

Traffic Impact Study

HORIZON VIEW

OAK RIDGE HIGHWAY (SR 62) AT JOE DANIELS ROAD
KNOXVILLE, TENNESSEE

Prepared for:



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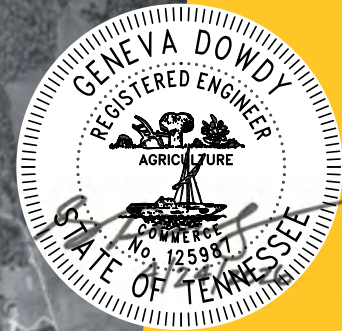
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EXECUTIVE SUMMARY

A traffic impact study has been prepared for Horizon View – a proposed multifamily housing and commercial development located in Knoxville, Tennessee. The proposed development will be located on the north side of Oak Ridge Highway (SR 62) along Joe Daniels Road, just east of the Pellissippi Parkway (SR 162) interchange. The proposed site will consist of one full access driveway along Joe Daniels Road.

The proposed development is anticipated to be built in two phases, partially operational by 2028 and fully operational by 2040. The development will primarily consist of multifamily housing, typically classified as LUC 220 – Multifamily Housing (Low-Rise) per the *ITE Trip Generation Manual*. Per the *Knoxville - Knox County Planning Commission Transportation Impact Analysis Guidelines*, a specific “Local Apartment” trip generation rate is to be applied for all proposed multifamily development including apartments, condos, townhomes, or other attached housing (excluding college student housing) that is proposed in the Knoxville / Knox County area. Additionally, two standalone commercial buildings are proposed towards the front of the site, both of which are anticipated to serve as small grocery/variety stores.

With these requirements, the land uses for the proposed development are as follows:

Phase 1 (2028):

- LUC 220 - Local Apartment (*Knoxville / Knox County*): 249 Dwelling Units.
- LUC 814 – Variety Store: 9,100 s.f.
- LUC 850 – Supermarket: 12,000 s.f.

Phase 2 (2040):

- LUC 220 - Local Apartment (*Knoxville / Knox County*): 249 Dwelling Units.

The purpose of this study is to assess the potential traffic impacts of the proposed development on the transportation network through the study area. Analysis of the existing traffic conditions was conducted, and trips expected to be generated by the proposed development were calculated and assigned to the roadway network. Analysis of the roadway network using Existing 2025, No Build 2028 (Phase 1), Build 2028 (Phase 1), No Build 2040 (Phase 2), and Build 2040 (Phase 2) traffic volumes was conducted. Improvements to the study area network needed to mitigate the impacts of the new development, if any, were then evaluated.

Turning movement counts (TMC) were collected to determine the existing traffic volumes on the roadway network. An 8-hour TMC was collected at the following four study intersections to determine the AM and PM traffic volume peak hour periods:

1. Oak Ridge Highway (SR 62) at W. Emory Road
2. Oak Ridge Highway (SR 62) at Joe Daniels Road
3. Oak Ridge Highway (SR 62) at Solway Road
4. Oak Ridge Highway (SR 62) at U-Turn median

Based on historical growth rates and coordination with the Knoxville MPO, an annual background growth rate of 1.0% per year was applied throughout the study area to determine No Build 2028 and No Build 2040 traffic volume projections.

Using the *Institute of Transportation Engineers (ITE) Trip Generation Manual* and local trip generation rates provided from the City of Knoxville, vehicle trips expected to be generated by the proposed development were calculated. Net new vehicle trips anticipated to be generated from the development were then distributed and assigned to the roadway network throughout the study area.

Intersection analysis was conducted for the study area using the methodology outlined in the *HCM Manual, 7th Edition*. The results for the using Existing 2025, No Build 2028 (Phase 1), Build 2028 (Phase 1), No Build 2040 (Phase 2), and Build 2040 (Phase 2) scenarios show that the following recommendations will help traffic operations in the study area after the proposed development is open.

Recommendations

Based on this study's findings, the following improvements are recommended to better enhance traffic operations within the study area before and/or upon completion of the proposed development. These improvements are defined based on existing or background conditions without the proposed development as well as anticipated conditions once the proposed development is operational. Improvements outlined in Existing or No Build conditions should be considered for improved roadway operations regardless of the proposed development:

Existing 2025

Oak Ridge Highway (SR 62) at W. Emory Road:

- **Install one left turn lane with 50 feet of storage** along the eastbound approach of Oak Ridge Highway (SR 62).

Oak Ridge Highway (SR 62) at U-Turn median:

- **Consider corridor operational and safety study** along Oak Ridge Highway (SR 62) from Solway Road to Burchfield Drive / Sparks Road to provide potential mitigation for heavy u-turning vehicles.

Build 2028

Oak Ridge Highway (SR 62) at Joe Daniels Road:

- **Install a traffic signal** with the following laneage:
 - Oak Ridge Highway (SR 62) - Eastbound approach
 - One left turn lane with a minimum of 100 feet of storage
 - One shared through / right turn lane with full storage
 - Oak Ridge Highway (SR 62) – Westbound approach
 - One shared left turn / through lane with full storage
 - One right turn lane with a minimum of 100 feet of storage
 - Joe Daniels Road – Northbound approach
 - One shared left turn / through / right turn lane with full storage
 - Joe Daniels Road – Southbound approach
 - One shared left turn / through / right turn lane with full storage

A traffic signal is warranted at the study intersection, however existing interchange geometry presents constraints for adequate vehicle weaving and storage from the interchange of Oak Ridge Highway (SR 62) at Pellissippi Parkway (SR 162) and the study intersection. A traffic signal installation is conditional to the reconstruction of the interchange weaving and merging area between the two highways. Adequate spacing for vehicles to merge across to the eastbound left turn lane at the study intersection is critical to the success of a traffic signal at this location.

- **Realign Joe Daniels Road to align with site access** along the southbound approach. The site access will operate with one ingress lane and one egress lane per the proposed site plan in Appendix A.

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1. INTRODUCTION

A traffic impact study has been prepared for Horizon View – a proposed multifamily housing and commercial development located in Knoxville, Tennessee. The proposed development will be located on the north side of Oak Ridge Highway (SR 62) along Joe Daniels Road, just east of the Pellissippi Parkway (SR 162) interchange. The proposed site will consist of one full access driveway along Joe Daniels Road.

The purpose of this study is to assess the potential traffic impacts of the proposed development on the transportation network through the study area. Analysis of the existing traffic conditions was conducted, and trips expected to be generated by the proposed development were calculated and assigned to the roadway network. Analysis of the roadway network using Existing 2025, No Build 2028 (Phase 1), Build 2028 (Phase 1), No Build 2040 (Phase 2), and Build 2040 (Phase 2) traffic volumes was conducted. Improvements to the study area network needed to mitigate the impacts of the new development, if any, were then evaluated.

References

- Manual on Uniform Traffic Control Devices (MUTCD); US Department of Transportation Federal Highway Administration (FHWA); 11th Edition, 2023
- A Policy on Geometric Design of Highways and Streets (Green Book); American Association of State Highway and Transportation Officials (AASHTO), 2018
- Trip Generation Manual 11th Edition; Institute of Transportation Engineers (ITE); 2021
- Trip Generation Handbook 3rd Edition; Institute of Transportation Engineers (ITE); 2017
- National Cooperative Highway Research Program, Report 457; Transportation Research Board, 2001
- Study Area Peak Hour Traffic Counts; National Data Systems, March 2025
- The Highway Capacity Manual; Transportation Research Board; 7th Edition
- Synchro 12; CUBIC/Trafficware, 2023

2. STUDY AREA CONDITIONS

2.1. Project Description

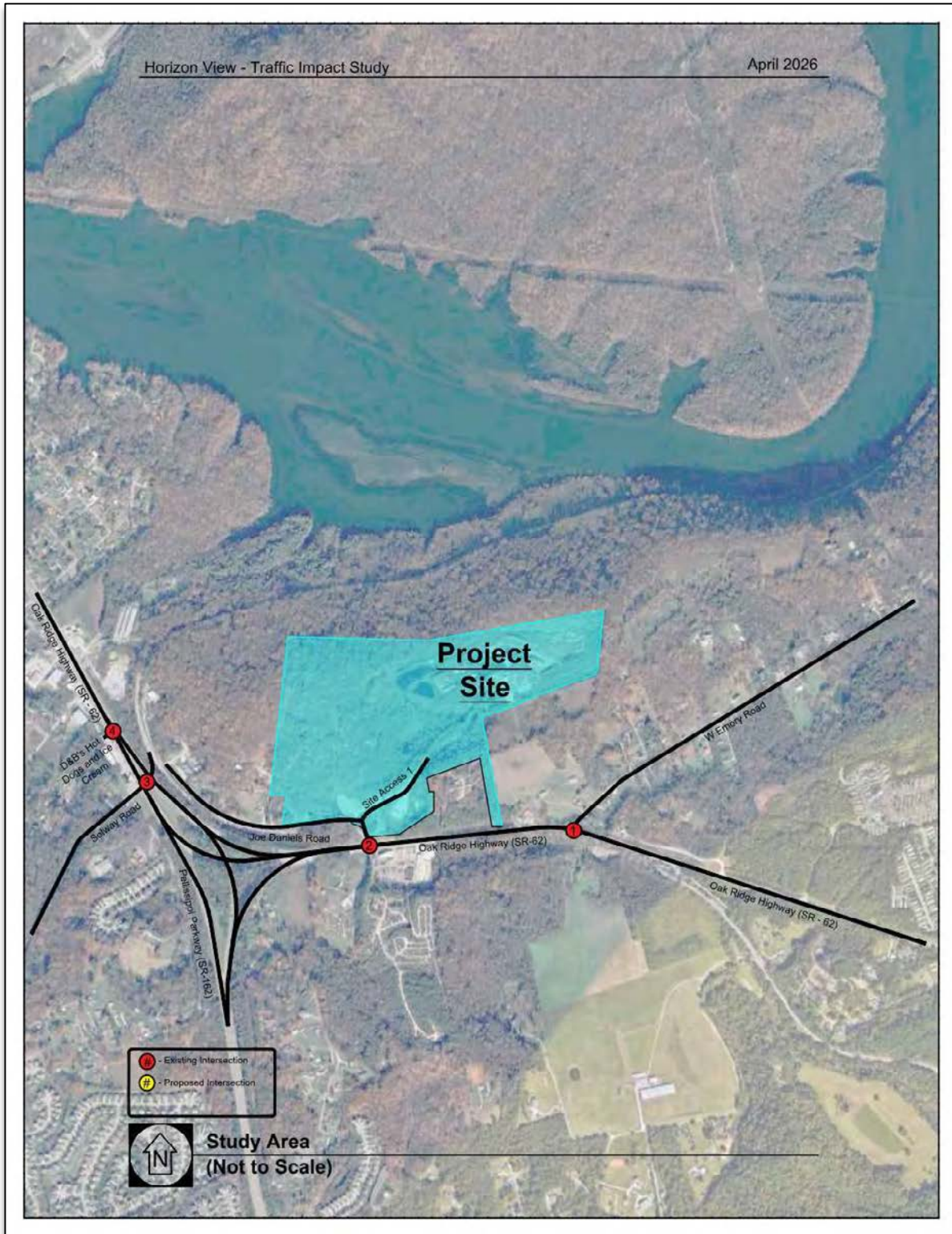
The proposed multifamily housing and commercial development is located in Knoxville, Tennessee, along the north side of Oak Ridge Highway (SR 62) along Joe Daniels Road, just east of the Pellissippi Parkway (SR 162) interchange. The proposed site will consist of one full access driveway along the newly aligned Joe Daniels Road.

A total of four intersections were analyzed as part of this study:

1. Oak Ridge Highway (SR 62) at W. Emory Road
2. Oak Ridge Highway (SR 62) at Joe Daniels Road
3. Oak Ridge Highway (SR 62) at Solway Road
4. Oak Ridge Highway (SR 62) at U-Turn median

Figure 2.1 shows the study intersections along Oak Ridge Parkway (SR 62).

Figure 2.1 – Study Intersections



Source: Google Earth

2.2. Existing Roadway Inventory

The existing analysis of the study intersections is conducted using the roadway characteristics and traffic control obtained from field inventory. The descriptions provided below include the Existing 2025 conditions of the transportation network in the study area.

Roadway Inventory

Oak Ridge Highway (SR 62) is functionally classified as an urban principal arterial by the Tennessee Department of Transportation (TDOT) through the vicinity of the study area and as a major arterial roadway according to The City of Knoxville's *Major Road Plan*. Oak Ridge Highway (SR 62) experiences an average annual daily traffic (AADT) volume of 55,304 vehicles per day (vpd) in 2024, north of Pellissippi Parkway (SR 162) and 11,842 vehicles per day (vpd) in 2024, just east of Pellissippi Parkway (SR 162). Oak Ridge Highway (SR 62) operates as a two-lane undivided roadway east of Pellissippi Parkway (SR 162) and as a four-lane median divided roadway with turn lanes north of Pellissippi Parkway (SR 162). Oak Ridge Highway (SR 62) serves as a primary connection between Oak Ridge to West Knoxville and the downtown I-640 area. Through the study area, the posted speed limit of the roadway is 45 mph.

Pellissippi Parkway (SR 162) is functionally classified as an urban principal arterial by the Tennessee Department of Transportation (TDOT) through the vicinity of the study area and as an expressway according to The City of Knoxville's *Major Road Plan*. Pellissippi Parkway (SR 162) experiences an average annual daily traffic (AADT) volume of 49,254 vehicles per day (vpd) in 2024. Pellissippi Parkway (SR 162) is a four-lane divided highway separated by guardrail with limited access points through the study area. The roadway serves as a connection between Oak Ridge Highway and I-40, connecting Oak Ridge to west Knoxville. Through the study area, the posted speed limit of the roadway is 55 mph.

W. Emory Road is functionally classified as an urban minor collector by the Tennessee Department of Transportation (TDOT) through the vicinity of the study area and as a minor collector according to The City of Knoxville's *Major Road Plan*. W. Emory Road experiences an average annual daily traffic (AADT) volume of 679 vehicles per day (vpd) in 2024 and operates as a two-lane undivided roadway through the study area. The roadway serves as a connection between Oak Ridge Highway and Karns Valley Drive and has a posted speed limit of 30 mph.

Joe Daniels Road is a two-lane undivided local roadway that exclusively serves as an access to a few residential homes and small businesses. There is no posted speed limit along the roadway and therefore falls under the City of Knoxville statutory speed limit of 25 mph for unposted roadways.

Solway Road is functionally classified as an urban minor collector by the Tennessee Department of Transportation (TDOT) through the vicinity of the study area and as a minor collector according to The City of Knoxville's *Major Road Plan*. W. Emory Road experiences an average annual daily traffic (AADT) volume of 2,119 vehicles per day (vpd) in 2024 and operates as a two-lane undivided roadway through the study area. The roadway serves as a connection between Oak Ridge Highway and Hardin Valley Road and has a posted speed limit of 40 mph.

Intersection Inventory

Oak Ridge Highway (SR 62) at W. Emory Road operates as an unsignalized two-way stop-controlled tee-legged intersection. The eastbound approach of Oak Ridge Highway (SR 62) consists of one shared left/through lane and the westbound approach of Oak Ridge Highway (SR 62) consists of one shared through/right-turn lane. The southbound approach of W. Emory Road is stop-controlled and consists of one shared left/right-turn lane. Sidewalk is not present and guardrail lines all approaches of the intersection. Street lighting is not present along any of the approaches of the intersection.

Oak Ridge Highway (SR 62) at Joe Daniels Road operates as an unsignalized two-way stop-controlled intersection. The eastbound approach of Oak Ridge Highway (SR 62) consists of one shared left/through lane and the westbound approach of Oak Ridge Highway (SR 62) consists of one shared through/right-turn lane. The southbound approach of Joe Daniels Road is stop-controlled and consists of one shared left/through/right-turn lane. The northbound approach operates as a private business driveway and consists of one shared left/through/right-turn lane. Sidewalk is not present at the intersection. Street lighting is not present along any of the approaches of the intersection.

Oak Ridge Highway (SR 62) at Solway Road operates as an unsignalized two-way stop-controlled intersection with a median break in the center. The northbound approach of Oak Ridge Highway (SR 62) consists of two through lanes only. The southbound approach of Oak Ridge Highway (SR 62) consists of one left turn lane with 220 feet of storage, one dedicated through lane, and one shared through/right-turn lane. The eastbound approach of Solway Road is stop-controlled and consists of one shared left/through/right-turn lane. The westbound approach of the intersection is stop-controlled with one right turn only lane and operates as a service road to the existing railroad parallel to Oak Ridge Highway (SR 62). Sidewalk is not present at the intersection. Street lighting is not present along any of the approaches of the intersection.

Oak Ridge Highway (SR 62) at U-Turn median operates as an unsignalized intersection with a median break in the center for u-turning vehicles. The northbound approach of Oak Ridge Highway (SR 62) consists of one left turn lane with 330 feet of storage and two through lanes only. The southbound approach of Oak Ridge Highway (SR 62) consists of one shared left/through lane with 220 feet of storage, one dedicated through lane, and one shared through/right-turn lane. The eastbound approach is an open access to several commercial businesses and operates as stop-controlled and consists of one shared left/through/right-turn lane. Sidewalk is present along the west side of Oak Ridge Highway (SR 62). Street lighting is not present along any of the approaches of the intersection.

Multimodal Inventory

There is no existing pedestrian or bicycle infrastructure along Oak Ridge Highway (SR 62) through the study area. There are no KAT Transit bus stops or routes near the project vicinity. There is one Knox County school bus stop near the study area at 9925 W. Emory Road, approximately 0.82-miles from the proposed site entrance. There is currently no signage along either direction of W. Emory Road for warning or advance warning of the school bus stop location.

3. EXISTING 2025 TRAFFIC VOLUMES

3.1. Existing 2025 Traffic Volumes

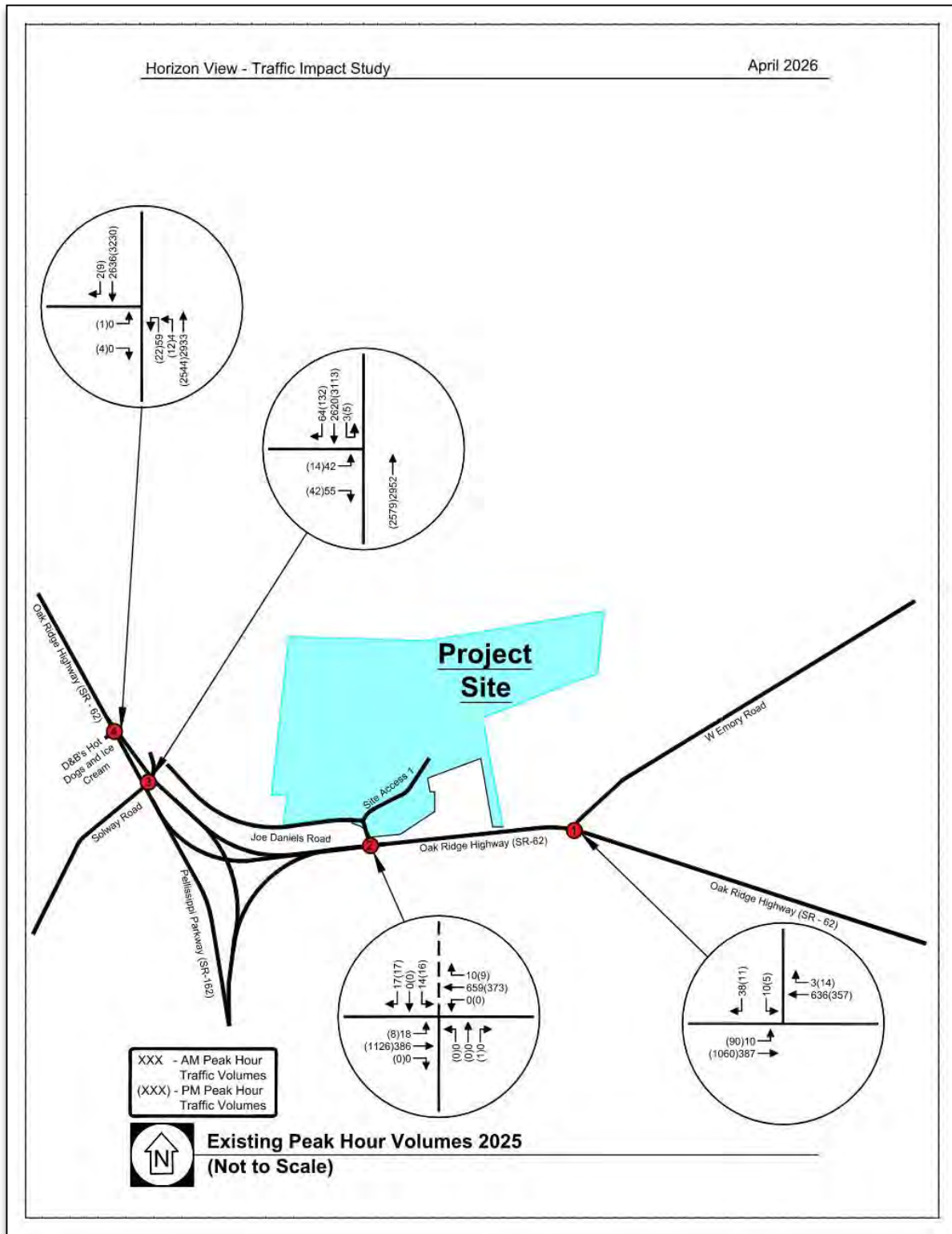
Turning movement traffic counts were collected for the existing study intersection on Thursday, February 27, 2025. The peak hours determined from the traffic counts collected for the study intersection are shown in Table 3.1. The raw existing count data is included in Appendix B.

Table 3.1 – 2025 Turning Movement Collection Summary

Peak	Count Collection Period	Peak Hour
AM	6:00 AM – 12:00 PM	7:00 – 8:00 AM
PM	12:00 PM – 6:00 PM	4:30 – 5:30 PM

The Existing AM and PM peak hour volumes for the study intersections are shown in Figure 3.1.

Figure 3.1 – Existing 2025 AM and PM Peak Hour Traffic Volumes



3.2. Background Growth

Background growth is the general increase in traffic passing through the study area due to regional development and general population growth. It is typically calculated from historic traffic counts collected on a yearly basis by TDOT. Four TDOT count stations are located near the study area. Count station 47000082 is located along Oak Ridge Highway (SR 62) north of the study area and carried an average of 55,304 vehicles per day in 2024. Count station 47000364 is located along Oak Ridge Highway (SR 62) east of the study area and carried an average of 11,842 vehicles per day in 2024. Count station 47000083 is located on Pellissippi Parkway (SR 162) south of the study area and carried an average of 49,254 vehicles per day in 2024. Count station 47000582 is located on Emory Road north of the study area and carried an average of 679 vehicles per day in 2024. The count stations showed an annual growth rate of 0.58% over the past ten years.

Based on historical growth rates, an annual background growth rate of 1.0% per year was applied throughout the study area. Historic count data is included in Appendix B.

No Build 2028 and 2040 Traffic Volumes

A 1% annual growth applied to three years was added to the Existing 2025 traffic volumes to calculate the No Build 2028 traffic volumes and No Build 2040 traffic volumes. The No Build 2028 volumes are the volumes expected to be on the roadway network regardless of the development being built or opening in 2028. The No Build 2040 volumes are the volumes expected to be on the roadway network if only Phase 1 of the development is built, along with historic background growth of the area. There are currently no other developments in the area that are expected to add trips to the road network.

No Build 2028 and 2040 peak hour traffic volumes are shown in Figure 3.2 and Figure 3.3.

Figure 3.2 – No Build 2028 AM and PM Peak Hour Traffic Volumes

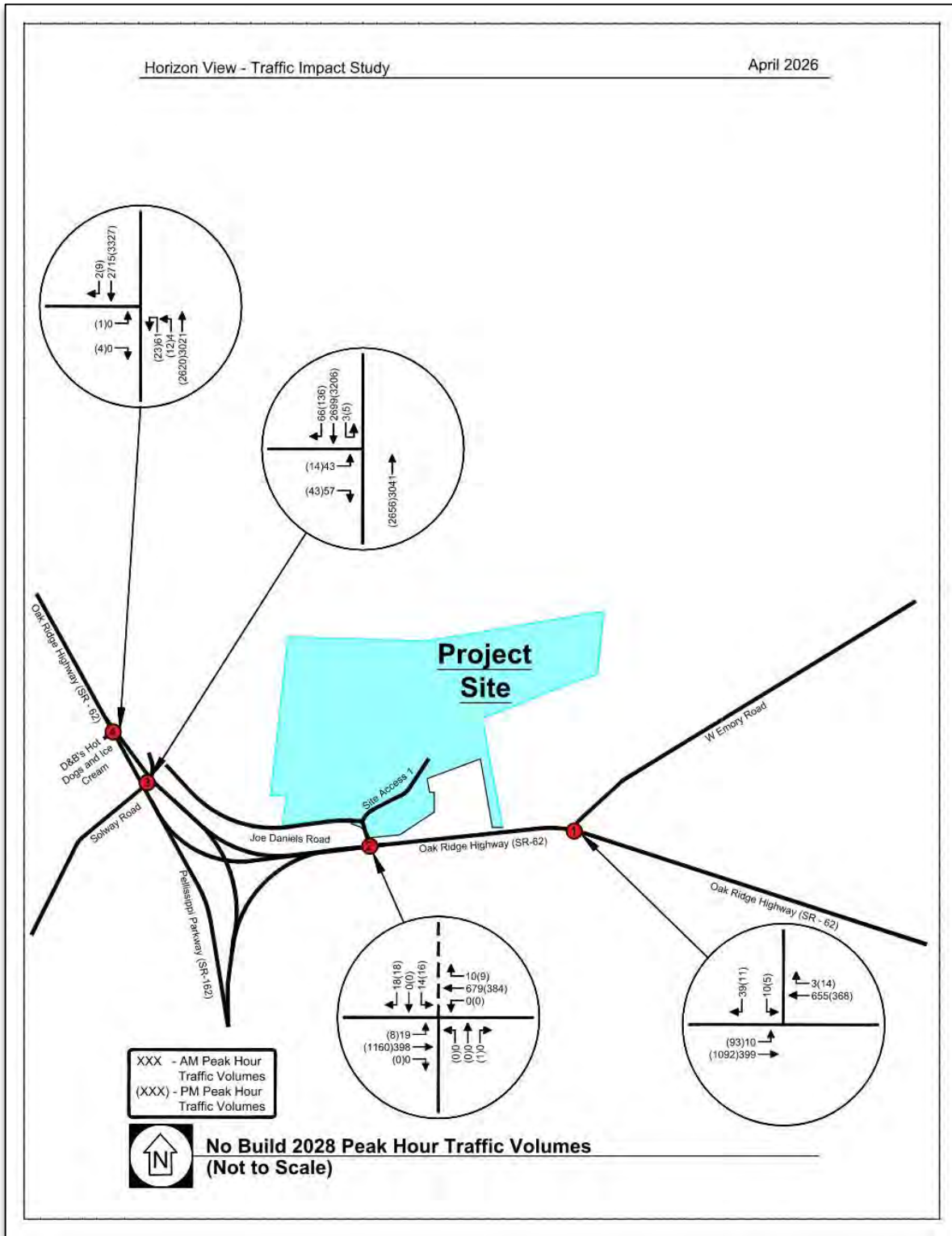
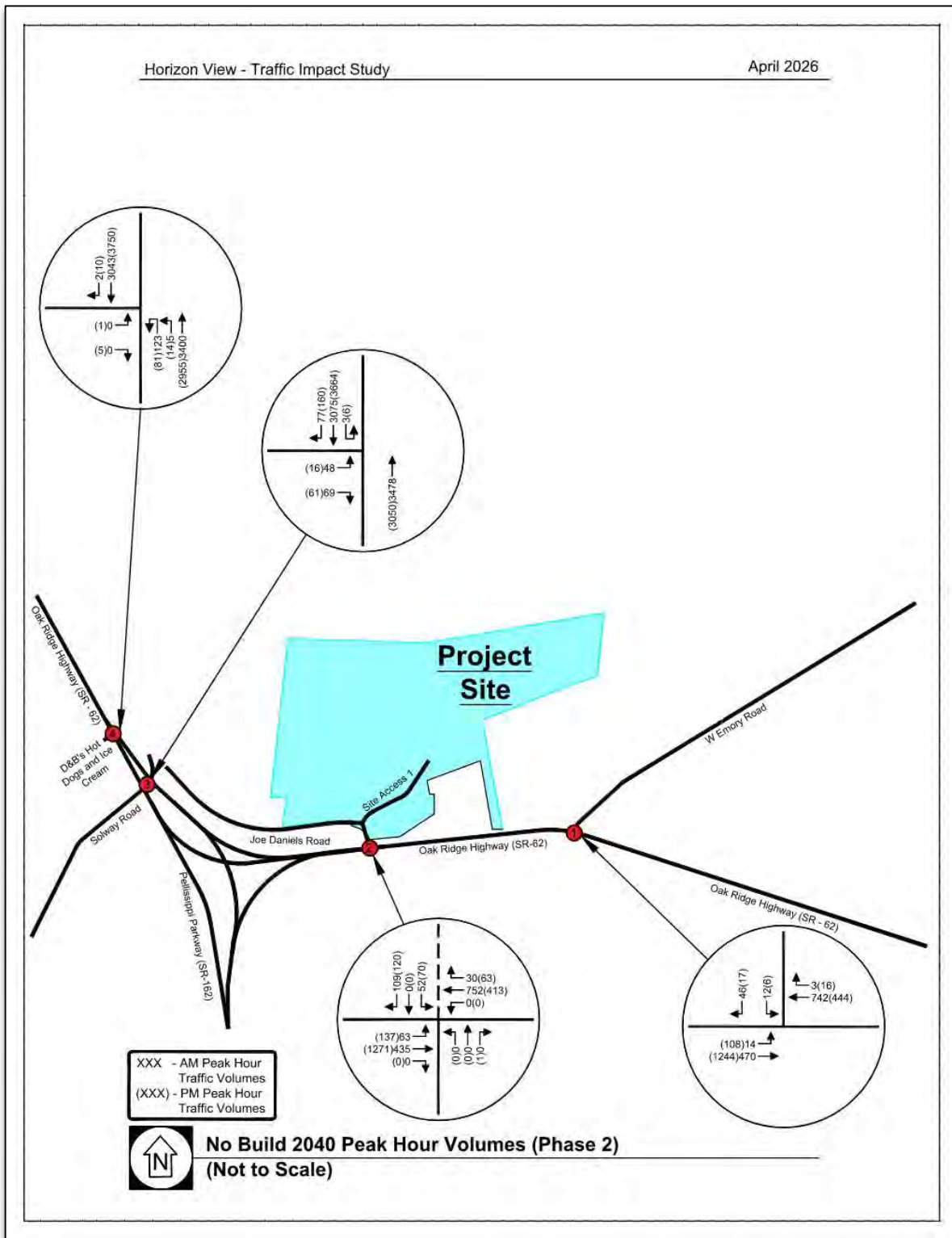


Figure 3.3 – No Build 2040 AM and PM Peak Hour Traffic Volumes



4. PROPOSED DEVELOPMENT

4.1. Proposed Development

The proposed commercial development is anticipated to be built in two Phases: Phase 1 will be operational by 2028 and Phase 2 will be operational in 2040. The development will primarily consist of multifamily housing, typically classified as LUC 220 – Multifamily Housing (Low-Rise) per the *ITE Trip Generation Manual*. Per the *Knoxville - Knox County Planning Commission Transportation Impact Analysis Guidelines*, a specific “Local Apartment” trip generation rate is to be applied for all proposed multifamily development including apartments, condos, townhomes, or other attached housing (excluding college student housing) that is proposed in the Knoxville / Knox County area. Additionally, two standalone commercial buildings are proposed towards the front of the site, both of which are anticipated to serve as small grocery/variety stores.

With these requirements, the land uses for the proposed development are as follows:

Phase 1 (2028):

- LUC 220 - Local Apartment (*Knoxville / Knox County*): 249 Dwelling Units.
- LUC 814 – Variety Store: 9,100 s.f.
- LUC 850 – Supermarket: 12,000 s.f.

Phase 2 (2040):

- LUC 220 - Local Apartment (*Knoxville / Knox County*): 249 Dwelling Units.

A detailed site plan can be found in Appendix A.

4.2. Trip Generation

Trips anticipated to be generated by the proposed development were calculated using ITE methodology, as outlined in the *Trip Generation Handbook (ITE, 3rd Edition)* and using factors from the *Trip Generation Manual (ITE, 11th Edition)*. Per the *Knoxville - Knox County Planning Commission Transportation Impact Analysis Guidelines*, a specific “Local Apartment” trip generation rate fitted equation formulas were applied for all multifamily units. Hourly Trip Generation Rates provided by *ITE’s Trip Generation Handbook, 11th Edition* were applied to the annual projected growth of the study network to determine the hourly projections for No Build and Build 2028 volumes and No Build and Build 2040 volumes.

Developments with a mixture of both commercial and residential land uses are expected to generate internal trips. Internal trips are defined as trips that will start and end on the internal network. These trips are not expected to travel on the existing network and therefore can be removed from the trip generation. The number of trips removed is determined by the location of the different land uses in the development. The internal trip reductions were taken for each commercial land use based on the location of the development using NCHRP 684 Internal Trip Capture Estimation Tool.

Additionally, certain commercial and retail land uses generate pass-by vehicle trips, meaning that vehicles make an intermediate stop on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are not new to the overall roadway network and do not involve route diversion to enter the site driveway(s). The *Trip Generation Manual (ITE, 11th Edition)* provides pass-by rates per land use. A maximum pass-by rate of 60% of new trips for convenient markets and 55% of new trips for supermarkets were applied per Knox County guidelines. These pass-by rates are reflected for the proposed Variety Store and Supermarket land uses below.

The anticipated trip generation with internal capture and pass-by trip reductions is summarized in Table 4.1.

Table 4.1 – Trip Generation Summary

Land Use	ITE Code	Quantity	Units	Weekday	AM			PM		
					Enter	Exit	Total	Enter	Exit	Total
New Trips										
Local Apartment (Knoxville / Knox County) (Phase 1)	220*	249	d.u.	2,167	27	97	124	97	79	176
Variety Store	814	9,100	s.f.	579	15	13	28	31	30	61
Supermarket	850	12,000	s.f.	1,126	20	14	34	54	53	107
Local Apartment (Knoxville / Knox County) (Phase 2)	220*	332	d.u.	2,806	36	126	162	128	104	232
Internal Trips										
Variety Store	814	9,100	s.f.	-17	-1	0	-1	0	-4	-4
Supermarket	850	12,000	s.f.	-34	-1	0	-1	-1	-6	-7
Pass-by Trips										
Variety Store	814	9,100	s.f.	-337	-9	-9	-18	-20	-17	-37
Supermarket	850	12,000	s.f.	-491	-9	-6	-15	-24	-21	-45
New Net External Trips				5,835	81	238	319	269	221	490

*Local Apartment trip generation per the Knoxville – Knox County Planning Commission Transportation Impact Analysis Guidelines

Detailed trip generation equations from the *Trip Generation Manual (ITE, 11th Edition)* and the *Knoxville – Knox County Planning Commission Transportation Impact Analysis Guidelines* are included in Appendix C.

4.3. Trip Distribution and Assignment

A distribution of the trips generated by the project site was prepared based on the existing traffic counts, historical traffic data, and knowledge of existing travel patterns. The entering/exiting distributions for proposed residential trips are summarized in Table 4.2 and summarized for non-residential trips in Table 4.3.

Table 4.2 – Trip Distribution Summary – Residential Trips

Direction of Approach	Assumed Distribution
Residential	
to/from North via Oak Ridge Highway (SR 62)	25%
to/from South via Pellissippi Parkway (SR 162)	50%
to/from East via Oak Ridge Highway (SR 62)	25%

Table 4.3 – Trip Distribution Summary – Non-Residential Trips

Direction of Approach	Assumed Distribution
Residential	
to/from North via Oak Ridge Highway (SR 62)	25%
to/from South via Pellissippi Parkway (SR 162)	25%
to/from East via W. Emory Road	10%
to/from East via Oak Ridge Highway (SR 62)	20%
to/from West via Solway Road	20%

The expected new trip distribution and assignments for residential trips for Phase 1 are shown in Figure 4.1 and Figure 4.2, respectively.

The expected new trip distribution and assignments for non-residential trips for Phase 1 are shown in Figure 4.3 and Figure 4.4, respectively.

The combined residential and non-residential trips for Phase 1 are shown in Figure 4.5.

The expected new trip distribution and assignments for residential trips for Phase 2 are shown in Figure 4.6 and Figure 4.7, respectively.

There are no non-residential trips proposed for Phase 2.

Figure 4.1 – Residential Trip Distribution (Phase 1)

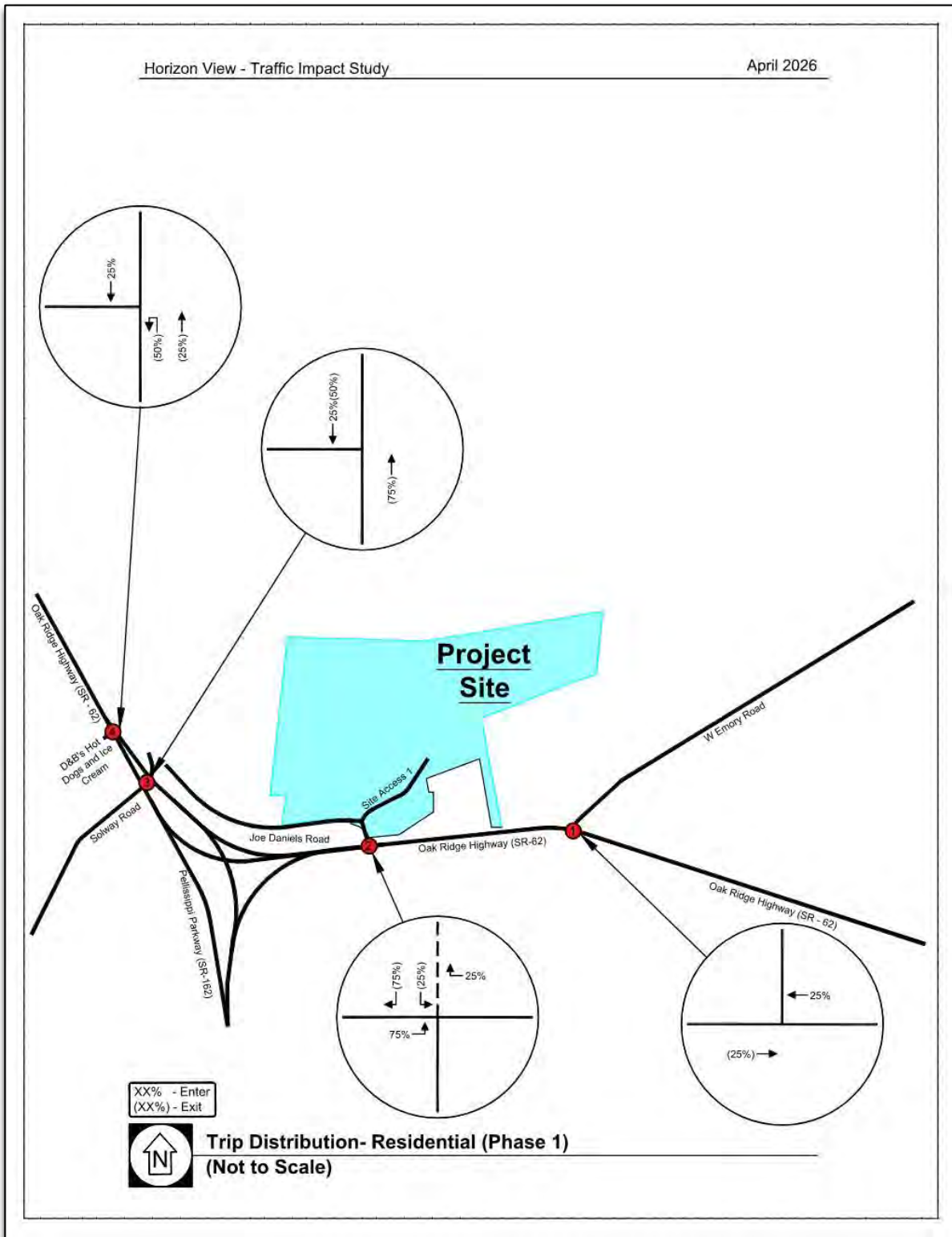


Figure 4.2 – Residential Trip Assignment (Phase 1)

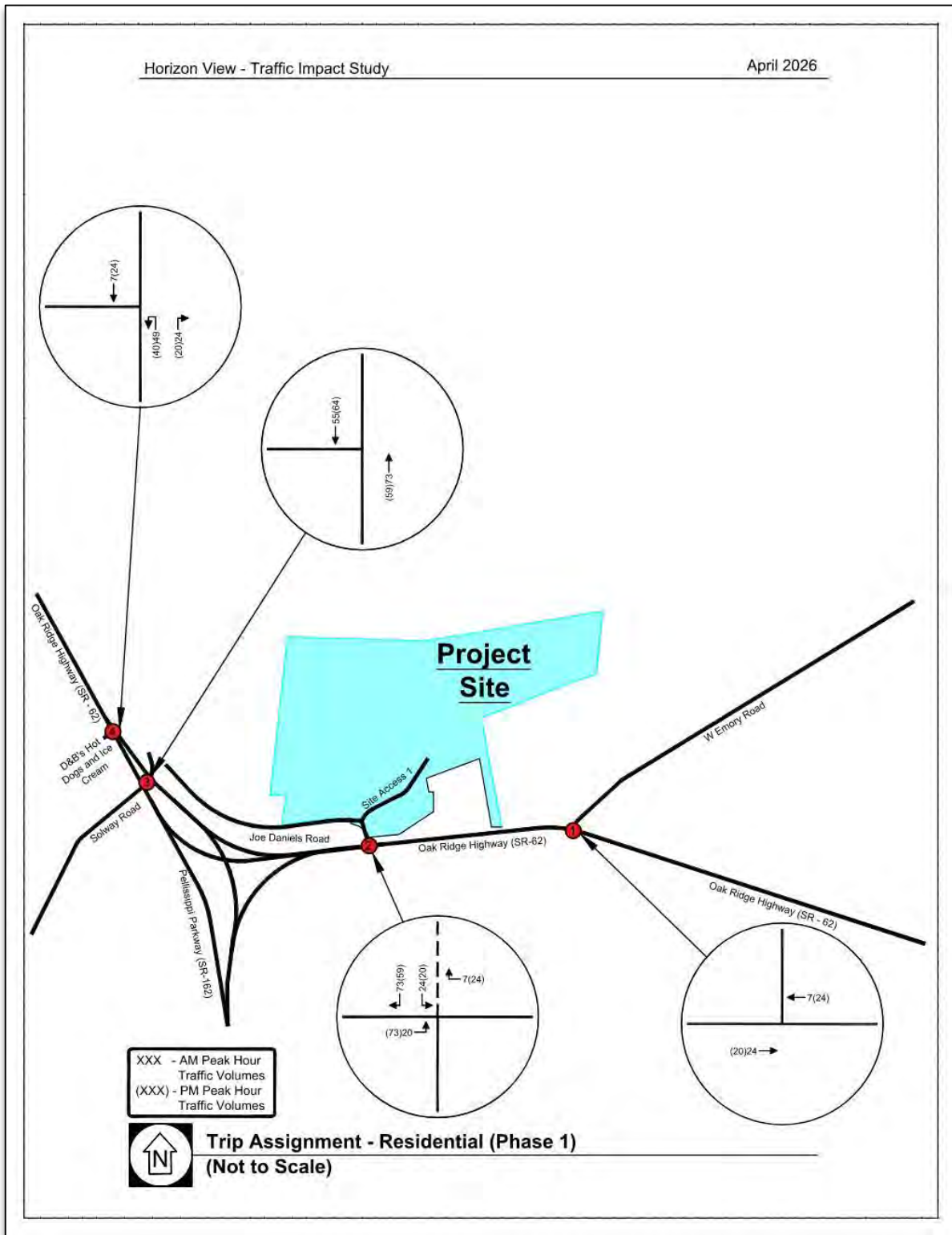


Figure 4.3 – Non-Residential Trip Distribution (Phase 1)

