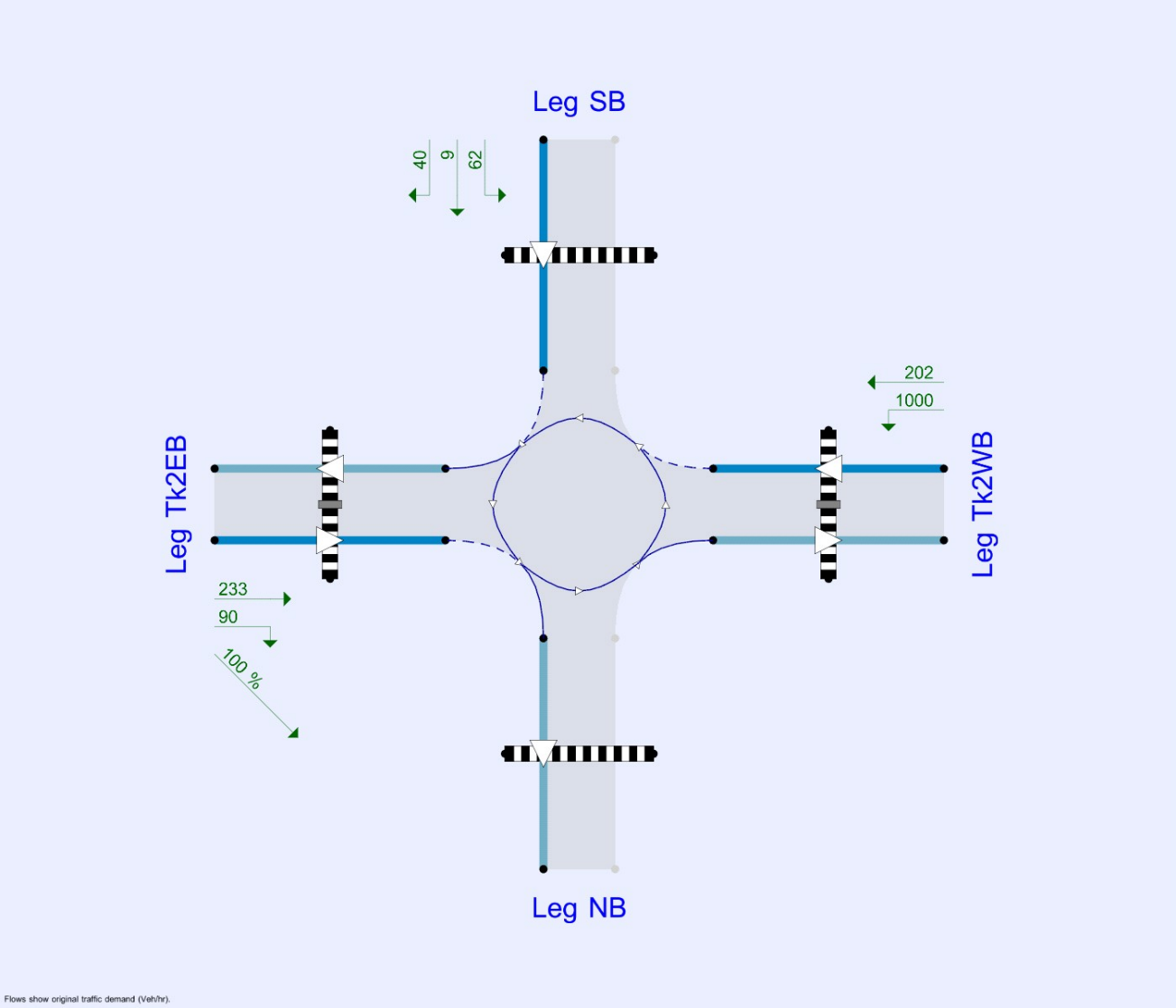
File summary

File Description

Title	Hwy 102 Exit 7 Traffic Study
Location	Enfield
Site number	1
Date	10/5/2025
Version	2043 Horizon - Option 2 Layout
Status	(new file)
Identifier	
Client	NSDPW
Jobnumber	
Analyst	GRIFFIN
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The intersection diagram reflects the last run of Intersections.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	V/C Ratio Threshold	Average Delay threshold (s)	Queue threshold (PCE)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
7.00	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2043	AM	PHF	00:00	01:00	15	✓
D2	2043	PM	PHF	00:00	01:00	15	✓