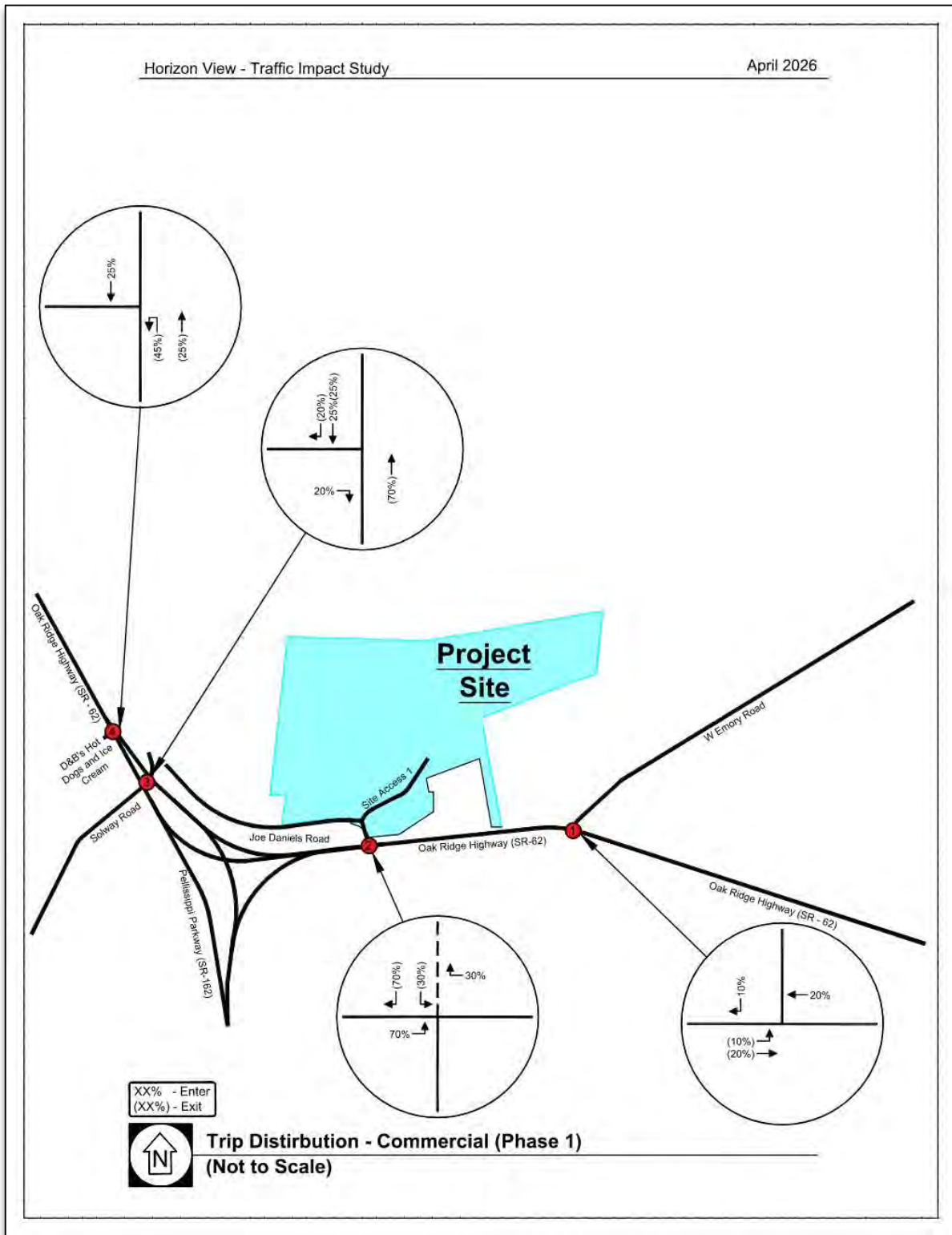


Figure 4.4 – Non-Residential Trip Assignment (Phase 1)

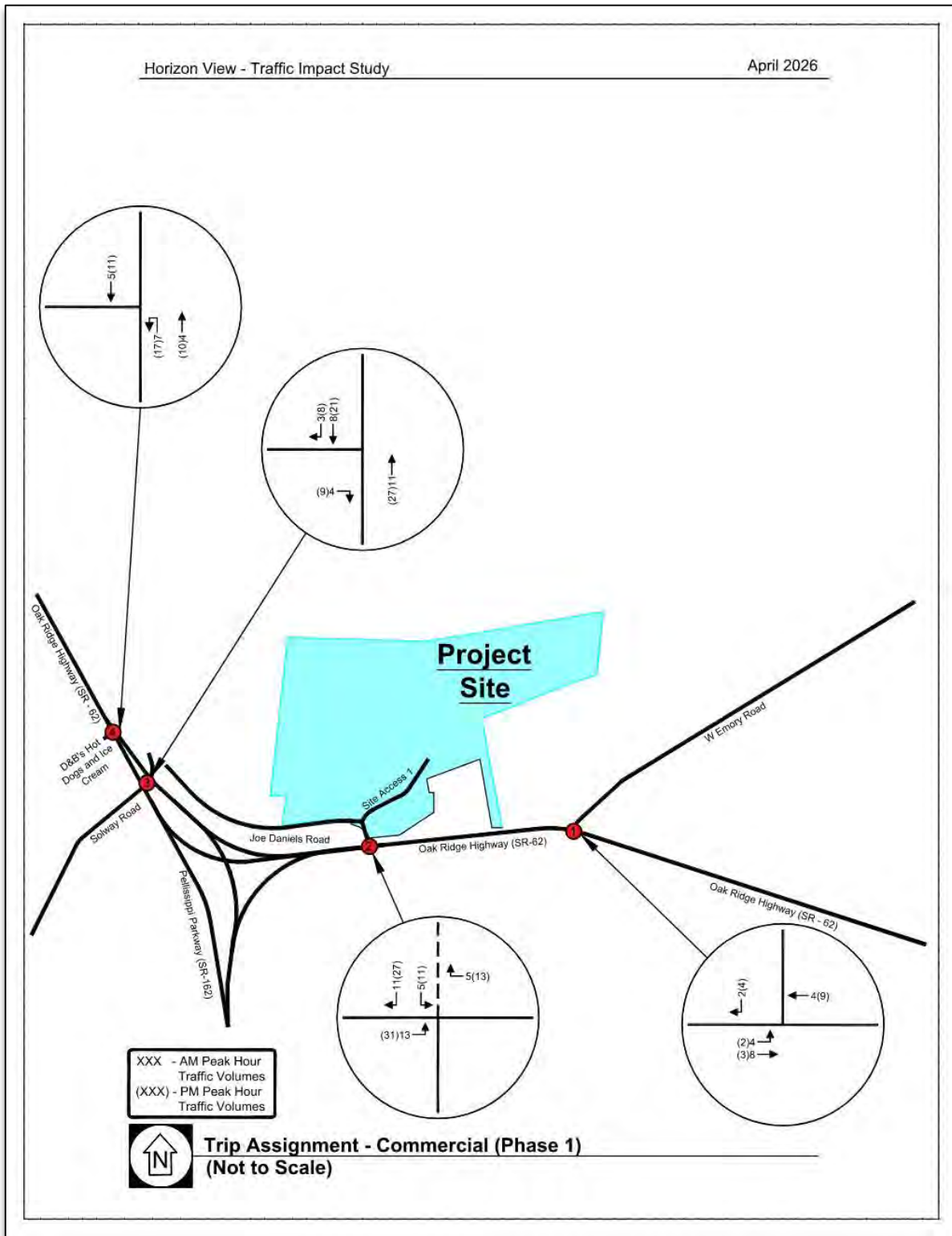


Figure 4.5 – Total Residential and Non-Residential Trips (Phase 1)

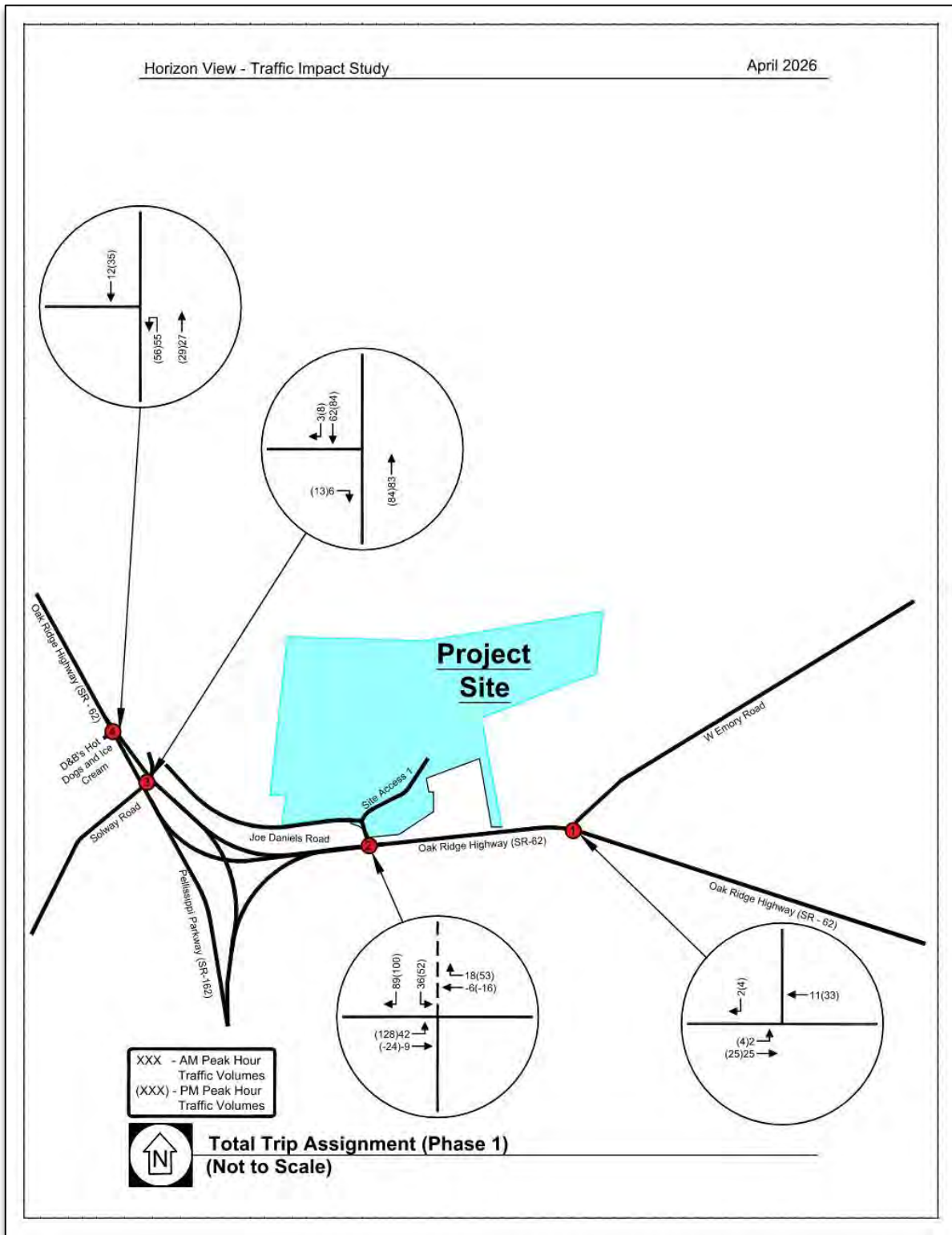


Figure 4.6 – Residential Trip Distribution (Phase 2)

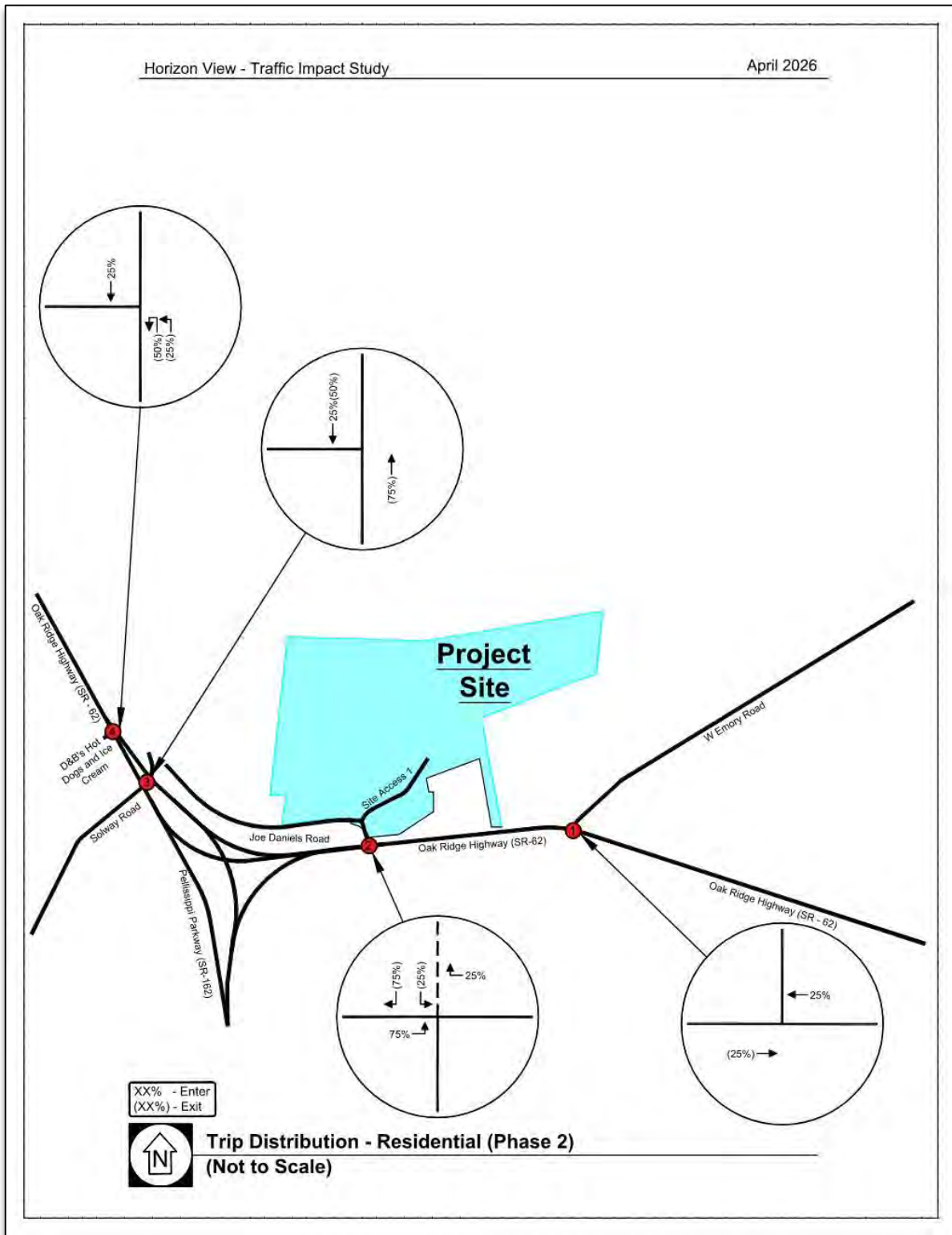
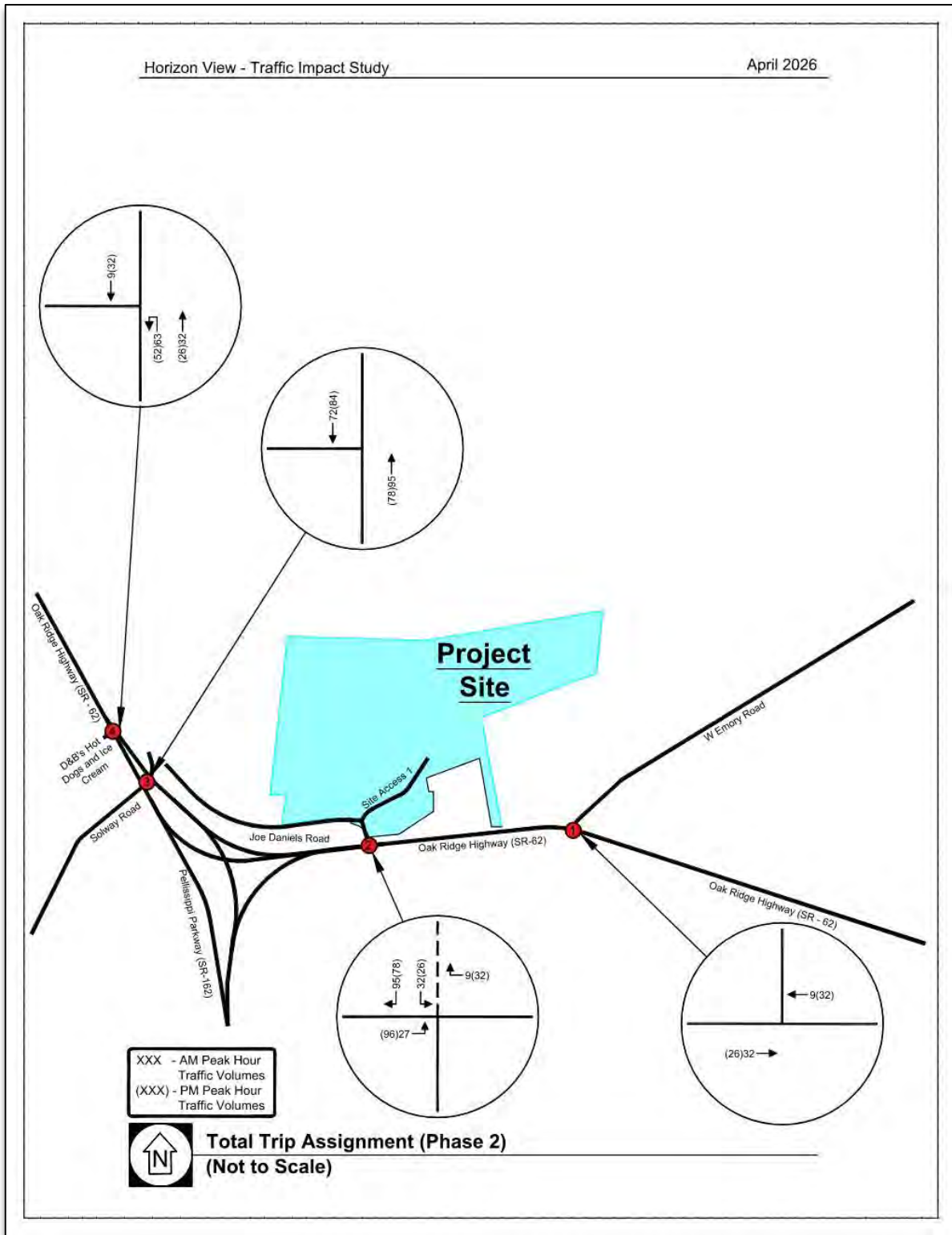


Figure 4.7 – Total Trip Assignment (Phase 2)



4.4. Build 2028 and Build 2040 Traffic Volumes

The Build 2028 and Build 2040 volumes represent the traffic volumes expected to be traveling through the study area network after Phase 1 and Phase 2 openings of the development. New site generated peak hour traffic volumes were added to the anticipated No Build 2028 traffic volumes to determine the Build 2028 volumes, shown in Figure 4.8. No Build 2040 volumes represent the background growth of existing traffic volumes while also including the Phase 1 Build volumes from 2028, shown in Figure 4.9.

Figure 4.8 – Build 2028 AM and PM Peak Hour Traffic Volumes

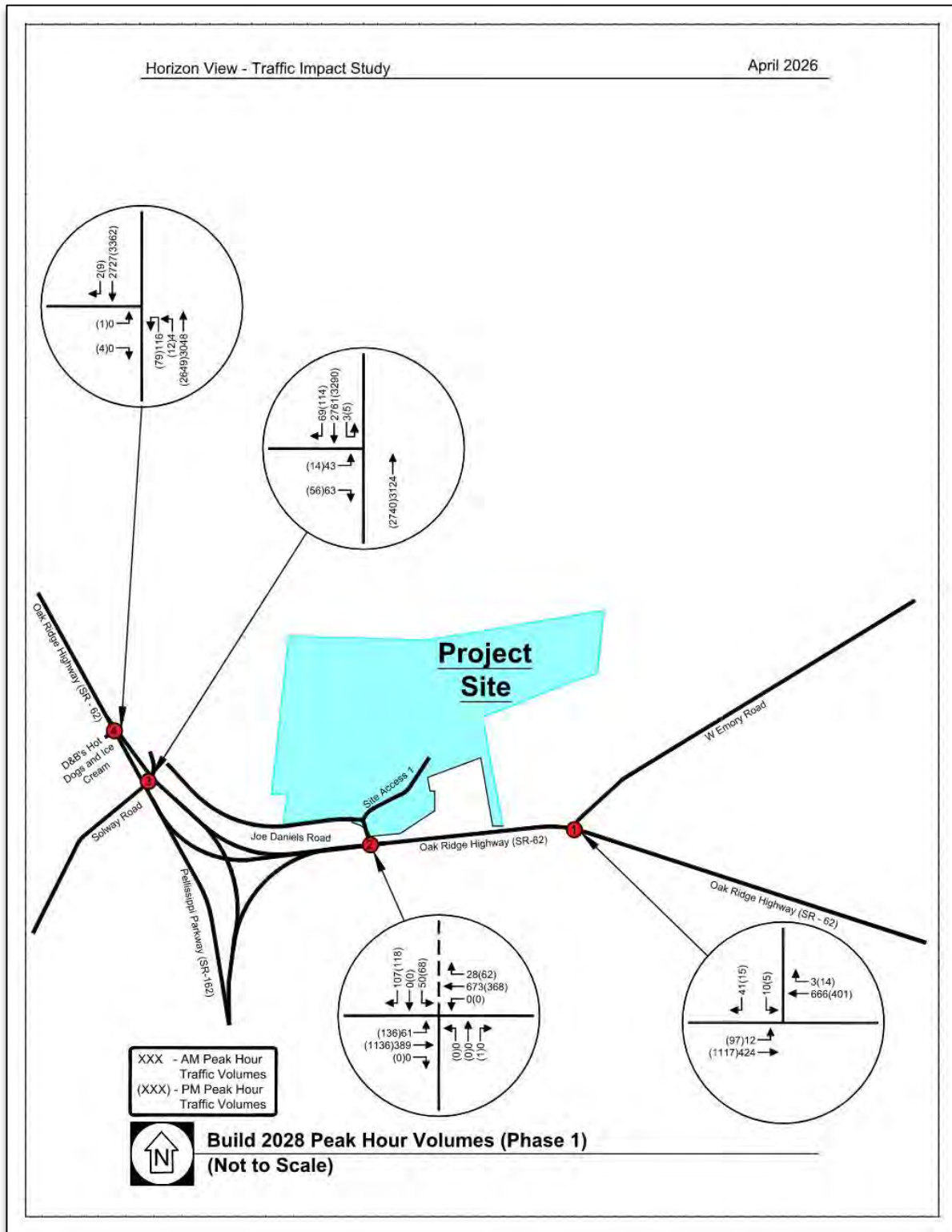
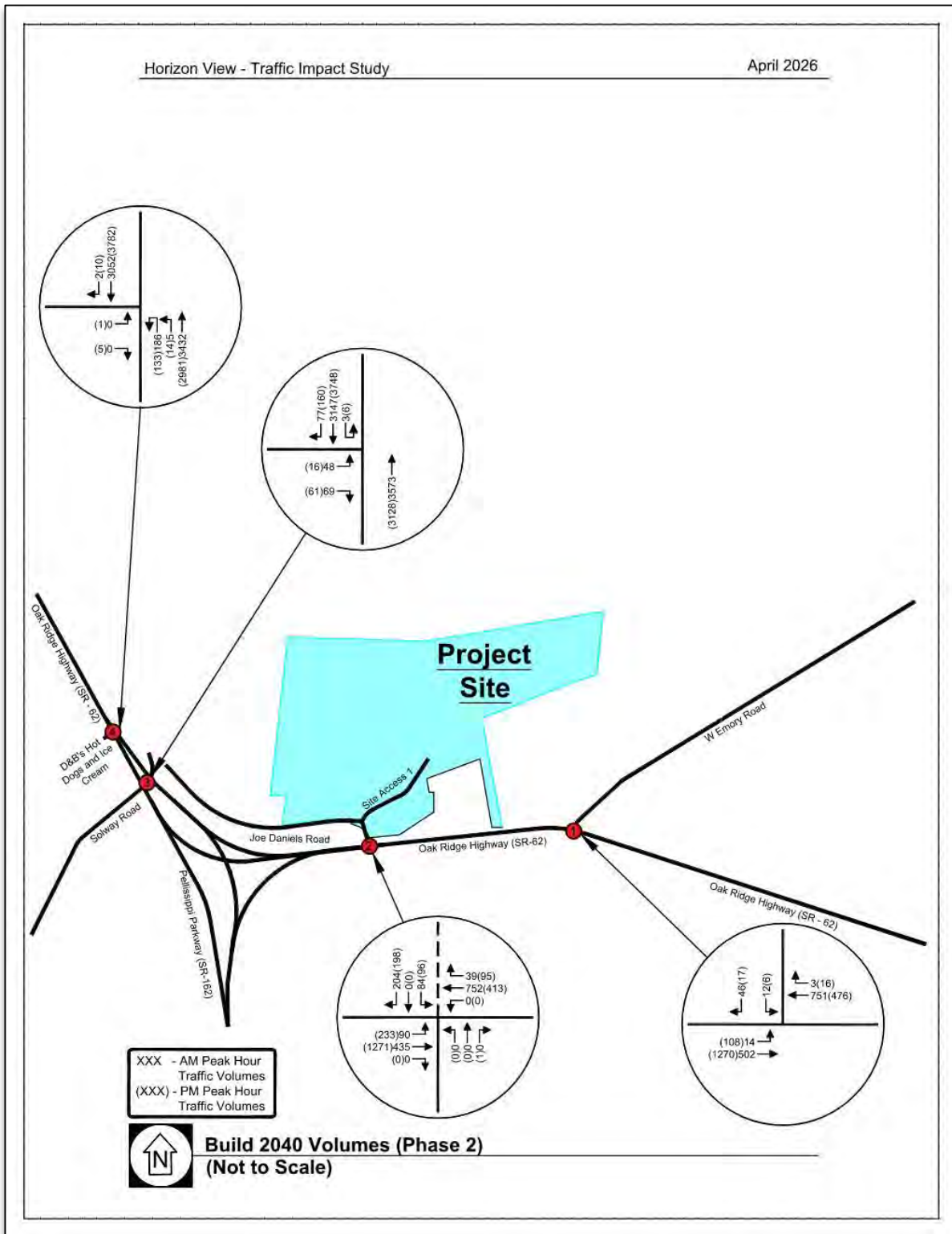


Figure 4.9 – Build 2040 AM and PM Peak Hour Traffic Volumes



5. OPERATIONAL ANALYSIS

5.1. Analysis

5.1.1. Methodology

The *Highway Capacity Manual, 7th Edition* (HCM) outlines the methodology used for conducting operational analysis of the study intersections. The performance measures used in this methodology are based on the average delay, in seconds, experienced per vehicle at the intersection. Delay is further summarized in terms of Level of Service (LOS), a letter grade based on the calculated delay that ranges from A, the best, to F, the worst. The relationship between control delay and LOS for signalized and unsignalized intersections is summarized in Table 5.1.

Table 5.1 – Level of Service Criteria

Level of Service	Description	Average Control Delay (seconds per vehicle)	
		Signalized	Unsignalized
A	<i>Free flow</i>	≤ 10	≤ 10
B	<i>Stable flow, slight delay</i>	> 10 - 20	> 10 - 15
C	<i>Stable flow, acceptable delay</i>	> 20 - 35	> 15 - 25
D	<i>Near-unstable flow, tolerable delay</i>	> 35 - 55	> 25 - 35
E	<i>Unstable flow, intolerable delay</i>	> 55 - 80	> 35 - 50
F	<i>Forced flow, failure</i>	> 80	> 50

Source: Highway Capacity Manual (HCM 7th Edition)

5.1.2. Analysis Conditions

The results of the Existing 2025, No Build 2028, Build 2028, No Build 2040, and Build 2040 scenarios are summarized for the AM and PM peak hours. Anticipated queue lengths are reported in feet and based on Synchro 95th percentile queueing results. Capacity Analysis results are included in Appendix D.

Existing 2025

The existing roadway geometry and traffic control along with the existing traffic counts were used in the analysis. As shown in Table 5.2, many approaches operate at LOS D or better. Several intersection approaches currently operate at failing LOS including the eastbound approach of Oak Ridge Highway (SR 62) at Solway Road and the northbound U-turn / left-turn movement along Oak Ridge Highway (SR 62) at the U-Turn median in both the AM and PM peak hour. Additionally, the southbound U-turn / left-turn approach of Oak Ridge Highway (SR 62) at Solway Road operates at LOS E in the AM peak hour. The eastbound driveway approach at Oak Ridge Highway (SR 62) at the U-turn median operates at LOS E in the PM peak hour. This is likely due to the stop-control operation of the side

streets and yielding of u-turning vehicles for vehicle gaps along Oak Ridge Highway (SR 62), causing delay for left turning vehicles when trying to enter Oak Ridge Highway (SR 62).

No Build 2028

The No Build 2028 analysis was conducted with the same roadway geometry as the Existing 2025 analysis. All approaches operate at the same LOS as the Existing 2025 scenario, with a slight increase in delay and queuing all most approaches.

Build 2028

The Build 2028 analysis was conducted with the same roadway geometry as the No Build 2028 analysis, with the addition of Phase 1 of the proposed development operating along Joe Daniels Road at Oak Ridge Highway (SR 62). As shown in Table 5.2, most approaches are anticipated to operate at LOS D or better, with the exception of the same previous intersections operating at a failing LOS in the AM and PM peak hours. Several approaches experience a significant increase in delay, including the southbound approach of Joe Daniels Road at Oak Ridge Highway (SR 62) which is anticipated to operate at LOS F in both the AM and PM peak hours. This is likely due to the lack of vehicle gaps along Oak Ridge Highway (SR 62) for left turning vehicles exiting the development from Joe Daniels Road. The existing storage length for the northbound U-turn / left-turn storage lane along Oak Ridge Highway (SR 62) is expected to be exceeded in the AM peak hour by 83 feet.

No Build 2040

The No Build 2040 analysis was conducted with the same roadway geometry as the Build 2028 analysis. The No Build 2040 scenario analyzes the impacts if Phase 1 of the development is built without Phase 2 in 2040. Similar to the Build 2028 conditions, most approaches are anticipated to operate at LOS D or better, with the exception of the same previous intersections operating at a failing LOS in the AM and PM peak hours. Specifically, the southbound approach of Joe Daniels Road is expected to experience a large increase in delay in the AM and PM peak hours. Additionally, the southbound approach of W. Emory Road and the southbound U-turn / left-turn movement of Oak Ridge Highway (SR 62) at Solway Road both are anticipated to operate at LOS E in the PM peak hour.

Build 2040

The Build 2040 analysis was conducted with the same roadway geometry as the No Build 2040 analysis but with full development traffic incorporated. All approaches continue to operate with the same LOS as the No Build 2040 scenario, with some intersections seeing a significant increase in delay. The southbound approach of Joe Daniels Road is expected to experience a large increase in delay and queue length in the AM and PM peak hours. The existing storage length for the northbound U-turn / left-turn storage lane along Oak Ridge Highway (SR 62) is expected to be exceeded in both the AM and PM peak hours by as much as 348 feet.

Build Improved 2040

The Build Improved 2040 analysis was conducted with the same full development traffic as the Build 2040 analysis but with different intersection geometry at the intersection of Oak Ridge Highway (SR 62) at Joe Daniels Road / Site Access. The installation of a traffic signal at the intersection improves overall LOS to operate at D or better in the AM and PM peak hours, however the southbound approach of Joe Daniels Road is expected to operate at LOS F.

Table 5.2 – Capacity Analysis Results – AM and PM Peak Hour

Intersection	Approach	Existing Storage	2025			2028						2040								
			Existing			No Build			Build			No Build			Build			Build Improved Signal		
			Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
1. Oak Ridge Highway (SR 62) at W. Emory Road	EB LT	--	9.2	A	0'	9.3	A	0'	9.3	A	0'	9.7	A	3'	9.7	A	3'	--	--	--
	SB	--	16.9	C	13'	17.4	C	15'	17.8	C	15'	21.1	C	20'	21.8	C	23'	--	--	--
2. Oak Ridge Highway (SR 62) at Joe Daniels Road / Site Access	Overall	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28.9	C	--	
	EB LT	--	9.3	A	3'	9.4	A	3'	9.7	A	8'	10.1	B	8'	10.4	B	10'	--	--	--
	WB LT	--	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	--	--	--
	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12.5	B	226'
	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33.0	C	722'
	NB	--	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'
SB	--	23.3	C	13'	24.3	C	13'	60.6	F	135'	113.2	F	195'	>300.0	F	578'	47.7	D	318'	
3. Oak Ridge Highway (SR 62) at Solway Road	EB	--	>300.0	F	325'	>300.0	F	343'	>300.0	F	368'	>300.0	F	430'	>300.0	F	435'	--	--	--
	WB	--	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	--	--	--
	SB U-Turn / LT	220'	47.4	E	3'	51.7	E	3'	56.1	F	3'	80.5	F	5'	89.1	F	5'	--	--	--
4. Oak Ridge Highway (SR 62) at U-Turn median	EB	--	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	--	--	--
	NB U-Turn / LT	350'	>300.0	F	228'	>300.0	F	240'	>300.0	F	433'	>300.0	F	480'	>300.0	F	698'	--	--	--
1. Oak Ridge Highway (SR 62) at W. Emory Road	EB LT	--	8.3	A	8'	8.4	A	8'	8.5	A	8'	8.7	A	8'	8.8	A	10'	--	--	--
	SB	--	24.0	C	8'	25.8	D	8'	25.4	D	8'	38.6	E	15'	44.2	E	18'	--	--	--
2. Oak Ridge Highway (SR 62) at Joe Daniels Road / Site Access	Overall	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40.0	D	--	
	EB LT	--	8.1	A	0'	8.2	A	0'	8.8	A	13'	8.9	A	13'	9.6	A	23'	--	--	--
	WB LT	--	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	--	--	--
	EB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29.6	C	1,328'
	WB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11.0	B	233'
	NB	--	21.0	C	0'	21.8	C	0'	21.2	C	0'	24.7	C	0'	24.7	C	0'	41.9	D	0'
SB	--	36.8	E	23'	36.8	E	25'	>300.0	F	478'	>300.0	F	583'	>300.0	F	1,040'	143.5	F	390'	
3. Oak Ridge Highway (SR 62) at Solway Road	EB	--	>300.0	F	175'	>300.0	F	185'	>300.0	F	225'	>300.0	F	273'	>300.0	F	278'	--	--	--
	WB	--	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'	--	--	--
	SB U-Turn / LT	220'	28.4	D	3'	30.2	D	3'	32.4	D	3'	42.6	E	5'	45.7	E	5'	--	--	--
4. Oak Ridge Highway (SR 62) at U-Turn median	EB	--	48.8	E	5'	52.6	F	5'	54.0	F	5'	75.2	F	8'	77.3	F	8'	--	--	--
	NB U-Turn / LT	350'	>300.0	F	128'	>300.0	F	138'	>300.0	F	330'	>300.0	F	353'	>300.0	F	523'	--	--	--

5.2. Warrants

5.2.1. Signal Warrant Analysis

A signal warrant analysis was conducted to evaluate the need of a potential traffic signal at Oak Ridge Highway (SR 62) at Joe Daniels Road.

The *Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways (11th Edition)* published by *Federal Highway Administration (FHWA)*, sets forth nine different warrants that have been developed to aid in the determination of when a signal is warranted. These warrants present minimum conditions that normally indicate when a traffic signal is justified at a particular location. The MUTCD states that “traffic control signals should not be installed unless one or more of the factors...are met.”

The nine warrants are based on specific transportation characteristics such as traffic volumes, pedestrian related warrants, roadway operations and safety. The nine warrants criteria are listed below:

- #1 – Eight-Hour Vehicular Volumes
 - Condition A - Minimum Vehicular Volume
 - Condition B - Interruption of Continuous Traffic
- #2 – Four-Hour Vehicular Volume
- #3 – Peak Hour
- #4 – Pedestrian Volume
- #5 – School Crossing
- #6 – Coordinated Signal System
- #7 – Crash Experience
- #8 – Roadway Network
- #9 – Intersection Near a Grade Crossing

The City of Knoxville requires that “traffic signal equipment and installation comply with...the most recent edition of the *Manual on Uniform Traffic Control Devices*.”

Volume warrants 1 and 2 were evaluated at the intersection of Oak Ridge Highway (SR 62) at Joe Daniels Road to determine if a traffic signal is warranted for vehicular operations. The signal warrant analysis hourly data was analyzed directly from 12-hour TMC that was collected on Thursday, February 27, 2025. Due to having the existing 12-hour TMC, the annual growth rate was applied to the already distributed hourly traffic. Hourly Trip Generation Rates provided by *ITE’s Trip Generation Handbook, 11th Edition* were applied to the annual projected growth of the study network to determine the hourly projections for No Build 2028, Build 2028, No Build 2040, and Build 2040 volumes. The results of this analysis are shown in Table 5.3.

Table 5.3 – Signal Warrant Analysis Results – Oak Ridge Highway (SR 62) at Joe Daniels Road

	Warrant Type	Warrant Satisfied?				
		Existing 2025	No Build 2028	Build 2028	No Build 2040	Build 2040
Warrant 1A:	Eight-Hour Minimum Vehicular Volume	NO , 0/8 hours (100%)	NO , 0/8 hours (100%)	YES , 8/8 hours (100%)	YES , 8/8 hours (100%)	YES , 8/8 hours (100%)
Warrant 1B:	Eight-Hour Interruption of Continuous Traffic	NO , 0/8 hours (100%)	NO , 0/8 hours (100%)	YES , 8/8 hours (100%)	YES , 8/8 hours (100%)	YES , 8/8 hours (100%)
Warrant 2:	Four-Hour Vehicle Volume	NO , 0/4 hours	NO , 0/4 hours	YES , 4/4 hours	YES , 4/4 hours	YES , 4/4 hours
RESULT		Signal is NOT Warranted	Signal is NOT Warranted	Signal IS Warranted	Signal IS Warranted	Signal IS Warranted

In the Build 2028, No Build 2040, and Build 2040 scenarios, Warrant 1A, Warrant 1B, and Warrant 2 are met for a traffic signal installation. These results indicate that a traffic signal is warranted and should be installed at the study intersection during Phase 1 construction of the development.

A traffic signal is warranted at the study intersection, however existing interchange geometry presents constraints for adequate vehicle weaving and storage from the interchange of Oak Ridge Highway (SR 62) at Pellissippi Parkway (SR 162) and the study intersection. A traffic signal installation is conditional to the reconstruction of the interchange weaving and merging area between the two highways. Adequate spacing for vehicles to merge across to the eastbound left turn lane at the study intersection is critical to the success of a traffic signal at this location.

Full warrant analysis results are included in Appendix D.

5.2.2. Turn Lane Warrants

Right turn and left turn warrants for the unsignalized approaches along Oak Ridge Highway (SR 62) at Joe Daniels Road and left turn warrants along Oak Ridge Highway (SR 62) at W. Emory Road were evaluated according to the *TDOT Highway System Access Manual (HSAM)* methodology.

The results of the right turn and left turn warrants are shown in Table 5.4 and Table 5.5, respectively.

Table 5.4 – Right Turn Warrant Analysis Results – Oak Ridge Highway (SR 62)

Approach	Major Road Speed	Peak Hour	Major Road Volume	Right Turn Volume	Warrant Met?
Existing 2025					
WB – Oak Ridge Highway (SR 62)	45 mph	AM	669	10	NO
at Joe Daniels Road		PM	382	9	NO
No Build 2028					
WB – Oak Ridge Highway (SR 62)	45 mph	AM	689	10	NO
at Joe Daniels Road		PM	393	9	NO
Build 2028					
WB – Oak Ridge Highway (SR 62)	45 mph	AM	701	28	YES
at Joe Daniels Road / Site Entrance		PM	430	62	YES
No Build 2040					
WB – Oak Ridge Highway (SR 62)	45 mph	AM	782	30	YES
at Joe Daniels Road / Site Entrance		PM	476	63	YES
Build 2040					
WB – Oak Ridge Highway (SR 62)	45 mph	AM	791	39	YES
at Joe Daniels Road / Site Entrance		PM	508	95	YES

Table 5.5 – Left Turn Warrant Analysis Results - Oak Ridge Highway (SR 62)

Approach	Major Road Speed	Peak Hour	Major Arterial Volume	Left Turn Volume	Warrant Met?
Existing 2025					
EB – Oak Ridge Highway (SR 62)	45 mph	AM	669	18	YES
at Joe Daniels Road		PM	382	8	YES
EB – Oak Ridge Highway (SR 62)	45 mph	AM	639	10	YES
at W. Emory Road		PM	371	90	YES
No Build 2028					
EB – Oak Ridge Highway (SR 62)	45 mph	AM	689	19	YES
at Joe Daniels Road		PM	393	8	YES
EB – Oak Ridge Highway (SR 62)	45 mph	AM	658	10	YES
at W. Emory Road		PM	382	93	YES
Build 2028					
EB – Oak Ridge Highway (SR 62)	45 mph	AM	701	61	YES
at Joe Daniels Road		PM	430	136	YES
EB – Oak Ridge Highway (SR 62)	45 mph	AM	669	12	YES
at W. Emory Road		PM	415	97	YES
No Build 2040					
EB – Oak Ridge Highway (SR 62)	45 mph	AM	782	63	YES
at Joe Daniels Road		PM	476	137	YES
EB – Oak Ridge Highway (SR 62)	45 mph	AM	745	14	YES
at W. Emory Road		PM	460	108	YES
Build 2040					
EB – Oak Ridge Highway (SR 62)	45 mph	AM	791	90	YES
at Joe Daniels Road		PM	508	233	YES
EB – Oak Ridge Highway (SR 62)	45 mph	AM	754	14	YES
at W. Emory Road		PM	492	108	YES

An eastbound left turn lane and westbound right turn lane is warranted along Oak Ridge Highway (SR 62) at Joe Daniels Road. Additionally, an eastbound left turn lane along Oak Ridge Highway (SR 62) at W. Emory Road is warranted in Existing 2025 conditions.

Full warrant analysis results are included in Appendix D.

6. RECOMMENDATIONS

Based on this study's findings, the following improvements are recommended to better enhance traffic operations within the study area before and/or upon completion of the proposed development. These improvements are defined based on existing or background conditions without the proposed development as well as anticipated conditions once the proposed development is operational. Improvements outlined in Existing or No Build conditions should be considered for improved roadway operations regardless of the proposed development:

Existing 2025

Oak Ridge Highway (SR 62) at W. Emory Road:

- **Install one left turn lane with 50 feet of storage** along the eastbound approach of Oak Ridge Highway (SR 62).

Oak Ridge Highway (SR 62) at U-Turn median:

- **Consider corridor operational and safety study** along Oak Ridge Highway (SR 62) from Solway Road to Burchfield Drive / Sparks Road to provide potential mitigation for heavy u-turning vehicles.

Build 2028

Oak Ridge Highway (SR 62) at Joe Daniels Road:

- **Install a traffic signal** with the following laneage:
 - Oak Ridge Highway (SR 62) - Eastbound approach
 - One left turn lane with a minimum of 100 feet of storage
 - One shared through / right turn lane with full storage
 - Oak Ridge Highway (SR 62) – Westbound approach
 - One shared left turn / through lane with full storage
 - One right turn lane with a minimum of 100 feet of storage
 - Joe Daniels Road – Northbound approach
 - One shared left turn / through / right turn lane with full storage
 - Joe Daniels Road – Southbound approach
 - One shared left turn / through / right turn lane with full storage

A traffic signal is warranted at the study intersection, however existing interchange geometry presents constraints for adequate vehicle weaving and storage from the interchange of Oak Ridge Highway (SR 62) at Pellissippi Parkway (SR 162) and the study intersection. A traffic signal installation is conditional to the reconstruction of the interchange weaving and merging area between the two highways. Adequate spacing for vehicles to merge across to the eastbound left turn lane at the study intersection is critical to the success of a traffic signal at this location.

- **Realign Joe Daniels Road to align with site access** along the southbound approach. The site access will operate with one ingress lane and one egress lane per the proposed site plan in Appendix A.