Analysis Set Details

ID	Name	Description	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	2043 Design	4-leg layout	✓	100.000	100.000

2043 Design - 2043, AM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	Leg Tk2EB - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	SBRamp	Standard Roundabout		SB, Tk2EB, NB, Tk2WB	7.88	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	7	Leg Tk2EB	7.88	A

Legs

Legs

Leg	Name	Description	No yield line
SB	OffRamp SB		
Tk2EB	Tk2 EB		
NB	OnRamp NB		
Tk2WB	Tk2 WB		

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
SB	3.50	4.00	30.0	30.0	55.0	20.0	✓	
Tk2EB	3.50	4.00	30.0	30.0	55.0	20.0		
NB								✓
Tk2WB	7.00	7.00	0.0	30.0	55.0	20.0		

Bypass

Leg	Leg has bypass	Bypass utilisation (%)
SB		
Tk2EB	✓	100
NB		
Tk2WB		

Unsignalled Pedestrian Crossing Crossings

Leg	Space between crossing and intersection entry (Unsignalled Pedestrian Crossing) (PCE)	Vehicles queueing on exit (Unsignalled Pedestrian Crossing) (PCE)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
SB	1.00	1.00		Distance	4.00	2.86				
Tk2EB	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86
NB		1.00		Distance	4.00	2.86				
Tk2WB	1.00	1.00	✓	Distance			7.00	5.00	4.00	2.86

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Leg	Final slope	Final intercept (PCE/hr)
SB	0.519	1266
Tk2EB	0.519	1266
NB		
Tk2WB	0.695	2229

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2043	AM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
SB		PHF	✓	111	100.000
Tk2EB		PHF	✓	323	100.000
NB					
Tk2WB		PHF	✓	1202	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
SB	111	0.92	SecondQuarter
Tk2EB	323	0.92	SecondQuarter
NB			
Tk2WB	1202	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00
Tk2WB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	0	40	9	62
	Tk2EB	0	0	90	233
	NB	0	0	0	0
	Tk2WB	0	202	1000	0

Vehicle Mix

Truck Percentages

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	5	5	5	5
	Tk2EB	5	5	5	5
	NB	5	5	5	5
	Tk2WB	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
SB	0.23	9.01	0.3	1.3	A	111	111
Tk2EB	0.60	20.50	1.4	5.1	C	323	233
NB							
Tk2WB	0.62	4.39	1.6	3.0	A	1202	1202

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
SB	105	105	26	0	0	1128	5.00	613	0.171	104	0	0.0	0.2	7.064
Tk2EB	304	219	55	85	0	1005	5.00	545	0.403	217	227	0.0	0.7	10.897
NB						275	5.00				947			
Tk2WB	1132	1132	283	0	0	0	5.00	2123	0.533	1128	275	0.0	1.1	3.602

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
SB	121	121	30	0	0	1305	5.00	519	0.232	120	0	0.2	0.3	9.012
Tk2EB	351	253	63	98	0	1162	5.00	423	0.599	250	263	0.7	1.4	20.499
NB						317	5.00				1095			
Tk2WB	1307	1307	327	0	0	0	5.00	2123	0.615	1305	317	1.1	1.6	4.390

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
SB	114	114	29	0	0	1238	5.00	555	0.206	114	0	0.3	0.3	8.179
Tk2EB	332	240	60	93	0	1103	5.00	469	0.511	241	249	1.4	1.1	15.904
NB						305	5.00				1039			
Tk2WB	1237	1237	309	0	0	0	5.00	2123	0.583	1238	305	1.6	1.4	4.069

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
SB	105	105	26	0	0	1133	5.00	610	0.172	105	0	0.3	0.2	7.136
Tk2EB	304	219	55	85	0	1010	5.00	541	0.406	221	228	1.1	0.7	11.317
NB						280	5.00				951			
Tk2WB	1132	1132	283	0	0	0	5.00	2123	0.533	1133	280	1.4	1.2	3.644

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.20	0.00	0.00	0.20	0.20			N/A	N/A
Tk2EB	0.66	0.09	0.82	1.37	1.44			N/A	N/A
NB									
Tk2WB	1.13	0.07	0.85	2.24	3.02			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.30	0.03	0.26	0.46	0.49			N/A	N/A
Tk2EB	1.41	0.03	0.28	1.41	5.14			N/A	N/A
NB									
Tk2WB	1.58	0.03	0.26	1.58	1.58			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.26	0.03	0.30	0.95	1.30			N/A	N/A
Tk2EB	1.08	0.03	0.27	1.08	2.37			N/A	N/A
NB									
Tk2WB	1.41	0.03	0.26	1.41	1.41			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.21	0.00	0.00	0.21	0.21			N/A	N/A
Tk2EB	0.70	0.05	0.52	1.10	1.68			N/A	N/A
NB									
Tk2WB	1.15	0.34	1.11	1.60	1.85			N/A	N/A

2043 Design - 2043, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	SBRamp	Standard Roundabout		SB, Tk2EB, NB, Tk2WB	4.40	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	68	Leg SB	4.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2043	PM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
SB		PHF	✓	249	100.000
Tk2EB		PHF	✓	397	100.000
NB					
Tk2WB		PHF	✓	614	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
SB	249	0.92	SecondQuarter
Tk2EB	397	0.92	SecondQuarter
NB			
Tk2WB	614	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00
Tk2WB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	0	80	5	164
	Tk2EB	0	0	90	307
	NB	0	0	0	0
	Tk2WB	0	317	297	0

Vehicle Mix

Truck Percentages

		To			
		SB	Tk2EB	NB	Tk2WB
From	SB	5	5	5	5
	Tk2EB	5	5	5	5
	NB	5	5	5	5
	Tk2WB	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
SB	0.33	6.55	0.5	1.9	A	249	249
Tk2EB	0.36	6.02	0.6	2.0	A	397	307
NB							
Tk2WB	0.31	2.47	0.5	1.9	A	614	614

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	235	235	59	0	0	577	5.00	875	0.268	233	0	0.0	0.4	5.593	
Tk2EB	374	289	72	85	0	437	5.00	970	0.298	288	373	0.0	0.4	5.263	
NB						441	5.00				284				
Tk2WB	578	578	145	0	0	0	5.00	2123	0.272	577	441	0.0	0.4	2.326	

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	271	271	68	0	0	667	5.00	819	0.330	270	0	0.4	0.5	6.549	
Tk2EB	432	334	83	98	0	506	5.00	931	0.359	333	431	0.4	0.6	6.020	
NB						511	5.00				328				
Tk2WB	667	667	167	0	0	0	5.00	2123	0.314	667	511	0.4	0.5	2.473	

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	256	256	64	0	0	632	5.00	841	0.305	256	0	0.5	0.4	6.159	
Tk2EB	409	316	79	93	0	480	5.00	946	0.334	316	409	0.6	0.5	5.718	
NB						485	5.00				311				
Tk2WB	632	632	158	0	0	0	5.00	2123	0.298	632	485	0.5	0.4	2.414	

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
SB	235	235	59	0	0	579	5.00	874	0.268	235	0	0.4	0.4	5.634	
Tk2EB	374	289	72	85	0	439	5.00	969	0.299	290	374	0.5	0.4	5.302	
NB						444	5.00				285				
Tk2WB	578	578	145	0	0	0	5.00	2123	0.272	579	444	0.4	0.4	2.331	

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.36	0.00	0.00	0.36	0.36			N/A	N/A
Tk2EB	0.42	0.00	0.00	0.42	0.42			N/A	N/A
NB									
Tk2WB	0.37	0.00	0.00	0.37	0.37			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.49	0.03	0.25	0.49	0.49			N/A	N/A
Tk2EB	0.55	0.03	0.25	0.55	0.55			N/A	N/A
NB									
Tk2WB	0.46	0.03	0.25	0.46	0.48			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.44	0.03	0.29	1.11	1.94			N/A	N/A
Tk2EB	0.51	0.03	0.28	0.85	2.02			N/A	N/A
NB									
Tk2WB	0.43	0.03	0.30	1.27	1.85			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
SB	0.37	0.00	0.00	0.37	0.37			N/A	N/A
Tk2EB	0.43	0.00	0.00	0.43	0.43			N/A	N/A
NB									
Tk2WB	0.38	0.00	0.00	0.38	0.38			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Arcady_2_Exit7NBRamps_2043.j10
Path: C:\Users\copel\OneDrive\Desktop\GRIFFIN\Projects\2025\2503 - Enfield Exit 7 Traffic Study\Analysis\Arcady
Report generation date: 10/6/2025 10:47:54 AM