APPENDIX A – PROPOSED SITE PLAN

Proposed Site Plan

APPENDIX B – DATA COLLECTION

Existing Data Counts

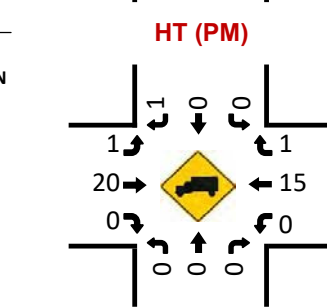
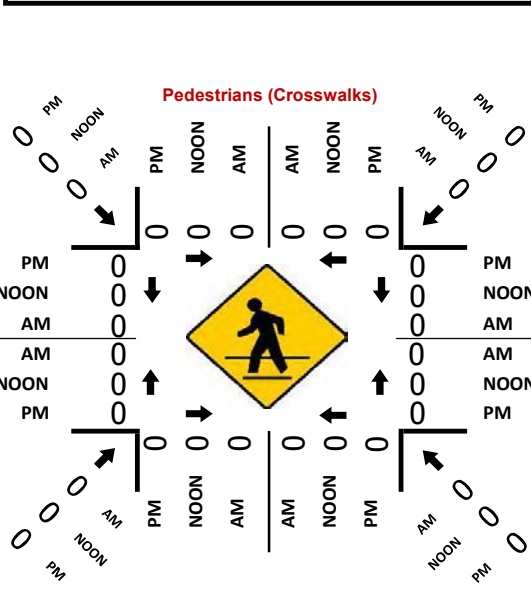
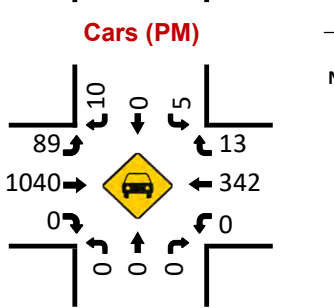
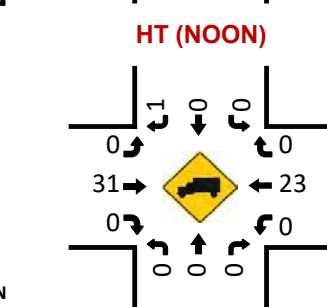
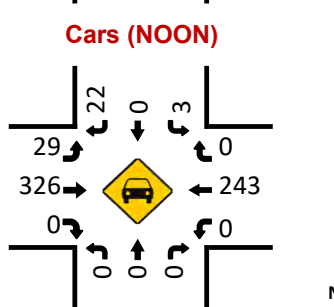
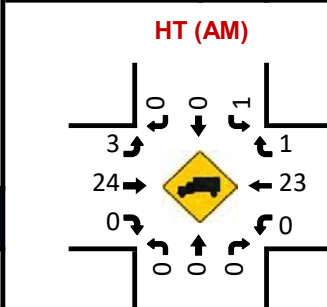
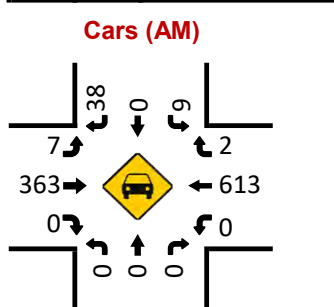
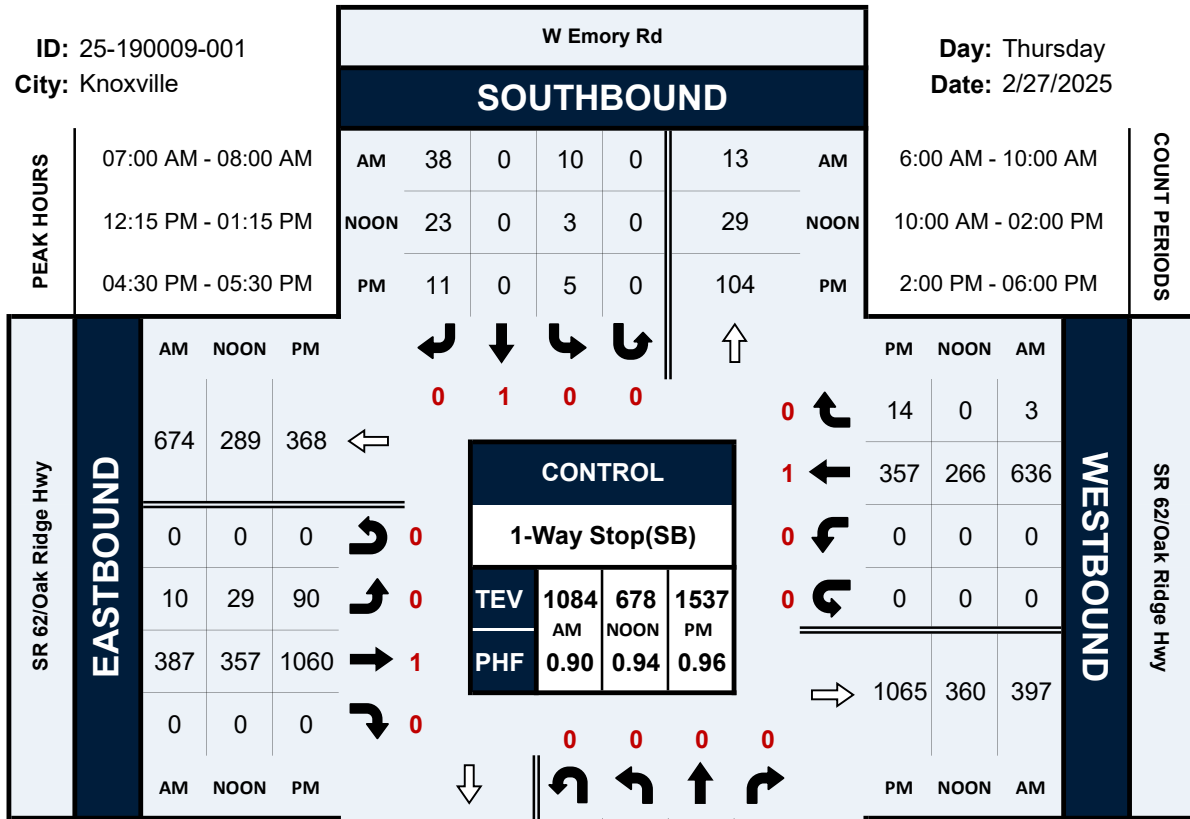
Historic Traffic Data

W Emory Rd & SR 62/Oak Ridge Hwy

Peak Hour Turning Movement Count

ID: 25-190009-001
City: Knoxville

Day: Thursday
Date: 2/27/2025



Project ID: 25-190009-001
 Location: W Emory Rd & SR 62/Oak Ridge Hwy
 City: Knoxville

Day: Thursday
 Date: 2/27/2025

Groups Printed - Cars, PU, Vans - Heavy Trucks																							
Start Time	W Emory Rd Northbound					W Emory Rd Southbound					SR 62/Oak Ridge Hwy Eastbound					SR 62/Oak Ridge Hwy Westbound					Int. Total		
	Left	Thru	Rgt	Uturn	Peds	Left	Thru	Rgt	Uturn	Peds	Left	Thru	Rgt	Uturn	Peds	Left	Thru	Rgt	Uturn	Peds			
6:00 AM	0	0	0	0	0	0	0	3	0	0	3	3	32	0	0	0	0	110	0	0	0	110	
6:15 AM	0	0	0	0	0	0	0	7	0	0	7	1	51	0	0	0	52	0	120	0	0	120	
6:30 AM	0	0	0	0	0	2	0	8	0	0	10	0	77	0	0	0	77	0	141	0	0	141	
6:45 AM	0	0	0	0	0	4	0	5	0	0	9	1	87	0	0	0	88	0	133	1	0	134	
Total	0	0	0	0	0	6	0	23	0	0	29	5	247	0	0	0	252	0	504	1	0	505	
7:00 AM	0	0	0	0	0	6	0	12	0	0	18	5	78	0	0	0	83	0	132	0	0	132	
7:15 AM	0	0	0	0	0	2	0	8	0	0	10	4	111	0	0	0	115	0	159	2	0	159	
7:30 AM	0	0	0	0	0	0	0	7	0	0	7	1	110	0	0	0	111	0	181	2	0	183	
7:45 AM	0	0	0	0	0	2	0	11	0	0	13	0	88	0	0	0	88	0	164	1	0	165	
Total	0	0	0	0	0	10	0	38	0	0	48	10	387	0	0	0	397	0	636	3	0	639	
8:00 AM	0	0	0	0	0	2	0	7	0	0	9	2	74	0	0	0	76	0	132	1	0	133	
8:15 AM	0	0	0	0	0	1	0	6	0	0	7	6	64	0	0	0	70	0	124	2	0	126	
8:30 AM	0	0	0	0	0	0	0	6	0	0	6	7	66	0	0	0	73	0	126	2	0	128	
8:45 AM	0	0	0	0	0	1	0	7	0	0	8	4	78	0	0	0	82	0	113	1	0	114	
Total	0	0	0	0	0	5	0	26	0	0	31	19	282	0	0	0	301	0	495	6	0	501	
9:00 AM	0	0	0	0	0	2	0	3	0	0	5	3	61	0	0	0	64	0	90	0	0	90	
9:15 AM	0	0	0	0	0	1	0	3	0	0	4	1	60	0	0	0	61	0	74	0	0	74	
9:30 AM	0	0	0	0	0	2	0	4	0	0	6	9	100	0	0	0	109	0	83	0	0	83	
9:45 AM	0	0	0	0	0	0	0	7	0	0	7	3	69	0	0	0	72	0	72	1	0	73	
Total	0	0	0	0	0	4	0	18	0	0	22	9	255	0	0	0	264	0	319	1	0	320	
BREAK																							
10:00 AM	0	0	0	0	0	0	0	3	0	0	3	3	76	0	0	0	79	0	60	1	0	61	
10:15 AM	0	0	0	0	0	2	0	8	0	0	10	3	61	0	0	0	72	0	51	0	0	51	
10:30 AM	0	0	0	0	0	2	0	5	0	0	7	0	64	0	0	0	64	0	66	1	0	67	
10:45 AM	0	0	0	0	0	1	0	3	0	0	4	4	74	0	0	0	78	0	55	0	0	55	
Total	0	0	0	0	0	5	0	19	0	0	24	10	283	0	0	0	293	0	232	2	0	234	
11:00 AM	0	0	0	0	0	0	0	1	0	0	1	4	75	0	0	0	79	0	47	1	0	48	
11:15 AM	0	0	0	0	0	1	0	3	0	0	4	4	71	0	0	0	75	0	57	0	0	57	
11:30 AM	0	0	0	0	0	0	0	3	0	0	3	7	64	0	0	0	71	0	53	0	0	53	
11:45 AM	0	0	0	0	0	1	0	1	0	0	2	4	74	0	0	0	78	0	63	1	0	64	
Total	0	0	0	0	0	2	0	8	0	0	10	19	284	0	0	0	303	0	230	4	0	234	
12:00 PM	0	0	0	0	0	2	0	3	0	0	5	6	75	0	0	0	81	0	67	1	0	68	
12:15 PM	0	0	0	0	0	2	0	6	0	0	8	6	99	0	0	0	105	0	67	0	0	67	
12:30 PM	0	0	0	0	0	0	0	8	0	0	8	9	79	0	0	0	88	0	65	0	0	65	
12:45 PM	0	0	0	0	0	0	0	5	0	0	5	7	95	0	0	0	102	0	67	0	0	67	
Total	0	0	0	0	0	4	0	22	0	0	26	28	348	0	0	0	376	0	266	1	0	267	
1:00 PM	0	0	0	0	0	1	0	4	0	0	5	7	84	0	0	0	90	0	67	0	0	67	
1:15 PM	0	0	0	0	0	2	0	4	0	0	6	10	80	0	0	0	91	0	50	0	0	50	
1:30 PM	0	0	0	0	0	2	0	4	0	0	6	9	100	0	0	0	109	0	64	1	0	65	
1:45 PM	0	0	0	0	0	0	0	4	0	0	4	7	102	0	0	0	109	0	51	1	0	52	
Total	0	0	0	0	0	5	0	16	0	0	21	33	366	0	0	0	399	0	232	2	0	234	
BREAK																							
2:00 PM	0	0	0	0	0	2	0	3	0	0	5	4	105	0	0	0	109	0	61	2	0	63	
2:15 PM	0	0	0	0	0	3	0	3	0	0	6	5	114	0	0	0	117	0	58	1	0	59	
2:30 PM	0	0	0	0	0	1	0	2	0	0	3	10	105	0	0	0	115	0	58	1	0	59	
2:45 PM	0	0	0	0	0	2	0	3	0	0	5	11	125	0	0	0	136	0	72	1	0	73	
Total	0	0	0	0	0	8	0	11	0	0	19	30	447	0	0	0	477	0	255	6	0	261	
3:00 PM	0	0	0	0	0	2	0	3	0	0	5	8	148	0	0	0	156	0	89	1	0	90	
3:15 PM	0	0	0	0	0	1	0	2	0	0	3	7	173	0	0	0	180	0	71	4	0	75	
3:30 PM	0	0	0	0	0	0	0	3	0	0	3	9	199	0	0	0	208	0	65	0	0	65	
3:45 PM	0	0	0	0	0	2	0	4	0	0	6	3	212	0	0	0	215	0	84	3	0	87	
Total	0	0	0	0	0	5	0	12	0	0	17	27	732	0	0	0	759	0	325	9	0	334	
4:00 PM	0	0	0	0	0	3	0	2	0	0	5	4	231	0	0	0	235	0	85	3	0	88	
4:15 PM	0	0	0	0	0	1	0	2	0	0	3	15	217	0	0	0	232	0	91	3	0	94	
4:30 PM	0	0	0	0	0	1	0	3	0	0	4	16	261	0	0	0	277	0	83	5	0	88	
4:45 PM	0	0	0	0	0	0	0	1	0	0	1	24	283	0	0	0	307	0	90	2	0	92	
Total	0	0	0	0	0	5	0	8	0	0	13	59	992	0	0	0	1051	0	359	13	0	372	
5:00 PM	0	0	0	0	0	1	0	3	0	0	4	25	277	0	0	0	302	0	87	2	0	89	
5:15 PM	0	0	0	0	0	3	0	4	0	0	7	25	239	0	0	0	264	0	87	5	0	92	
5:30 PM	0	0	0	0	0	0	0	4	0	0	4	13	214	0	0	0	227	0	84	4	0	88	
5:45 PM	0	0	0	0	0	1	0	5	0	0	6	14	203	0	0	0	217	0	100	1	0	101	
Total	0	0	0	0	0	5	0	16	0	0	21	77	933	0	0	0	1010	0	358	12	0	370	
Grand Total	0	0	0	0	0	64	0	217	0	0	281	326	5556	0	0	0	5882	0	4211	60	0	4271	
Approch %	0.0	0.0	0.0	0.0	0.0	22.8	0.0	77.2	0.0	0.0	2.7	5.5	94.5	0.0	0.0	0.0	0.0	0.0	98.6	1.4	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.7	3.3	53.2	0.0	0.0	0.0	56.4	0.0	40.4	0.6	0.0	40.9	
Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	58	0.0	214	0.0	0.0	272	314	5228	0.0	0.0	0.0	5542	0.0	3983	58	0.0	4041	
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	90.6	0.0	98.6	0.0	0.0	96.8	96.3	94.1	0.0	0.0	0.0	94.2	0.0	94.6	96.7	0.0	94.6	
Heavy trucks	0.0	0.0	0.0	0.0	0.0	6	0.0	3	0.0	0.0	9	12	328	0.0	0.0	0.0	340	0.0	228	2	0.0	230	
% Heavy trucks	0.0	0.0	0.0	0.0	0.0	9.4	0.0	1.4	0.0	3.2	3.7	5.9	0.0	0.0	0.0	5.8	0.0	5.4	3.3	0.0	5.4		

Project ID: 25-190009-001
 Location: W Emory Rd & SR 62/Oak Ridge Hwy
 City: Knoxville

PEAK HOURS

Day: Thursday
 Date: 2/27/2025

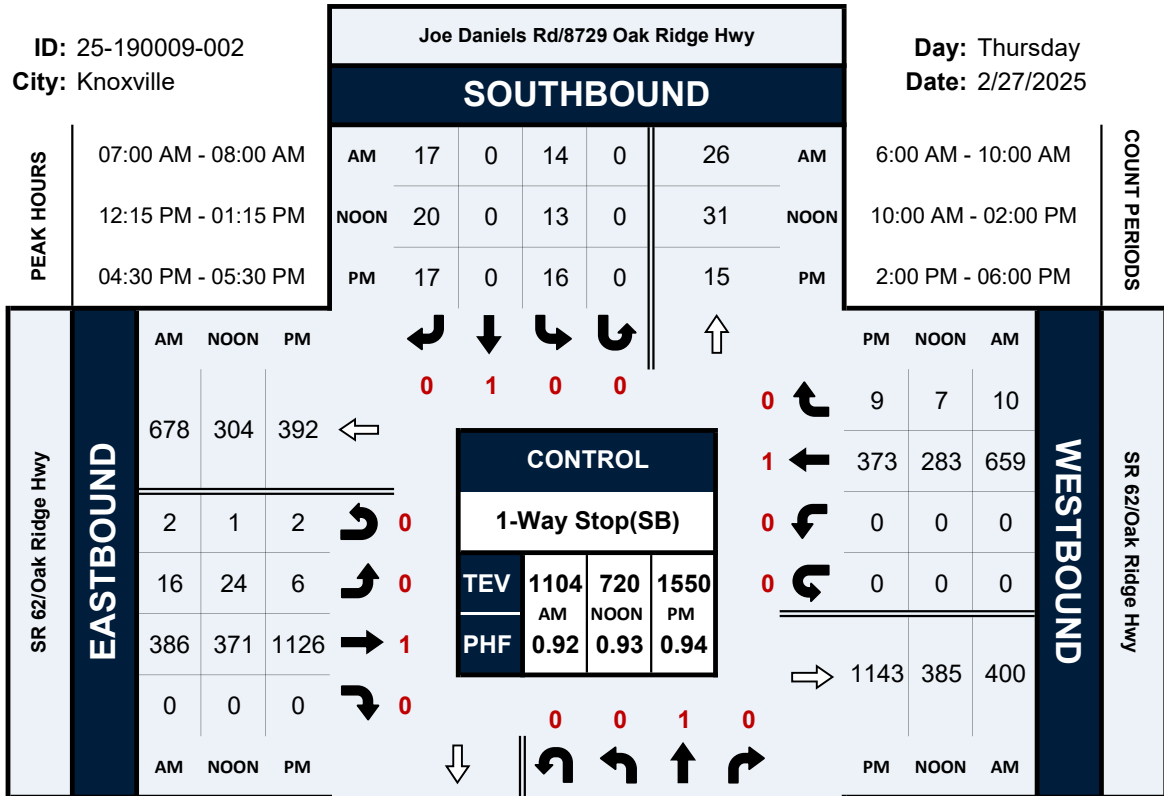
AM																							
Start Time	W Emory Rd Northbound					W Emory Rd Southbound					SR 62/Oak Ridge Hwy Eastbound					SR 62/Oak Ridge Hwy Westbound					Int. Total		
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total			
Peak Hour Analysis from 06:00 AM - 10:00 AM																							
Peak Hour for Entire Intersection Begins at 07:00 AM																							
7:00 AM	0	0	0	0	0	6	0	12	0	18	5	78	0	0	83	0	132	0	0	132	233		
7:15 AM	0	0	0	0	0	2	0	8	0	10	4	111	0	0	115	0	159	0	0	159	284		
7:30 AM	0	0	0	0	0	0	0	7	0	7	1	110	0	0	111	0	181	2	0	183	301		
7:45 AM	0	0	0	0	0	2	0	11	0	13	0	88	0	0	88	0	164	1	0	165	266		
Total Volume	0	0	0	0	0	10	0	38	0	48	10	387	0	0	397	0	636	3	0	639	1084		
% App. Total	0.0	0.0	0.0	0.0	0.0																		

Joe Daniels Rd/8729 Oak Ridge Hwy & SR 62/Oak Ridge Hwy

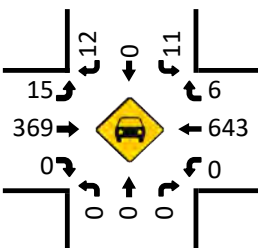
Peak Hour Turning Movement Count

ID: 25-190009-002
City: Knoxville

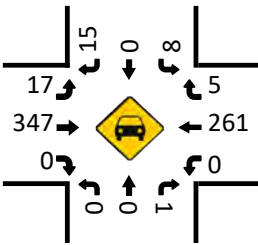
Day: Thursday
Date: 2/27/2025



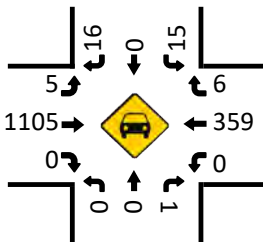
Cars (AM)



Cars (NOON)



Cars (PM)



NORTHBOUND

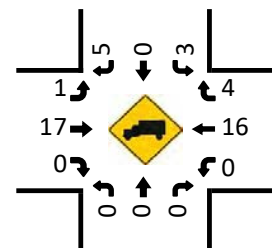
Joe Daniels Rd/8729 Oak Ridge Hwy

CONTROL

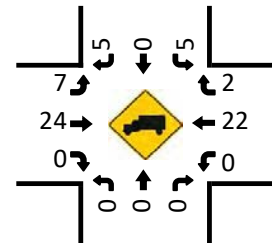
1-Way Stop(SB)

TEV	1104	720	1550
PHF	0.92	0.93	0.94
	AM	NOON	PM

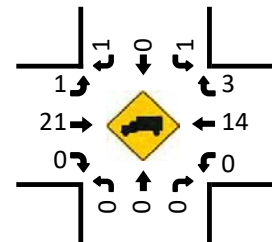
HT (AM)



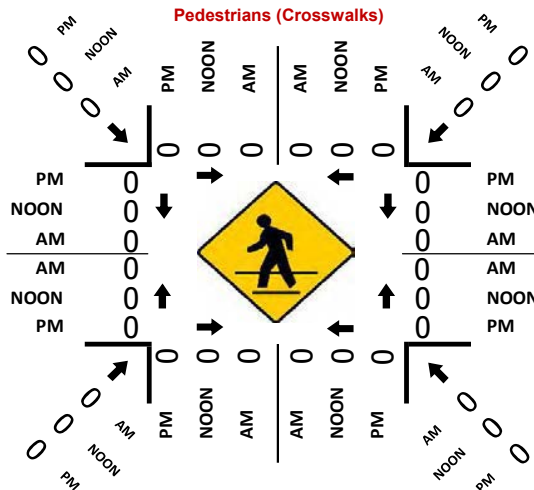
HT (NOON)



HT (PM)



Pedestrians (Crosswalks)



Project ID: 25-190009-002
 Location: Joe Daniels Rd/8729 Oak Ridge Hwy & SR 62/Oak Ridge Hwy
 City: Knoxville

Day: Thursday
 Date: 2/27/2025

Start Time	Groups Printed - Cars, PU, Vans - Heavy Trucks																Int. Total						
	Joe Daniels Rd/8729 Oak Ridge Hwy Northbound				Joe Daniels Rd/8729 Oak Ridge Hwy Southbound				SR 62/Oak Ridge Hwy Eastbound				SR 62/Oak Ridge Hwy Westbound										
	Left	Thru	Rgt	Uturn	Left	Thru	Rgt	Uturn	Left	Thru	Rgt	Uturn	Left	Thru	Rgt	Uturn							
6:00 AM	0	0	0	0	0	0	0	0	3	33	0	0	0	111	0	0	117	147					
6:15 AM	0	0	0	0	0	1	0	0	0	1	5	62	0	0	0	67	0	122	190				
6:30 AM	0	0	0	0	0	1	0	2	0	0	3	0	76	0	0	76	0	154	234				
6:45 AM	0	0	0	0	0	1	0	1	0	0	2	3	88	0	0	91	0	121	226				
Total	0	0	0	0	0	3	0	3	0	0	6	11	259	0	0	270	0	507	797				
7:00 AM	0	0	0	0	0	2	0	2	0	0	4	4	86	0	1	91	1	138	236				
7:15 AM	0	0	0	0	0	5	0	3	0	0	8	8	108	0	0	116	0	165	293				
7:30 AM	0	0	0	0	0	2	0	4	0	0	6	3	106	0	0	109	0	185	301				
7:45 AM	0	0	0	0	0	5	0	8	0	0	13	1	86	0	1	88	0	171	274				
Total	0	0	0	0	0	14	0	17	0	0	31	16	386	0	2	404	0	659	1104				
8:00 AM	0	0	0	0	0	2	0	4	0	0	6	3	77	0	0	80	0	128	219				
8:15 AM	0	0	0	0	0	3	0	4	0	2	7	2	66	0	0	68	0	135	212				
8:30 AM	0	0	0	0	0	1	0	2	0	0	3	6	75	0	0	81	0	125	215				
8:45 AM	0	0	0	0	0	1	0	4	0	0	5	3	83	0	1	87	0	112	203				
Total	0	0	0	0	0	7	0	14	0	2	21	14	301	0	1	316	0	500	853				
9:00 AM	0	0	0	0	0	3	0	4	0	0	7	6	60	0	1	67	0	95	171				
9:15 AM	0	0	0	0	0	1	0	6	0	0	7	0	62	0	0	62	0	79	151				
9:30 AM	0	0	0	0	0	2	0	4	0	0	6	6	68	0	0	74	0	83	164				
9:45 AM	0	0	0	0	0	1	0	2	0	0	3	9	69	0	0	78	0	82	165				
Total	0	0	0	0	0	7	0	16	0	0	23	21	259	0	1	281	0	339	651				
BREAK																							
10:00 AM	0	0	0	0	0	5	0	2	0	0	7	2	75	0	0	77	0	62	146				
10:15 AM	0	0	0	0	0	1	0	6	0	0	7	5	71	0	1	77	0	59	143				
10:30 AM	0	0	0	0	0	3	0	3	0	0	6	4	62	0	0	66	0	89	143				
10:45 AM	0	0	0	0	0	4	0	3	0	0	7	5	80	0	0	85	0	82	155				
Total	0	0	0	0	0	13	0	14	0	0	27	16	288	0	1	305	0	248	587				
11:00 AM	1	0	0	0	0	2	0	8	0	0	10	3	76	0	0	79	0	50	140				
11:15 AM	0	0	0	0	0	0	0	4	0	0	4	9	73	0	0	82	0	60	154				
11:30 AM	0	0	0	0	0	2	0	6	0	0	8	6	76	1	1	84	0	87	154				
11:45 AM	0	0	0	0	0	4	0	4	0	0	8	3	71	0	0	74	0	69	144				
Total	1	0	0	0	0	8	0	22	0	0	30	21	296	1	1	319	1	235	692				
12:00 PM	0	0	1	0	0	4	0	3	0	0	7	7	75	0	0	82	0	64	158				
12:15 PM	0	0	1	0	0	1	5	0	7	0	12	5	97	0	0	102	0	76	193				
12:30 PM	0	0	0	0	0	2	0	3	0	0	5	7	86	0	0	93	0	70	169				
12:45 PM	0	0	0	0	0	4	0	5	0	0	9	10	104	0	0	114	0	85	190				
Total	0	0	2	0	0	15	0	18	0	0	33	29	362	0	0	391	0	275	710				
1:00 PM	0	0	0	0	0	2	0	5	0	0	7	2	84	0	1	87	0	72	168				
1:15 PM	0	0	0	0	0	3	0	4	0	0	7	6	91	1	0	98	0	51	156				
1:30 PM	0	0	0	0	0	5	0	2	0	0	7	9	102	0	1	112	0	83	182				
1:45 PM	0	0	0	0	0	2	0	4	0	0	6	5	105	0	0	110	0	57	175				
Total	0	0	0	0	0	12	0	15	0	0	27	22	382	1	2	407	0	243	681				
BREAK																							
2:00 PM	0	0	0	0	0	5	0	4	0	0	9	7	102	0	0	109	0	65	185				
2:15 PM	0	0	0	0	0	3	0	3	0	0	6	6	119	0	0	125	0	65	198				
2:30 PM	0	0	0	0	0	5	0	3	0	0	8	4	111	0	0	115	0	56	179				
2:45 PM	0	0	0	0	0	0	0	6	0	0	6	8	136	0	0	144	0	78	200				
Total	0	0	0	0	0	13	0	16	0	0	29	25	468	0	0	493	0	264	792				
3:00 PM	0	0	0	0	0	8	0	3	0	0	11	4	148	0	0	152	0	90	253				
3:15 PM	0	0	0	0	0	3	0	5	0	0	8	3	179	0	0	186	0	66	261				
3:30 PM	0	0	0	0	0	3	0	2	0	0	5	1	204	0	0	205	0	85	297				
3:45 PM	0	0	0	0	0	3	0	1	0	0	4	2	219	0	0	221	0	91	317				
Total	0	0	0	0	0	17	0	11	0	0	28	14	750	0	0	764	0	331	1128				
4:00 PM	0	0	0	0	0	8	0	9	0	0	17	3	224	0	0	227	0	86	332				
4:15 PM	0	0	0	0	0	1	0	2	0	0	3	2	230	0	0	233	0	88	325				
4:30 PM	0	0	1	0	0	1	2	0	5	0	7	1	274	0	0	275	0	99	386				
4:45 PM	0	0	0	0	0	5	0	2	0	0	7	4	297	0	0	301	0	88	397				
Total	0	0	1	0	0	16	0	18	0	0	34	10	1025	0	1	1036	0	360	1440				
5:00 PM	0	0	0	0	0	3	0	6	0	0	9	1	306	0	1	308	0	93	413				
5:15 PM	0	0	0	0	0	6	0	4	0	0	10	0	249	0	1	250	0	93	354				
5:30 PM	0	0	0	0	0	2	0	2	0	0	4	2	218	0	0	220	0	84	308				
5:45 PM	0	0	0	0	0	1	0	0	0	0	1	1	216	0	0	217	0	106	324				
Total	0	0	0	0	0	12	0	12	0	0	24	4	989	0	2	995	0	376	1399				
Grand Total	1	0	3	0	0	137	0	176	0	2	313	203	5765	2	11	5981	1	4337	98	0	4436	10734	
Approch %	25.0	0.0	75.0	0.0	0.0	43.8	0.0	56.2	0.0	0.6	3.4	96.4	0.0	0.2	0.0	0.0	97.8	2.2	0.0	0.0	0.0	41.3	
Total %	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.6	0.0	0.0	2.9	1.9	53.7	0.0	0.1	0.0	55.7	0.0	40.4	0.9	0.0	0.0	41.3
Cars, PU, Vans	1	0	3	0	0	4	101	0	122	0	223	144	5474	2	7	5627	1	4137	68	0	4206	10060	
% Cars, PU, Vans	100.0	0.0	100.0	0.0	0.0	100.0	73.7	0.0	69.3	0.0	71.2	70.9	95.0	100.0	63.6	94.1	100.0	95.4	69.4	0.0	0.0	94.6	93.7
Heavy trucks	0	0	0	0	0	0	36	0	54	0	90	59	291	0	4	354	0	200	30	0	0	230	874
% Heavy trucks	0.0	0.0	0.0	0.0	0.0	0.0	26.3	0.0	30.7	0.0	28.8	29.1	5.0	0.0	36.4	5.9	0.0	4.6	30.6	0.0	0.0	5.2	6.3

Project ID: 25-190009-002
 Location: Joe Daniels Rd/8729 Oak Ridge Hwy & SR 62/Oak f
 City: Knoxville

Day: Thursday
 Date: 2/27/2025

PEAK HOURS

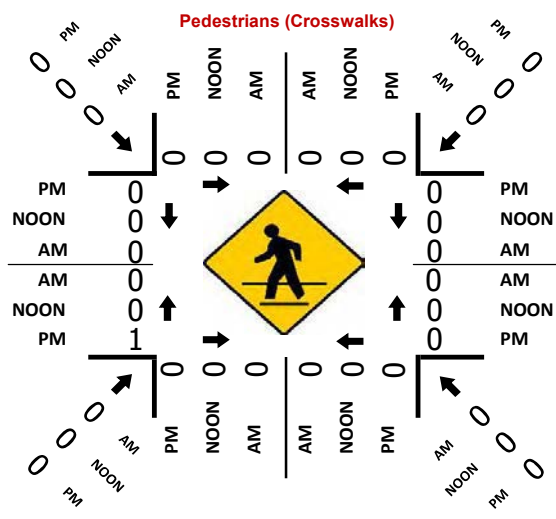
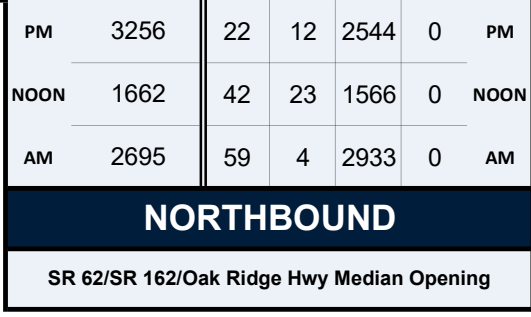
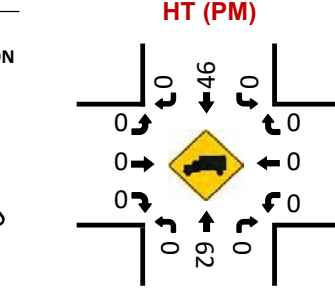
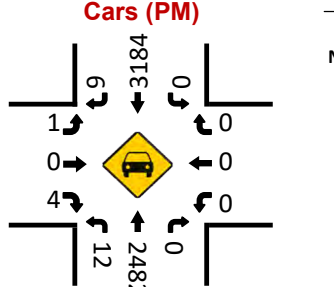
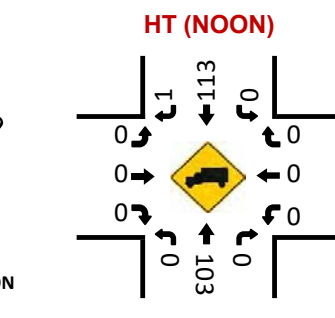
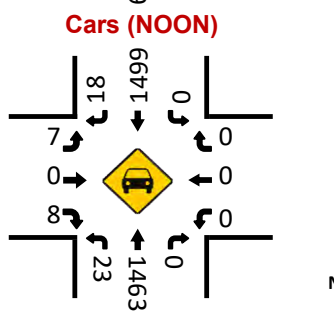
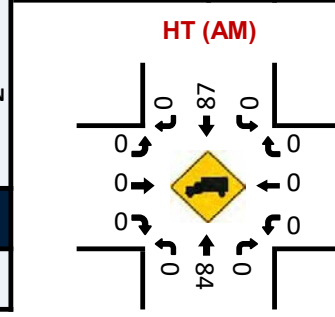
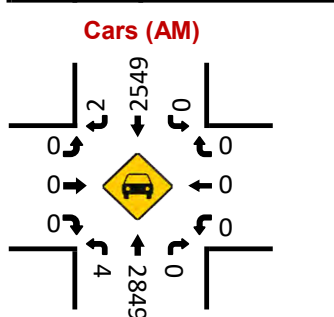
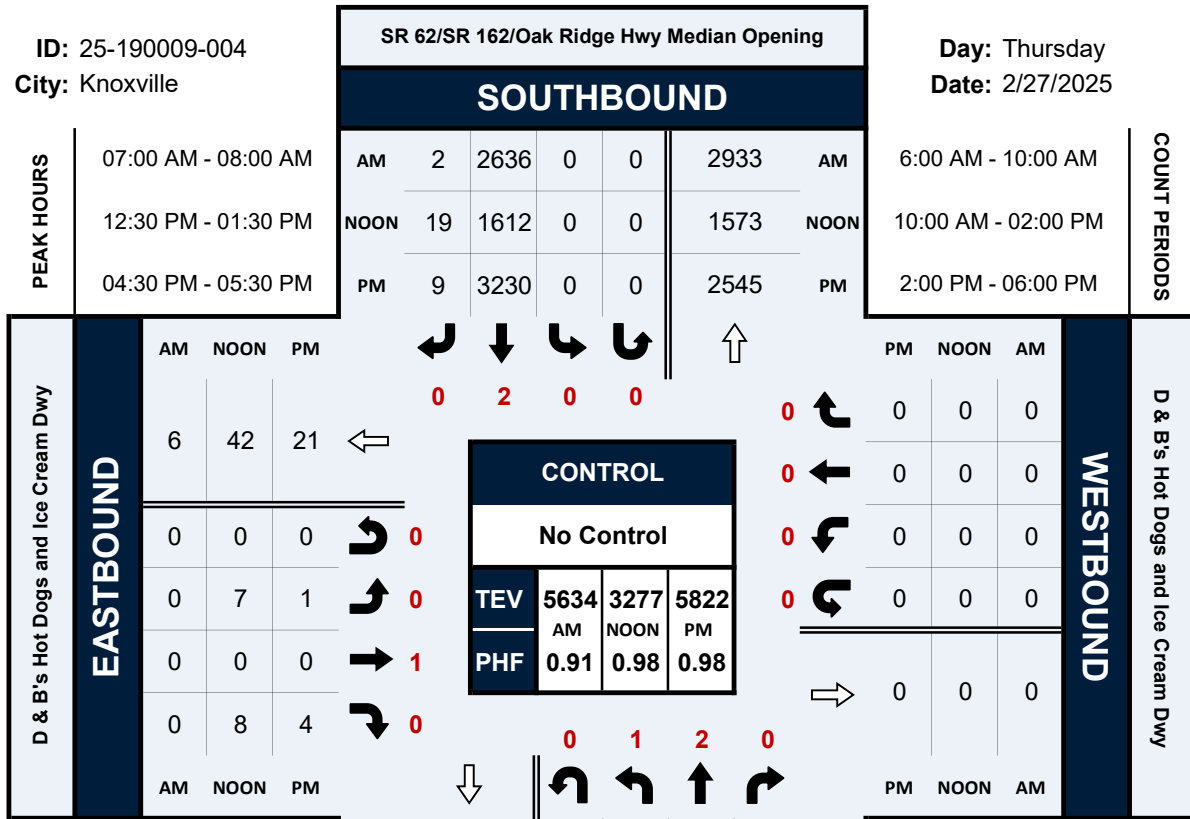
Start Time	Joe Daniels Rd/8729 Oak Ridge Hwy Northbound				Joe Daniels Rd/8729 Oak Ridge Hwy Southbound				SR 62/Oak Ridge Hwy Eastbound				SR 62/Oak Ridge Hwy Westbound				Int. Total					
	Left	Thru	Rgt	Uturn	Left	Thru	Rgt	Uturn	Left	Thru	Rgt	Uturn	Left	Thru	Rgt	Uturn						
	Peak Hour Analysis from 06:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:00 AM																						
7:00 AM	0	0	0	0	0	2	0	2	0	4	4	86	0	1	91	0	138	3	0	141	236	
7:15 AM	0	0	0	0	0	5	0	3	0	8	8	108	0	0	116	0	165	4	0	169	293	
7:30 AM	0	0	0	0	0	2	0	4	0	6	3	106	0	0	109	0	185	1	0	186	301	
7:45 AM	0	0	0	0	0	5	0	8	0	13	1	86	0	1	88	0	171	2	0	173	274	
Total Volume	0	0	0	0	0	14	0	17	0	31	16	386	0	2	404	0	659	10	0	669	1104	
% App. Total	0.0	0.0	0.0	0.0	0.0	45.2	0.0	54.8	0.0	100	4.0	95.5	0.0	0.5	100	0.0	98.5	1.5	0.0	100	0.899	0.917
PHF	0.596																	0.871				
Cars, PU, Vans	0	0	0	0	0	11	0	12	0	23	15	369	0	0	384	0	643	6	0	649	1056	
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	78.6	0.0	70.6	0.0	74.2	93.8	95.6	0.0	0.0	95.0	0.0	97.6	60.0	0.0	97.0	95.7	
Heavy trucks	0	0	0	0	0	3	0	5	0	8	1	17	0	2	20	0	16	4	0	20	48	
% Heavy trucks	0.0	0.0	0.0	0.0	0.0	21.4	0.0	29.4	0.0	25.8	6.3	4.4	0.0	100.0	5.0	0.0	2.4	40.0	0.0	3.0	4.3	
NOON																						
12:15 PM	0	0	1	0	0	5	0	7	0	12	5	97	0	0	102	0	76	2	0	78	193	
12:30 PM	0	0	0	0	0	2	0	3	0	5	7											

SR 62/SR 162/Oak Ridge Hwy Median Opening & D & B's Hot Dogs and Ice Cream Dwy

Peak Hour Turning Movement Count

ID: 25-190009-004
City: Knoxville

Day: Thursday
Date: 2/27/2025



Project ID: 25-190009-004
 Location: SR 62/SR 162/Oak Ridge Hwy Median Opening & D & B's Hot Dogs and Ice Cream Dwy
 City: Knoxville

Day: Thursday
 Date: 2/27/2025

Groups Printed - Cars, PU, Vans - Heavy Trucks																												
Start Time	Northbound					Southbound					Eastbound					Westbound					Int. Total							
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total								
6:00 AM	0	474	0	7	0	481	0	272	0	0	0	272	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	753
6:15 AM	0	575	0	9	0	584	0	381	0	0	0	381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	965
6:30 AM	1	566	0	14	0	581	0	457	0	0	0	457	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1038
6:45 AM	0	688	0	16	0	704	0	476	0	0	0	476	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1180
Total	1	2303	0	46	0	2350	0	1586	0	0	0	1586	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3936
7:00 AM	0	653	0	10	0	663	0	538	0	0	0	538	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1201
7:15 AM	0	726	0	13	0	739	0	702	0	0	0	702	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1441
7:30 AM	2	782	0	14	0	798	0	754	0	0	0	754	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1552
7:45 AM	2	772	0	22	0	796	0	642	2	0	0	644	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1440
Total	4	2933	0	59	0	2996	0	2636	2	0	0	2638	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5634
8:00 AM	2	562	0	28	0	592	0	528	1	0	0	529	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1121
8:15 AM	1	601	0	18	0	620	0	513	0	0	0	513	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1133
8:30 AM	3	567	0	13	0	583	0	480	1	0	0	481	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1064
8:45 AM	1	501	0	20	0	522	0	472	0	1	0	473	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	995
Total	7	2231	0	79	0	2317	0	1993	2	1	0	1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4313
9:00 AM	0	451	0	18	0	469	0	383	0	0	0	383	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	852
9:15 AM	1	397	0	10	0	408	0	362	1	0	0	363	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	771
9:30 AM	4	424	0	14	0	442	0	404	2	0	0	406	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	853
9:45 AM	0	348	0	20	0	368	0	398	1	0	0	399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	767
Total	5	1620	0	62	0	1687	0	1552	4	0	0	1556	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3243
BREAK																												
10:00 AM	1	320	0	13	0	334	0	348	1	0	0	349	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	683
10:15 AM	1	332	0	9	0	342	0	345	1	0	0	346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	688
10:30 AM	2	354	0	11	0	367	0	361	0	0	0	361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	728
10:45 AM	4	342	0	11	0	357	0	377	2	0	0	379	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	737
Total	8	1348	0	44	0	1400	0	1431	4	0	0	1435	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2836
11:00 AM	6	343	0	8	0	357	0	376	3	0	0	379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	736
11:15 AM	5	377	0	14	0	396	0	393	5	0	0	398	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	794
11:30 AM	1	383	0	15	0	399	0	380	2	0	0	382	1	0	2	0	0	0	0	0	0	3	0	0	0	0	0	784
11:45 AM	3	356	0	7	0	366	0	339	7	1	0	347	2	0	1	0	0	0	0	0	0	3	0	0	0	0	0	716
Total	15	1459	0	44	0	1518	0	1488	17	1	0	1506	3	0	3	0	0	0	0	0	0	6	0	0	0	0	0	3030
12:00 PM	7	373	0	9	0	389	0	382	6	1	0	389	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	778
12:15 PM	8	363	0	12	0	383	0	401	6	0	0	407	6	0	1	0	0	0	0	0	0	7	0	0	0	0	0	797
12:30 PM	11	385	0	9	0	405	0	424	5	0	0	429	2	0	2	0	0	0	0	0	0	4	0	0	0	0	0	838
12:45 PM	5	404	0	12	0	421	0	394	2	0	0	396	2	0	2	0	0	0	0	0	0	4	0	0	0	0	0	821
Total	31	1525	0	42	0	1598	0	1601	19	1	0	1621	10	0	5	0	0	0	0	0	0	15	0	0	0	0	0	3234
1:00 PM	3	368	0	13	0	384	0	383	8	0	0	391	2	0	2	0	0	0	0	0	0	4	0	0	0	0	0	779
1:15 PM	4	409	0	8	0	421	0	411	4	0	0	415	1	0	2	0	0	0	0	0	0	3	0	0	0	0	0	839
1:30 PM	3	358	0	11	0	372	0	437	2	0	0	439	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	815
1:45 PM	4	356	0	13	0	373	0	419	3	0	0	422	3	0	1	0	0	0	0	0	0	1	0	0	0	0	0	795
Total	13	1491	0	45	0	1549	0	1650	17	0	0	1667	7	0	5	0	0	0	0	0	0	12	0	0	0	0	0	3228
BREAK																												
2:00 PM	1	415	0	9	0	425	0	450	2	0	0	452	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	879
2:15 PM	2	443	0	13	0	459	0	497	1	1	0	499	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	949
2:30 PM	1	451	0	4	0	456	0	501	2	0	0	503	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	960
2:45 PM	2	410	0	12	0	424	0	574	2	0	0	576	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1000
Total	6	1719	0	30	0	1755	0	2022	7	1	0	2030	1	0	2	0	0	0	0	0	0	3	0	0	0	0	0	3788
3:00 PM	2	446	0	12	0	460	0	574	2	0	0	576	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1037
3:15 PM	5	468	0	9	0	482	0	702	1	0	0	703	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1186
3:30 PM	2	530	0	4	0	536	0	781	2	0	0	783	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1319
3:45 PM	1	524	0	5	0	530	0	793	2	0	0	795	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1326
Total	10	1968	0	30	0	2008	0	2850	7	0	0	2857	1	0	2	0	0	0	0	0	0	3	0	0	0	0	0	4868
4:00 PM	2	570	0	6	0	578	0	812	1	0	0	813	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1391
4:15 PM	1	592	0	7	0	600	0	815	2	0	0	817	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	1419
4:30 PM	3	626	0	7	0	636	0	846	4	0	0	850	0	0	4	0	0	0	0	0	0	4	0	0	0	0	0	1486
4:45 PM	3	627	0	5	0	635	0	803	4	0	0	807	0	0	2	0	0	0	0	0	0	1	2	0	0	0	0	1444
Total	9	2415	0	25	0	2449	0	3276	11	0	0	3287	0	0	4	0	0	0	0	0	0	4	0	0	0	0	0	5740
5:00 PM	2	617	0	1	0	620	0	816	0	0	0	816	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	1438
5:15 PM	4	674	0	9	0	687	0	765	1	0	0	766	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1454
5:30 PM	3	608	0	1	0	612	0	760	2	0	0	762	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1375
5:45 PM	4	587	0	2	0	593	0	767	2	0	0	769																

TRAFFIC COUNT RECORD		BARGE DESIGN SOLUTIONS.		NDS Subconsultant		Site 1 of 4	
Date		Lat/Long		Project		W Emory Road	
Thursday, February 27, 2025				Solway Development TIS		SR-62/Oak Ridge Hwy	

15-Minute Traffic Data																				
TIME	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←				
	-					W Emory Road					SR-62/Oak Ridge Hwy					SR-62/Oak Ridge Hwy				
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped
6:00 – 6:15	0	0	0	0		0	0	3	0		3	32	0	0		0	110	0	0	
6:15 – 6:30	0	0	0	0		0	0	7	0		1	51	0	0		0	120	0	0	
6:30 – 6:45	0	0	0	0		2	0	8	0		0	77	0	0		0	141	0	0	
6:45 – 7:00	0	0	0	0		4	0	5	0		1	87	0	0		0	133	1	0	
7:00 – 7:15	0	0	0	0		6	0	12	0		5	78	0	0		0	132	0	0	
7:15 – 7:30	0	0	0	0		2	0	8	0		4	111	0	0		0	159	0	0	
7:30 – 7:45	0	0	0	0		0	0	7	0		1	110	0	0		0	181	2	0	
7:45 – 8:00	0	0	0	0		2	0	11	0		0	88	0	0		0	164	1	0	
8:00 – 8:15	0	0	0	0		2	0	7	0		2	74	0	0		0	132	1	0	
8:15 – 8:30	0	0	0	0		1	0	6	0		6	64	0	0		0	124	2	0	
8:30 – 8:45	0	0	0	0		1	0	6	0		7	66	0	0		0	126	2	0	
8:45 – 9:00	0	0	0	0		1	0	7	0		4	78	0	0		0	113	1	0	
9:00 – 9:15	0	0	0	0		2	0	3	0		3	61	0	0		0	90	0	0	
9:15 – 9:30	0	0	0	0		1	0	3	0		1	60	0	0		0	74	0	0	
9:30 – 9:45	0	0	0	0		1	0	5	0		2	65	0	0		0	83	0	0	
9:45 – 10:00	0	0	0	0		0	0	7	0		3	69	0	0		0	72	1	0	
10:00 – 10:15	0	0	0	0		0	0	3	0		3	76	0	0		0	60	1	0	
10:15 – 10:30	0	0	0	0		2	0	8	0		3	69	0	0		0	51	0	0	
10:30 – 10:45	0	0	0	0		2	0	5	0		0	64	0	0		0	66	1	0	
10:45 – 11:00	0	0	0	0		1	0	3	0		4	74	0	0		0	55	0	0	
11:00 – 11:15	0	0	0	0		0	0	1	0		4	75	0	0		0	47	1	0	
11:15 – 11:30	0	0	0	0		1	0	3	0		4	71	0	0		0	67	2	0	
11:30 – 11:45	0	0	0	0		0	0	3	0		7	64	0	0		0	53	0	0	
11:45 – 12:00	0	0	0	0		1	0	1	0		4	74	0	0		0	63	1	0	
12:00 – 12:15	0	0	0	0		2	0	3	0		6	75	0	0		0	67	1	0	
12:15 – 12:30	0	0	0	0		2	0	6	0		6	99	0	0		0	67	0	0	
12:30 – 12:45	0	0	0	0		0	0	8	0		9	79	0	0		0	65	0	0	
12:45 – 13:00	0	0	0	0		0	0	5	0		7	95	0	0		0	67	0	0	
13:00 – 13:15	0	0	0	0		1	0	4	0		7	84	0	0		0	67	0	0	
13:15 – 13:30	0	0	0	0		2	0	4	0		10	80	0	0		0	50	0	0	
13:30 – 13:45	0	0	0	0		2	0	4	0		9	100	0	0		0	64	1	0	
13:45 – 14:00	0	0	0	0		0	0	4	0		7	102	0	0		0	51	1	0	
14:00 – 14:15	0	0	0	0		2	0	3	0		4	105	0	0		0	61	2	0	
14:15 – 14:30	0	0	0	0		3	0	3	0		5	112	0	0		0	64	2	0	
14:30 – 14:45	0	0	0	0		1	0	2	0		10	105	0	0		0	58	1	0	
14:45 – 15:00	0	0	0	0		2	0	3	0		11	125	0	0		0	72	1	0	
15:00 – 15:15	0	0	0	0		2	0	3	0		8	148	0	0		0	89	1	0	
15:15 – 15:30	0	0	0	0		1	0	2	0		7	173	0	0		0	71	4	0	
15:30 – 15:45	0	0	0	0		0	0	3	0		9	199	0	0		0	81	1	0	
15:45 – 16:00	0	0	0	0		2	0	4	0		3	212	0	0		0	84	3	0	
16:00 – 16:15	0	0	0	0		3	0	2	0		4	231	0	0		0	85	3	0	
16:15 – 16:30	0	0	0	0		1	0	2	0		15	217	0	0		0	91	3	0	
16:30 – 16:45	0	0	0	0		1	0	3	0		16	261	0	0		0	93	5	0	
16:45 – 17:00	0	0	0	0		0	0	1	0		24	283	0	0		0	90	2	0	
17:00 – 17:15	0	0	0	0		1	0	3	0		25	277	0	0		0	87	2	0	
17:15 – 17:30	0	0	0	0		3	0	4	0		25	239	0	0		0	87	5	0	
17:30 – 17:45	0	0	0	0		0	0	4	0		13	214	0	0		0	84	4	0	
17:45 – 18:00	0	0	0	0		1	0	5	0		14	203	0	0		0	100	1	0	

Summary																				
PEAK HOUR	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←				
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped
07:00 – 08:00	0	0	0	0	0	10	0	38	0	0	10	387	0	0	0	0	636	3	0	0
PHF	0.9																			
Heavy Veh	0%					2%					7%					4%				
14:45 – 15:45	0	0	0	0	0	5	0	11	0	0	35	645	0	0	0	0	313	7	0	0
PHF	0.87																			
Heavy Veh	0%					6%					6%					3%				
16:30 – 17:30	0	0	0	0	0	5	0	11	0	0	90	1060	0	0	0	0	357	14	0	0

PHF	0.96			
Heavy Veh	0%	6%	2%	4%

TRAFFIC COUNT RECORD														BARGE DESIGN SOLUTIONS.					NDS Subconsultant					Site 2 of 4				
Date														Lat/Long					Project					Joe Daniels Road				
Thursday, February 27, 2025																			Solway Development TIS					Joe Daniels Road				
																								SR 62/Oak Ridge Hwy				
																								SR 62/Oak Ridge Hwy				
15-Minute Traffic Data																												
TIME	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←												
	Joe Daniels Road					Joe Daniels Road					SR 62/Oak Ridge Hwy					SR 62/Oak Ridge Hwy												
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped								
0:00 – 0:15																												
0:15 – 0:30																												
0:30 – 0:45																												
0:45 – 1:00																												
1:00 – 1:15																												
1:15 – 1:30																												
1:30 – 1:45																												
1:45 – 2:00																												
2:00 – 2:15																												
2:15 – 2:30																												
2:30 – 2:45																												
2:45 – 3:00																												
3:00 – 3:15																												
3:15 – 3:30																												
3:30 – 3:45																												
3:45 – 4:00																												
4:00 – 4:15																												
4:15 – 4:30																												
4:30 – 4:45																												
4:45 – 5:00																												
5:00 – 5:15																												
5:15 – 5:30																												
5:30 – 5:45																												
5:45 – 6:00																												
6:00 – 6:15	0	0	0	0		0	0	0	0		3	33	0	0		0	111	0	0									
6:15 – 6:30	0	0	0	0		1	0	0	0		5	62	0	0		0	121	1	0									
6:30 – 6:45	0	0	0	0		1	0	2	0		0	76	0	0		0	154	1	0									
6:45 – 7:00	0	0	0	0		1	0	1	0		3	88	0	0		0	121	12	0									
7:00 – 7:15	0	0	0	0		2	0	2	0		4	86	0	1		0	138	3	0									
7:15 – 7:30	0	0	0	0		5	0	3	0		8	108	0	0		0	165	4	0									
7:30 – 7:45	0	0	0	0		2	0	4	0		3	106	0	0		0	185	1	0									
7:45 – 8:00	0	0	0	0		5	0	8	0		1	86	0	1		0	171	2	0									
8:00 – 8:15	0	0	0	0		2	0	4	0		3	77	0	0		0	128	5	0									
8:15 – 8:30	0	0	0	0		3	0	4	0		2	66	0	0		0	135	2	0									
8:30 – 8:45	0	0	0	0		1	0	2	0		6	75	0	0		0	125	6	0									
8:45 – 9:00	0	0	0	0		1	0	4	0		3	83	0	1		0	112	3	0									
9:00 – 9:15	0	0	0	0		3	0	4	0		6	60	0	1		0	95	2	0									
9:15 – 9:30	0	0	0	0		1	0	6	0		0	62	0	0		0	79	3	0									
9:30 – 9:45	0	0	0	0		2	0	4	0		6	68	0	0		0	83	1	0									
9:45 – 10:00	0	0	0	0		1	0	2	0		9	69	0	0		0	82	2	0									
10:00 – 10:15	0	0	0	0		5	0	2	0		2	75	0	0		0	62	0	0									
10:15 – 10:30	0	0	0	0		1	0	6	0		5	71	0	1		0	55	4	0									
10:30 – 10:45	0	0	0	0		3	0	3	0		4	62	0	0		0	69	2	0									
10:45 – 11:00	0	0	0	0		4	0	3	0		5	80	0	0		0	62	1	0									
11:00 – 11:15	1	0	0	0		2	0	8	0		3	76	0	0		0	50	0	0									
11:15 – 11:30	0	0	0	0		0	0	4	0		9	73	0	0		0	67	1	0									
11:30 – 11:45	0	0	0	0		2	0	6	0		6	76	1	1		1	58	3	0									
11:45 – 12:00	0	0	0	0		4	0	4	0		3	71	0	0		0	60	2	0									
12:00 – 12:15	0	0	1	0		4	0	3	0		7	75	0	0		0	64	4	0									
12:15 – 12:30	0	0	1	0		5	0	7	0		5	97	0	0		0	76	2	0									
12:30 – 12:45	0	0	0	0		2	0	3	0		7	86	0	0		0	70	1	0									
12:45 – 13:00	0	0	0	0		4	0	5	0		10	104	0	0		0	65	2	0									
13:00 – 13:15	0	0	0	0		2	0	5	0		2	84	0	1		0	72	2	0									
13:15 – 13:30	0	0	0	0		3	0	4	0		6	91	1	0		0	51	0	0									
13:30 – 13:45	0	0	0	0		5	0	2	0		9	102	0	1		0	63	0	0									
13:45 – 14:00	0	0	0	0		2	0	4	0		5	105	0	0		0	57	2	0									
14:00 – 14:15	0	0	0	0		5	0	4	0		7	102	0	0		0	65	2	0									
14:15 – 14:30	0	0	0	0		3	0	3	0		6	119	0	0		0	65	2	0									
14:30 – 14:45	0	0	0	0		5	0	3	0		4	111	0	0		0	56	0	0									
14:45 – 15:00	0	0	0	0		0	0	6	0		8	136	0	0		0	78	2	0									
15:00 – 15:15	0	0	0	0		8	0	3	0		4	148	0	0		0	89	1	0									
15:15 – 15:30	0	0	0	0		3	0	5	0		7	179	0	0		0	66	1	0									
15:30 – 15:45	0	0	0	0		3	0	2	0		1	204	0	0		0	85	2	0									

15:45 – 16:00	0	0	0	0		3	0	1	0		2	219	0	0		0	91	1	0	
16:00 – 16:15	0	0	0	0		8	0	9	0		3	224	0	0		0	85	3	0	
16:15 – 16:30	0	0	0	0		1	0	2	0		2	230	0	1		0	88	1	0	
16:30 – 16:45	0	0	1	0		2	0	5	0		1	274	0	0		0	99	4	0	
16:45 – 17:00	0	0	0	0		5	0	2	0		4	297	0	0		0	88	1	0	
17:00 – 17:15	0	0	0	0		3	0	6	0		1	306	0	1		0	93	3	0	
17:15 – 17:30	0	0	0	0		6	0	4	0		0	249	0	1		0	93	1	0	
17:30 – 17:45	0	0	0	0		2	0	2	0		2	218	0	0		0	84	0	0	
17:45 – 18:00	0	0	0	0		1	0	0	0		1	216	0	0		0	106	0	0	
18:00 – 18:15																				
18:15 – 18:30																				
18:30 – 18:45																				
18:45 – 19:00																				
19:00 – 19:15																				
19:15 – 19:30																				
19:30 – 19:45																				
19:45 – 20:00																				
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22:15 – 22:30																				
22:30 – 22:45																				
22:45 – 23:00																				
23:00 – 23:15																				
23:15 – 23:30																				
23:30 – 23:45																				
23:45 – 0:00																				

Summary

PEAK HOUR	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←				
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped
07:00 – 08:00	0	0	0	0	0	14	0	17	0	0	16	386	0	2	0	0	659	10	0	0
PHF	0.92																			
Heavy Veh	0%					26%					5%					3%				
14:45 – 15:45	0	0	0	0	0	14	0	16	0	0	20	667	0	0	0	0	318	6	0	0
PHF	0.88																			
Heavy Veh	0%					23%					6%					2%				
16:30 – 17:30	0	0	1	0	0	16	0	17	0	0	6	1126	0	2	0	0	373	9	0	0
PHF	0.94																			
Heavy Veh	0%					6%					2%					4%				

TRAFFIC COUNT RECORD														BARGE DESIGN SOLUTIONS.					NDS Subconsultant		Site 3 of 4				
Date														Lat/Long					Project		SR 62/SR 162				
Thursday, February 27, 2025																			Solway Development TIS		Solway Rd				
15-Minute Traffic Data																									
TIME	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←									
	SR 62/SR 162					SR 62/SR 162					Solway Rd					Solway Rd									
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped					
0:00 – 0:15																									
0:15 – 0:30																									
0:30 – 0:45																									
0:45 – 1:00																									
1:00 – 1:15																									
1:15 – 1:30																									
1:30 – 1:45																									
1:45 – 2:00																									
2:00 – 2:15																									
2:15 – 2:30																									
2:30 – 2:45																									
2:45 – 3:00																									
3:00 – 3:15																									
3:15 – 3:30																									
3:30 – 3:45																									
3:45 – 4:00																									
4:00 – 4:15																									
4:15 – 4:30																									
4:30 – 4:45																									
4:45 – 5:00																									
5:00 – 5:15																									
5:15 – 5:30																									
5:30 – 5:45																									
5:45 – 6:00																									
6:00 – 6:15	0	460	0	0		0	271	4	0		13	0	3	0		0	0	0	0						
6:15 – 6:30	0	572	0	0		0	376	3	0		12	0	9	0		0	0	0	0						
6:30 – 6:45	0	570	0	0		0	470	6	2		18	0	7	0		0	0	0	0						
6:45 – 7:00	0	682	0	0		0	478	8	0		14	0	5	0		0	0	0	0						
7:00 – 7:15	0	647	0	0		0	538	10	0		15	0	12	0		0	0	0	0						
7:15 – 7:30	0	735	0	0		0	694	15	2		10	0	19	0		0	0	0	0						
7:30 – 7:45	0	788	0	0		0	752	15	1		7	0	17	0		0	0	0	0						
7:45 – 8:00	0	782	0	0		0	636	24	0		10	0	7	0		0	0	0	0						
8:00 – 8:15	0	583	0	0		0	520	38	0		13	0	8	0		0	0	0	0						
8:15 – 8:30	0	608	0	0		0	485	38	3		16	0	6	0		0	0	0	0						
8:30 – 8:45	0	574	0	0		0	481	9	0		12	0	13	0		0	0	0	0						
8:45 – 9:00	0	514	0	1		0	480	19	0		5	0	13	0		0	0	0	0						
9:00 – 9:15	0	443	0	0		0	373	18	0		13	0	7	0		0	0	0	0						
9:15 – 9:30	0	405	0	0		0	348	14	0		8	0	5	0		0	0	0	0						
9:30 – 9:45	0	428	0	0		0	393	26	3		14	0	4	0		0	0	0	0						
9:45 – 10:00	0	364	0	0		0	385	25	1		10	0	10	0		0	0	0	0						
10:00 – 10:15	0	332	0	0		0	334	16	1		7	0	6	0		0	0	0	0						
10:15 – 10:30	0	325	1	0		0	337	11	0		5	0	9	0		0	0	1	0						
10:30 – 10:45	0	369	0	0		0	357	16	0		12	0	10	0		0	0	0	0						
10:45 – 11:00	0	350	0	0		0	366	10	1		5	0	20	0		0	0	0	0						
11:00 – 11:15	0	347	0	0		0	362	12	2		5	0	4	0		0	0	0	0						
11:15 – 11:30	0	382	0	0		0	388	17	2		9	0	9	0		0	0	0	0						
11:30 – 11:45	0	400	0	0		0	370	20	2		9	0	4	0		0	0	0	0						
11:45 – 12:00	0	349	0	0		0	325	12	2		8	0	4	0		0	0	0	0						
12:00 – 12:15	0	393	0	0		0	378	14	0		9	0	4	0		0	0	0	0						
12:15 – 12:30	0	362	0	0		0	404	11	1		18	0	5	0		0	0	0	0						
12:30 – 12:45	0	383	0	0		0	413	19	2		13	0	9	0		0	0	0	0						
12:45 – 13:00	0	415	0	0		0	394	12	4		15	0	11	0		0	0	0	0						
13:00 – 13:15	0	367	0	0		0	384	19	4		12	0	12	0		0	0	0	0						
13:15 – 13:30	0	393	0	0		0	398	11	5		16	0	7	0		0	0	0	0						
13:30 – 13:45	0	365	0	0		0	437	16	3		13	0	6	0		0	0	0	0						
13:45 – 14:00	0	355	0	0		0	413	14	1		11	0	20	0		0	0	0	0						
14:00 – 14:15	0	417	0	0		0	435	15	2		9	0	7	0		0	0	0	0						
14:15 – 14:30	0	435	0	0		0	489	23	3		6	0	7	0		0	0	0	0						
14:30 – 14:45	0	457	0	0		0	476	25	3		13	0	9	0		0	0	0	0						
14:45 – 15:00	0	401	0	0		0	550	27	0		10	0	8	0		0	0	0	0						
15:00 – 15:15	0	455	0	0		0	557	24	3		16	0	5	0		0	0	0	0						
15:15 – 15:30	0	473	0	0		0	683	27	0		5	0	7	0		0	0	0	0						
15:30 – 15:45	0	522	0	0		0	738	40	2		5	0	10	0		0	0	0	0						

15:45 – 16:00	0	524	0	0		0	759	39	1		4	0	16	0		0	0	0	0	
16:00 – 16:15	0	577	0	0		0	779	34	3		4	0	7	0		0	0	0	0	
16:15 – 16:30	0	586	0	0		0	793	38	2		3	0	6	0		0	0	0	0	
16:30 – 16:45	0	632	0	0		0	818	30	0		7	0	14	0		0	0	0	0	
16:45 – 17:00	0	630	0	0		0	774	36	1		1	0	9	0		0	0	0	0	
17:00 – 17:15	0	635	0	0		0	787	30	2		3	0	9	0		0	0	0	0	
17:15 – 17:30	0	682	0	0		0	734	36	2		3	0	10	0		0	0	0	0	
17:30 – 17:45	0	603	0	0		0	725	36	4		3	0	7	0		0	0	0	0	
17:45 – 18:00	0	578	0	0		0	720	41	3		5	0	11	0		0	0	0	0	
18:00 – 18:15																				
18:15 – 18:30																				
18:30 – 18:45																				
18:45 – 19:00																				
19:00 – 19:15																				
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22:45 – 23:00																				
23:00 – 23:15																				
23:15 – 23:30																				
23:30 – 23:45																				
23:45 – 0:00																				

Summary

PEAK HOUR	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←					
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	
07:00 – 08:00	0	2952	0	0	0	0	2620	64	3	0	42	0	55	0	0	0	0	0	0	0	0
PHF	0.91																				
Heavy Veh	3%					3%					2%					0%					
14:45 – 15:45	0	1851	0	0	0	0	2528	118	5	0	36	0	30	0	0	0	0	0	0	0	0
PHF	0.87																				
Heavy Veh	3%					3%					8%					0%					
16:30 – 17:30	0	2579	0	0	0	0	3113	132	5	0	14	0	42	0	0	0	0	0	0	0	0
PHF	0.98																				
Heavy Veh	2%					1%					2%					0%					

TRAFFIC COUNT RECORD														BARGE DESIGN SOLUTIONS.					NDS Subconsultant		Site 4 of 4				
Date														Lat/Long					Project		Oak Ridge Hwy Median Opening				
Thursday, February 27, 2025																			Solway Development TIS		Oak Ridge Hwy Median Opening				
																					D&B's Hot Dogs and Ice Cream Dw				
																					-				
15-Minute Traffic Data																									
TIME	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←									
	Oak Ridge Hwy Median Opening					Oak Ridge Hwy Median Opening					D&B's Hot Dogs and Ice Cream Dw					-									
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped					
0:00 – 0:15																									
0:15 – 0:30																									
0:30 – 0:45																									
0:45 – 1:00																									
1:00 – 1:15																									
1:15 – 1:30																									
1:30 – 1:45																									
1:45 – 2:00																									
2:00 – 2:15																									
2:15 – 2:30																									
2:30 – 2:45																									
2:45 – 3:00																									
3:00 – 3:15																									
3:15 – 3:30																									
3:30 – 3:45																									
3:45 – 4:00																									
4:00 – 4:15																									
4:15 – 4:30																									
4:30 – 4:45																									
4:45 – 5:00																									
5:00 – 5:15																									
5:15 – 5:30																									
5:30 – 5:45																									
5:45 – 6:00																									
6:00 – 6:15	0	474	0	7		0	272	0	0		0	0	0	0		0	0	0	0						
6:15 – 6:30	0	575	0	9		0	381	0	0		0	0	0	0		0	0	0	0						
6:30 – 6:45	1	566	0	14		0	457	0	0		0	0	0	0		0	0	0	0						
6:45 – 7:00	0	688	0	16		0	476	0	0		0	0	0	0		0	0	0	0						
7:00 – 7:15	0	653	0	10		0	538	0	0		0	0	0	0		0	0	0	0						
7:15 – 7:30	0	726	0	13		0	702	0	0		0	0	0	0		0	0	0	0						
7:30 – 7:45	2	782	0	14		0	754	0	0		0	0	0	0		0	0	0	0						
7:45 – 8:00	2	772	0	22		0	642	2	0		0	0	0	0		0	0	0	0						
8:00 – 8:15	2	562	0	28		0	528	1	0		0	0	0	0		0	0	0	0						
8:15 – 8:30	1	601	0	18		0	513	0	0		0	0	0	0		0	0	0	0						
8:30 – 8:45	3	567	0	13		0	480	1	0		0	0	0	0		0	0	0	0						
8:45 – 9:00	1	501	0	20		0	472	0	1		0	0	0	0		0	0	0	0						
9:00 – 9:15	0	451	0	18		0	383	0	0		0	0	0	0		0	0	0	0						
9:15 – 9:30	1	397	0	10		0	362	1	0		0	0	0	0		0	0	0	0						
9:30 – 9:45	4	424	0	14		0	409	2	0		0	0	0	0		0	0	0	0						
9:45 – 10:00	0	348	0	20		0	398	1	0		0	0	0	0		0	0	0	0						
10:00 – 10:15	1	320	0	13		0	348	1	0		0	0	0	0		0	0	0	0						
10:15 – 10:30	1	332	0	9		0	345	1	0		0	0	0	0		0	0	0	0						
10:30 – 10:45	2	354	0	11		0	361	0	0		0	0	0	0		0	0	0	0						
10:45 – 11:00	4	342	0	11		0	377	2	0		1	0	0	0		0	0	0	0						
11:00 – 11:15	6	343	0	8		0	376	3	0		0	0	0	0		0	0	0	0						
11:15 – 11:30	5	377	0	14		0	393	5	0		0	0	0	0		0	0	0	0						
11:30 – 11:45	1	383	0	15		0	380	2	0		1	0	2	0		0	0	0	0						
11:45 – 12:00	3	356	0	7		0	339	7	1		2	0	1	0		0	0	0	0						
12:00 – 12:15	7	373	0	9		0	382	6	1		0	0	0	0		0	0	0	0						
12:15 – 12:30	8	363	0	12		0	401	6	0		6	0	1	0		0	0	0	0						
12:30 – 12:45	11	385	0	9		0	424	5	0		2	0	2	0		0	0	0	0						
12:45 – 13:00	5	404	0	12		0	394	2	0		2	0	2	0		0	0	0	0						
13:00 – 13:15	3	368	0	13		0	383	8	0		2	0	2	0		0	0	0	0						
13:15 – 13:30	4	409	0	8		0	411	4	0		1	0	2	0		0	0	0	0						
13:30 – 13:45	3	358	0	11		0	437	2	0		4	0	0	0		0	0	0	0						
13:45 – 14:00	3	356	0	13		0	419	3	0		0	0	1	0		0	0	0	0						
14:00 – 14:15	1	415	0	9		0	450	2	0		1	0	1	0		0	0	0	0						
14:15 – 14:30	2	443	0	5		0	497	1	1		0	0	0	0		0	0	0	0						
14:30 – 14:45	1	451	0	4		0	501	2	0		0	0	1	0		0	0	0	0						
14:45 – 15:00	2	410	0	12		0	574	2	0		0	0	0	0		0	0	0	0						
15:00 – 15:15	2	446	0	12		0	574	2	0		0	0	1	0		0	0	0	0						
15:15 – 15:30	5	468	0	9		0	702	1	0		1	0	0	0		0	0	0	0						
15:30 – 15:45	2	530	0	4		0	781	2	0		0	0	0	0		0	0	0	0						

15:45 – 16:00	1	524	0	5	0	793	2	0	0	0	0	1	0	0	0	0	0	0	0
16:00 – 16:15	2	570	0	6	0	812	1	0	0	0	0	0	0	0	0	0	0	0	0
16:15 – 16:30	1	592	0	7	0	815	2	0	0	0	2	0	0	0	0	0	0	0	0
16:30 – 16:45	3	626	0	7	0	846	4	0	0	0	0	0	0	0	0	0	0	0	0
16:45 – 17:00	3	627	0	5	0	803	4	0	0	2	0	0	0	0	0	0	0	0	0
17:00 – 17:15	2	617	0	1	0	816	0	0	0	0	2	0	0	0	0	0	0	0	0
17:15 – 17:30	4	674	0	9	0	765	1	0	1	0	0	0	0	0	0	0	0	0	0
17:30 – 17:45	3	608	0	1	0	760	2	0	0	0	1	0	0	0	0	0	0	0	0
17:45 – 18:00	4	587	0	2	0	767	2	0	0	0	0	0	0	0	0	0	0	0	0
18:00 – 18:15																			
18:15 – 18:30																			
18:30 – 18:45																			
18:45 – 19:00																			
19:00 – 19:15																			
19:15 – 19:30																			
19:30 – 19:45																			
19:45 – 20:00																			
20:00 – 20:15																			
20:15 – 20:30																			
20:30 – 20:45																			
20:45 – 21:00																			
21:00 – 21:15																			
21:15 – 21:30																			
21:30 – 21:45																			
21:45 – 22:00																			
22:00 – 22:15																			
22:15 – 22:30																			
22:30 – 22:45																			
22:45 – 23:00																			
23:00 – 23:15																			
23:15 – 23:30																			
23:30 – 23:45																			
23:45 – 0:00																			

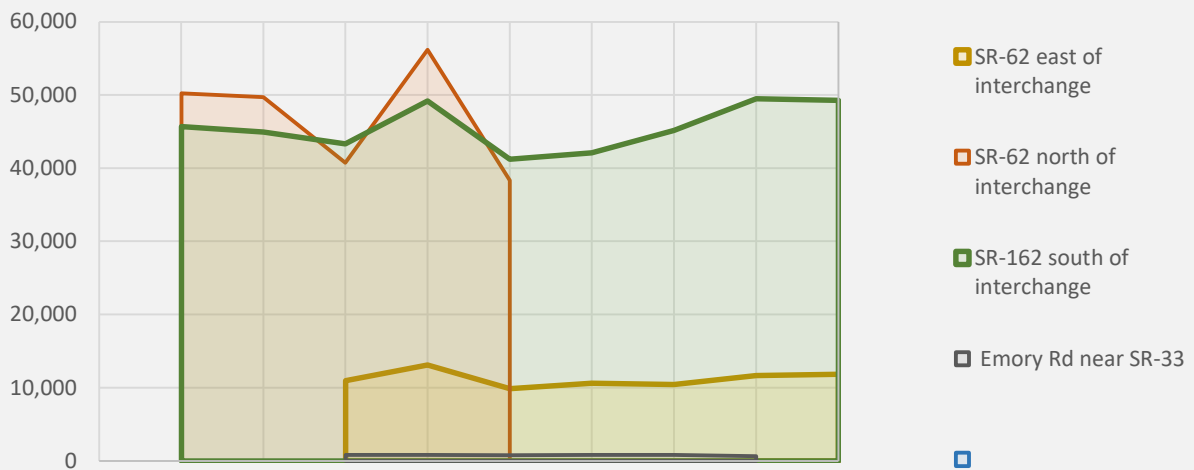
Summary

PEAK HOUR	↑ Northbound ↑					↓ Southbound ↓					→ Eastbound →					← Westbound ←				
	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped	Left	Thru	Right	U	Ped
07:00 – 08:00	4	2933	0	59	0	0	2636	2	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.91																			
Heavy Veh	3%					3%					0%					0%				
14:45 – 15:45	11	1854	0	37	0	0	2631	7	0	0	1	0	1	0	0	0	0	0	0	0
PHF	0.86																			
Heavy Veh	3%					3%					0%					0%				
16:30 – 17:30	12	2544	0	22	0	0	3230	9	0	0	1	0	4	0	0	0	0	0	0	0
PHF	0.98																			
Heavy Veh	2%					1%					0%					0%				

Historic Traffic Data

Year	47000082 SR-62 north of interchange	47000364 SR-62 east of interchange	47000083 SR-162 south of interchange	47000582 Emory Rd near SR-33	Total
2024	55,304	11,842	49,254		116,400
2023		11,671	49,502	644	61,817
2022		10,425	45,137	785	56,347
2021		10,611	42,083	818	53,512
2020	38,308	9,865	41,210	765	90,148
2019	56,197	13,115	49,190	785	119,287
2018	40,736	10,957	43,295	831	95,819
2017	49,706		44,920		94,626
2016	50,205	11,917	45,680	837	108,639

Current Year	2025
Horizon Year	2028
Growth Per Year	0.58%
Since	2016



APPENDIX C – PROPOSED TRIP GENERATION

Trip Generation Figures

ITE Hourly Time of Day Distributions

ITE Land		Quantity	Units	AM			PM			Weekday		
Use Code	Land Use			Enter	Exit	Total	Enter	Exit	Total			
Local	Local Apartment (Phase 1)	249	d.u.	27	97	124	97	79	176	2,167		
Local	Local Apartment (Phase 2)	332	d.u.	36	126	162	128	104	232	2,806		
814	Variety Store (Phase 1)	9,100	sq.f	15	13	28	31	30	61	579		
850	Supermarket (Phase 1)	12000	sq.f	20	14	34	54	53	107	1,126		
<i>Subtotal</i>				98	250	348	310	266	576	6678		
<i>Internal Trips</i>		<i>AM</i>	<i>PM</i>									
814	Variety Store (Phase 1)	4%	3%	1%	12%	1	0	1	0	4	4	17
850	Supermarket (Phase 1)	4%	3%	1%	12%	1	0	1	1	6	7	34
<i>Subtotal</i>						2	0	2	1	10	11	51
<i>Pass-By Trips</i>		<i>AM</i>	<i>PM</i>									
814	Variety Store (Phase 1)	34%	34%	5	4	9	11	9	20	191		
850	Supermarket (Phase 1)	55%	55%	10	8	18	29	26	55	601		
<i>Subtotal</i>				15	12	27	40	35	75	792		
<i>Net New External Auto Trips</i>												
Local	Local Apartment (Phase 1)	249	d.u.	27	97	124	97	79	176	2167		
Local	Local Apartment (Phase 2)	332	d.u.	36	126	162	128	104	232	2806		
814	Variety Store (Phase 1)	9100	sq.f	9	9	18	20	17	37	371		
850	Supermarket (Phase 1)	12000	sq.f	9	6	15	24	21	45	491		
Total				81	238	319	269	221	490	5,835		

Local Apartment Trip Generation Study

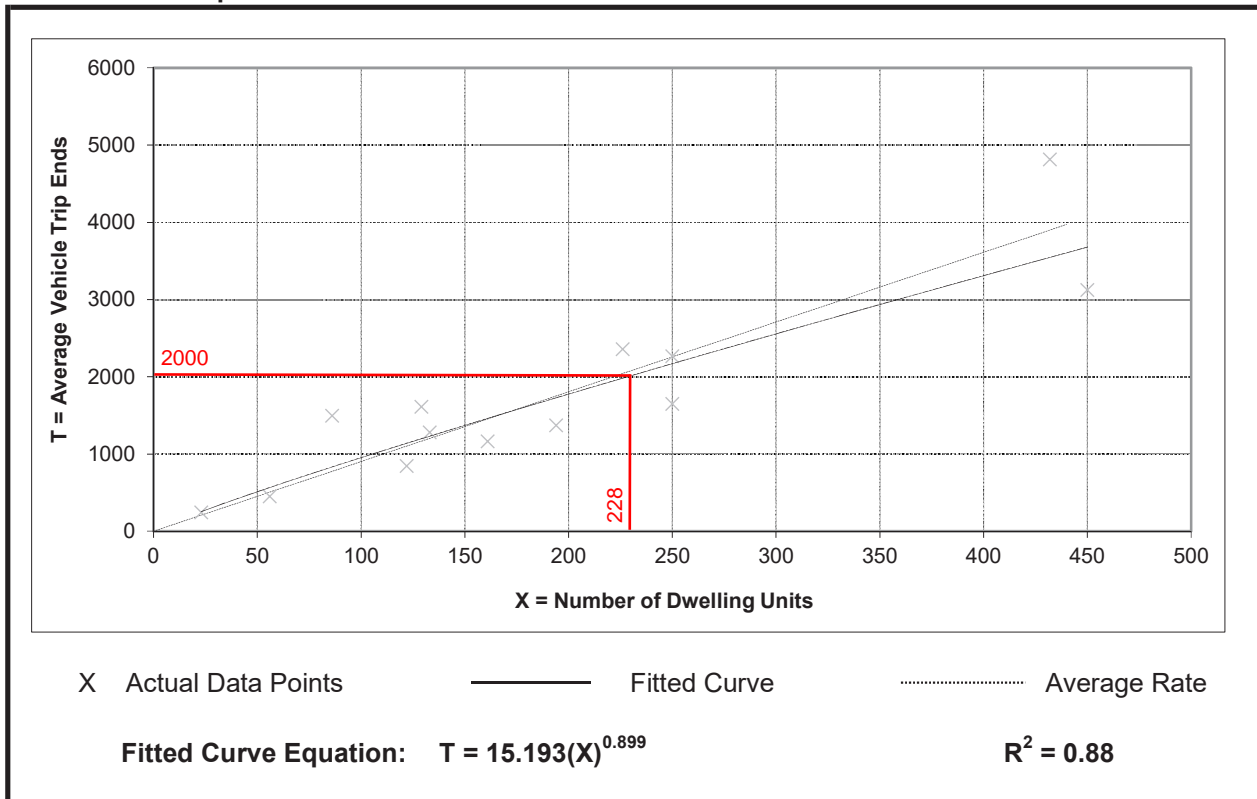
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 13
Average Number of Dwelling Units: 193
Directional Distribution: 50% entering, 50% exiting

Trip Generation Per Dwelling Unit

Average Rate	Ranges of Rates	Standard Deviation
9.03	6.59 - 17.41	2.47

Data Plot and Equation



Local Apartment Trip Generation Study

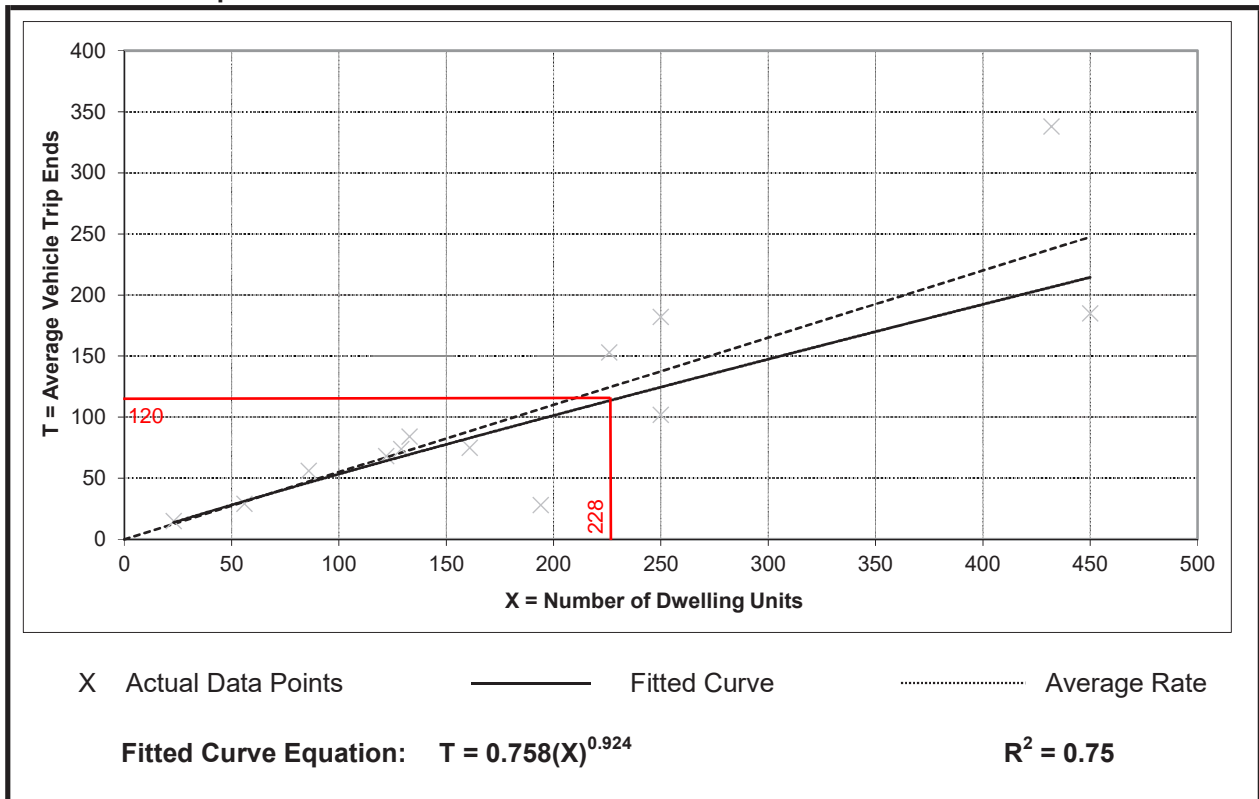
Average Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.

Number of Studies: 13
 Average Number of Dwelling Units: 193
 Directional Distribution: 22% entering, 78% exiting

Trip Generation Per Dwelling Unit

Average Rate	Ranges of Rates	Standard Deviation
0.55	0.14 - 0.78	0.18

Data Plot and Equation



Local Apartment Trip Generation Study

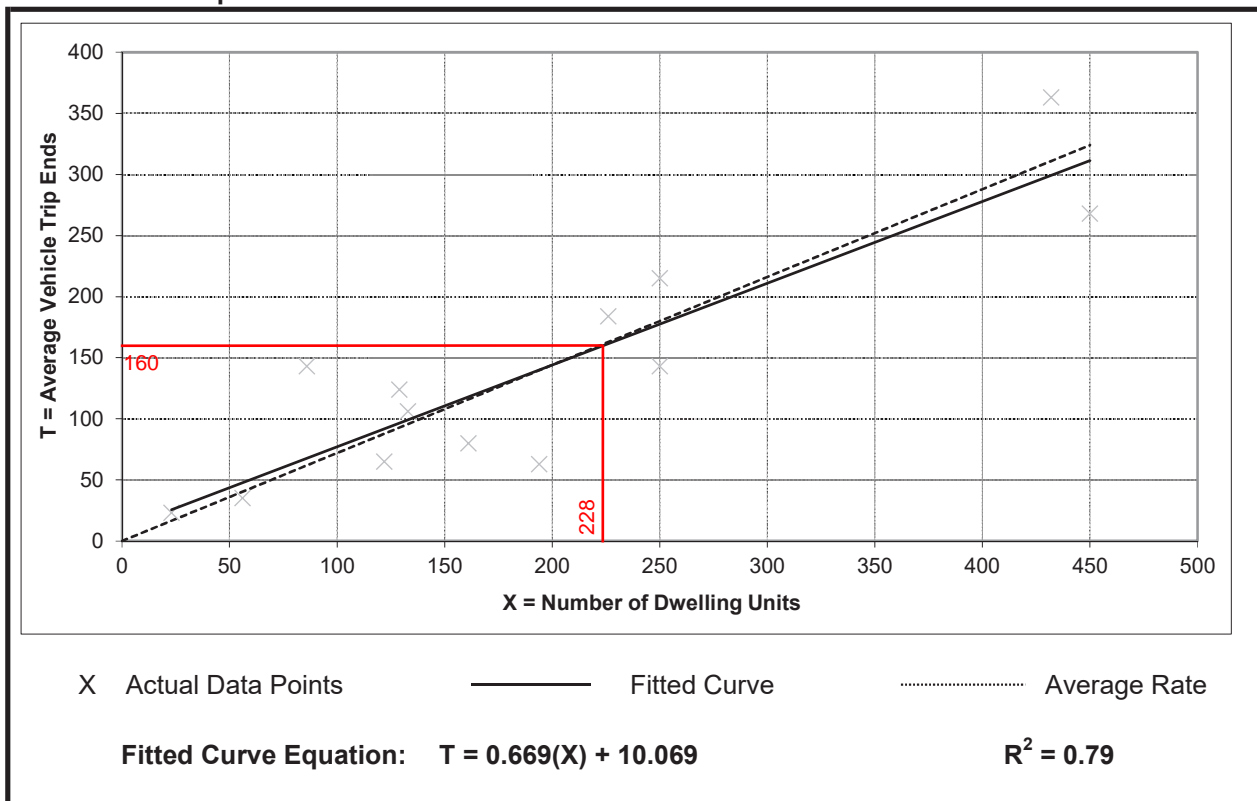
Average Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.