Summary of intersection performance

	AM									PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersect LOS
	2043 Design - 2043																
Leg Post	D1	0.4	1.7	6.30	0.30	A	4.09	A	57 % [Leg Tk2WB]	D2	1.6	8.3	43.85	0.64	E	7.57	A
Leg Tk2WB		1.4	2.0	4.58	0.58	A					0.3	1.4	2.57	0.25	A		
Leg Tk2EB		0.2	0.5	2.46	0.18	A					0.4	1.5	2.83	0.29	A		
Leg NB		0.2	0.5	2.28	0.17	A					2.5	5.4	7.24	0.72	A		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

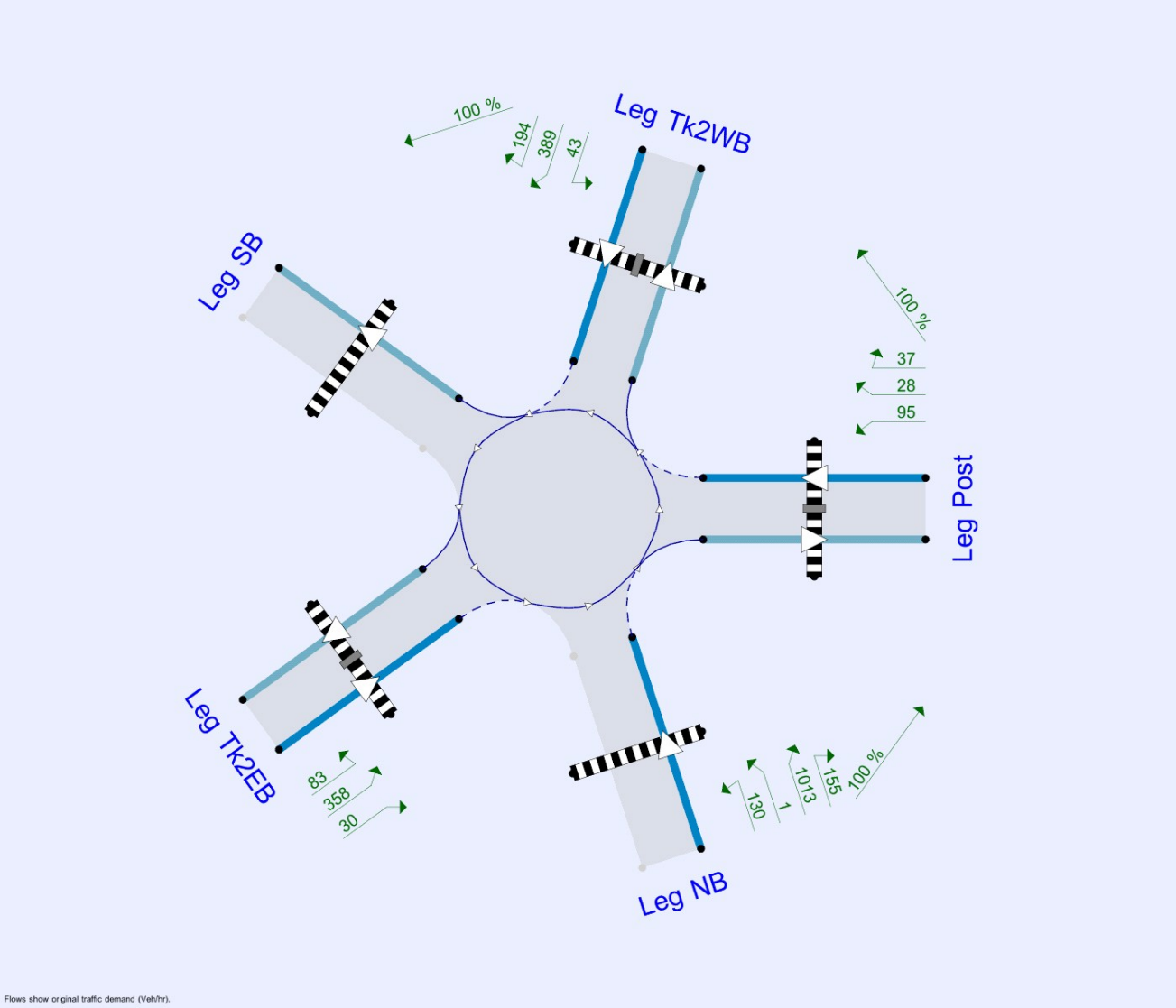
File summary

File Description

Title	Hwy 102 Exit 7 Traffic Study
Location	Enfield
Site number	2
Date	10/5/2025
Version	2043 Horizon - Option 2 Layout
Status	(new file)
Identifier	
Client	NSDPW
Jobnumber	
Analyst	GRIFFIN
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The intersection diagram reflects the last run of Intersections.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	V/C Ratio Threshold	Average Delay threshold (s)	Queue threshold (PCE)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2043	AM	PHF	00:00	01:00	15	✓
D2	2043	PM	PHF	00:00	01:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	2043 Design	✓	100.000	100.000

2043 Design - 2043, AM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	Leg SB - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		Post, Tk2WB, SB, Tk2EB, NB	4.09	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	57	Leg Tk2WB	4.09	A

Legs

Legs

Leg	Name	Description	No yield line
Post	Old Post NWB		
Tk2WB	Tk2 WB		
SB	On-Ramp SB		
Tk2EB	Tk2 EB		
NB	Off-Ramp NB		

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
Post	3.50	4.00	30.0	30.0	55.0	20.0		
Tk2WB	7.00	7.00	0.0	30.0	55.0	20.0		
SB								✓
Tk2EB	3.50	7.00	30.0	30.0	55.0	20.0		
NB	7.00	7.00	0.0	30.0	55.0	20.0	✓	

Bypass

Leg	Leg has bypass	Bypass utilisation (%)
Post	✓	100
Tk2WB	✓	100
SB		
Tk2EB		
NB	✓	100

Unsignalled Pedestrian Crossing Crossings

Leg	Space between crossing and intersection entry (Unsignalled Pedestrian Crossing) (PCE)	Vehicles queueing on exit (Unsignalled Pedestrian Crossing) (PCE)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Post	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86
Tk2WB	1.00	1.00	✓	Distance			4.00	2.86	4.00	2.86
SB		1.00		Distance	4.00	2.86				
Tk2EB	1.00	1.00	✓	Distance			7.00	5.00	4.00	2.86
NB	1.00	1.00		Distance	7.00	5.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Leg	Final slope	Final intercept (PCE/hr)
Post	0.519	1266
Tk2WB	0.695	2229
SB		
Tk2EB	0.639	1926
NB	0.695	2229

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2043	AM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Post		PHF	✓	248	100.000
Tk2WB		PHF	✓	1142	100.000
SB					
Tk2EB		PHF	✓	295	100.000
NB		PHF	✓	341	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
Post	248	0.92	SecondQuarter
Tk2WB	1142	0.92	SecondQuarter
SB			
Tk2EB	295	0.92	SecondQuarter
NB	341	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
Post	[PHF]	5.00
Tk2WB	[PHF]	5.00
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
Post	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	0	25	29	194	0
	Tk2WB	13	0	141	988	0
	SB	0	0	0	0	0
	Tk2EB	18	190	87	0	0
	NB	51	269	1	20	0

Vehicle Mix

Truck Percentages

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	5	5	5	5	5
	Tk2WB	5	5	5	5	5
	SB	5	5	5	5	5
	Tk2EB	5	5	5	5	5
	NB	5	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
Post	0.30	6.30	0.4	1.7	A	248	223
Tk2WB	0.58	4.58	1.4	2.0	A	1142	1001
SB							
Tk2EB	0.18	2.46	0.2	0.5	A	295	295
NB	0.17	2.28	0.2	0.5	A	341	290

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
Post	234	210	53	24	48	533	5.00	866	0.243	209	29	0.0	0.3	5.469	
Tk2WB	1076	943	236	133	24	310	5.00	1906	0.495	939	431	0.0	1.0	3.707	
SB						1140	5.00				110				
Tk2EB	278	278	69	0	0	12	5.00	1784	0.156	277	1127	0.0	0.2	2.387	
NB	321	273	68	48	0	289	5.00	1922	0.142	273	0	0.0	0.2	2.181	

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
Post	270	242	61	27	55	616	5.00	813	0.298	242	34	0.3	0.4	6.298	
Tk2WB	1241	1088	272	153	27	359	5.00	1871	0.581	1086	499	1.0	1.4	4.577	
SB						1319	5.00				127				
Tk2EB	321	321	80	0	0	14	5.00	1784	0.180	321	1305	0.2	0.2	2.459	
NB	371	315	79	55	0	335	5.00	1890	0.167	315	0	0.2	0.2	2.285	