Number of Studies: 13
 Average Number of Dwelling Units: 193
 Directional Distribution: 55% entering, 45% exiting

Trip Generation Per Dwelling Unit

Average Rate	Ranges of Rates	Standard Deviation
0.72	0.32 - 1.66	0.25

Data Plot and Equation



Local Apartment Trip Generation Study

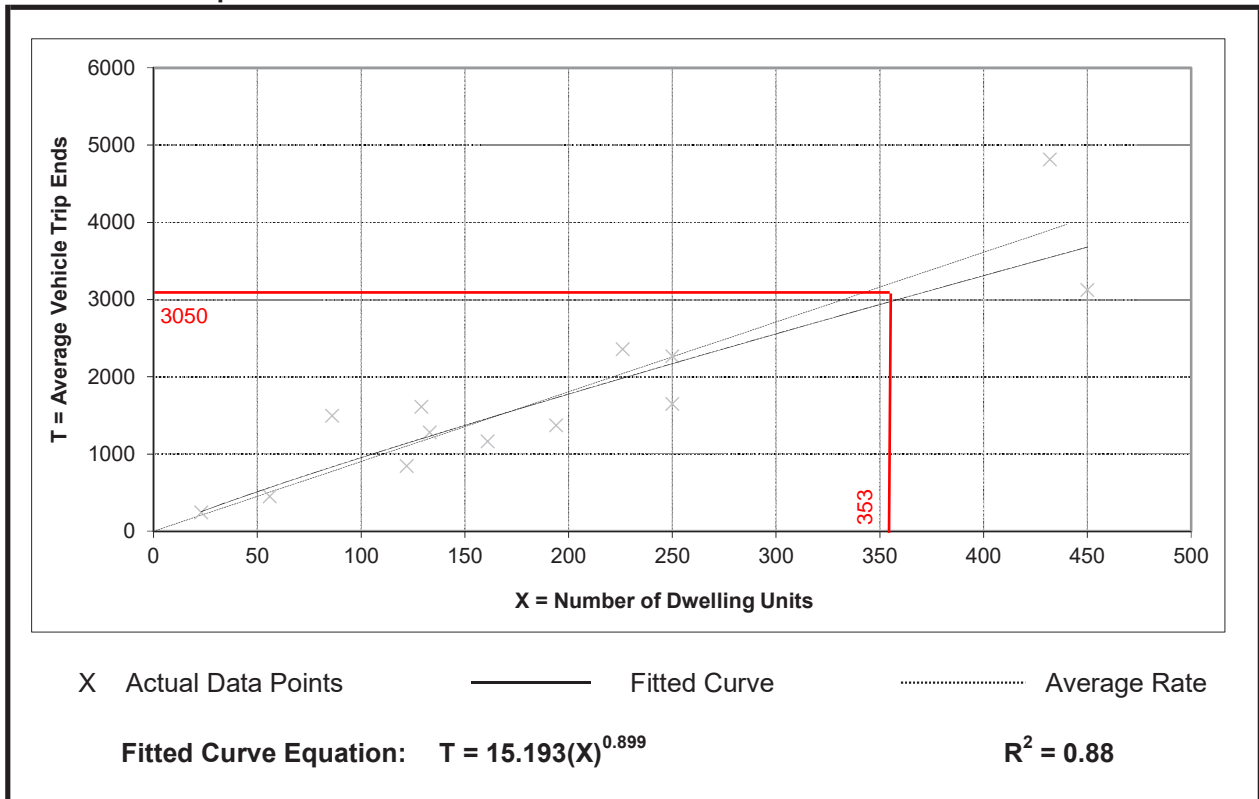
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 13
Average Number of Dwelling Units: 193
Directional Distribution: 50% entering, 50% exiting

Trip Generation Per Dwelling Unit

Average Rate	Ranges of Rates	Standard Deviation
9.03	6.59 - 17.41	2.47

Data Plot and Equation



Local Apartment Trip Generation Study

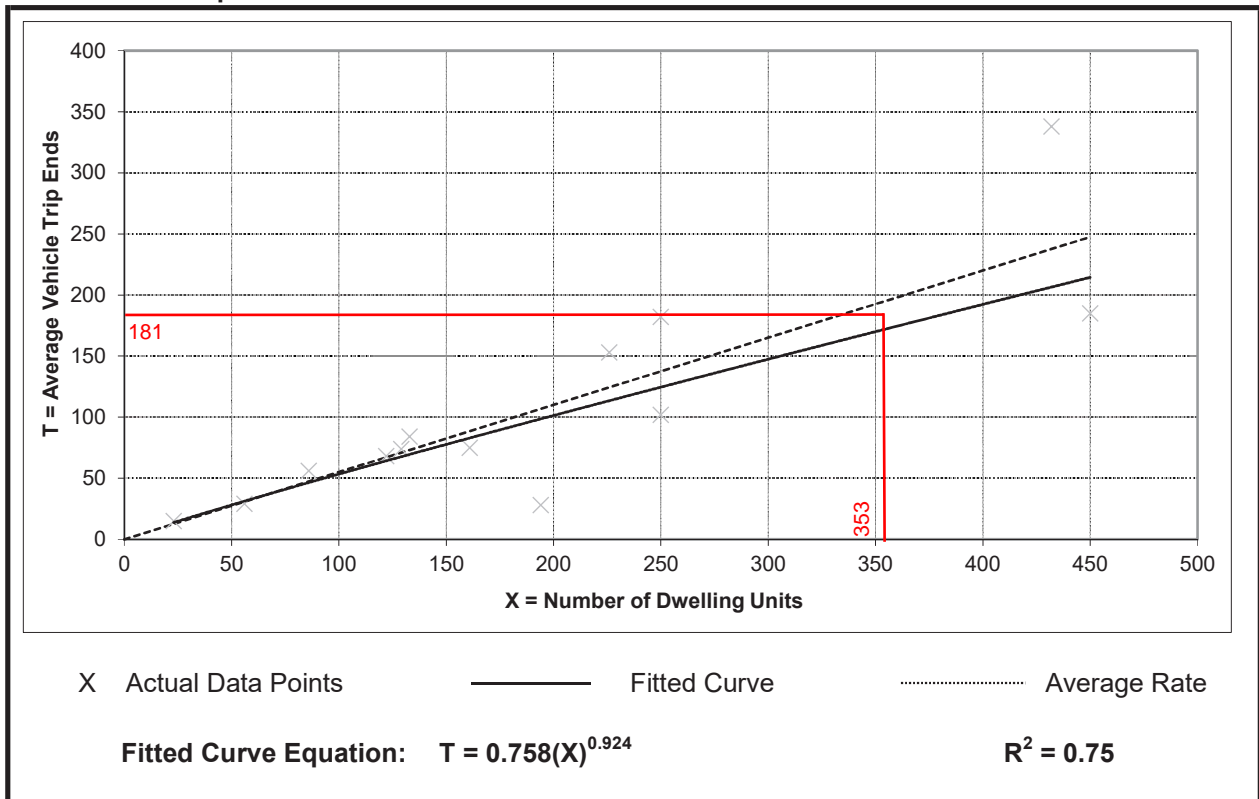
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 13
 Average Number of Dwelling Units: 193
 Directional Distribution: 22% entering, 78% exiting

Trip Generation Per Dwelling Unit

Average Rate	Ranges of Rates	Standard Deviation
0.55	0.14 - 0.78	0.18

Data Plot and Equation



Local Apartment Trip Generation Study

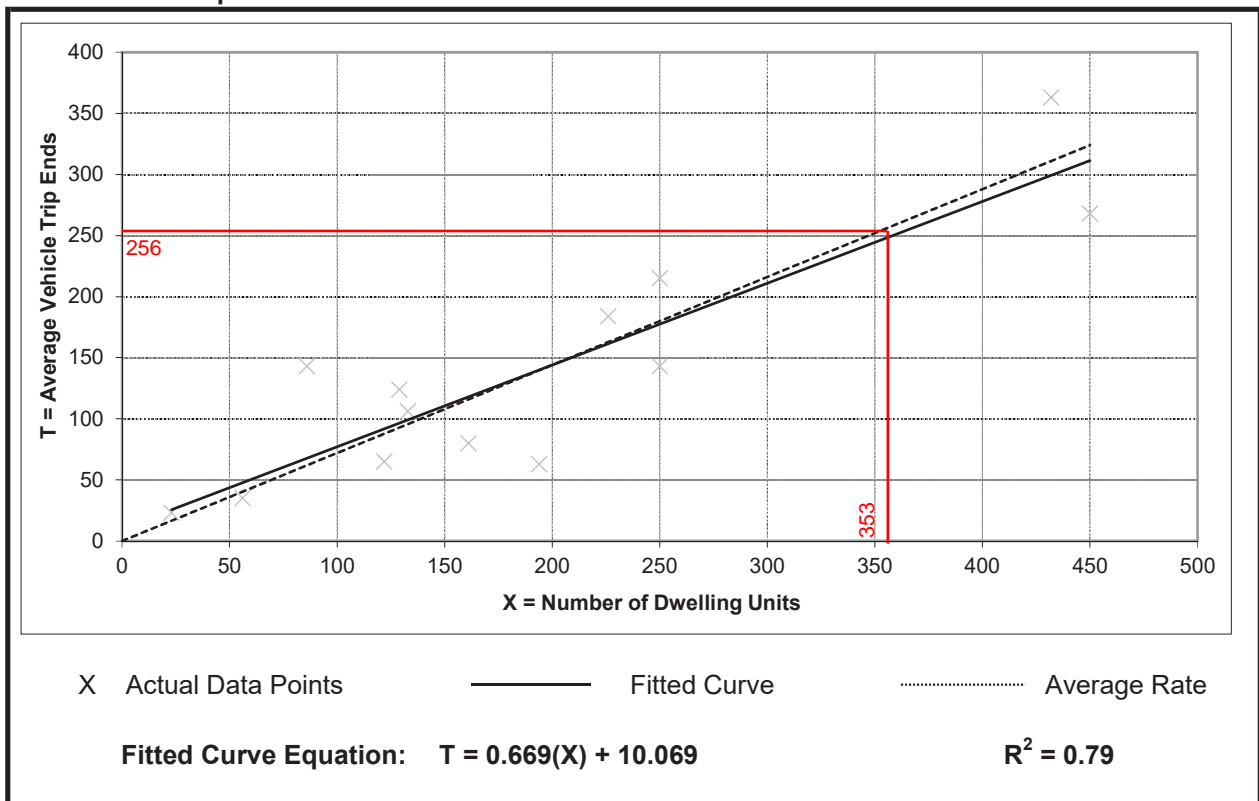
Average Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.

Number of Studies: 13
 Average Number of Dwelling Units: 193
 Directional Distribution: 55% entering, 45% exiting

Trip Generation Per Dwelling Unit

Average Rate	Ranges of Rates	Standard Deviation
0.72	0.32 - 1.66	0.25

Data Plot and Equation



Land Use: 814

Variety Store

Description

A variety store is a retail store that sells a broad range of inexpensive items often at a uniform price. A variety store is commonly referred to as a “dollar store.” Items typically sold at a variety store include kitchen supplies, cleaning products, home office supplies, food products, household goods, decorations, and toys. The store can be stand-alone or located within a shopping plaza or strip retail plaza. Free-standing discount store (Land Use 815) is a related use.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 2010s and 2020s in Florida, Minnesota, and Texas.

Source Numbers

731, 869, 879, 880, 1053, 1063

Variety Store (814)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 29

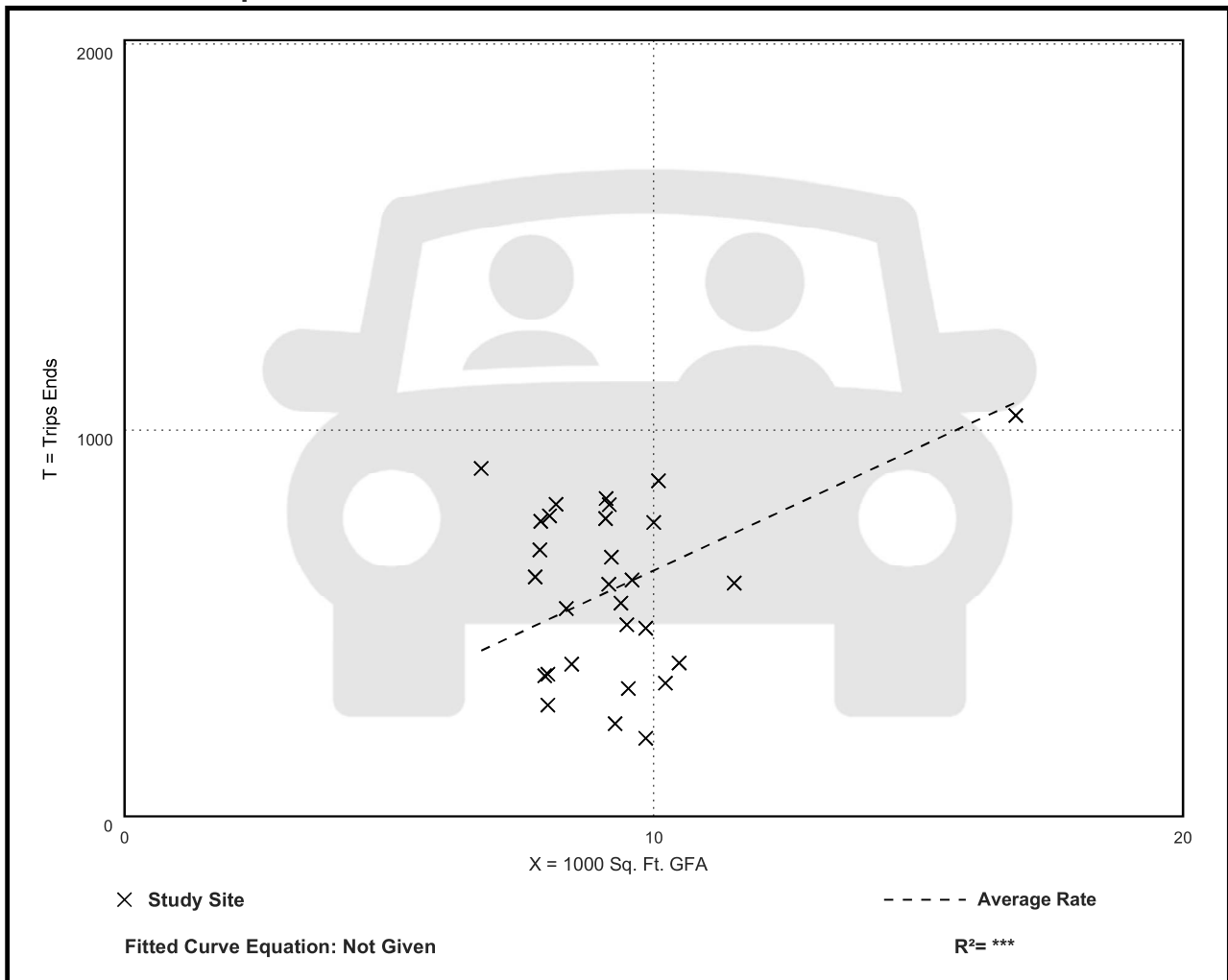
Avg. 1000 Sq. Ft. GFA: 9

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
63.66	20.51 - 133.68	25.23

Data Plot and Equation



Variety Store (814)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 29

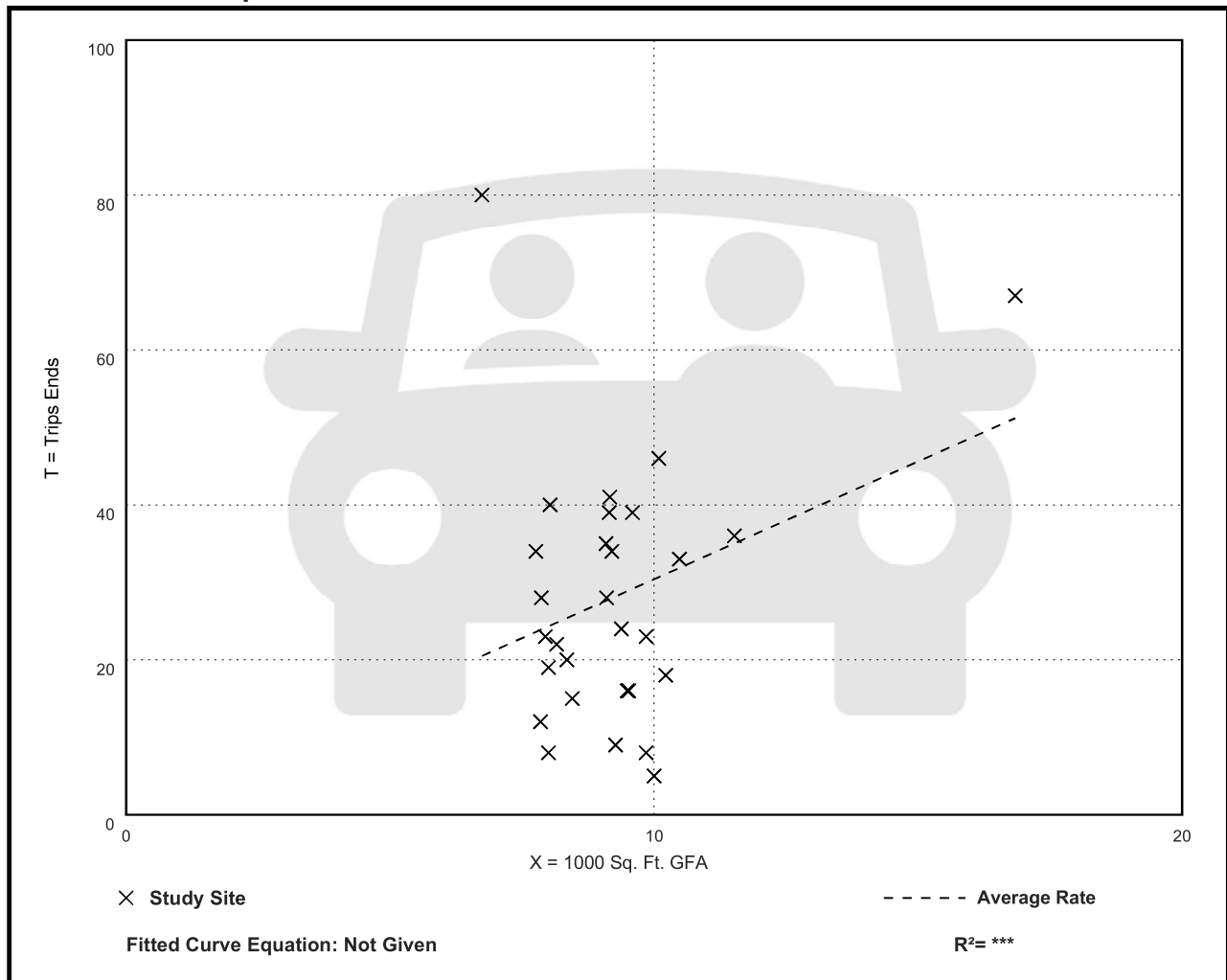
Avg. 1000 Sq. Ft. GFA: 9

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.04	0.50 - 11.87	1.91

Data Plot and Equation



Variety Store (814)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 29

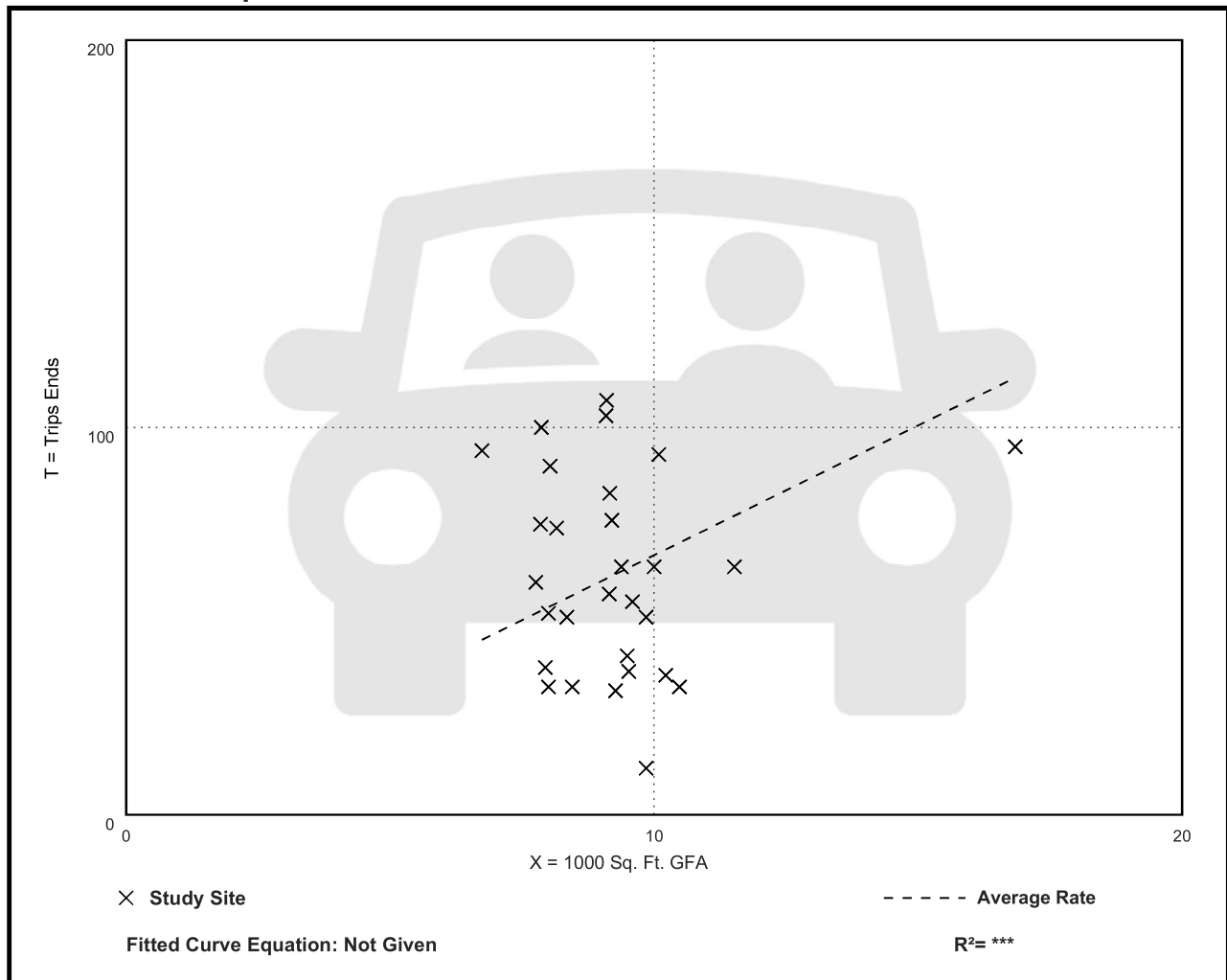
Avg. 1000 Sq. Ft. GFA: 9

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
6.70	1.22 - 13.95	3.08

Data Plot and Equation



Land Use: 850 Supermarket

Description

A supermarket is a free-standing retail store that sells a complete assortment of food, beverage, food preparation materials, and household products. A supermarket may also provide additional products and services such as a bakery, dry cleaning, floral arrangements, greeting cards, a limited-service bank, and a pharmacy.

Additional Data

In prior editions of *Trip Generation Manual*, a separate land use code was assigned to a discount supermarket. With the addition of new supermarket data points, an examination of the database reveals very little difference between trip generation rates for the traditional supermarket and a reported discount supermarket. This examination looked at both the small discount supermarkets and the large discount supermarkets. As a result, all types of supermarkets are included in this land use database.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, Colorado, Connecticut, District of Columbia, Florida, Georgia, Illinois, Kentucky, Maryland, Minnesota, Nevada, New Jersey, New York, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

213, 221, 236, 251, 273, 305, 359, 365, 438, 440, 442, 447, 448, 514, 520, 537, 552, 577, 610, 715, 716, 728, 738, 746, 854, 870, 882, 893, 917, 926, 935, 946, 959, 961, 966, 975, 1004, 1009, 1025, 1058, 1063, 1064

Supermarket (850)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 34

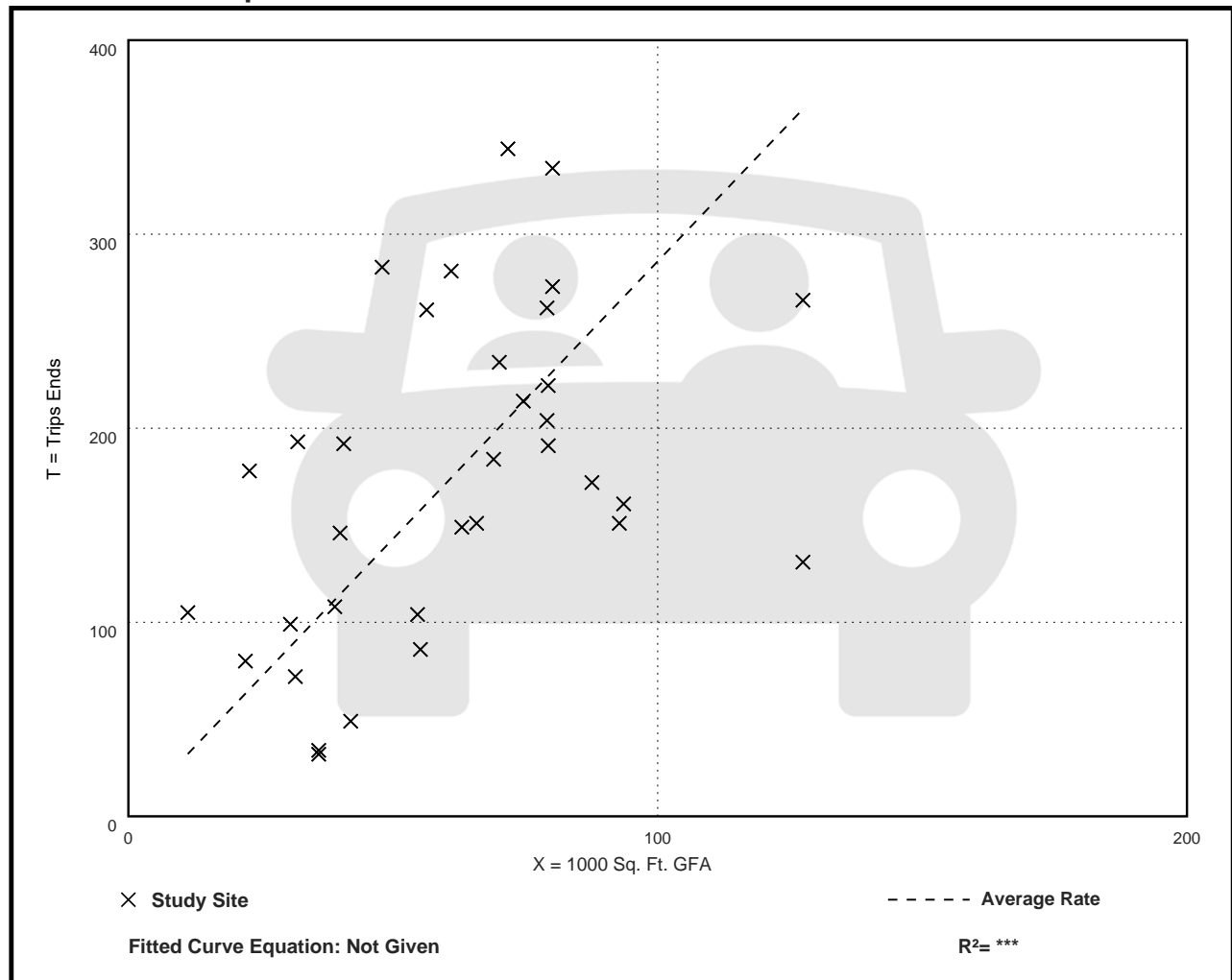
Avg. 1000 Sq. Ft. GFA: 61

Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.86	0.89 - 9.35	1.45

Data Plot and Equation



Supermarket (850)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 104

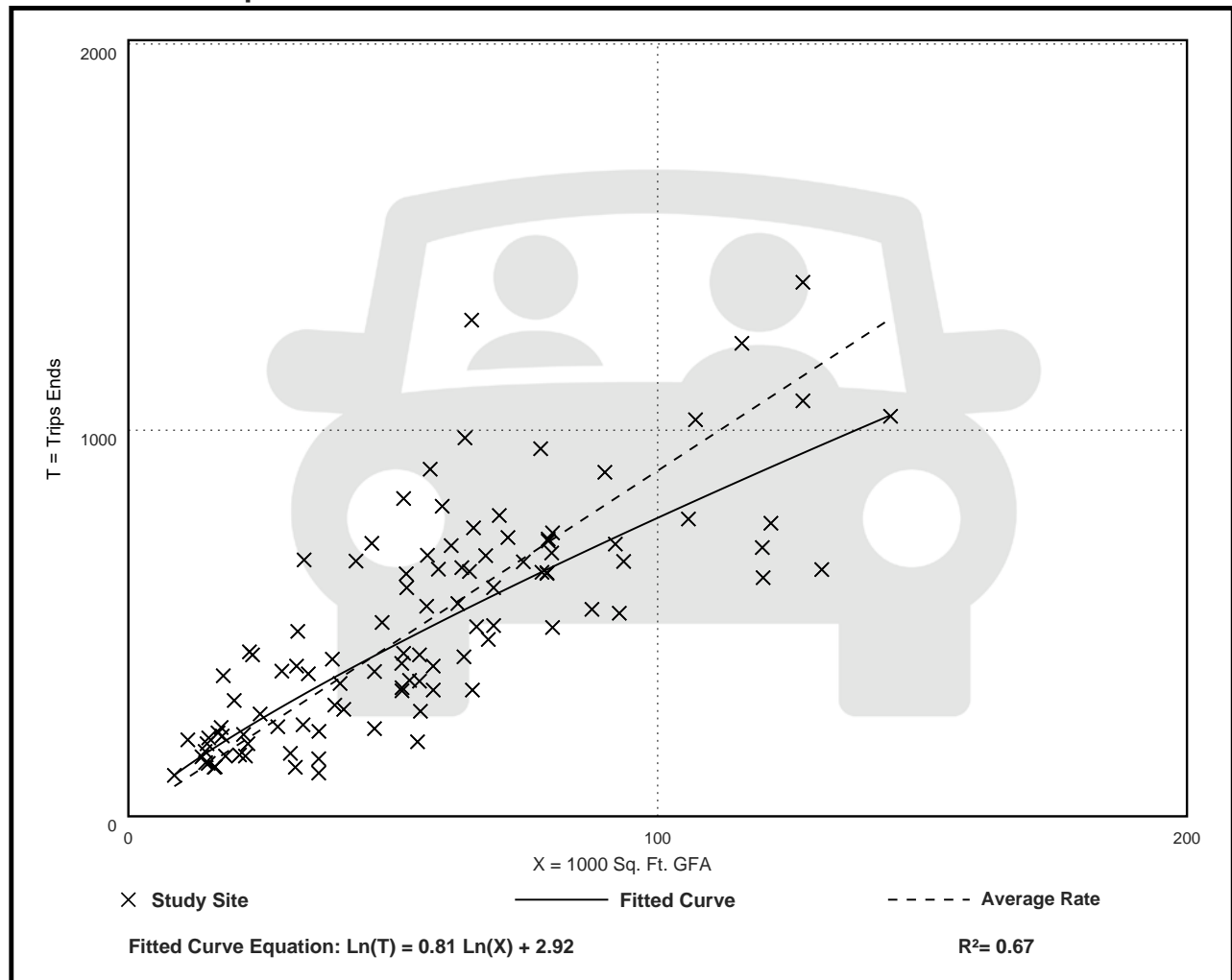
Avg. 1000 Sq. Ft. GFA: 55

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
8.95	3.11 - 20.30	3.32

Data Plot and Equation



APPENDIX D – ANALYSIS RESULTS

Capacity Analysis Results

2028 and 2040 Projected Hourly Volumes

Warrant Results

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	387	636	3	10	38
Future Vol, veh/h	10	387	636	3	10	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	11	430	707	3	11	42

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	710	0	-	0	1161 708
Stage 1	-	-	-	-	708 -
Stage 2	-	-	-	-	452 -
Critical Hdwy	4.17	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.263	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	866	-	-	-	216 435
Stage 1	-	-	-	-	488 -
Stage 2	-	-	-	-	641 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	866	-	-	-	212 435
Mov Cap-2 Maneuver	-	-	-	-	212 -
Stage 1	-	-	-	-	480 -
Stage 2	-	-	-	-	641 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.23	0	16.86
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	45	-	-	-	357
HCM Lane V/C Ratio	0.013	-	-	-	0.15
HCM Control Delay (s/veh)	9.2	0	-	-	16.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	386	0	0	659	10	0	0	0	14	0	17
Future Vol, veh/h	18	386	0	0	659	10	0	0	0	14	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
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	3	3	3	2	2	2	26	26	26
Mvmt Flow	20	420	0	0	716	11	0	0	0	15	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	727	0	0	420	0	0	1175	1186	420	1180	1180	722
Stage 1	-	-	-	-	-	-	459	459	-	722	722	-
Stage 2	-	-	-	-	-	-	716	727	-	459	459	-
Critical Hdwy	4.15	-	-	4.13	-	-	7.12	6.52	6.22	7.36	6.76	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Follow-up Hdwy	2.245	-	-	2.227	-	-	3.518	4.018	3.318	3.734	4.234	3.534
Pot Cap-1 Maneuver	863	-	-	1134	-	-	168	189	634	150	171	389
Stage 1	-	-	-	-	-	-	582	567	-	383	398	-
Stage 2	-	-	-	-	-	-	421	429	-	539	528	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	863	-	-	1134	-	-	156	183	634	145	166	389
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	183	-	145	166	-
Stage 1	-	-	-	-	-	-	565	550	-	383	398	-
Stage 2	-	-	-	-	-	-	401	429	-	523	512	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	0	0	23.3
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	80	-	-	1134	-	-	230
HCM Lane V/C Ratio	-	0.023	-	-	-	-	-	0.146
HCM Control Delay (s/veh)	0	9.3	0	-	0	-	-	23.3
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.5

Intersection												
Int Delay, s/veh	26.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	42	0	55	0	0	0	0	2952	0	3	2620	64
Future Vol, veh/h	42	0	55	0	0	0	0	2952	0	3	2620	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	46	0	60	0	0	0	0	3244	0	3	2879	70

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	4543	6165	1475	4690	6200	1622	-	0	0	3244	0	0
Stage 1	2921	2921	-	3244	3244	-	-	-	-	-	-	-
Stage 2	1622	3244	-	1446	2956	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 0	0	116	0	0	92	0	-	-	88	-	-
Stage 1	~ 15	34	-	9	23	-	0	-	-	-	-	-
Stage 2	107	23	-	138	32	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	116	0	0	92	-	-	-	88	-	-
Mov Cap-2 Maneuver	~ 14	15	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 15	33	-	9	23	-	-	-	-	-	-	-
Stage 2	107	23	-	63	31	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$/veh	1581.35	0	0	0.05
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	28	-	88	-	-
HCM Lane V/C Ratio	-	-	3.864	-	0.037	-	-
HCM Control Delay (s/veh)	-	-	\$ 1581.4	0	47.4	-	-
HCM Lane LOS	-	-	F	A	E	-	-
HCM 95th %tile Q(veh)	-	-	13	-	0.1	-	-

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

Intersection							
Int Delay, s/veh	17.5						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	0	0	59	4	2933	2636	2
Future Vol, veh/h	0	0	59	4	2933	2636	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	3	3	3
Mvmt Flow	0	0	65	4	3223	2897	2

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	4648	1449	2899	2899	0	-	0
Stage 1	2898	-	-	-	-	-	-
Stage 2	1750	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.46	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.53	2.23	-	-	-
Pot Cap-1 Maneuver	1	120	~ 18	122	-	-	-
Stage 1	28	-	-	-	-	-	-
Stage 2	125	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	120	~ 19	19	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	28	-	-	-	-	-	-
Stage 2	125	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	32.88	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	19	-	-	-	-
HCM Lane V/C Ratio	3.568	-	-	-	-
HCM Control Delay (s/veh)	\$ 1563.4	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	9.1	-	-	-	-

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

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	90	1060	357	14	5	11
Future Vol, veh/h	90	1060	357	14	5	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	4	4	6	6
Mvmt Flow	94	1104	372	15	5	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	386	0	-	0	1671 379
Stage 1	-	-	-	-	379 -
Stage 2	-	-	-	-	1292 -
Critical Hdwy	4.12	-	-	-	6.46 6.26
Critical Hdwy Stg 1	-	-	-	-	5.46 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.218	-	-	-	3.554 3.354
Pot Cap-1 Maneuver	1172	-	-	-	103 659
Stage 1	-	-	-	-	683 -
Stage 2	-	-	-	-	253 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1172	-	-	-	82 659
Mov Cap-2 Maneuver	-	-	-	-	82 -
Stage 1	-	-	-	-	542 -
Stage 2	-	-	-	-	253 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.65	0	24.05
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	141	-	-	-	206
HCM Lane V/C Ratio	0.08	-	-	-	0.081
HCM Control Delay (s/veh)	8.3	0	-	-	24
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	1126	0	0	373	9	0	0	1	16	0	17
Future Vol, veh/h	8	1126	0	0	373	9	0	0	1	16	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	6	6	6
Mvmt Flow	9	1198	0	0	397	10	0	0	1	17	0	18

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	406	0	0	1198	0	0	1612	1621	1198	1616	1616	402
Stage 1	-	-	-	-	-	-	1215	1215	-	402	402	-
Stage 2	-	-	-	-	-	-	397	406	-	1215	1215	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1152	-	-	576	-	-	84	103	226	81	101	640
Stage 1	-	-	-	-	-	-	222	254	-	617	594	-
Stage 2	-	-	-	-	-	-	629	598	-	218	250	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1152	-	-	576	-	-	80	101	226	79	99	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	80	101	-	79	99	-
Stage 1	-	-	-	-	-	-	217	248	-	617	594	-
Stage 2	-	-	-	-	-	-	611	598	-	212	244	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.06	0	20.99	36.83
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	13	-	-	576	-	-	148
HCM Lane V/C Ratio	0.005	0.007	-	-	-	-	-	0.238
HCM Control Delay (s/veh)	21	8.1	0	-	0	-	-	36.8
HCM Lane LOS	C	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.9

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	14	0	42	0	0	0	0	2579	0	5	3113	132
Future Vol, veh/h	14	0	42	0	0	0	0	2579	0	5	3113	132
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	14	0	43	0	0	0	0	2632	0	5	3177	135

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	4570	5886	1656	4230	5953	1316	-	0	0	2632	0	0
Stage 1	3254	3254	-	2632	2632	-	-	-	-	-	-	-
Stage 2	1316	2632	-	1598	3321	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 0	0	87	1	0	148	0	-	-	159	-	-
Stage 1	~ 9	22	-	24	48	-	0	-	-	-	-	-
Stage 2	167	48	-	111	21	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	87	0	0	148	-	-	-	159	-	-
Mov Cap-2 Maneuver	~ 8	18	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 9	22	-	24	48	-	-	-	-	-	-	-
Stage 2	167	48	-	54	20	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$/veh	865.81	0	0	0.04
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	26	-	159	-
HCM Lane V/C Ratio	-	-	2.189	-	0.032	-
HCM Control Delay (s/veh)	-	-	\$ 865.8	0	28.4	-
HCM Lane LOS	-	-	F	A	D	-
HCM 95th %tile Q(veh)	-	-	7	-	0.1	-

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

Intersection							
Int Delay, s/veh	7.3						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			B	↑↑	↑↑	
Traffic Vol, veh/h	1	4	22	12	2544	3230	9
Future Vol, veh/h	1	4	22	12	2544	3230	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	4	22	12	2596	3296	9

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	4668	1653	3305	3305	0	-	0
Stage 1	3301	-	-	-	-	-	-
Stage 2	1367	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	2.22	-	-	-
Pot Cap-1 Maneuver	~ 1	87	~ 10	85	-	-	-
Stage 1	16	-	-	-	-	-	-
Stage 2	202	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	87	~ 14	14	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	16	-	-	-	-	-	-
Stage 2	202	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	48.75	16.48	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	14	-	87	-	-
HCM Lane V/C Ratio	2.517	-	0.058	-	-
HCM Control Delay (s/veh)	\$ 1249.8	-	48.8	-	-
HCM Lane LOS	F	-	E	-	-
HCM 95th %tile Q(veh)	5.1	-	0.2	-	-

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

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	399	655	3	10	39
Future Vol, veh/h	10	399	655	3	10	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	11	443	728	3	11	43

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	731	0	-	0	1195 729
Stage 1	-	-	-	-	729 -
Stage 2	-	-	-	-	466 -
Critical Hdwy	4.17	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.263	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	851	-	-	-	206 423
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	632 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	851	-	-	-	202 423
Mov Cap-2 Maneuver	-	-	-	-	202 -
Stage 1	-	-	-	-	469 -
Stage 2	-	-	-	-	632 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.23	0	17.35
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	44	-	-	-	346
HCM Lane V/C Ratio	0.013	-	-	-	0.157
HCM Control Delay (s/veh)	9.3	0	-	-	17.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	398	0	0	679	10	0	0	0	14	0	18
Future Vol, veh/h	19	398	0	0	679	10	0	0	0	14	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
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	3	3	3	2	2	2	26	26	26
Mvmt Flow	21	433	0	0	738	11	0	0	0	15	0	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	749	0	0	433	0	0	1212	1223	433	1217	1217	743
Stage 1	-	-	-	-	-	-	474	474	-	743	743	-
Stage 2	-	-	-	-	-	-	738	749	-	474	474	-
Critical Hdwy	4.15	-	-	4.13	-	-	7.12	6.52	6.22	7.36	6.76	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Follow-up Hdwy	2.245	-	-	2.227	-	-	3.518	4.018	3.318	3.734	4.234	3.534
Pot Cap-1 Maneuver	846	-	-	1122	-	-	159	179	623	141	163	378
Stage 1	-	-	-	-	-	-	571	558	-	372	388	-
Stage 2	-	-	-	-	-	-	410	419	-	528	520	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	846	-	-	1122	-	-	146	174	623	136	157	378
Mov Cap-2 Maneuver	-	-	-	-	-	-	146	174	-	136	157	-
Stage 1	-	-	-	-	-	-	553	540	-	372	388	-
Stage 2	-	-	-	-	-	-	388	419	-	511	503	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.43	0	0	24.25
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	82	-	-	1122	-	-	222
HCM Lane V/C Ratio	-	0.024	-	-	-	-	-	0.157
HCM Control Delay (s/veh)	0	9.4	0	-	0	-	-	24.3
HCM Lane LOS		A	A	A	-	A	-	C
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.5

Intersection												
Int Delay, s/veh	32.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	43	0	57	0	0	0	0	3041	0	3	2699	66
Future Vol, veh/h	43	0	57	0	0	0	0	3041	0	3	2699	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	47	0	63	0	0	0	0	3342	0	3	2966	73

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	4680	6351	1519	4831	6387	1671	-	0	0	3342	0	0
Stage 1	3009	3009	-	3342	3342	-	-	-	-	-	-	-
Stage 2	1671	3342	-	1490	3045	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 0	0	108	0	0	85	0	-	-	80	-	-
Stage 1	~ 13	30	-	8	20	-	0	-	-	-	-	-
Stage 2	100	20	-	130	29	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	108	0	0	85	-	-	-	80	-	-
Mov Cap-2 Maneuver	~ 12	13	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 13	29	-	8	20	-	-	-	-	-	-	-
Stage 2	100	20	-	52	28	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$/1900.6		0	0	0.06
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	24	-	80	-
HCM Lane V/C Ratio	-	-	4.504	-	0.041	-
HCM Control Delay (s/veh)	-	-	\$ 1900.6	0	51.7	-
HCM Lane LOS	-	-	F	A	F	-
HCM 95th %tile Q(veh)	-	-	13.7	-	0.1	-

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

Intersection							
Int Delay, s/veh	21.3						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	0	0	61	4	3021	2715	2
Future Vol, veh/h	0	0	61	4	3021	2715	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	3	3	3
Mvmt Flow	0	0	67	4	3320	2984	2

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	4787	1493	2986	2986	0	-	0
Stage 1	2985	-	-	-	-	-	-
Stage 2	1803	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.46	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.53	2.23	-	-	-
Pot Cap-1 Maneuver	1	112	~ 16	112	-	-	-
Stage 1	25	-	-	-	-	-	-
Stage 2	117	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	112	~ 17	17	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	25	-	-	-	-	-	-
Stage 2	117	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	40.14	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	17	-	-	-	-
HCM Lane V/C Ratio	4.22	-	-	-	-
HCM Control Delay (s/veh)	\$ 1905.7	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	9.6	-	-	-	-

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

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	93	1092	368	14	5	11
Future Vol, veh/h	93	1092	368	14	5	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	4	4	6	6
Mvmt Flow	97	1138	383	15	5	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	398	0	-	0	1722 391
Stage 1	-	-	-	-	391 -
Stage 2	-	-	-	-	1331 -
Critical Hdwy	4.12	-	-	-	6.46 6.26
Critical Hdwy Stg 1	-	-	-	-	5.46 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.218	-	-	-	3.554 3.354
Pot Cap-1 Maneuver	1161	-	-	-	96 649
Stage 1	-	-	-	-	675 -
Stage 2	-	-	-	-	242 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1161	-	-	-	74 649
Mov Cap-2 Maneuver	-	-	-	-	74 -
Stage 1	-	-	-	-	522 -
Stage 2	-	-	-	-	242 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.66	0	25.81
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	141	-	-	-	190
HCM Lane V/C Ratio	0.083	-	-	-	0.088
HCM Control Delay (s/veh)	8.4	0	-	-	25.8
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	1160	0	0	384	9	0	0	1	16	0	18
Future Vol, veh/h	8	1160	0	0	384	9	0	0	1	16	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	6	6	6
Mvmt Flow	9	1234	0	0	409	10	0	0	1	17	0	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	418	0	0	1234	0	0	1660	1669	1234	1664	1664	413
Stage 1	-	-	-	-	-	-	1251	1251	-	413	413	-
Stage 2	-	-	-	-	-	-	409	418	-	1251	1251	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1141	-	-	558	-	-	78	96	215	75	95	630
Stage 1	-	-	-	-	-	-	211	244	-	608	587	-
Stage 2	-	-	-	-	-	-	620	591	-	207	240	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1141	-	-	558	-	-	73	94	215	73	92	630
Mov Cap-2 Maneuver	-	-	-	-	-	-	73	94	-	73	92	-
Stage 1	-	-	-	-	-	-	206	238	-	608	587	-
Stage 2	-	-	-	-	-	-	601	591	-	201	234	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.06	0	21.8	39.25
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	12	-	-	558	-	-	141
HCM Lane V/C Ratio	0.005	0.007	-	-	-	-	-	0.257
HCM Control Delay (s/veh)	21.8	8.2	0	-	0	-	-	39.3
HCM Lane LOS		C	A	A	-	A	-	E
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	1

Intersection												
Int Delay, s/veh	9.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	14	0	43	0	0	0	0	2656	0	5	3206	136
Future Vol, veh/h	14	0	43	0	0	0	0	2656	0	5	3206	136
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	14	0	44	0	0	0	0	2710	0	5	3271	139

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	4706	6061	1705	4356	6131	1355	-	0	0	2710	0	0
Stage 1	3351	3351	-	2710	2710	-	-	-	-	-	-	-
Stage 2	1355	2710	-	1646	3420	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 0	0	80	0	0	139	0	-	-	148	-	-
Stage 1	~ 8	20	-	21	44	-	0	-	-	-	-	-
Stage 2	157	44	-	103	18	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	80	0	0	139	-	-	-	148	-	-
Mov Cap-2 Maneuver	~ 7	16	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 8	19	-	21	44	-	-	-	-	-	-	-
Stage 2	157	44	-	45	17	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$/veh	45.93	0	0	0.05
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	23	-	148	-	-
HCM Lane V/C Ratio	-	-	2.522	-	0.035	-	-
HCM Control Delay (s/veh)	-	-	\$ 1045.9	0	30.2	-	-
HCM Lane LOS	-	-	F	A	D	-	-
HCM 95th %tile Q(veh)	-	-	7.4	-	0.1	-	-

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

Intersection							
Int Delay, s/veh	9.3						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	1	4	23	12	2620	3327	9
Future Vol, veh/h	1	4	23	12	2620	3327	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	4	23	12	2673	3395	9

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	4808	1702	3404	3404	0	-
Stage 1	3399	-	-	-	-	-
Stage 2	1408	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	2.22	-	-
Pot Cap-1 Maneuver	~ 1	81	~ 8	77	-	-
Stage 1	14	-	-	-	-	-
Stage 2	192	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	0	81	~ 12	~ 12	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	14	-	-	-	-	-
Stage 2	192	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v52.55		20.84	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	~ 12	-	81	-	-
HCM Lane V/C Ratio	3.066	-	0.063	-	-
HCM Control Delay (s/veh) \$	1580.7	-	52.5	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	5.5	-	0.2	-	-

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

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	12	424	666	3	10	41
Future Vol, veh/h	12	424	666	3	10	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	13	471	740	3	11	46

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	743	0	-	0	1239 742
Stage 1	-	-	-	-	742 -
Stage 2	-	-	-	-	498 -
Critical Hdwy	4.17	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.263	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	842	-	-	-	194 416
Stage 1	-	-	-	-	471 -
Stage 2	-	-	-	-	611 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	842	-	-	-	189 416
Mov Cap-2 Maneuver	-	-	-	-	189 -
Stage 1	-	-	-	-	461 -
Stage 2	-	-	-	-	611 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.26	0	17.84
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	50	-	-	-	337
HCM Lane V/C Ratio	0.016	-	-	-	0.168
HCM Control Delay (s/veh)	9.3	0	-	-	17.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

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	61	389	0	0	673	28	0	0	0	50	0	107
Future Vol, veh/h	61	389	0	0	673	28	0	0	0	50	0	107
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
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	3	3	3	2	2	2	26	26	26
Mvmt Flow	66	423	0	0	732	30	0	0	0	54	0	116

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	762	0	0	423	0	0	1287	1317	423	1302	1302	747
Stage 1	-	-	-	-	-	-	555	555	-	747	747	-
Stage 2	-	-	-	-	-	-	732	762	-	555	555	-
Critical Hdwy	4.15	-	-	4.13	-	-	7.12	6.52	6.22	7.36	6.76	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Follow-up Hdwy	2.245	-	-	2.227	-	-	3.518	4.018	3.318	3.734	4.234	3.534
Pot Cap-1 Maneuver	837	-	-	1131	-	-	141	157	631	123	144	376
Stage 1	-	-	-	-	-	-	516	513	-	370	387	-
Stage 2	-	-	-	-	-	-	413	414	-	475	476	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	837	-	-	1131	-	-	87	141	631	110	129	376
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	141	-	110	129	-
Stage 1	-	-	-	-	-	-	462	460	-	370	387	-
Stage 2	-	-	-	-	-	-	285	414	-	426	427	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.31	0	0	60.64
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	244	-	-	1131	-	-	222
HCM Lane V/C Ratio	-	0.079	-	-	-	-	-	0.77
HCM Control Delay (s/veh)	0	9.7	0	-	0	-	-	60.6
HCM Lane LOS		A	A	A	-	A	-	F
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	5.4

Intersection												
Int Delay, s/veh	37.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	43	0	63	0	0	0	0	3124	0	3	2761	69
Future Vol, veh/h	43	0	63	0	0	0	0	3124	0	3	2761	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	47	0	69	0	0	0	0	3433	0	3	3034	76

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	4795	6512	1555	4957	6549	1716	-	0	0	3433	0	0
Stage 1	3079	3079	-	3433	3433	-	-	-	-	-	-	-
Stage 2	1716	3433	-	1524	3116	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 0	0	102	0	0	79	0	-	-	74	-	-
Stage 1	~ 12	28	-	7	18	-	0	-	-	-	-	-
Stage 2	93	18	-	124	27	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	102	0	0	79	-	-	-	74	-	-
Mov Cap-2 Maneuver	~ 11	12	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 12	27	-	7	18	-	-	-	-	-	-	-
Stage 2	93	18	-	38	25	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$/veh	2166.06	0	0	0.06
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	23	-	74	-	-
HCM Lane V/C Ratio	-	-	5.06	-	0.045	-	-
HCM Control Delay (s/veh)	-	-	\$ 2166.1	0	56.1	-	-
HCM Lane LOS	-	-	F	A	F	-	-
HCM 95th %tile Q(veh)	-	-	14.7	-	0.1	-	-

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

Intersection							
Int Delay, s/veh	75						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	0	0	116	4	3048	2727	2
Future Vol, veh/h	0	0	116	4	3048	2727	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	3	3	3
Mvmt Flow	0	0	127	4	3349	2997	2

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	4936	1499	2999	2999	0	-	0
Stage 1	2998	-	-	-	-	-	-
Stage 2	1938	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.46	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.53	2.23	-	-	-
Pot Cap-1 Maneuver	0	111	~ 16	111	-	-	-
Stage 1	24	-	-	-	-	-	-
Stage 2	98	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	111	~ 16	16	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	24	-	-	-	-	-	-
Stage 2	98	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	139.52	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	16	-	-	-	-
HCM Lane V/C Ratio	8.154	-	-	-	-
HCM Control Delay (s/veh)	\$ 3683.4	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	17.3	-	-	-	-

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

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	97	1117	401	14	5	15
Future Vol, veh/h	97	1117	401	14	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	4	4	6	6
Mvmt Flow	101	1164	418	15	5	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	432	0	-	0	1791 425
Stage 1	-	-	-	-	425 -
Stage 2	-	-	-	-	1366 -
Critical Hdwy	4.12	-	-	-	6.46 6.26
Critical Hdwy Stg 1	-	-	-	-	5.46 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.218	-	-	-	3.554 3.354
Pot Cap-1 Maneuver	1127	-	-	-	87 621
Stage 1	-	-	-	-	651 -
Stage 2	-	-	-	-	232 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1127	-	-	-	65 621
Mov Cap-2 Maneuver	-	-	-	-	65 -
Stage 1	-	-	-	-	486 -
Stage 2	-	-	-	-	232 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.68	0	25.37
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	144	-	-	-	197
HCM Lane V/C Ratio	0.09	-	-	-	0.105
HCM Control Delay (s/veh)	8.5	0	-	-	25.4
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

Intersection												
Int Delay, s/veh	83.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	136	1136	0	0	368	62	0	0	1	68	0	118
Future Vol, veh/h	136	1136	0	0	368	62	0	0	1	68	0	118
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	6	6	6
Mvmt Flow	145	1209	0	0	391	66	0	0	1	72	0	126

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	457	0	0	1209	0	0	1889	1955	1209	1922	1922	424
Stage 1	-	-	-	-	-	-	1498	1498	-	424	424	-
Stage 2	-	-	-	-	-	-	391	457	-	1498	1498	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1103	-	-	570	-	-	53	64	223	~ 49	65	621
Stage 1	-	-	-	-	-	-	153	186	-	600	580	-
Stage 2	-	-	-	-	-	-	633	567	-	150	182	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1103	-	-	570	-	-	26	38	223	~ 30	39	621
Mov Cap-2 Maneuver	-	-	-	-	-	-	26	38	-	~ 30	39	-
Stage 1	-	-	-	-	-	-	92	111	-	600	580	-
Stage 2	-	-	-	-	-	-	505	567	-	89	109	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.94	0	21.22	\$ 845.56
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	223	192	-	-	570	-	-	76
HCM Lane V/C Ratio	0.005	0.131	-	-	-	-	-	2.607
HCM Control Delay (s/veh)	21.2	8.8	0	-	0	-	-	\$ 845.6
HCM Lane LOS	C	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0	0.5	-	-	0	-	-	19.1

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

Intersection												
Int Delay, s/veh	14.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	14	0	56	0	0	0	0	2740	0	5	3290	144
Future Vol, veh/h	14	0	56	0	0	0	0	2740	0	5	3290	144
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	14	0	57	0	0	0	0	2796	0	5	3357	147

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	4839	6237	1752	4485	6310	1398	-	0	0	2796	0	0
Stage 1	3441	3441	-	2796	2796	-	-	-	-	-	-	-
Stage 2	1398	2796	-	1689	3514	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 0	0	75	0	0	130	0	-	-	137	-	-
Stage 1	~ 7	18	-	19	40	-	0	-	-	-	-	-
Stage 2	148	40	-	97	16	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	75	0	0	130	-	-	-	137	-	-
Mov Cap-2 Maneuver	~ 6	14	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 7	17	-	19	40	-	-	-	-	-	-	-
Stage 2	148	40	-	22	15	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$/veh	267.88	0	0	0.05
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	23	-	137	-	-
HCM Lane V/C Ratio	-	-	3.044	-	0.037	-	-
HCM Control Delay (s/veh)	-	-	\$ 1267.9	0	32.4	-	-
HCM Lane LOS	-	-	F	A	D	-	-
HCM 95th %tile Q(veh)	-	-	9	-	0.1	-	-

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

Intersection							
Int Delay, s/veh	77.8						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	1	4	79	12	2649	3362	9
Future Vol, veh/h	1	4	79	12	2649	3362	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	4	81	12	2703	3431	9

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	4972	1720	3440	3440	0	-	0
Stage 1	3435	-	-	-	-	-	-
Stage 2	1537	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	2.22	-	-	-
Pot Cap-1 Maneuver	~ 0	79	~ 8	75	-	-	-
Stage 1	14	-	-	-	-	-	-
Stage 2	163	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	79	~ 9	~ 9	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	14	-	-	-	-	-	-
Stage 2	163	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	54	173.54	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	~ 9	-	79	-	-
HCM Lane V/C Ratio	10.743	-	0.065	-	-
HCM Control Delay (s/veh)	\$ 5225.3	-	54	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	13.2	-	0.2	-	-

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

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	14	470	742	3	12	46
Future Vol, veh/h	14	470	742	3	12	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	16	522	824	3	13	51

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	828	0	-	0	1379 826
Stage 1	-	-	-	-	826 -
Stage 2	-	-	-	-	553 -
Critical Hdwy	4.17	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.263	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	782	-	-	-	159 372
Stage 1	-	-	-	-	430 -
Stage 2	-	-	-	-	576 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	782	-	-	-	155 372
Mov Cap-2 Maneuver	-	-	-	-	155 -
Stage 1	-	-	-	-	418 -
Stage 2	-	-	-	-	576 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.28	0	21.05
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	52	-	-	-	288
HCM Lane V/C Ratio	0.02	-	-	-	0.224
HCM Control Delay (s/veh)	9.7	0	-	-	21.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection												
Int Delay, s/veh	13.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	63	435	0	0	752	30	0	0	0	52	0	109
Future Vol, veh/h	63	435	0	0	752	30	0	0	0	52	0	109
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
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	3	3	3	2	2	2	26	26	26
Mvmt Flow	68	473	0	0	817	33	0	0	0	57	0	118

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	850	0	0	473	0	0	1427	1460	473	1443	1443	834
Stage 1	-	-	-	-	-	-	610	610	-	834	834	-
Stage 2	-	-	-	-	-	-	817	850	-	610	610	-
Critical Hdwy	4.15	-	-	4.13	-	-	7.12	6.52	6.22	7.36	6.76	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Follow-up Hdwy	2.245	-	-	2.227	-	-	3.518	4.018	3.318	3.734	4.234	3.534
Pot Cap-1 Maneuver	775	-	-	1084	-	-	113	129	591	97	118	334
Stage 1	-	-	-	-	-	-	482	485	-	330	351	-
Stage 2	-	-	-	-	-	-	370	377	-	443	449	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	775	-	-	1084	-	-	64	114	591	86	103	334
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	114	-	86	103	-
Stage 1	-	-	-	-	-	-	424	427	-	330	351	-
Stage 2	-	-	-	-	-	-	239	377	-	390	395	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.28	0	0	113.16
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	228	-	-	1084	-	-	180
HCM Lane V/C Ratio	-	0.088	-	-	-	-	-	0.974
HCM Control Delay (s/veh)	0	10.1	0	-	0	-	-	113.2
HCM Lane LOS	A	B	A	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	7.8

Intersection												
Int Delay, s/veh	76.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	48	0	69	0	0	0	0	3478	0	3	3075	77
Future Vol, veh/h	48	0	69	0	0	0	0	3478	0	3	3075	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	53	0	76	0	0	0	0	3822	0	3	3379	85

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	5339	7250	1732	5518	7292	1911	-	0	0	3822	0	0
Stage 1	3428	3428	-	3822	3822	-	-	-	-	-	-	-
Stage 2	1911	3822	-	1696	3470	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 0	0	77	0	0	58	0	-	-	51	-	-
Stage 1	~ 7	18	-	4	11	-	0	-	-	-	-	-
Stage 2	70	11	-	96	17	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	77	0	0	58	-	-	-	51	-	-
Mov Cap-2 Maneuver	~ 6	6	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 7	17	-	4	11	-	-	-	-	-	-	-
Stage 2	70	11	-	1	16	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$/veh	4387.74	0	0	0.08
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	13	-	51	-	-
HCM Lane V/C Ratio	-	-	9.529	-	0.065	-	-
HCM Control Delay (s/veh)	-	-	\$ 4387.7	0	80.5	-	-
HCM Lane LOS	-	-	F	A	F	-	-
HCM 95th %tile Q(veh)	-	-	17.2	-	0.2	-	-

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

Intersection							
Int Delay, s/veh	136.6						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	0	0	123	5	3400	3043	2
Future Vol, veh/h	0	0	123	5	3400	3043	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	3	3	3
Mvmt Flow	0	0	135	5	3736	3344	2

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	5495	1673	3346	3346	0	-	0
Stage 1	3345	-	-	-	-	-	-
Stage 2	2149	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.46	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.53	2.23	-	-	-
Pot Cap-1 Maneuver	0	85	~9	80	-	-	-
Stage 1	15	-	-	-	-	-	-
Stage 2	75	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	85	~9	9	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	15	-	-	-	-	-	-
Stage 2	75	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	254.55	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	-	-	-
HCM Lane V/C Ratio	14.879	-	-	-	-
HCM Control Delay (s/veh)	\$ 7016.1	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	19.2	-	-	-	-

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

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	108	1244	444	16	6	17
Future Vol, veh/h	108	1244	444	16	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	4	4	6	6
Mvmt Flow	113	1296	463	17	6	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	479	0	-	0	1992 471
Stage 1	-	-	-	-	471 -
Stage 2	-	-	-	-	1521 -
Critical Hdwy	4.12	-	-	-	6.46 6.26
Critical Hdwy Stg 1	-	-	-	-	5.46 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.218	-	-	-	3.554 3.354
Pot Cap-1 Maneuver	1083	-	-	-	65 585
Stage 1	-	-	-	-	620 -
Stage 2	-	-	-	-	195 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1083	-	-	-	41 585
Mov Cap-2 Maneuver	-	-	-	-	41 -
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	195 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.7	0	38.61
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	144	-	-	-	131
HCM Lane V/C Ratio	0.104	-	-	-	0.183
HCM Control Delay (s/veh)	8.7	0	-	-	38.6
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6

Intersection												
Int Delay, s/veh	176.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	137	1271	0	0	413	63	0	0	1	70	0	120
Future Vol, veh/h	137	1271	0	0	413	63	0	0	1	70	0	120
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	6	6	6
Mvmt Flow	146	1352	0	0	439	67	0	0	1	74	0	128

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	506	0	0	1352	0	0	2083	2150	1352	2116	2116	473
Stage 1	-	-	-	-	-	-	1644	1644	-	473	473	-
Stage 2	-	-	-	-	-	-	439	506	-	1644	1644	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1058	-	-	503	-	-	39	48	184	~ 36	49	583
Stage 1	-	-	-	-	-	-	126	157	-	564	552	-
Stage 2	-	-	-	-	-	-	596	540	-	123	154	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1058	-	-	503	-	-	14	22	184	~ 16	22	583
Mov Cap-2 Maneuver	-	-	-	-	-	-	14	22	-	~ 16	22	-
Stage 1	-	-	-	-	-	-	56	70	-	564	552	-
Stage 2	-	-	-	-	-	-	466	540	-	~ 55	69	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.87	0	24.73	\$ 1922.31
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	184	175	-	-	503	-	-	42
HCM Lane V/C Ratio	0.006	0.138	-	-	-	-	-	4.841
HCM Control Delay (s/veh)	24.7	8.9	0	-	0	-	-	\$ 1922.3
HCM Lane LOS	C	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0	0.5	-	-	0	-	-	23.3

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

Intersection												
Int Delay, s/veh	31.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	16	0	61	0	0	0	0	3050	0	6	3664	160
Future Vol, veh/h	16	0	61	0	0	0	0	3050	0	6	3664	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	16	0	62	0	0	0	0	3112	0	6	3739	163

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	5389	6945	1951	4994	7027	1556	-	0	0	3112	0	0
Stage 1	3833	3833	-	3112	3112	-	-	-	-	-	-	-
Stage 2	1556	3112	-	1882	3914	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 0	0	~ 54	0	0	102	0	-	-	102	-	-
Stage 1	~ 4	11	-	11	27	-	0	-	-	-	-	-
Stage 2	118	27	-	73	10	-	0	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 0	0	~ 54	0	0	102	-	-	-	102	-	-
Mov Cap-2 Maneuver	~ 3	8	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 3	10	-	11	27	-	-	-	-	-	-	-
Stage 2	118	27	-	-	9	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$/2862.4		0	0	0.07
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	13	-	102	-
HCM Lane V/C Ratio	-	-	6.075	-	0.06	-
HCM Control Delay (s/veh)	-	-	\$ 2862.4	0	42.6	-
HCM Lane LOS	-	-	F	A	E	-
HCM 95th %tile Q(veh)	-	-	10.9	-	0.2	-

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

Intersection							
Int Delay, s/veh	149.6						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	1	5	81	14	2955	3750	10
Future Vol, veh/h	1	5	81	14	2955	3750	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	5	83	14	3015	3827	10

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	5533	1918	3837	3837	0	-	0
Stage 1	3832	-	-	-	-	-	-
Stage 2	1702	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	2.22	-	-	-
Pot Cap-1 Maneuver	~ 0	57	~ 4	51	-	-	-
Stage 1	8	-	-	-	-	-	-
Stage 2	133	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	57	~ 5	~ 5	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	8	-	-	-	-	-	-
Stage 2	133	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v75.24		\$ 334.17	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	~ 5	-	57	-	-
HCM Lane V/C Ratio	21.361	-	0.107	-	-
HCM Control Delay (s/veh)	\$ 10728.5	-	75.2	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	14.1	-	0.3	-	-

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

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	14	502	751	3	12	46
Future Vol, veh/h	14	502	751	3	12	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	16	558	834	3	13	51

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	838	0	-	0	1425 836
Stage 1	-	-	-	-	836 -
Stage 2	-	-	-	-	589 -
Critical Hdwy	4.17	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.263	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	775	-	-	-	149 367
Stage 1	-	-	-	-	425 -
Stage 2	-	-	-	-	555 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	775	-	-	-	145 367
Mov Cap-2 Maneuver	-	-	-	-	145 -
Stage 1	-	-	-	-	413 -
Stage 2	-	-	-	-	555 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.26	0	21.76
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	49	-	-	-	279
HCM Lane V/C Ratio	0.02	-	-	-	0.231
HCM Control Delay (s/veh)	9.7	0	-	-	21.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection												
Int Delay, s/veh	81.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	90	435	0	0	752	39	0	0	0	84	0	204
Future Vol, veh/h	90	435	0	0	752	39	0	0	0	84	0	204
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
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	3	3	3	2	2	2	26	26	26
Mvmt Flow	98	473	0	0	817	42	0	0	0	91	0	222

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	860	0	0	473	0	0	1486	1528	473	1507	1507	839
Stage 1	-	-	-	-	-	-	668	668	-	839	839	-
Stage 2	-	-	-	-	-	-	817	860	-	668	668	-
Critical Hdwy	4.15	-	-	4.13	-	-	7.12	6.52	6.22	7.36	6.76	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.36	5.76	-
Follow-up Hdwy	2.245	-	-	2.227	-	-	3.518	4.018	3.318	3.734	4.234	3.534
Pot Cap-1 Maneuver	769	-	-	1084	-	-	103	117	591	~ 88	107	332
Stage 1	-	-	-	-	-	-	447	456	-	328	350	-
Stage 2	-	-	-	-	-	-	370	373	-	410	421	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	769	-	-	1084	-	-	28	97	591	~ 72	89	332
Mov Cap-2 Maneuver	-	-	-	-	-	-	28	97	-	~ 72	89	-
Stage 1	-	-	-	-	-	-	370	377	-	328	350	-
Stage 2	-	-	-	-	-	-	123	373	-	340	349	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.78	0	0	\$ 451.25
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	309	-	-	1084	-	-	169
HCM Lane V/C Ratio	-	0.127	-	-	-	-	-	1.852
HCM Control Delay (s/veh)	0	10.4	0	-	0	-	-	\$ 451.3
HCM Lane LOS	A	B	A	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.4	-	-	0	-	-	23.1

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

Intersection												
Int Delay, s/veh	84.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	48	0	69	0	0	0	0	3573	0	3	3147	77
Future Vol, veh/h	48	0	69	0	0	0	0	3573	0	3	3147	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	53	0	76	0	0	0	0	3926	0	3	3458	85

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	5470	7434	1771	5662	7476	1963	-	0	0	3926	0	0
Stage 1	3507	3507	-	3926	3926	-	-	-	-	-	-	-
Stage 2	1963	3926	-	1736	3549	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 0	0	~ 72	0	0	53	0	-	-	46	-	-
Stage 1	~ 6	16	-	3	9	-	0	-	-	-	-	-
Stage 2	65	9	-	91	15	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	~ 72	0	0	53	-	-	-	46	-	-
Mov Cap-2 Maneuver	~ 5	5	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 6	15	-	3	9	-	-	-	-	-	-	-
Stage 2	65	9	-	-	14	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$	5018.93	0	0	0.08
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	12	-	46	-	-
HCM Lane V/C Ratio	-	-	10.781	-	0.072	-	-
HCM Control Delay (s/veh)	-	-	\$5018.9	0	89.1	-	-
HCM Lane LOS	-	-	F	A	F	-	-
HCM 95th %tile Q(veh)	-	-	17.4	-	0.2	-	-

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

Intersection							
Int Delay, s/veh	303.4						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	0	0	186	5	3432	3052	2
Future Vol, veh/h	0	0	186	5	3432	3052	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	3	3	3
Mvmt Flow	0	0	204	5	3771	3354	2

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	5660	1678	3356	3356	0	-
Stage 1	3355	-	-	-	-	-
Stage 2	2305	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.46	4.16	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.53	2.23	-	-
Pot Cap-1 Maneuver	0	84	~9	79	-	-
Stage 1	15	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	0	84	~9	9	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	15	-	-	-	-	-
Stage 2	61	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	\$ 559.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	-	-	-
HCM Lane V/C Ratio	22.816	-	-	-	-
HCM Control Delay (s/veh)	\$ 10607.3	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	27.9	-	-	-	-

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

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	108	1270	476	16	6	17
Future Vol, veh/h	108	1270	476	16	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	4	4	6	6
Mvmt Flow	113	1323	496	17	6	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	513	0	-	0	2052 504
Stage 1	-	-	-	-	504 -
Stage 2	-	-	-	-	1548 -
Critical Hdwy	4.12	-	-	-	6.46 6.26
Critical Hdwy Stg 1	-	-	-	-	5.46 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.218	-	-	-	3.554 3.354
Pot Cap-1 Maneuver	1053	-	-	-	59 560
Stage 1	-	-	-	-	599 -
Stage 2	-	-	-	-	189 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1053	-	-	-	36 560
Mov Cap-2 Maneuver	-	-	-	-	36 -
Stage 1	-	-	-	-	357 -
Stage 2	-	-	-	-	189 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.69	0	44.21
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	141	-	-	-	115
HCM Lane V/C Ratio	0.107	-	-	-	0.208
HCM Control Delay (s/veh)	8.8	0	-	-	44.2
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.4	-	-	-	0.7

Intersection												
Int Delay, s/veh	7992.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	233	1271	0	0	413	95	0	0	1	96	0	198
Future Vol, veh/h	233	1271	0	0	413	95	0	0	1	96	0	198
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	6	6	6
Mvmt Flow	248	1352	0	0	439	101	0	0	1	102	0	211

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	540	0	0	1352	0	0	2287	2388	1352	2338	2338	490
Stage 1	-	-	-	-	-	-	1848	1848	-	490	490	-
Stage 2	-	-	-	-	-	-	439	540	-	1848	1848	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1028	-	-	503	-	-	28	34	184	~ 25	36	570
Stage 1	-	-	-	-	-	-	96	125	-	552	542	-
Stage 2	-	-	-	-	-	-	596	521	-	~ 93	122	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1028	-	-	503	-	-	1	1	184	~ 1	1	570
Mov Cap-2 Maneuver	-	-	-	-	-	-	1	1	-	~ 1	1	-
Stage 1	-	-	-	-	-	-	3	4	-	552	542	-
Stage 2	-	-	-	-	-	-	376	521	-	~ 3	4	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.49	0	24.73	\$ 62709.59
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	184	256	-	-	503	-	-	2
HCM Lane V/C Ratio	0.006	0.241	-	-	-	-	-	133.57
HCM Control Delay (s/veh)	24.7	9.6	0	-	0	-	-	\$ 62709.6
HCM Lane LOS	C	A	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0	0.9	-	-	0	-	-	41.6

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

Intersection												
Int Delay, s/veh	35.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	16	0	61	0	0	0	0	3128	0	6	3748	160
Future Vol, veh/h	16	0	61	0	0	0	0	3128	0	6	3748	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	16	0	62	0	0	0	0	3192	0	6	3824	163

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	5514	7110	1994	5116	7192	1596	-	0	0	3192	0	0
Stage 1	3918	3918	-	3192	3192	-	-	-	-	-	-	-
Stage 2	1596	3192	-	1924	4000	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 0	0	~ 51	0	0	96	0	-	-	94	-	-
Stage 1	~ 3	10	-	10	24	-	0	-	-	-	-	-
Stage 2	111	24	-	69	9	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	~ 51	0	0	96	-	-	-	94	-	-
Mov Cap-2 Maneuver	~ 3	7	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 3	9	-	10	24	-	-	-	-	-	-	-
Stage 2	111	24	-	-	8	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$	3304.96	0	0	0.07
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	11	-	94	-	-
HCM Lane V/C Ratio	-	-	6.9	-	0.065	-	-
HCM Control Delay (s/veh)	-	-	\$ 3305	0	45.7	-	-
HCM Lane LOS	-	-	F	A	E	-	-
HCM 95th %tile Q(veh)	-	-	11.1	-	0.2	-	-

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

Intersection							
Int Delay, s/veh	379.5						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	1	5	133	14	2981	3782	10
Future Vol, veh/h	1	5	133	14	2981	3782	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	5	136	14	3042	3859	10

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	5685	1935	3869	3869	0	-
Stage 1	3864	-	-	-	-	-
Stage 2	1821	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	2.22	-	-
Pot Cap-1 Maneuver	~ 0	56	~ 4	50	-	-
Stage 1	7	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	0	56	~ 4	~ 4	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	7	-	-	-	-	-
Stage 2	114	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	77.31	\$ 840.06	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	~ 4	-	56	-	-
HCM Lane V/C Ratio	36.831	-	0.11	-	-
HCM Control Delay (s/veh)	\$ 17875.5	-	77.3	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	20.9	-	0.3	-	-

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

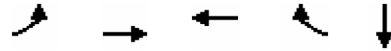
Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	14	502	751	3	12	46
Future Vol, veh/h	14	502	751	3	12	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	16	558	834	3	13	51

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	838	0	-	0	1425 836
Stage 1	-	-	-	-	836 -
Stage 2	-	-	-	-	589 -
Critical Hdwy	4.17	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.263	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	775	-	-	-	149 367
Stage 1	-	-	-	-	425 -
Stage 2	-	-	-	-	555 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	775	-	-	-	145 367
Mov Cap-2 Maneuver	-	-	-	-	145 -
Stage 1	-	-	-	-	413 -
Stage 2	-	-	-	-	555 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.26	0	21.76
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	49	-	-	-	279
HCM Lane V/C Ratio	0.02	-	-	-	0.231
HCM Control Delay (s/veh)	9.7	0	-	-	21.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Queues
2: Driveway/Joe Daniels Road & Oak Ridge Highway



Lane Group	EBL	EBT	WBT	WBR	SBT
Lane Group Flow (vph)	98	473	817	42	313
v/c Ratio	0.37	0.42	0.86	0.05	0.84
Control Delay (s/veh)	11.6	10.7	33.5	0.5	47.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.6	10.7	33.5	0.5	47.9
Queue Length 50th (ft)	24	148	491	0	146
Queue Length 95th (ft)	47	226	722	3	#318
Internal Link Dist (ft)		289	1993		1774
Turn Bay Length (ft)	100			100	
Base Capacity (vph)	269	1406	1228	1071	473
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.34	0.67	0.04	0.66

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary
 2: Driveway/Joe Daniels Road & Oak Ridge Highway

Build AM 2040 - Improved Signal
 04/02/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	435	0	0	752	39	0	0	0	84	0	204
Future Volume (veh/h)	90	435	0	0	752	39	0	0	0	84	0	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	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 Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1856	1856	1856	1870	1870	1870	1515	1515	1515
Adj Flow Rate, veh/h	98	473	0	0	817	42	0	0	0	91	0	222
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
Percent Heavy Veh, %	5	5	5	3	3	3	2	2	2	26	26	26
Cap, veh/h	245	1121	0	0	893	757	0	502	0	129	14	239
Arrive On Green	0.07	0.61	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.27	0.00	0.27
Sat Flow, veh/h	1739	1826	0	0	1856	1572	0	1870	0	311	54	890
Grp Volume(v), veh/h	98	473	0	0	817	42	0	0	0	313	0	0
Grp Sat Flow(s),veh/h/ln	1739	1826	0	0	1856	1572	0	1870	0	1255	0	0
Q Serve(g_s), s	2.6	13.8	0.0	0.0	41.6	1.5	0.0	0.0	0.0	21.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	13.8	0.0	0.0	41.6	1.5	0.0	0.0	0.0	24.7	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	0.29		0.71
Lane Grp Cap(c), veh/h	245	1121	0	0	893	757	0	502	0	382	0	0
V/C Ratio(X)	0.40	0.42	0.00	0.00	0.91	0.06	0.00	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	270	1397	0	0	1147	972	0	550	0	415	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	10.3	0.0	0.0	24.5	14.1	0.0	0.0	0.0	36.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	0.0	9.5	0.0	0.0	0.0	0.0	11.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.8	0.0	0.0	18.6	0.5	0.0	0.0	0.0	8.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.9	10.5	0.0	0.0	34.0	14.1	0.0	0.0	0.0	47.7	0.0	0.0
LnGrp LOS	C	B			C	B				D		
Approach Vol, veh/h		571			859			0				313
Approach Delay, s/veh		12.5			33.0			0.0				47.7
Approach LOS		B			C							D
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		68.6		33.4	13.5	55.1		33.4				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		78.0		30.0	9.0	63.0		30.0				
Max Q Clear Time (g_c+I1), s		15.8		0.0	4.6	43.6		26.7				
Green Ext Time (p_c), s		3.0		0.0	0.1	5.5		0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh					28.9							
HCM 7th LOS					C							

Intersection												
Int Delay, s/veh	84.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	48	0	69	0	0	0	0	3573	0	3	3147	77
Future Vol, veh/h	48	0	69	0	0	0	0	3573	0	3	3147	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	3	3	3
Mvmt Flow	53	0	76	0	0	0	0	3926	0	3	3458	85

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	5470	7434	1771	5662	7476	1963	-	0	0	3926	0	0
Stage 1	3507	3507	-	3926	3926	-	-	-	-	-	-	-
Stage 2	1963	3926	-	1736	3549	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.16	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 0	0	~ 72	0	0	53	0	-	-	46	-	-
Stage 1	~ 6	16	-	3	9	-	0	-	-	-	-	-
Stage 2	65	9	-	91	15	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	~ 72	0	0	53	-	-	-	46	-	-
Mov Cap-2 Maneuver	~ 5	5	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 6	15	-	3	9	-	-	-	-	-	-	-
Stage 2	65	9	-	-	14	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$	5018.93	0	0	0.08
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	12	-	46	-	-
HCM Lane V/C Ratio	-	-	10.781	-	0.072	-	-
HCM Control Delay (s/veh)	-	-	\$5018.9	0	89.1	-	-
HCM Lane LOS	-	-	F	A	F	-	-
HCM 95th %tile Q(veh)	-	-	17.4	-	0.2	-	-

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

Intersection							
Int Delay, s/veh	303.4						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	0	0	186	5	3432	3052	2
Future Vol, veh/h	0	0	186	5	3432	3052	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	3	3	3
Mvmt Flow	0	0	204	5	3771	3354	2

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	5660	1678	3356	3356	0	-	0
Stage 1	3355	-	-	-	-	-	-
Stage 2	2305	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.46	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.53	2.23	-	-	-
Pot Cap-1 Maneuver	0	84	~9	79	-	-	-
Stage 1	15	-	-	-	-	-	-
Stage 2	61	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	84	~9	9	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	15	-	-	-	-	-	-
Stage 2	61	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	\$ 559.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	-	-	-
HCM Lane V/C Ratio	22.816	-	-	-	-
HCM Control Delay (s/veh)	\$ 10607.3	-	0	-	-
HCM Lane LOS	F	-	A	-	-
HCM 95th %tile Q(veh)	27.9	-	-	-	-

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

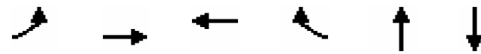
Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	108	1270	476	16	6	17
Future Vol, veh/h	108	1270	476	16	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	4	4	6	6
Mvmt Flow	113	1323	496	17	6	18

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	513	0	0 2052 504
Stage 1	-	-	- 504 -
Stage 2	-	-	- 1548 -
Critical Hdwy	4.12	-	- 6.46 6.26
Critical Hdwy Stg 1	-	-	- 5.46 -
Critical Hdwy Stg 2	-	-	- 5.46 -
Follow-up Hdwy	2.218	-	- 3.554 3.354
Pot Cap-1 Maneuver	1053	-	- 59 560
Stage 1	-	-	- 599 -
Stage 2	-	-	- 189 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1053	-	- 36 560
Mov Cap-2 Maneuver	-	-	- 36 -
Stage 1	-	-	- 357 -
Stage 2	-	-	- 189 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.69	0	44.21
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	141	-	-	-	115
HCM Lane V/C Ratio	0.107	-	-	-	0.208
HCM Control Delay (s/veh)	8.8	0	-	-	44.2
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.4	-	-	-	0.7

Queues
2: Driveway/Joe Daniels Road & Oak Ridge Highway



Lane Group	EBL	EBT	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	248	1352	439	101	1	313
v/c Ratio	0.39	0.98	0.40	0.10	0.00	1.04
Control Delay (s/veh)	6.5	36.8	13.4	2.9	0.0	98.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.5	36.8	13.4	2.9	0.0	98.1
Queue Length 50th (ft)	50	857	165	4	0	~207
Queue Length 95th (ft)	76	#1328	233	26	0	#390
Internal Link Dist (ft)		289	1993		282	1774
Turn Bay Length (ft)	100			100		
Base Capacity (vph)	648	1405	1132	996	340	302
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.96	0.39	0.10	0.00	1.04

Intersection Summary

~ 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.

HCM 7th Signalized Intersection Summary
 2: Driveway/Joe Daniels Road & Oak Ridge Highway

Build PM 2040 - Improved Signal

04/02/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	1271	0	0	413	95	0	0	1	96	0	198
Future Volume (veh/h)	233	1271	0	0	413	95	0	0	1	96	0	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	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 Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1841	1841	1841	1870	1870	1870	1811	1811	1811
Adj Flow Rate, veh/h	248	1352	0	0	439	101	0	0	1	102	0	211
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	4	4	4	2	2	2	6	6	6
Cap, veh/h	615	1382	0	0	1143	968	0	0	254	113	4	160
Arrive On Green	0.07	0.74	0.00	0.00	0.62	0.62	0.00	0.00	0.16	0.16	0.00	0.16
Sat Flow, veh/h	1781	1870	0	0	1841	1560	0	0	1585	456	28	1001
Grp Volume(v), veh/h	248	1352	0	0	439	101	0	0	1	313	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1841	1560	0	0	1585	1485	0	0
Q Serve(g_s), s	5.7	80.9	0.0	0.0	14.1	3.1	0.0	0.0	0.1	18.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	80.9	0.0	0.0	14.1	3.1	0.0	0.0	0.1	19.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		1.00	0.33		0.67
Lane Grp Cap(c), veh/h	615	1382	0	0	1143	968	0	0	254	278	0	0
V/C Ratio(X)	0.40	0.98	0.00	0.00	0.38	0.10	0.00	0.00	0.00	1.13	0.00	0.00
Avail Cap(c_a), veh/h	645	1403	0	0	1143	968	0	0	254	278	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.5	14.6	0.0	0.0	11.2	9.1	0.0	0.0	41.9	51.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	18.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	92.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	31.9	0.0	0.0	5.2	1.0	0.0	0.0	0.0	15.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.0	33.5	0.0	0.0	11.4	9.2	0.0	0.0	41.9	143.5	0.0	0.0
LnGrp LOS	A	C			B	A			D	F		
Approach Vol, veh/h		1600			540			1				313
Approach Delay, s/veh		29.6			11.0			41.9				143.5
Approach LOS		C			B			D				F
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		93.7		25.0	14.0	79.7		25.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		89.0		19.0	10.0	73.0		19.0				
Max Q Clear Time (g_c+I1), s		82.9		2.1	7.7	16.1		21.0				
Green Ext Time (p_c), s		4.8		0.0	0.2	3.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				40.0								
HCM 7th LOS				D								

Intersection												
Int Delay, s/veh	35.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	16	0	61	0	0	0	0	3128	0	6	3748	160
Future Vol, veh/h	16	0	61	0	0	0	0	3128	0	6	3748	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	115	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	16	0	62	0	0	0	0	3192	0	6	3824	163

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	5514	7110	1994	5116	7192	1596	-	0	0	3192	0	0
Stage 1	3918	3918	-	3192	3192	-	-	-	-	-	-	-
Stage 2	1596	3192	-	1924	4000	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 0	0	~ 51	0	0	96	0	-	-	94	-	-
Stage 1	~ 3	10	-	10	24	-	0	-	-	-	-	-
Stage 2	111	24	-	69	9	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 0	0	~ 51	0	0	96	-	-	-	94	-	-
Mov Cap-2 Maneuver	~ 3	7	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 3	9	-	10	24	-	-	-	-	-	-	-
Stage 2	111	24	-	-	8	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay \$	3304.96	0	0	0.07
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	11	-	94	-	-
HCM Lane V/C Ratio	-	-	6.9	-	0.065	-	-
HCM Control Delay (s/veh)	-	-	\$ 3305	0	45.7	-	-
HCM Lane LOS	-	-	F	A	E	-	-
HCM 95th %tile Q(veh)	-	-	11.1	-	0.2	-	-

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

Intersection							
Int Delay, s/veh	379.5						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	
Traffic Vol, veh/h	1	5	133	14	2981	3782	10
Future Vol, veh/h	1	5	133	14	2981	3782	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	5	136	14	3042	3859	10

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	5685	1935	3869	3869	0	-	0
Stage 1	3864	-	-	-	-	-	-
Stage 2	1821	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	6.44	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.52	2.22	-	-	-
Pot Cap-1 Maneuver	~ 0	56	~ 4	50	-	-	-
Stage 1	7	-	-	-	-	-	-
Stage 2	114	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	0	56	~ 4	~ 4	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-	-
Stage 1	7	-	-	-	-	-	-
Stage 2	114	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v77.31	\$ 840.06		0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	~ 4	-	56	-	-
HCM Lane V/C Ratio	36.831	-	0.11	-	-
HCM Control Delay (s/veh)	\$ 17875.5	-	77.3	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	20.9	-	0.3	-	-

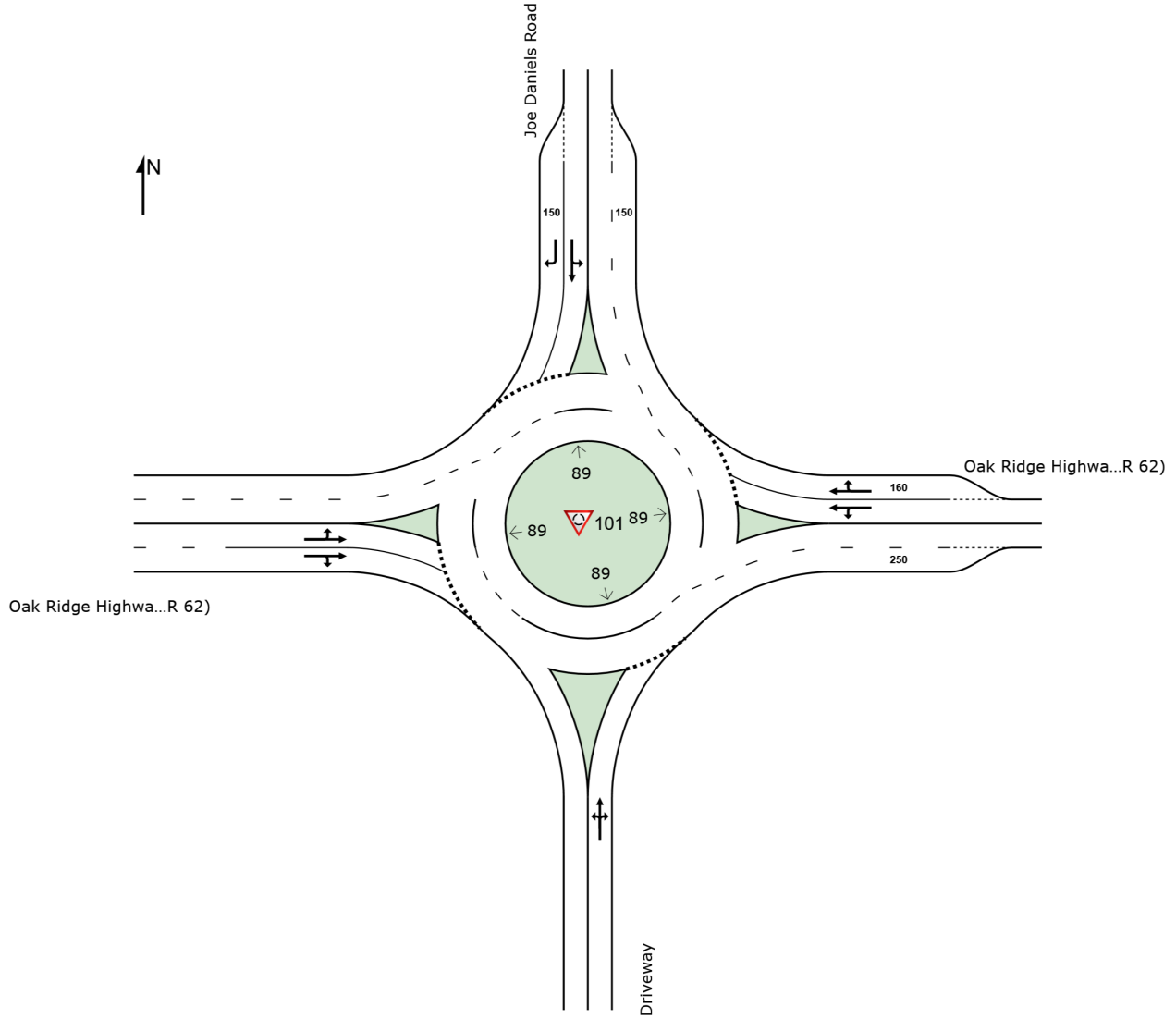
Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