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
Post	255	229	57	26	52	584	5.00	834	0.275	230	32	0.4	0.4	5.962	
Tk2WB	1175	1030	258	145	26	341	5.00	1885	0.547	1031	472	1.4	1.2	4.220	
SB						1251	5.00				120				
Tk2EB	304	304	76	0	0	13	5.00	1784	0.170	304	1238	0.2	0.2	2.433	
NB	351	298	75	52	0	317	5.00	1902	0.157	298	0	0.2	0.2	2.244	

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	U
Post	234	210	53	24	48	534	5.00	865	0.243	210	29	0.4	0.3	5.503	
Tk2WB	1076	943	236	133	24	312	5.00	1905	0.495	944	433	1.2	1.0	3.749	
SB						1146	5.00				110				
Tk2EB	278	278	69	0	0	12	5.00	1784	0.156	278	1133	0.2	0.2	2.391	
NB	321	273	68	48	0	290	5.00	1921	0.142	273	0	0.2	0.2	2.186	

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.32	0.00	0.00	0.32	0.32			N/A	N/A
Tk2WB	0.97	0.08	0.88	1.66	1.99			N/A	N/A
SB									
Tk2EB	0.18	0.00	0.00	0.18	0.18			N/A	N/A
NB	0.17	0.00	0.00	0.17	0.17			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.42	0.03	0.25	0.46	0.48			N/A	N/A
Tk2WB	1.37	0.03	0.26	1.37	1.37			N/A	N/A
SB									
Tk2EB	0.22	0.03	0.25	0.45	0.48			N/A	N/A
NB	0.20	0.03	0.25	0.46	0.48			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.38	0.03	0.30	1.19	1.65			N/A	N/A
Tk2WB	1.22	0.03	0.26	1.22	1.22			N/A	N/A
SB									
Tk2EB	0.21	0.03	0.25	0.45	0.48			N/A	N/A
NB	0.19	0.03	0.25	0.45	0.48			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.32	0.00	0.00	0.32	0.32			N/A	N/A
Tk2WB	0.99	0.45	1.02	1.42	1.42			N/A	N/A
SB									
Tk2EB	0.19	0.00	0.00	0.19	0.19			N/A	N/A
NB	0.17	0.00	0.00	0.17	0.17			N/A	N/A

2043 Design - 2043, PM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	Leg Post - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Last Run	Last Run	Leg SB - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 2 timesegment(s).
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		Post, Tk2WB, SB, Tk2EB, NB	7.57	A

Intersection Network

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	-3	Leg Post	7.57	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2043	PM	PHF	00:00	01:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Post		PHF	✓	160	100.000
Tk2WB		PHF	✓	626	100.000
SB					
Tk2EB		PHF	✓	471	100.000
NB		PHF	✓	1299	100.000

Peak Hour Factor Data (Traffic)

Leg	Hourly volume (Veh/hr)	Peak hour factor	Peak time segment
Post	160	0.92	SecondQuarter
Tk2WB	626	0.92	SecondQuarter
SB			
Tk2EB	471	0.92	SecondQuarter
NB	1299	0.92	SecondQuarter

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
Post	[PHF]	5.00
Tk2WB	[PHF]	5.00
SB	[PHF]	5.00
Tk2EB	[PHF]	5.00
NB	[PHF]	5.00

Peak Hour Factor Data (Pedestrians)

Leg	Hourly volume (Ped/hr)	Peak hour factor	Peak time segment
Post	5.00	1.00	SecondQuarter
Tk2WB	5.00	1.00	SecondQuarter
SB	5.00	1.00	SecondQuarter
Tk2EB	5.00	1.00	SecondQuarter
NB	5.00	1.00	SecondQuarter

Origin-Destination Data

Demand (Veh/hr)

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	0	37	28	95	0
	Tk2WB	43	0	194	389	0
	SB	0	0	0	0	0
	Tk2EB	30	358	83	0	0
	NB	155	1013	1	130	0

Vehicle Mix

Truck Percentages

		To				
		Post	Tk2WB	SB	Tk2EB	NB
From	Post	5	5	5	5	5
	Tk2WB	5	5	5	5	5
	SB	5	5	5	5	5
	Tk2EB	5	5	5	5	5
	NB	5	5	5	5	5