SITE LAYOUT

Site: 101 [Build 2040 AM - Option 4 (Site Folder: General)]

Solway TIA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

 Site: 101 [Build 2040 AM - Option 4 (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Solway TIA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh.]	[Dist]				
			veh/h	%	veh/h	%	v/c	sec			ft				
South: Driveway															
3	L2	All MCs	1	2.0	1	2.0	0.004	4.8	LOS A	0.0	0.4	0.51	0.35	0.51	23.0
8	T1	All MCs	1	2.0	1	2.0	0.004	7.2	LOS A	0.0	0.4	0.51	0.35	0.51	23.2
18	R2	All MCs	1	2.0	1	2.0	0.004	8.7	LOS A	0.0	0.4	0.51	0.35	0.51	23.2
Approach			3	2.0	3	2.0	0.004	6.9	LOS A	0.0	0.4	0.51	0.35	0.51	23.1
East: Oak Ridge Highway (SR 62)															
1	L2	All MCs	1	3.0	1	3.0	0.352	6.3	LOS A	1.8	47.1	0.30	0.14	0.30	34.5
6	T1	All MCs	817	3.0	817	3.0	0.352	6.2	LOS A	1.8	47.1	0.29	0.13	0.29	35.3
16	R2	All MCs	42	3.0	42	3.0	0.352	8.4	LOS A	1.8	45.9	0.28	0.13	0.28	35.0
Approach			861	3.0	861	3.0	0.352	6.3	LOS A	1.8	47.1	0.29	0.13	0.29	35.3
North: Joe Daniels Road															
7	L2	All MCs	91	2.0	91	2.0	0.155	7.9	LOS A	0.5	13.8	0.61	0.58	0.61	21.8
4	T1	All MCs	1	2.0	1	2.0	0.155	7.9	LOS A	0.5	13.8	0.61	0.58	0.61	21.9
14	R2	All MCs	222	2.0	222	2.0	0.336	9.8	LOS A	1.4	35.1	0.65	0.66	0.76	22.2
Approach			314	2.0	314	2.0	0.336	9.3	LOS A	1.4	35.1	0.64	0.64	0.71	22.0
West: Oak Ridge Highway (SR 62)															
5	L2	All MCs	98	5.0	98	5.0	0.298	5.5	LOS A	1.4	36.1	0.25	0.11	0.25	33.9
2	T1	All MCs	473	5.0	473	5.0	0.298	6.7	LOS A	1.4	36.1	0.24	0.10	0.24	35.2
12	R2	All MCs	1	5.0	1	5.0	0.172	4.5	LOS A	0.7	18.5	0.23	0.10	0.23	35.6
Approach			572	5.0	572	5.0	0.298	6.5	LOS A	1.4	36.1	0.24	0.10	0.24	35.0
All Vehicles			1750	3.5	1750	3.5	0.352	6.9	LOS A	1.8	47.1	0.34	0.21	0.35	31.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stoptime Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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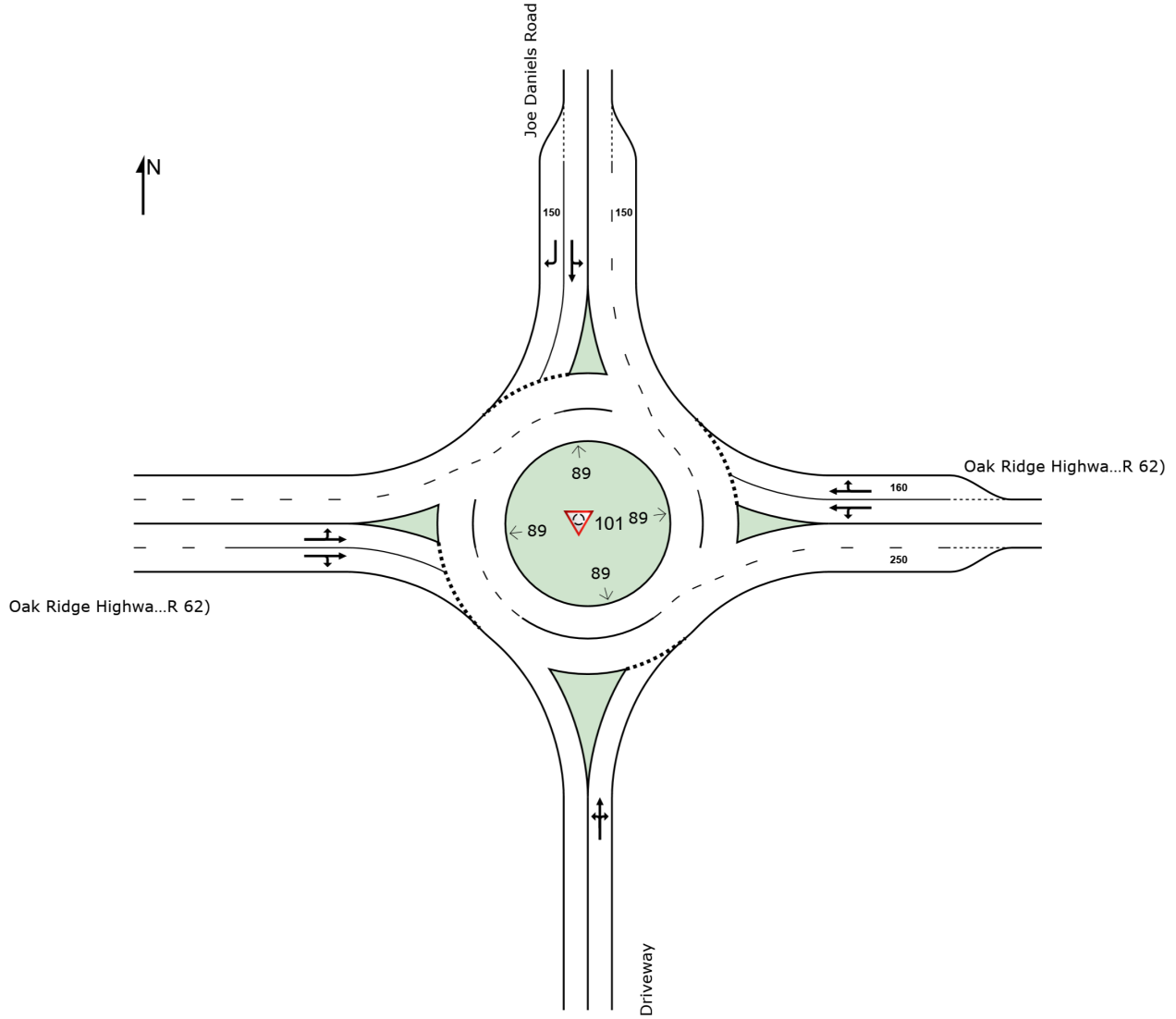
Project: F:\37\37122\3712278\03_PROJECT_EXECUTION\TRNS\3712278_TrafficStudy\02_Analysis\03_SIDRA\Solway RAB.sip9

SITE LAYOUT

Site: 101 [Build 2040 PM - Option 4 (Site Folder: General)]

Solway TIA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Build 2040 PM - Option 4 (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

Solway TIA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh.]	[Dist]				mph
			veh/h		veh/h					veh	ft				
South: Driveway															
3	L2	All MCs	1	2.0	1	2.0	0.011	12.5	LOS B	0.0	0.8	0.77	0.76	0.77	21.4
8	T1	All MCs	1	2.0	1	2.0	0.011	15.5	LOS C	0.0	0.8	0.77	0.76	0.77	21.5
18	R2	All MCs	1	2.0	1	2.0	0.011	23.0	LOS C	0.0	0.8	0.77	0.76	0.77	21.5
Approach			3	2.0	3	2.0	0.011	17.0	LOS C	0.0	0.8	0.77	0.76	0.77	21.5
East: Oak Ridge Highway (SR 62)															
1	L2	All MCs	1	4.0	1	4.0	0.257	6.0	LOS A	1.1	28.8	0.41	0.26	0.41	34.5
6	T1	All MCs	439	4.0	439	4.0	0.257	5.9	LOS A	1.1	28.8	0.41	0.26	0.41	35.3
16	R2	All MCs	101	4.0	101	4.0	0.257	8.7	LOS A	1.1	28.0	0.39	0.25	0.39	35.0
Approach			541	4.0	541	4.0	0.257	6.4	LOS A	1.1	28.8	0.40	0.25	0.40	35.3
North: Joe Daniels Road															
7	L2	All MCs	102	6.0	102	6.0	0.127	5.7	LOS A	0.4	11.8	0.48	0.38	0.48	22.2
4	T1	All MCs	1	6.0	1	6.0	0.127	5.7	LOS A	0.4	11.8	0.48	0.38	0.48	22.4
14	R2	All MCs	211	6.0	211	6.0	0.241	6.6	LOS A	0.9	23.8	0.50	0.39	0.50	22.9
Approach			314	6.0	314	6.0	0.241	6.3	LOS A	0.9	23.8	0.50	0.38	0.50	22.7
West: Oak Ridge Highway (SR 62)															
5	L2	All MCs	248	2.0	248	2.0	0.820	16.6	LOS C	11.3	286.2	0.78	0.35	0.78	29.5
2	T1	All MCs	1352	2.0	1352	2.0	0.820	17.3	LOS C	11.3	286.2	0.60	0.28	0.60	31.8
12	R2	All MCs	1	2.0	1	2.0	0.473	7.8	LOS A	3.0	75.3	0.36	0.17	0.36	34.2
Approach			1601	2.0	1601	2.0	0.820	17.2	LOS C	11.3	286.2	0.63	0.29	0.63	31.4
All Vehicles			2460	3.0	2460	3.0	0.820	13.4	LOS B	11.3	286.2	0.56	0.29	0.56	30.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: F:\37\37122\3712278\03_PROJECT_EXECUTION\TRNS\3712278_TrafficStudy\02_Analysis\03_SIDRA\Solway RAB.sip9

Traffic Signal Warrant Analysis Report

Oak Ridge Highway (SR 62) at Site Access/ Joe Daniels Road

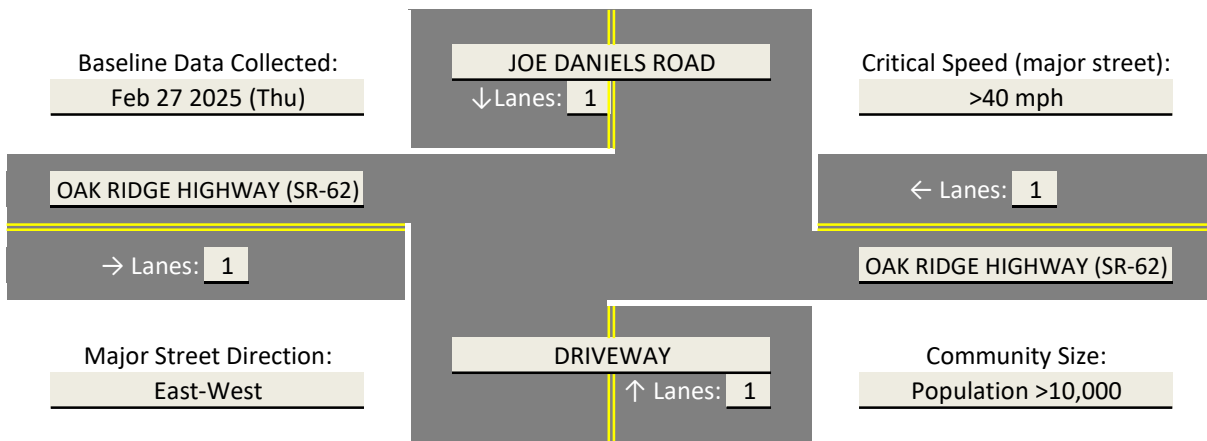
Project Information

Project Name: SOLWAY DEVELOPMENT
 Location: SOLWAY, TN
 Project Number: 3712278 Analyst: VIJAY JALIHAL Prepared: Mar 25 2025

Intersection: JOE DANIELS ROAD AT OAK RIDGE HIGHWAY (Sr-62)
 Analysis Type: EXISTING 2025
 Analysis Duration: 6:00 AM to 6:00 PM

Notes: 12-hour counts were collected on Thursday, February 27, 2025.

Study Intersection



Summary of Results

Warrant Type	Satisfied?	Worksheet
Warrant #1: Eight-Hour Vehicle Volume	NO	Sheet 1
Warrant #2: Four-Hour Vehicle Volume	NO	Sheet 2
Warrant #3: Peak Hour	n/a	Sheet 3
Warrant #4: Pedestrian Volume	n/a	Sheet 4
Warrant #5: School Crossing	n/a - no crossing facilities	Sheet 5
Warrant #6: Coordinated Signal System	n/a - isolated intersection	Sheet 5
Warrant #7: Crash Experience	n/a	Sheet 6
Warrant #8: Roadway Network	n/a	Sheet 7
Warrant #9: Intersection Near a Grade Crossing	n/a - no railroad crossing	Sheet 8

Conclusions: Based on Existing 2025 traffic volumes, a signal is not warranted based upon Warrants 1 and 2.

See following sheets for calculation details and justifications.

Workbook Notes: - Uses MUTCD 2009 methodology; warrant curves developed by R Blankenship (ALDOT)
 - Document template last revised 5/27/2020 by pdk (includes IA-19 safety changes)

Urban (70%) Volume Level Criteria

- 1. Is the critical speed of major street traffic >40 mph? YES
- 2. Is the intersection in the built-up area of an isolated community of <10,000 population? NO

If Criteria 1 or 2 applies, use 70% volume level for Warrants 1-4. **Volume Level?** 70% 100%

Warrant #1 - Eight-Hour Vehicular Volume

Have other remedial measures failed to address the issue? **Applicable?** Yes No

Description of remedial measures tried (required for 80% combination of A & B)

Warrant is met if Condition A or Condition B is satisfied at 100%; **Met?** Yes No
warrant is also met if both Condition A and Condition B are satisfied at 80%, given that adequate trials of other remedial measures have been tried

Either condition satisfied at 100%? Yes No

Both conditions satisfied at 80%? Yes No

		Minimum Requirements				Eight Highest Hours (veh/hr)							
		1		2 or more		06:15 AM	07:15 AM	08:15 AM	12:15 PM	02:15 PM	03:15 PM	04:15 PM	05:15 PM
		100%	70%	100%	70%								
Condition A: Minimum Vehicular Volume													
100% Satisfied	Both Approaches on Major Street	500	350	600	420	876	1,054	783	686	829	1,173	1,494	971
	Highest Approach on Minor Street	150	105	200	140	10	33	22	33	31	34	26	15
80% Satisfied	Both Approaches on Major Street	400	280	480	336	876	1,054	783	686	829	1,173	1,494	971
	Highest Approach on Minor Street	120	84	160	112	10	33	22	33	31	34	26	15
Condition B: Interruption of Continuous Traffic													
100% Satisfied	Both Approaches on Major Street	750	525	900	630	876	1,054	783	686	829	1,173	1,494	971
	Highest Approach on Minor Street	75	53	100	70	10	33	22	33	31	34	26	15
80% Satisfied	Both Approaches on Major Street	600	420	720	504	876	1,054	783	686	829	1,173	1,494	971
	Highest Approach on Minor Street	60	42	80	56	10	33	22	33	31	34	26	15

Warrant #2 - Four-Hour Vehicular Volume

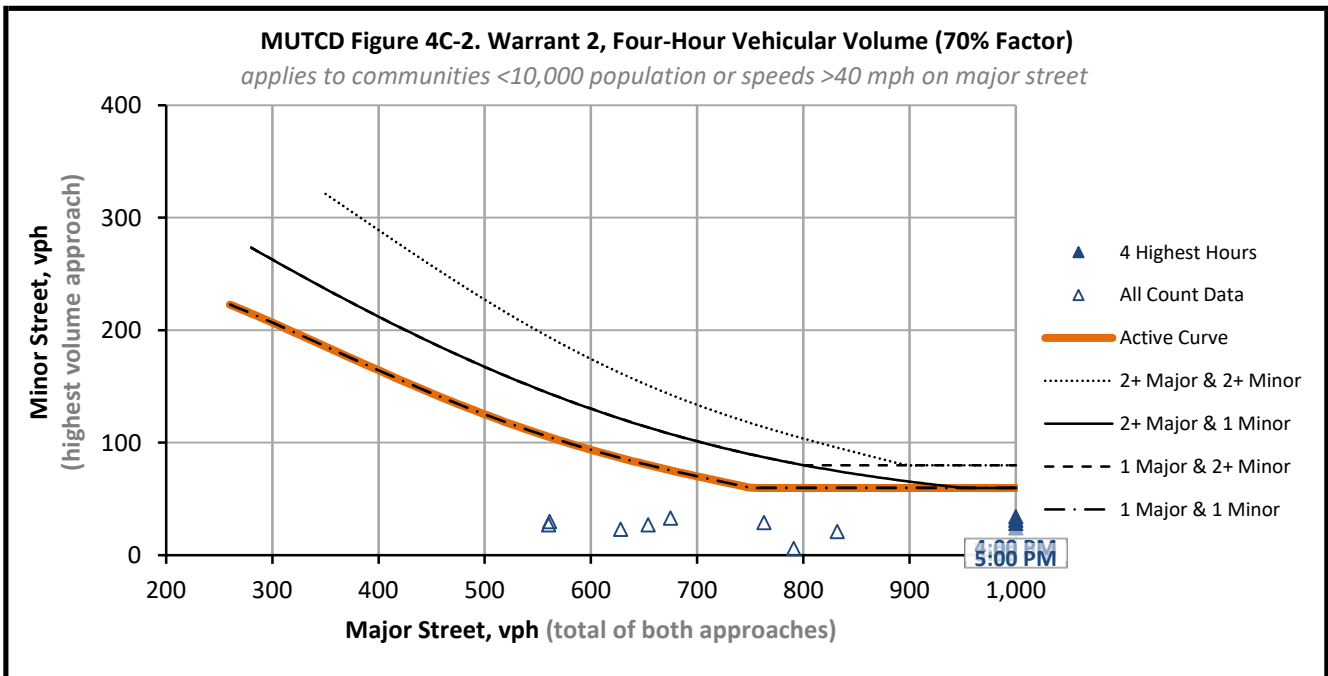
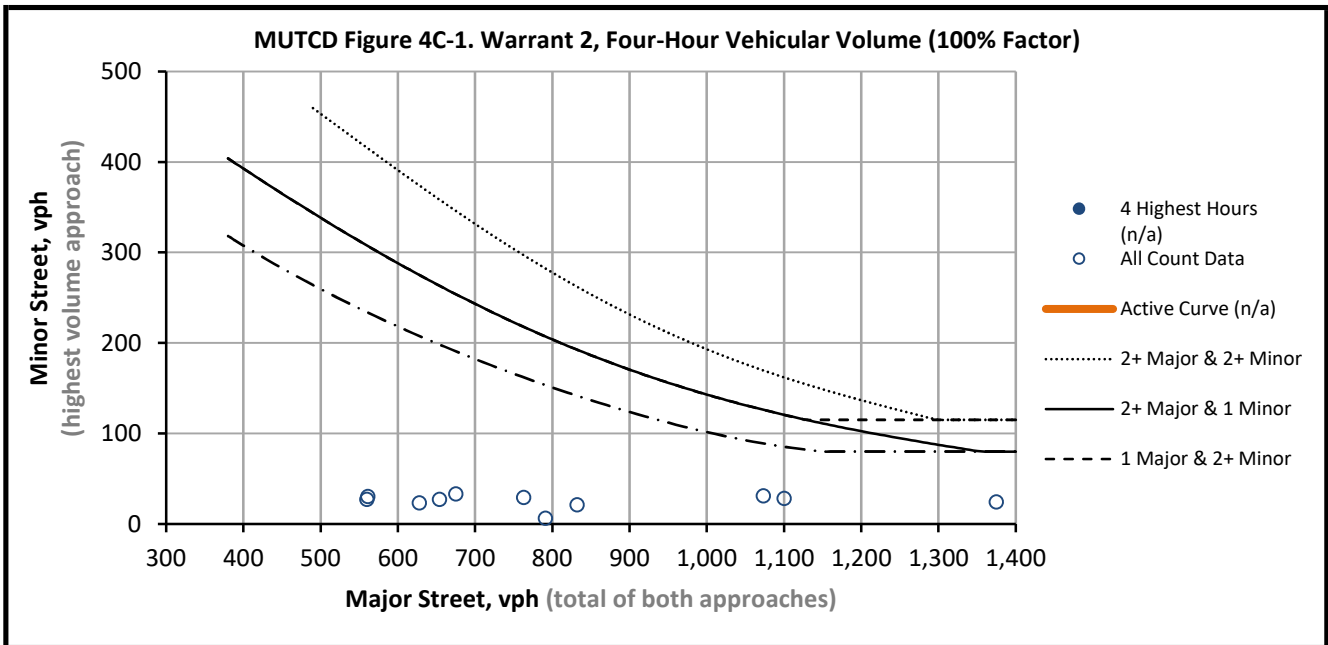
Warrant is met if all four points lie above the appropriate line

Met?

Yes

No

	Four Highest Hours (veh/hr)			
	07:00 AM	03:00 PM	04:00 PM	05:00 PM
Both Approaches on Major Street	1,073	1,100	1,405	1,375
Highest Approach on Minor Street	31	28	34	24



Traffic Signal Warrant Analysis Report

Oak Ridge Highway (SR 62) at Site Access/ Joe Daniels Road

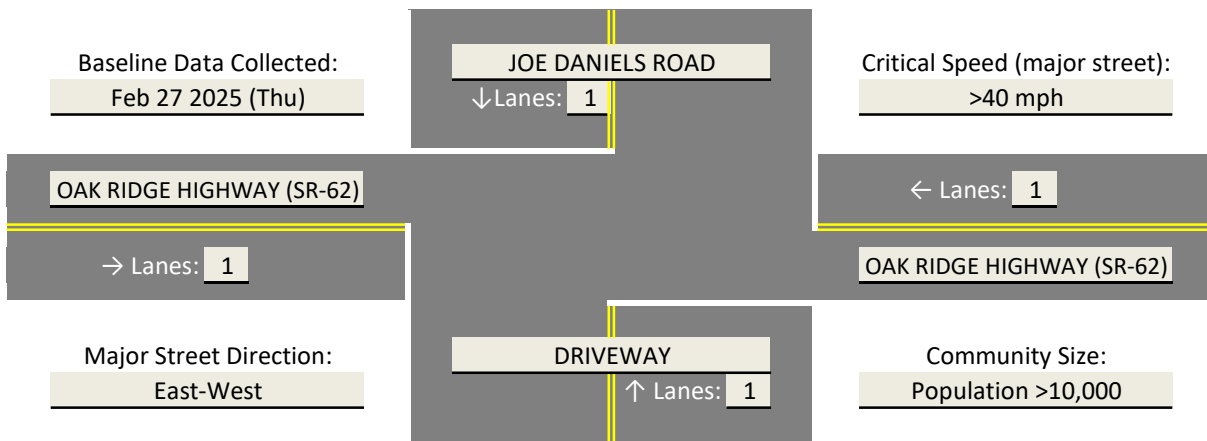
Project Information

Project Name: SOLWAY DEVELOPMENT
 Location: SOLWAY, TN
 Project Number: 3712278 Analyst: VIJAY JALIHAL Prepared: Mar 25 2025

Intersection: JOE DANIELS ROAD AT OAK RIDGE HIGHWAY (Sr-62)
 Analysis Type: NO BUILD PHASE 1 (2028)
 Analysis Duration: 6:00 AM to 6:00 PM

Notes: 12-hour counts were collected on Thursday, February 27, 2025.

Study Intersection



Summary of Results

Warrant Type	Satisfied?	Worksheet
Warrant #1: Eight-Hour Vehicle Volume	NO	Sheet 1
Warrant #2: Four-Hour Vehicle Volume	NO	Sheet 2
Warrant #3: Peak Hour	n/a	Sheet 3
Warrant #4: Pedestrian Volume	n/a	Sheet 4
Warrant #5: School Crossing	n/a - no crossing facilities	Sheet 5
Warrant #6: Coordinated Signal System	n/a - isolated intersection	Sheet 5
Warrant #7: Crash Experience	n/a	Sheet 6
Warrant #8: Roadway Network	n/a	Sheet 7
Warrant #9: Intersection Near a Grade Crossing	n/a - no railroad crossing	Sheet 8

Conclusions: Based on No Build Phase 1 2028 traffic volumes, a signal is not warranted based upon Warrants 1 and 2.

See following sheets for calculation details and justifications.

Workbook Notes: - Uses MUTCD 2009 methodology; warrant curves developed by R Blankenship (ALDOT)
 - Document template last revised 5/27/2020 by pdk (includes IA-19 safety changes)

Urban (70%) Volume Level Criteria

- 1. Is the critical speed of major street traffic >40 mph? YES
- 2. Is the intersection in the built-up area of an isolated community of <10,000 population? NO

If Criteria 1 or 2 applies, use 70% volume level for Warrants 1-4. **Volume Level?** 70% 100%

Warrant #1 - Eight-Hour Vehicular Volume

Have other remedial measures failed to address the issue? **Applicable?** Yes No

Description of remedial measures tried (required for 80% combination of A & B)

Warrant is met if Condition A or Condition B is satisfied at 100%; **Met?** Yes No
 warrant is also met if both Condition A and Condition B are satisfied at 80%, given that adequate trials of other remedial measures have been tried

Either condition satisfied at 100%? Yes No

Both conditions satisfied at 80%? Yes No

		Minimum Requirements				Eight Highest Hours (veh/hr)							
		1		2 or more		06:15 AM	07:15 AM	08:15 AM	01:15 PM	02:15 PM	03:15 PM	04:15 PM	05:15 PM
Approach Lanes		100%	70%	100%	70%								
Volume Level		100%	70%	100%	70%								
Condition A: Minimum Vehicular Volume													
100% Satisfied	Both Approaches on Major Street	500	350	600	420	893	1,051	815	714	880	1,222	1,448	1,068
	Highest Approach on Minor Street	150	105	200	140	15	33	25	33	35	34	38	24
80% Satisfied	Both Approaches on Major Street	400	280	480	336	893	1,051	815	714	880	1,222	1,448	1,068
	Highest Approach on Minor Street	120	84	160	112	15	33	25	33	35	34	38	24
Condition B: Interruption of Continuous Traffic													
100% Satisfied	Both Approaches on Major Street	750	525	900	630	893	1,051	815	714	880	1,222	1,448	1,068
	Highest Approach on Minor Street	75	53	100	70	15	33	25	33	35	34	38	24
80% Satisfied	Both Approaches on Major Street	600	420	720	504	893	1,051	815	714	880	1,222	1,448	1,068
	Highest Approach on Minor Street	60	42	80	56	15	33	25	33	35	34	38	24

Warrant #2 - Four-Hour Vehicular Volume

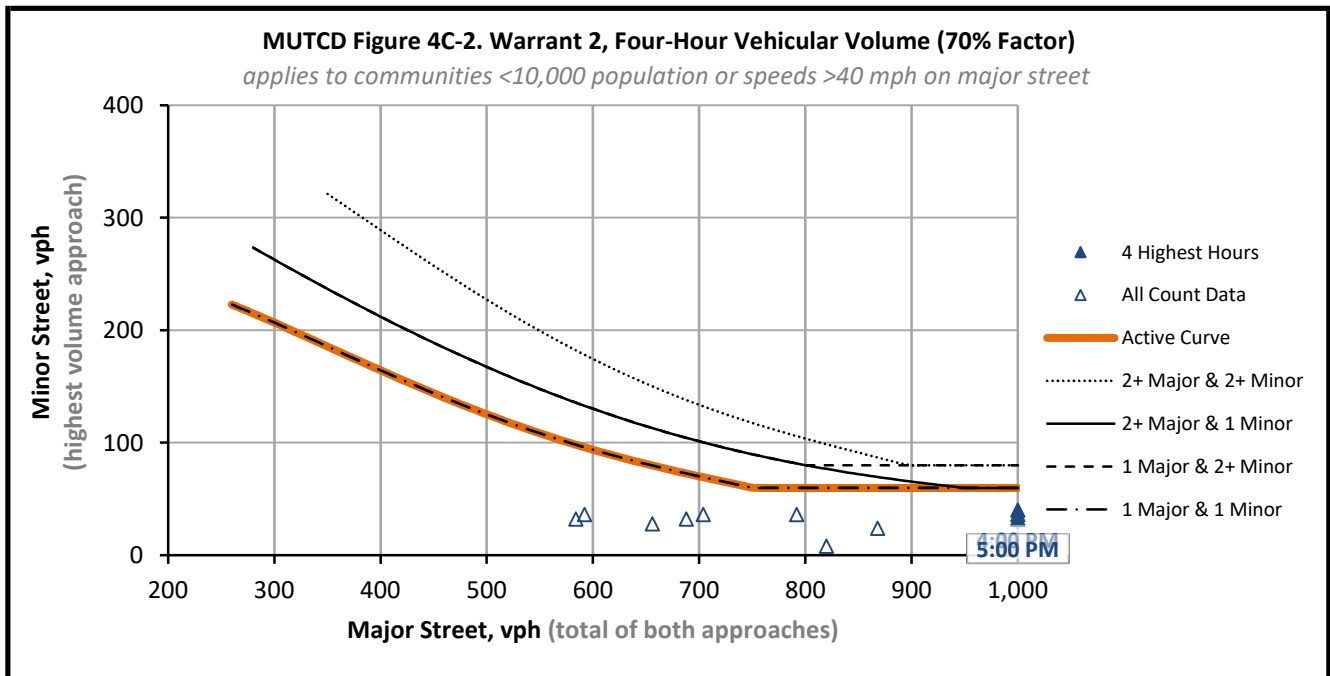
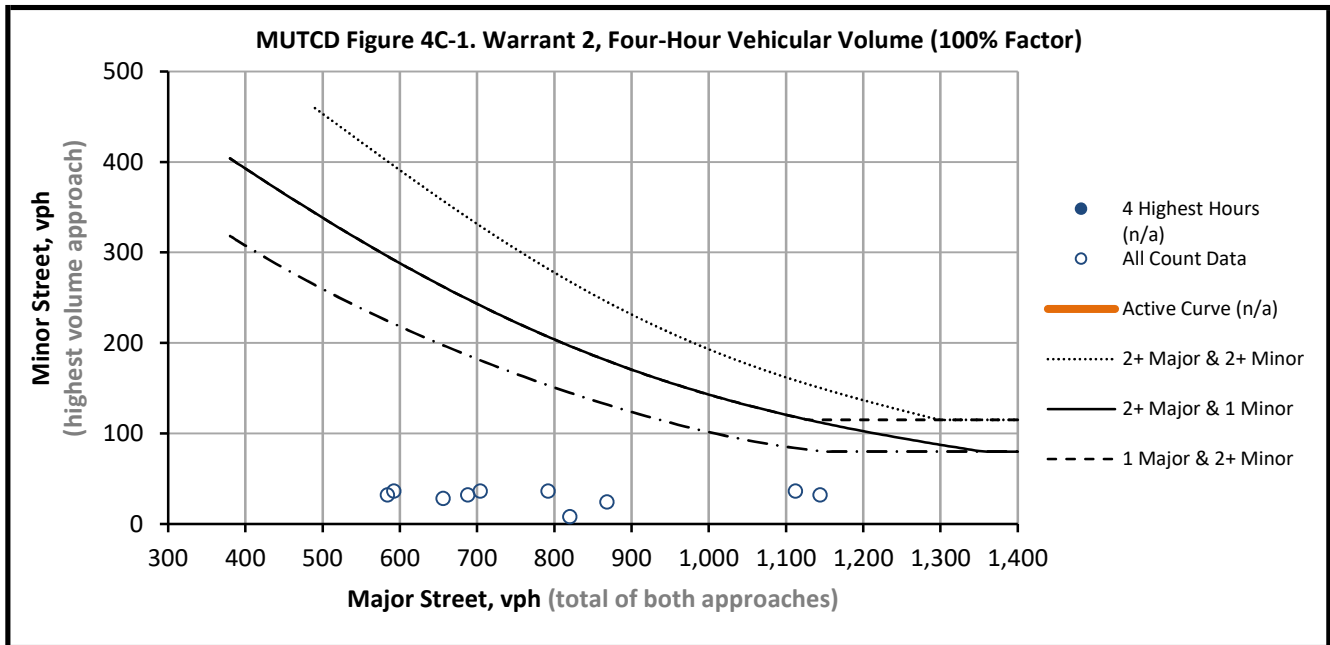
Warrant is met if all four points lie above the appropriate line

Met?

Yes

No

	Four Highest Hours (veh/hr)			
	07:00 AM	03:00 PM	04:00 PM	05:00 PM
Both Approaches on Major Street	1,112	1,144	1,456	1,424
Highest Approach on Minor Street	36	32	40	32



Traffic Signal Warrant Analysis Report

Oak Ridge Highway (SR 62) at Site Access/ Joe Daniels Road

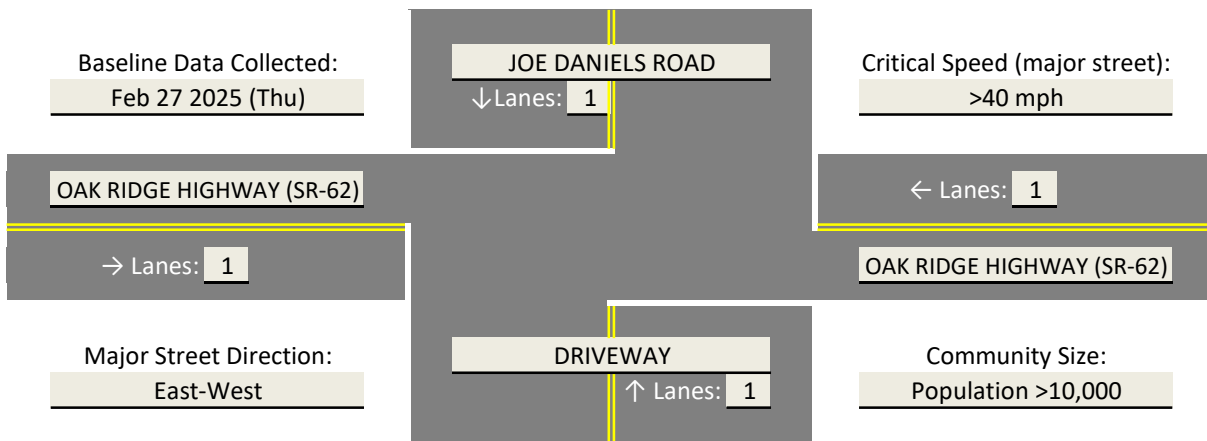
Project Information

Project Name: SOLWAY DEVELOPMENT
 Location: SOLWAY, TN
 Project Number: 3712278 Analyst: VIJAY JALIHAL Prepared: Mar 25 2025

Intersection: JOE DANIELS ROAD AT OAK RIDGE HIGHWAY (Sr-62)
 Analysis Type: BUILD PHASE 1 (2028)
 Analysis Duration: 6:00 AM to 6:00 PM

Notes: 12-hour counts were collected on Thursday, February 27, 2025.

Study Intersection



Summary of Results

Warrant Type	Satisfied?	Worksheet
Warrant #1: Eight-Hour Vehicle Volume	YES	Sheet 1
Warrant #2: Four-Hour Vehicle Volume	YES	Sheet 2
Warrant #3: Peak Hour	n/a	Sheet 3
Warrant #4: Pedestrian Volume	n/a	Sheet 4
Warrant #5: School Crossing	n/a - no crossing facilities	Sheet 5
Warrant #6: Coordinated Signal System	n/a - isolated intersection	Sheet 5
Warrant #7: Crash Experience	n/a	Sheet 6
Warrant #8: Roadway Network	n/a	Sheet 7
Warrant #9: Intersection Near a Grade Crossing	n/a - no railroad crossing	Sheet 8

Conclusions: Based on Build Phase 1 2028 traffic volumes, a signal is warranted based upon Warrants 1 and 2.

See following sheets for calculation details and justifications.

Workbook Notes: - Uses MUTCD 2009 methodology; warrant curves developed by R Blankenship (ALDOT)
 - Document template last revised 5/27/2020 by pdk (includes IA-19 safety changes)

Urban (70%) Volume Level Criteria

- 1. Is the critical speed of major street traffic >40 mph? YES
- 2. Is the intersection in the built-up area of an isolated community of <10,000 population? NO

If Criteria 1 or 2 applies, use 70% volume level for Warrants 1-4. **Volume Level?** 70% 100%

Warrant #1 - Eight-Hour Vehicular Volume

Have other remedial measures failed to address the issue? **Applicable?** Yes No

Description of remedial measures tried (required for 80% combination of A & B)

Warrant is met if Condition A or Condition B is satisfied at 100%; **Met?** Yes No
warrant is also met if both Condition A and Condition B are satisfied at 80%, given that adequate trials of other remedial measures have been tried

Either condition satisfied at 100%? Yes No

Both conditions satisfied at 80%? Yes No

		Minimum Requirements				Eight Highest Hours (veh/hr)							
Approach Lanes		1		2 or more		06:15 AM	07:15 AM	08:15 AM	01:15 PM	02:15 PM	03:15 PM	04:15 PM	05:15 PM
Volume Level		100%	70%	100%	70%								
Condition A: Minimum Vehicular Volume													
100% Satisfied	Both Approaches on Major Street	500	350	600	420	916	1,088	867	799	984	1,347	1,604	1,194
	Highest Approach on Minor Street	150	105	200	140	106	153	125	121	126	135	147	117
80% Satisfied	Both Approaches on Major Street	400	280	480	336	916	1,088	867	799	984	1,347	1,604	1,194
	Highest Approach on Minor Street	120	84	160	112	106	153	125	121	126	135	147	117
Condition B: Interruption of Continuous Traffic													
100% Satisfied	Both Approaches on Major Street	750	525	900	630	916	1,088	867	799	984	1,347	1,604	1,194
	Highest Approach on Minor Street	75	53	100	70	106	153	125	121	126	135	147	117
80% Satisfied	Both Approaches on Major Street	600	420	720	504	916	1,088	867	799	984	1,347	1,604	1,194
	Highest Approach on Minor Street	60	42	80	56	106	153	125	121	126	135	147	117

Warrant #2 - Four-Hour Vehicular Volume

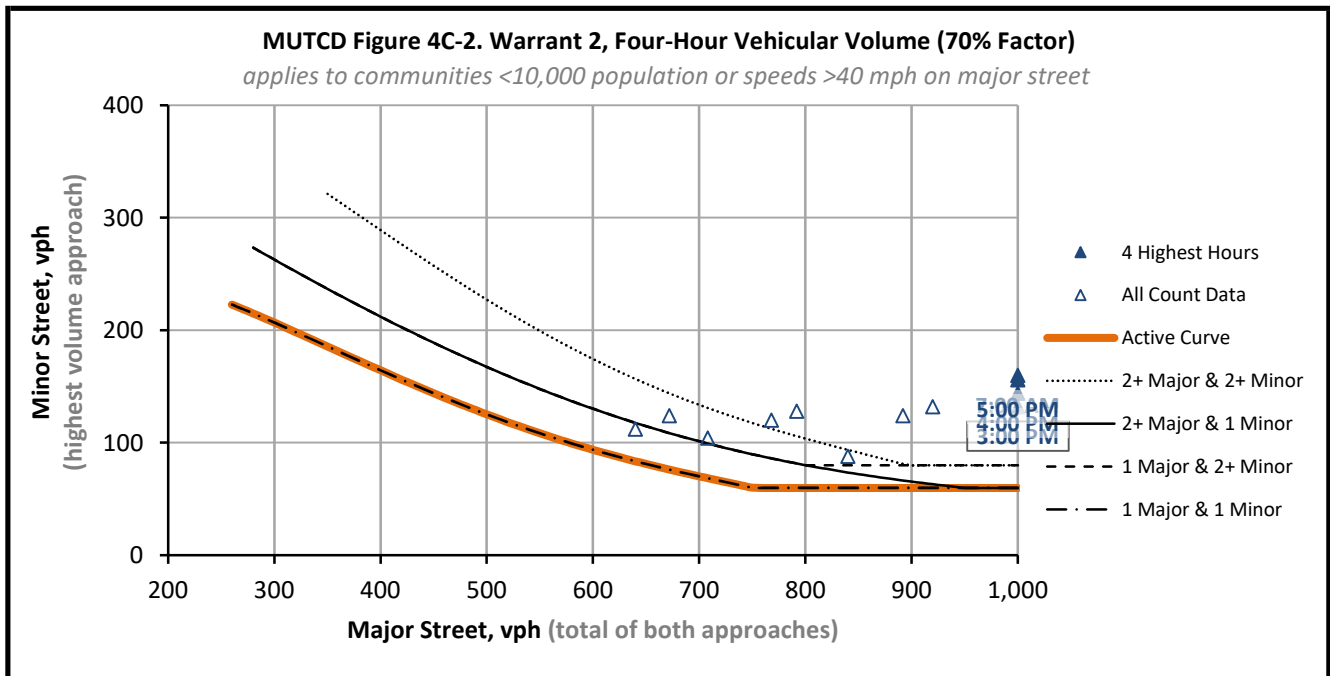
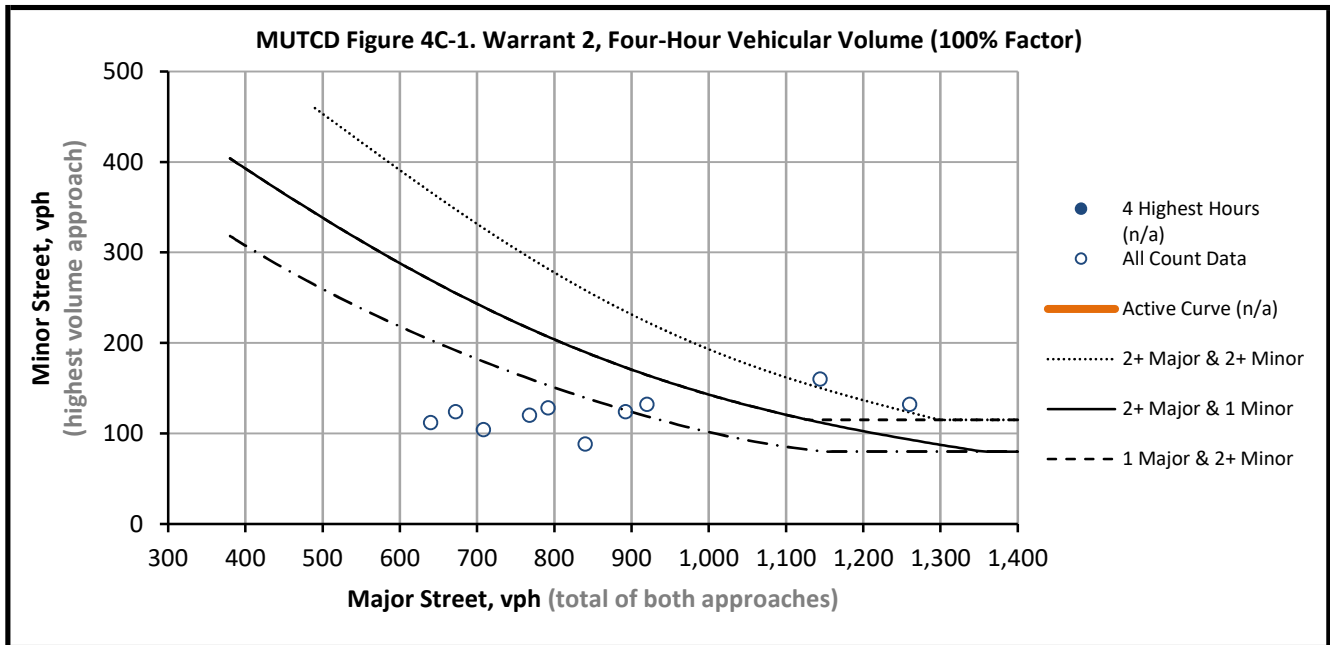
Warrant is met if all four points lie above the appropriate line

Met?