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Intersection Arrivals (Veh)
Post	0.64	43.85	1.6	8.3	E	160	123
Tk2WB	0.25	2.57	0.3	1.4	A	626	432
SB							
Tk2EB	0.29	2.83	0.4	1.5	A	471	471
NB	0.72	7.24	2.5	5.4	A	1299	1144

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	151	116	29	35	146	1486	5.00	313	0.370	114	69	0.0	0.6	17.856
Tk2WB	590	407	102	183	35	314	5.00	1903	0.214	406	1285	0.0	0.3	2.403
SB						615	5.00				105			
Tk2EB	444	444	111	0	0	40	5.00	1784	0.249	442	575	0.0	0.3	2.680
NB	1224	1078	269	146	0	483	5.00	1786	0.603	1072	0	0.0	1.5	4.997

00:15 - 00:30

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	174	134	33	40	168	1719	5.00	208	0.643	130	79	0.6	1.6	43.852
Tk2WB	680	470	117	211	40	362	5.00	1870	0.251	469	1487	0.3	0.3	2.570
SB						710	5.00				121			
Tk2EB	512	512	128	0	0	47	5.00	1784	0.287	512	664	0.3	0.4	2.829
NB	1412	1243	311	168	0	558	5.00	1733	0.718	1240	0	1.5	2.5	7.237

00:30 - 00:45

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	165	127	32	38	159	1633	5.00	245	0.516	128	75	1.6	1.1	31.233
Tk2WB	644	445	111	200	38	349	5.00	1879	0.237	445	1412	0.3	0.3	2.509
SB						678	5.00				116			
Tk2EB	485	485	121	0	0	44	5.00	1784	0.272	485	633	0.4	0.4	2.770
NB	1337	1177	294	159	0	529	5.00	1754	0.671	1179	0	2.5	2.1	6.281

00:45 - 01:00

Leg	Total Demand (Veh/hr)	Intersection demand (Veh/hr)	Intersection Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	V/C Ratio	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
Post	151	116	29	35	146	1495	5.00	309	0.375	118	69	1.1	0.6	19.050
Tk2WB	590	407	102	183	35	320	5.00	1900	0.214	407	1294	0.3	0.3	2.413
SB						621	5.00				106			
Tk2EB	444	444	111	0	0	41	5.00	1784	0.249	444	580	0.4	0.3	2.685
NB	1224	1078	269	146	0	484	5.00	1785	0.604	1080	0	2.1	1.5	5.122

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.57	0.07	0.69	1.34	1.42			N/A	N/A
Tk2WB	0.27	0.00	0.00	0.27	0.27			N/A	N/A
SB									
Tk2EB	0.33	0.00	0.00	0.33	0.33			N/A	N/A
NB	1.50	0.06	0.71	3.64	5.39			N/A	N/A

00:15 - 00:30

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	1.59	0.03	0.32	3.23	8.28			N/A	N/A
Tk2WB	0.33	0.03	0.25	0.45	0.48			N/A	N/A
SB									
Tk2EB	0.40	0.03	0.25	0.45	0.48			N/A	N/A
NB	2.47	0.03	0.27	2.47	4.22			N/A	N/A

00:30 - 00:45

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	1.13	0.03	0.29	1.20	4.53			N/A	N/A
Tk2WB	0.31	0.03	0.31	1.08	1.36			N/A	N/A
SB									
Tk2EB	0.37	0.03	0.31	1.24	1.48			N/A	N/A
NB	2.08	0.03	0.26	2.08	2.08			N/A	N/A

00:45 - 01:00

Leg	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
Post	0.62	0.04	0.39	1.28	1.95			N/A	N/A
Tk2WB	0.27	0.00	0.00	0.27	0.27			N/A	N/A
SB									
Tk2EB	0.33	0.00	0.00	0.33	0.33			N/A	N/A
NB	1.54	0.08	1.06	3.31	4.57			N/A	N/A

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	362	10	27	1102	1	18	0	38	0	0	0
Future Vol, veh/h	12	362	10	27	1102	1	18	0	38	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	13	393	11	29	1198	1	20	0	41	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	409	0	0	1692	1692	409	1712	1697	1209
Stage 1	-	-	-	-	-	-	430	430	-	1262	1262	-
Stage 2	-	-	-	-	-	-	1262	1262	-	450	435	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	569	-	-	1134	-	-	72	92	636	70	91	220
Stage 1	-	-	-	-	-	-	598	578	-	205	238	-
Stage 2	-	-	-	-	-	-	205	238	-	583	575	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	566	-	-	1128	-	-	69	87	630	62	86	218
Mov Cap-2 Maneuver	-	-	-	-	-	-	69	87	-	62	86	-
Stage 1	-	-	-	-	-	-	581	562	-	199	231	-
Stage 2	-	-	-	-	-	-	199	231	-	530	559	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	36.4	0
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	174	566	-	-	1128	-	-	-
HCM Lane V/C Ratio	0.35	0.023	-	-	0.026	-	-	-
HCM Control Delay (s)	36.4	11.5	-	-	8.3	-	-	0
HCM Lane LOS	E	B	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0.1	-	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	1246	10	84	651	1	4	0	94	0	0	0
Future Vol, veh/h	32	1246	10	84	651	1	4	0	94	0	0	0
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	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	40	-	-	30	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	35	1354	11	91	708	1	4	0	102	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	714	0	0	1370	0	0	2331	2331	1370	2382	2336	719
Stage 1	-	-	-	-	-	-	1435	1435	-	896	896	-
Stage 2	-	-	-	-	-	-	896	896	-	1486	1440	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	872	-	-	492	-	-	25	36	176	23	36	423
Stage 1	-	-	-	-	-	-	163	196	-	331	355	-
Stage 2	-	-	-	-	-	-	331	355	-	153	195	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	868	-	-	490	-	-	21	28	174	8	28	419
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	28	-	8	28	-
Stage 1	-	-	-	-	-	-	156	187	-	316	288	-
Stage 2	-	-	-	-	-	-	268	288	-	60	186	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	94.1	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	134	868	-	-	490	-	-	-
HCM Lane V/C Ratio	0.795	0.04	-	-	0.186	-	-	-
HCM Control Delay (s)	94.1	9.3	-	-	14	-	-	0
HCM Lane LOS	F	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	4.8	0.1	-	-	0.7	-	-	-

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	70	9	0	221	35	20	12	2	13	5	6
Future Vol, veh/h	3	70	9	0	221	35	20	12	2	13	5	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	76	10	0	240	38	22	13	2	14	5	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	244	106	19	148	108	24	17	0	0	20	0	0
Stage 1	42	42	-	63	63	-	-	-	-	-	-	-
Stage 2	202	64	-	85	45	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	704	778	1051	813	776	1044	1581	-	-	1577	-	-
Stage 1	965	854	-	940	837	-	-	-	-	-	-	-
Stage 2	793	836	-	916	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	496	752	1040	723	750	1033	1573	-	-	1569	-	-
Mov Cap-2 Maneuver	496	752	-	723	750	-	-	-	-	-	-	-
Stage 1	947	842	-	922	821	-	-	-	-	-	-	-
Stage 2	530	820	-	814	840	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	12.2	4.3	4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1573	-	-	761	779	1569	-	-
HCM Lane V/C Ratio	0.014	-	-	0.117	0.357	0.009	-	-
HCM Control Delay (s)	7.3	0	-	10.4	12.2	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	1.6	0	-	-

Intersection	
Int Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	189	25	5	139	55	17	16	1	59	19	1
Future Vol, veh/h	7	189	25	5	139	55	17	16	1	59	19	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	205	27	5	151	60	18	17	1	64	21	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	319	214	32	330	214	28	27	0	0	23	0	0
Stage 1	155	155	-	59	59	-	-	-	-	-	-	-
Stage 2	164	59	-	271	155	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	628	678	1033	618	678	1039	1568	-	-	1573	-	-
Stage 1	840	764	-	945	840	-	-	-	-	-	-	-
Stage 2	831	840	-	728	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	460	636	1023	430	636	1028	1560	-	-	1565	-	-
Mov Cap-2 Maneuver	460	636	-	430	636	-	-	-	-	-	-	-
Stage 1	826	729	-	929	826	-	-	-	-	-	-	-
Stage 2	629	826	-	486	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	12.4	3.7	5.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	656	701	1565	-	-
HCM Lane V/C Ratio	0.012	-	-	0.366	0.309	0.041	-	-
HCM Control Delay (s)	7.3	0	-	13.6	12.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.7	1.3	0.1	-	-