Yes

No

	Four Highest Hours (veh/hr)			
	07:00 AM	03:00 PM	04:00 PM	05:00 PM
Both Approaches on Major Street	1,144	1,260	1,608	1,592
Highest Approach on Minor Street	160	132	144	156



Traffic Signal Warrant Analysis Report

Oak Ridge Highway (SR 62) at Site Access/ Joe Daniels Road

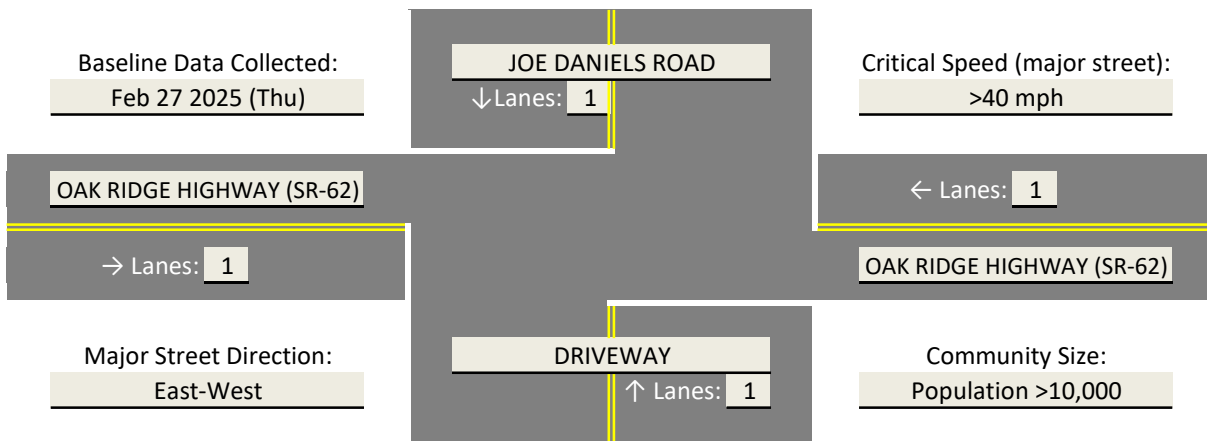
Project Information

Project Name: SOLWAY DEVELOPMENT
 Location: SOLWAY, TN
 Project Number: 3712278 Analyst: VIJAY JALIHAL Prepared: Mar 25 2025

Intersection: JOE DANIELS ROAD AT OAK RIDGE HIGHWAY (Sr-62)
 Analysis Type: NO BUILD PHASE 2 (2040)
 Analysis Duration: 6:00 AM to 6:00 PM

Notes: 12-hour counts were collected on Thursday, February 27, 2025.

Study Intersection



Summary of Results

Warrant Type	Satisfied?	Worksheet
Warrant #1: Eight-Hour Vehicle Volume	YES	Sheet 1
Warrant #2: Four-Hour Vehicle Volume	YES	Sheet 2
Warrant #3: Peak Hour	n/a	Sheet 3
Warrant #4: Pedestrian Volume	n/a	Sheet 4
Warrant #5: School Crossing	n/a - no crossing facilities	Sheet 5
Warrant #6: Coordinated Signal System	n/a - isolated intersection	Sheet 5
Warrant #7: Crash Experience	n/a	Sheet 6
Warrant #8: Roadway Network	n/a	Sheet 7
Warrant #9: Intersection Near a Grade Crossing	n/a - no railroad crossing	Sheet 8

Conclusions: Based on No Build Phase 2 2040 traffic volumes, a signal is warranted based upon Warrants 1 and 2.

See following sheets for calculation details and justifications.

Workbook Notes: - Uses MUTCD 2009 methodology; warrant curves developed by R Blankenship (ALDOT)
 - Document template last revised 5/27/2020 by pdk (includes IA-19 safety changes)

Urban (70%) Volume Level Criteria

- 1. Is the critical speed of major street traffic >40 mph? YES
- 2. Is the intersection in the built-up area of an isolated community of <10,000 population? NO

If Criteria 1 or 2 applies, use 70% volume level for Warrants 1-4. **Volume Level?** 70% 100%

Warrant #1 - Eight-Hour Vehicular Volume

Have other remedial measures failed to address the issue? **Applicable?** Yes No

Description of remedial measures tried (required for 80% combination of A & B)

Warrant is met if Condition A or Condition B is satisfied at 100%; **Met?** Yes No
warrant is also met if both Condition A and Condition B are satisfied at 80%, given that adequate trials of other remedial measures have been tried

Either condition satisfied at 100%? Yes No

Both conditions satisfied at 80%? Yes No

		Minimum Requirements				Eight Highest Hours (veh/hr)							
		1		2 or more		06:15 AM	07:15 AM	08:15 AM	01:15 PM	02:15 PM	03:15 PM	04:15 PM	05:15 PM
Approach Lanes		100%	70%	100%	70%								
Volume Level		100%	70%	100%	70%								
Condition A: Minimum Vehicular Volume													
100% Satisfied	Both Approaches on Major Street	500	350	600	420	1,021	1,212	962	879	1,086	1,490	1,779	1,323
	Highest Approach on Minor Street	150	105	200	140	107	157	129	123	132	137	153	117
80% Satisfied	Both Approaches on Major Street	400	280	480	336	1,021	1,212	962	879	1,086	1,490	1,779	1,323
	Highest Approach on Minor Street	120	84	160	112	107	157	129	123	132	137	153	117
Condition B: Interruption of Continuous Traffic													
100% Satisfied	Both Approaches on Major Street	750	525	900	630	1,021	1,212	962	879	1,086	1,490	1,779	1,323
	Highest Approach on Minor Street	75	53	100	70	107	157	129	123	132	137	153	117
80% Satisfied	Both Approaches on Major Street	600	420	720	504	1,021	1,212	962	879	1,086	1,490	1,779	1,323
	Highest Approach on Minor Street	60	42	80	56	107	157	129	123	132	137	153	117

Warrant #2 - Four-Hour Vehicular Volume

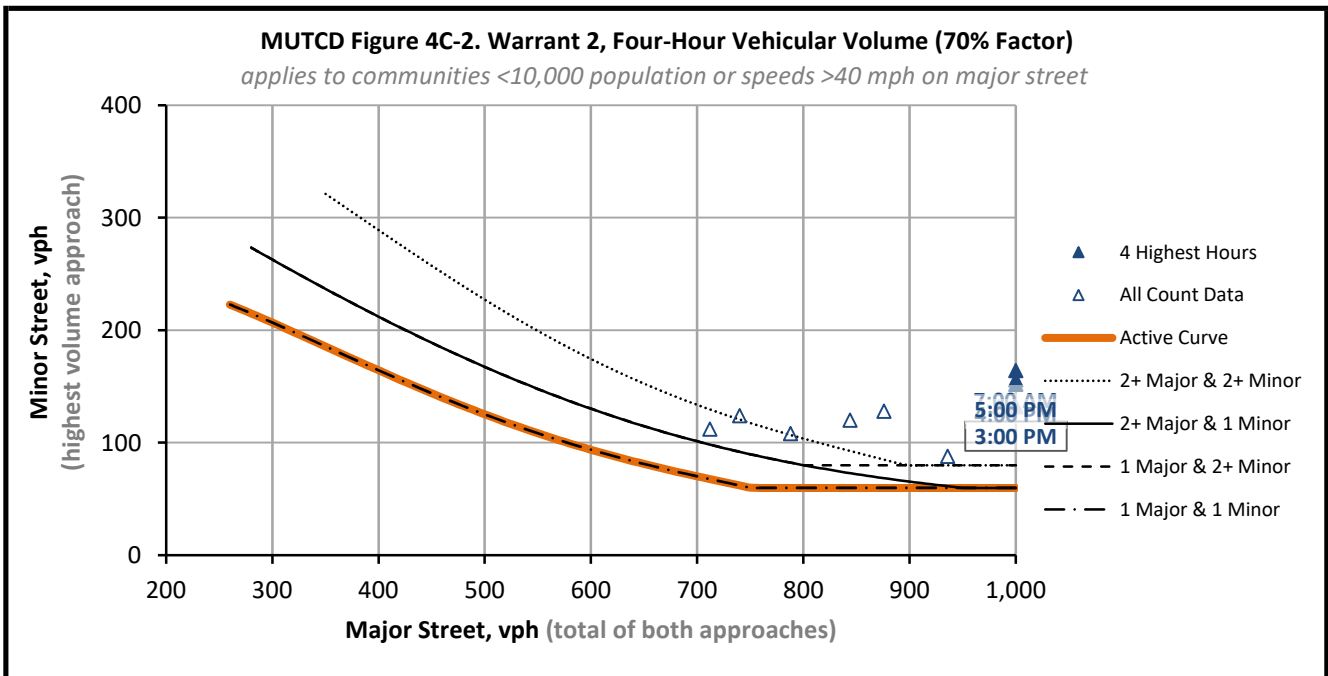
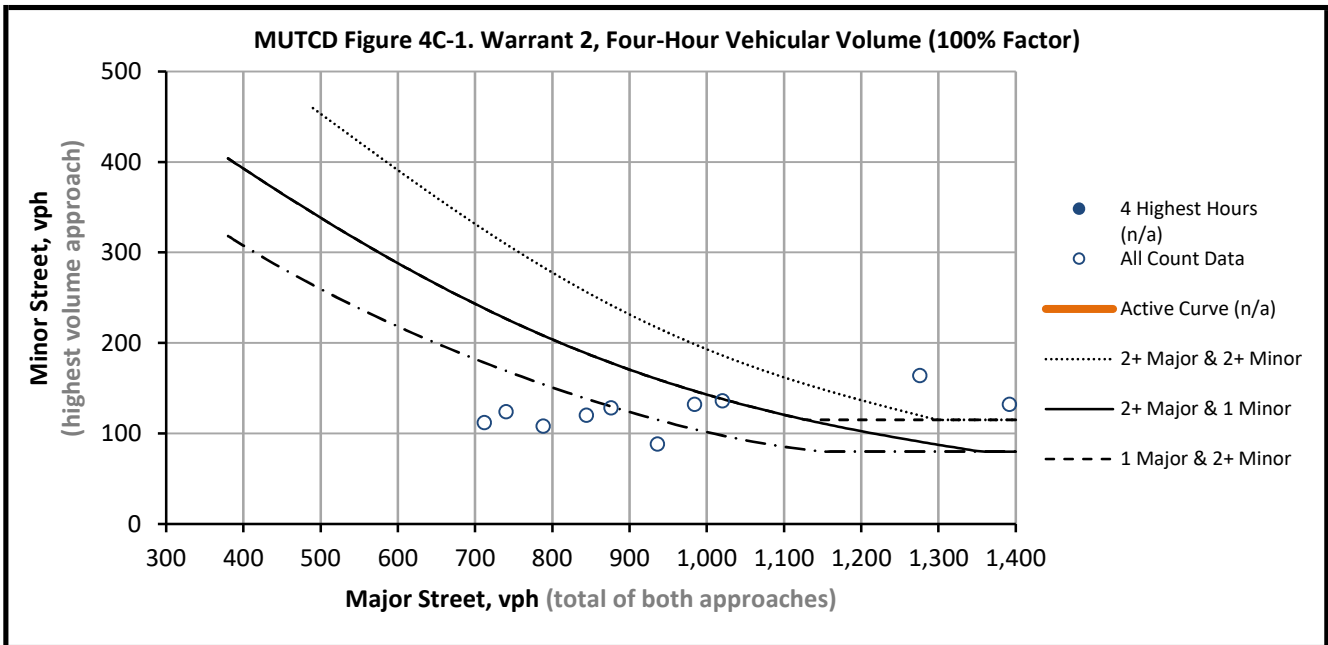
Warrant is met if all four points lie above the appropriate line

Met?

Yes

No

	Four Highest Hours (veh/hr)			
	07:00 AM	03:00 PM	04:00 PM	05:00 PM
Both Approaches on Major Street	1,276	1,392	1,784	1,764
Highest Approach on Minor Street	164	132	152	156



Traffic Signal Warrant Analysis Report

Oak Ridge Highway (SR 62) at Site Access/ Joe Daniels Road

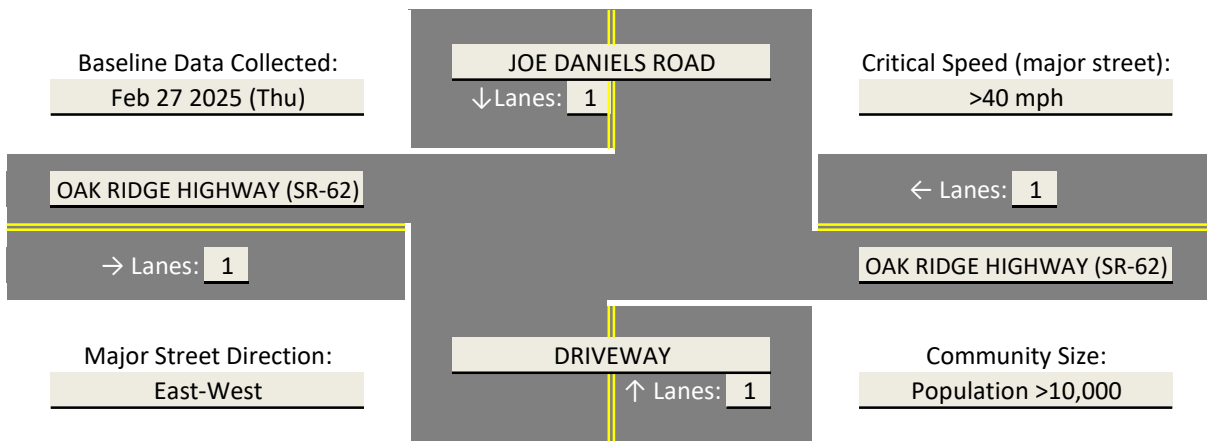
Project Information

Project Name: SOLWAY DEVELOPMENT
 Location: SOLWAY, TN
 Project Number: 3712278 Analyst: VIJAY JALIHAL Prepared: Mar 25 2025

Intersection: JOE DANIELS ROAD AT OAK RIDGE HIGHWAY (Sr-62)
 Analysis Type: BUILD PHASE 2 (2040)
 Analysis Duration: 6:00 AM to 6:00 PM

Notes: 12-hour counts were collected on Thursday, February 27, 2025.

Study Intersection



Summary of Results

Warrant Type	Satisfied?	Worksheet
Warrant #1: Eight-Hour Vehicle Volume	YES	Sheet 1
Warrant #2: Four-Hour Vehicle Volume	YES	Sheet 2
Warrant #3: Peak Hour	n/a	Sheet 3
Warrant #4: Pedestrian Volume	n/a	Sheet 4
Warrant #5: School Crossing	n/a - no crossing facilities	Sheet 5
Warrant #6: Coordinated Signal System	n/a - isolated intersection	Sheet 5
Warrant #7: Crash Experience	n/a	Sheet 6
Warrant #8: Roadway Network	n/a	Sheet 7
Warrant #9: Intersection Near a Grade Crossing	n/a - no railroad crossing	Sheet 8

Conclusions: Based on Build Phase 2 2040 traffic volumes, a signal is warranted based upon Warrants 1 and 2.

See following sheets for calculation details and justifications.

Workbook Notes: - Uses MUTCD 2009 methodology; warrant curves developed by R Blankenship (ALDOT)
 - Document template last revised 5/27/2020 by pdk (includes IA-19 safety changes)

Urban (70%) Volume Level Criteria

- 1. Is the critical speed of major street traffic >40 mph? YES
- 2. Is the intersection in the built-up area of an isolated community of <10,000 population? NO

If Criteria 1 or 2 applies, use 70% volume level for Warrants 1-4. **Volume Level?** 70% 100%

Warrant #1 - Eight-Hour Vehicular Volume

Have other remedial measures failed to address the issue? **Applicable?** Yes No

Description of remedial measures tried (required for 80% combination of A & B)

Warrant is met if Condition A or Condition B is satisfied at 100%; **Met?** Yes No
warrant is also met if both Condition A and Condition B are satisfied at 80%, given that adequate trials of other remedial measures have been tried

Either condition satisfied at 100%? Yes No

Both conditions satisfied at 80%? Yes No

		Minimum Requirements				Eight Highest Hours (veh/hr)							
		1		2 or more		06:15 AM	07:15 AM	08:15 AM	01:15 PM	02:15 PM	03:15 PM	04:15 PM	05:15 PM
Approach Lanes		100%	70%	100%	70%								
Volume Level		100%	70%	100%	70%								
Condition A: Minimum Vehicular Volume													
100% Satisfied	Both Approaches on Major Street	500	350	600	420	1,043	1,245	1,008	944	1,170	1,597	1,924	1,443
	Highest Approach on Minor Street	150	105	200	140	220	301	236	188	202	214	240	198
80% Satisfied	Both Approaches on Major Street	400	280	480	336	1,043	1,245	1,008	944	1,170	1,597	1,924	1,443
	Highest Approach on Minor Street	120	84	160	112	220	301	236	188	202	214	240	198
Condition B: Interruption of Continuous Traffic													
100% Satisfied	Both Approaches on Major Street	750	525	900	630	1,043	1,245	1,008	944	1,170	1,597	1,924	1,443
	Highest Approach on Minor Street	75	53	100	70	220	301	236	188	202	214	240	198
80% Satisfied	Both Approaches on Major Street	600	420	720	504	1,043	1,245	1,008	944	1,170	1,597	1,924	1,443
	Highest Approach on Minor Street	60	42	80	56	220	301	236	188	202	214	240	198

Warrant #2 - Four-Hour Vehicular Volume

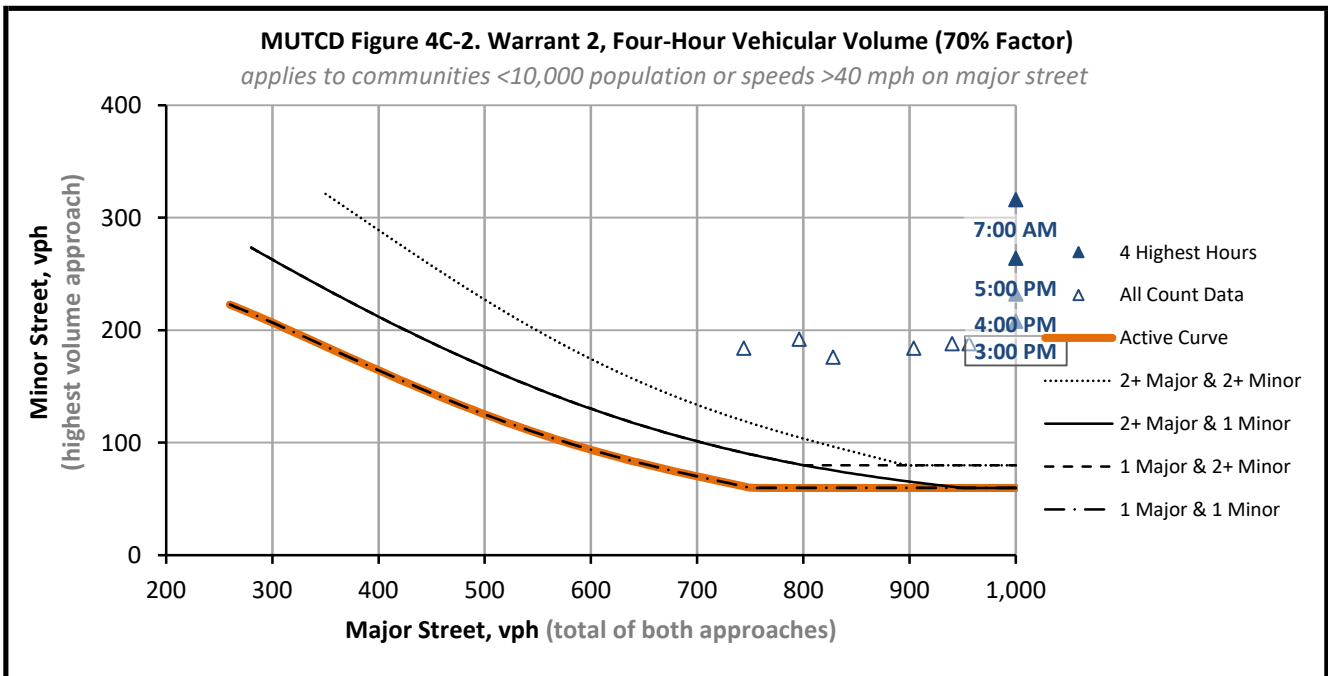
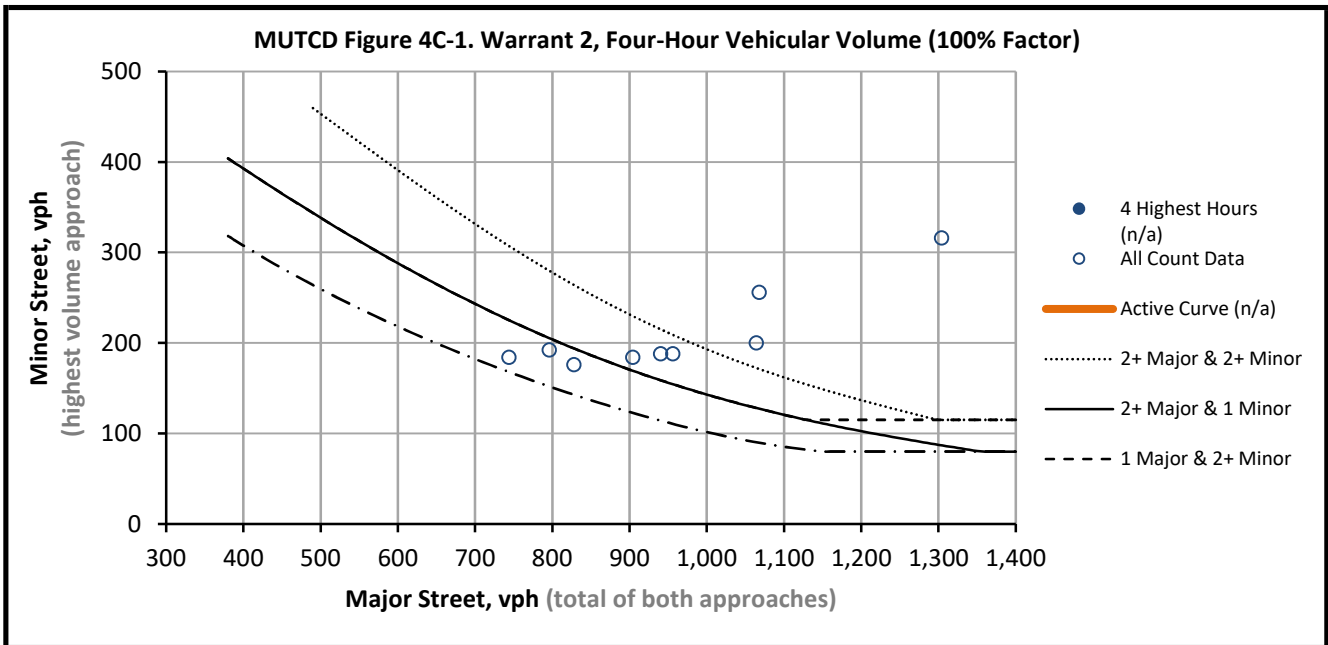
Warrant is met if all four points lie above the appropriate line

Met?

Yes

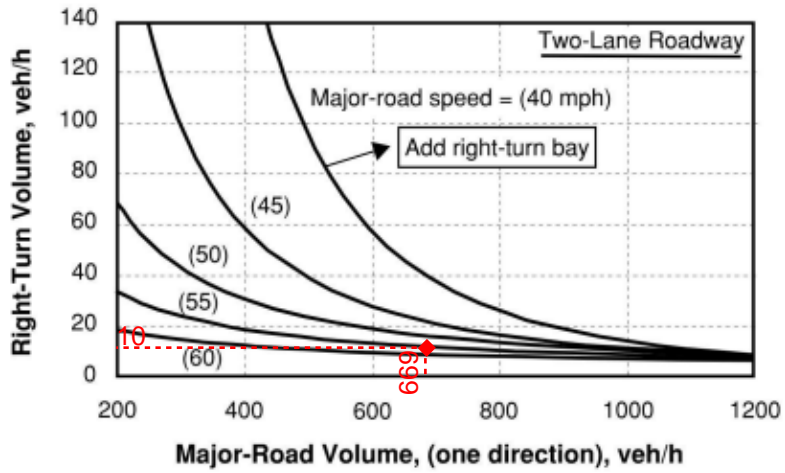
No

	Four Highest Hours (veh/hr)			
	07:00 AM	03:00 PM	04:00 PM	05:00 PM
Both Approaches on Major Street	1,304	1,488	1,924	1,924
Highest Approach on Minor Street	316	208	232	264

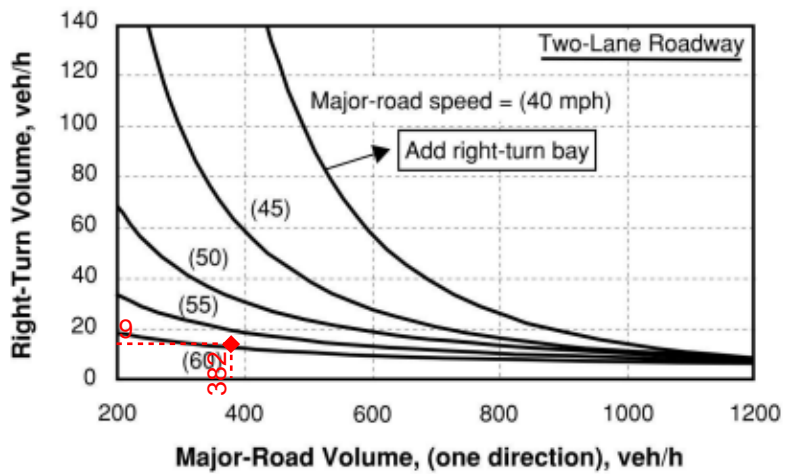


RT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

Existing AM

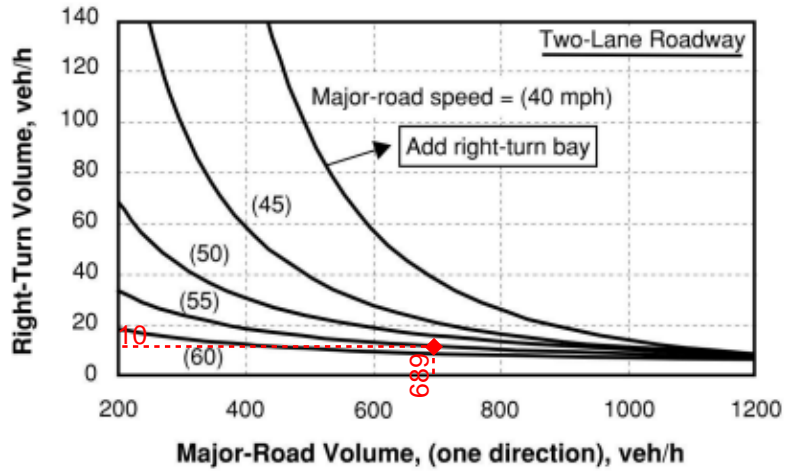


Existing PM

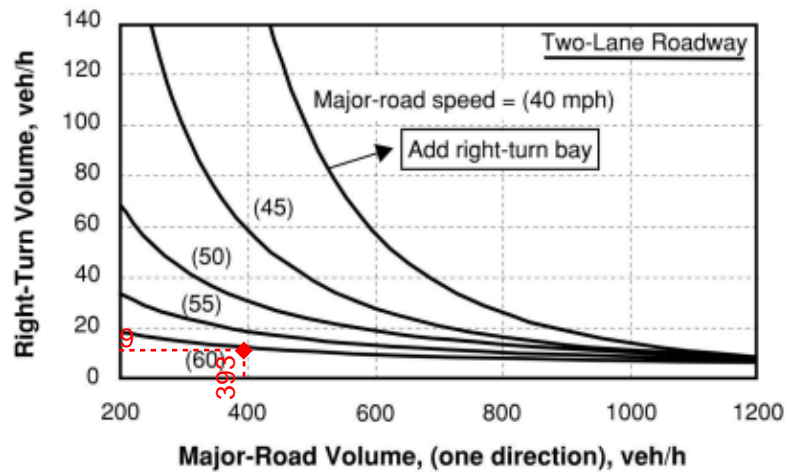


RT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

No Build AM Phase 1

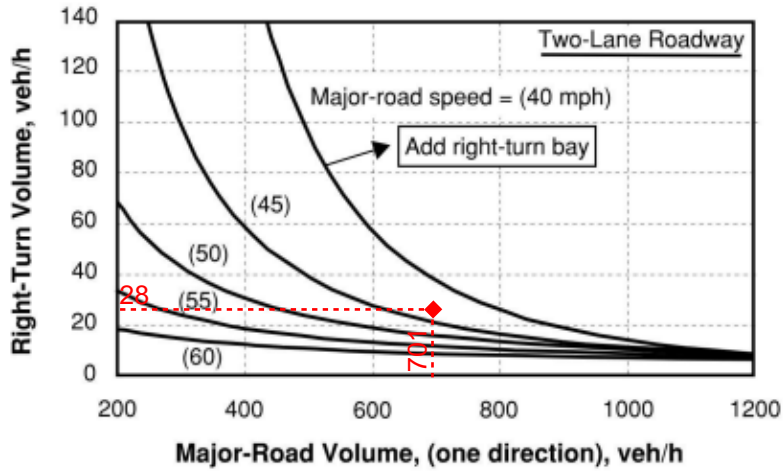


No Build PM Phase 1

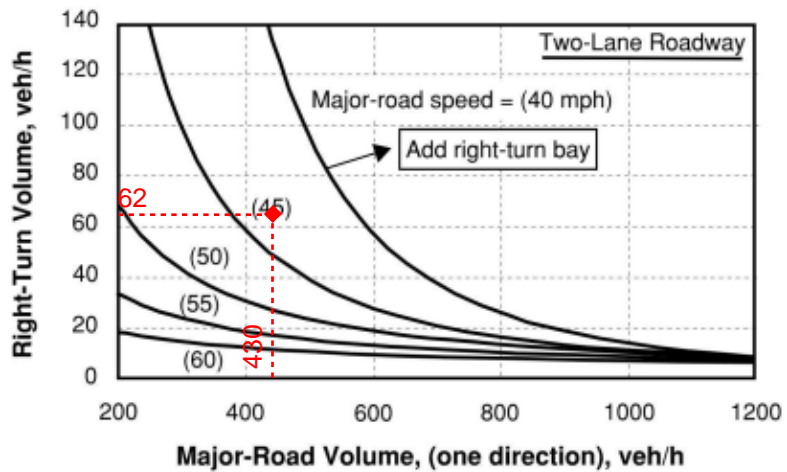


RT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

Build AM Phase 1

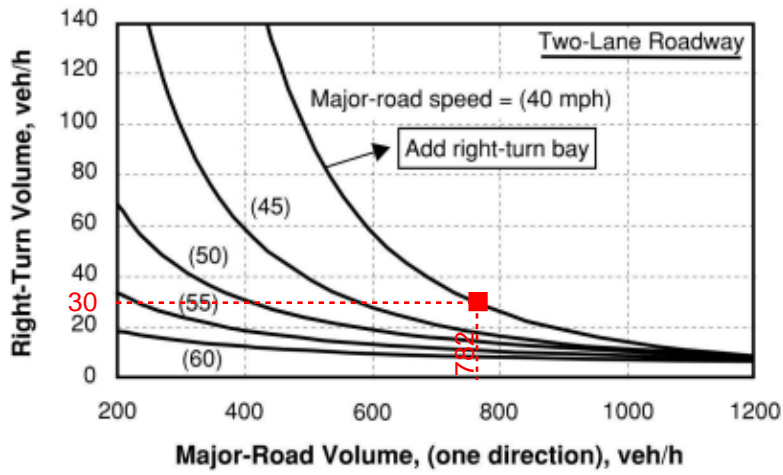


Build PM Phase 1

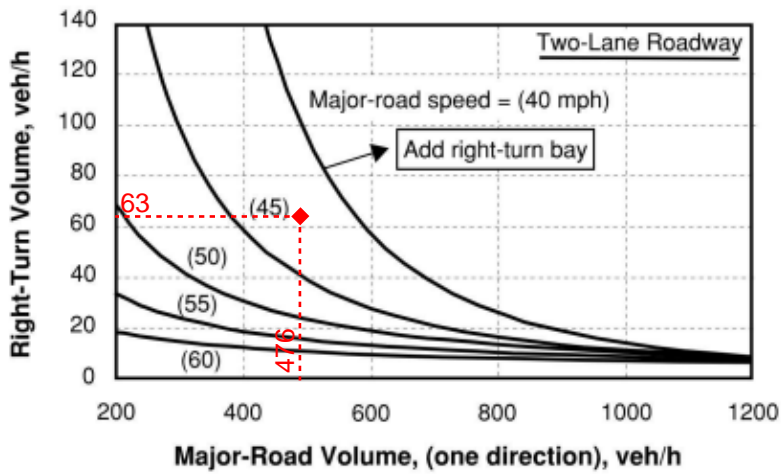


RT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

No Build AM Phase 2

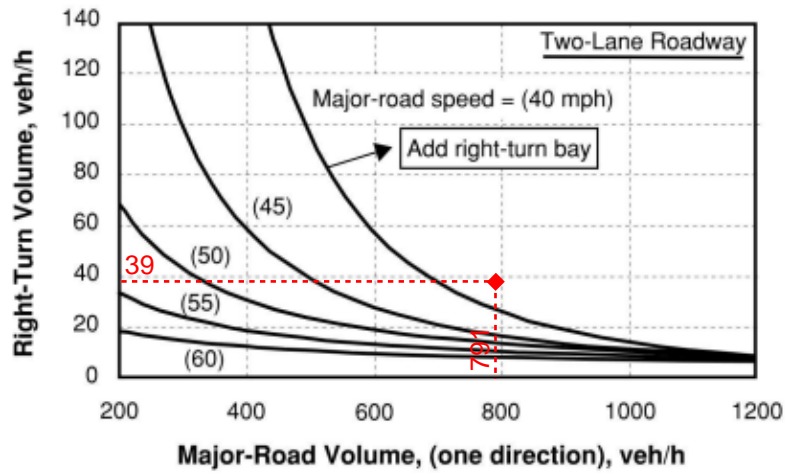


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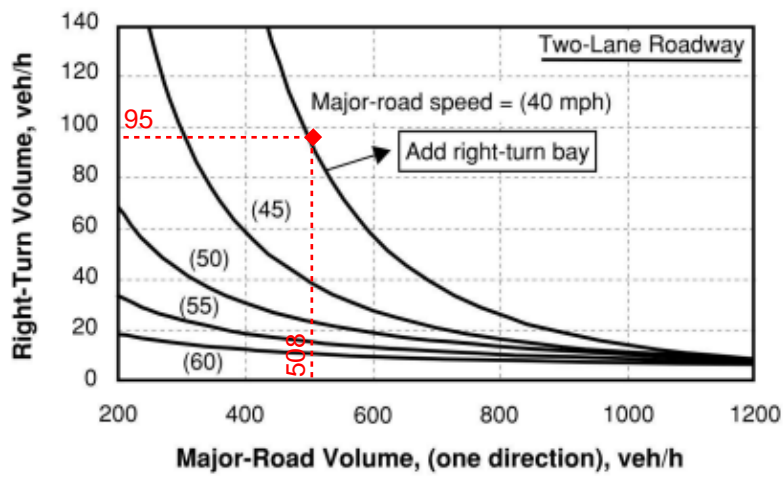


RT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

Build AM Phase 2

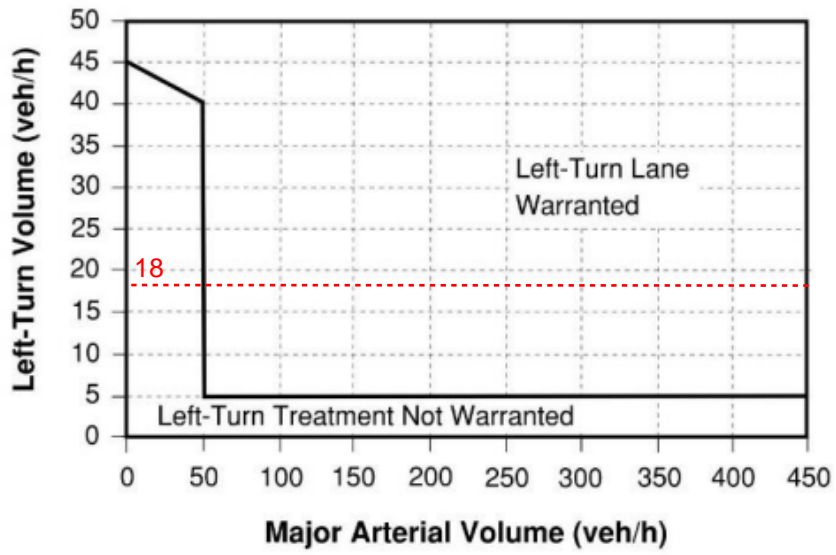


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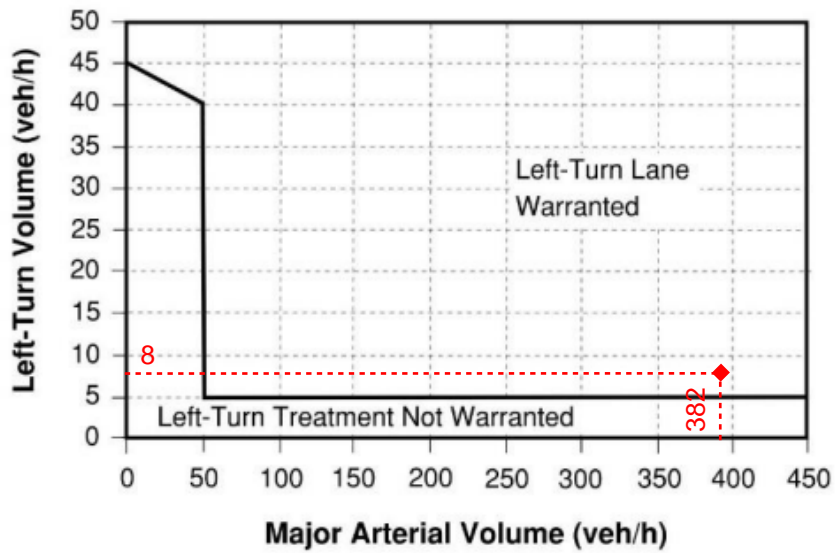


LT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

Existing AM

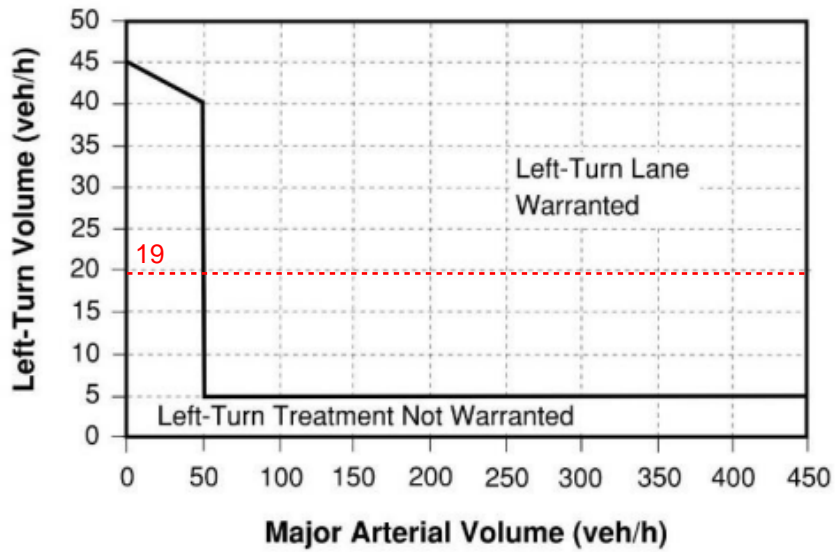


Existing PM

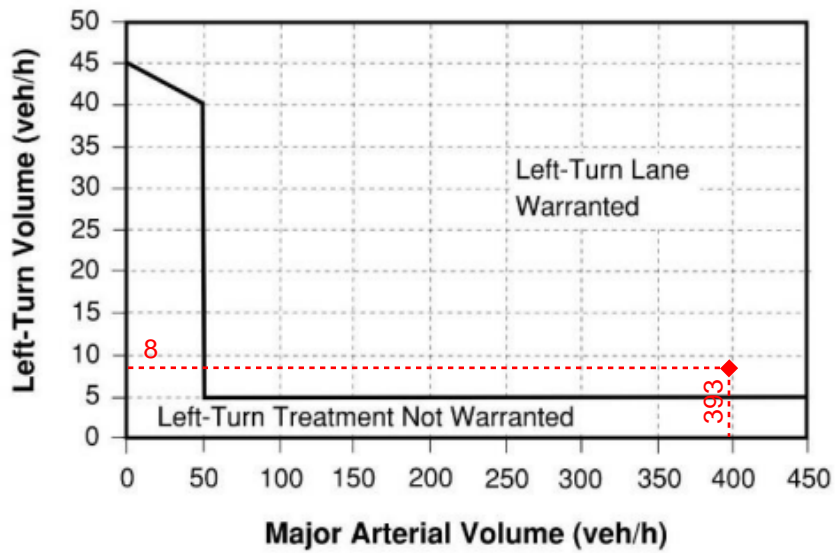


LT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

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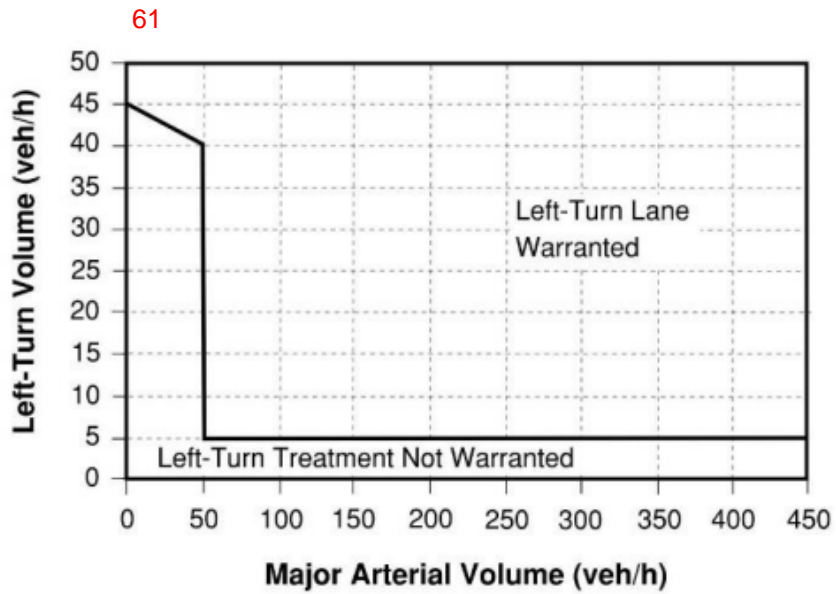


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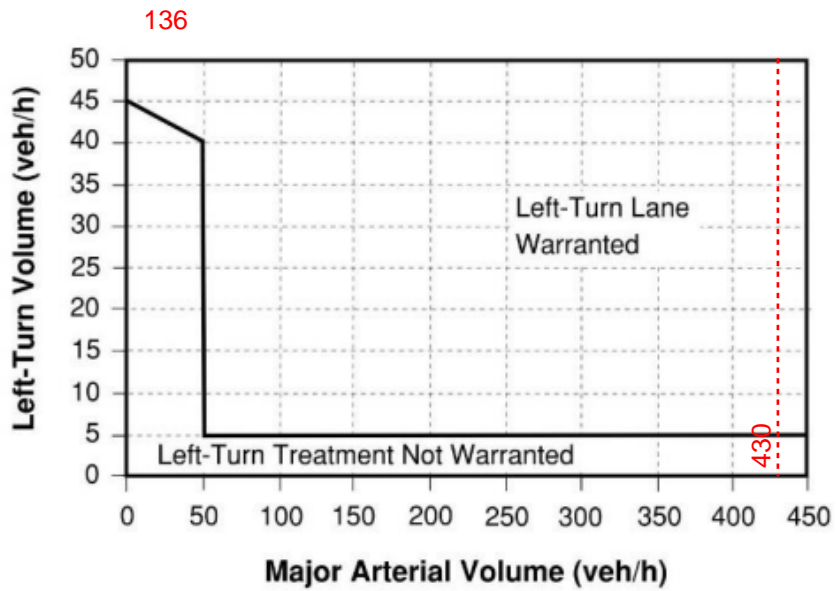


LT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

Build AM Phase 1

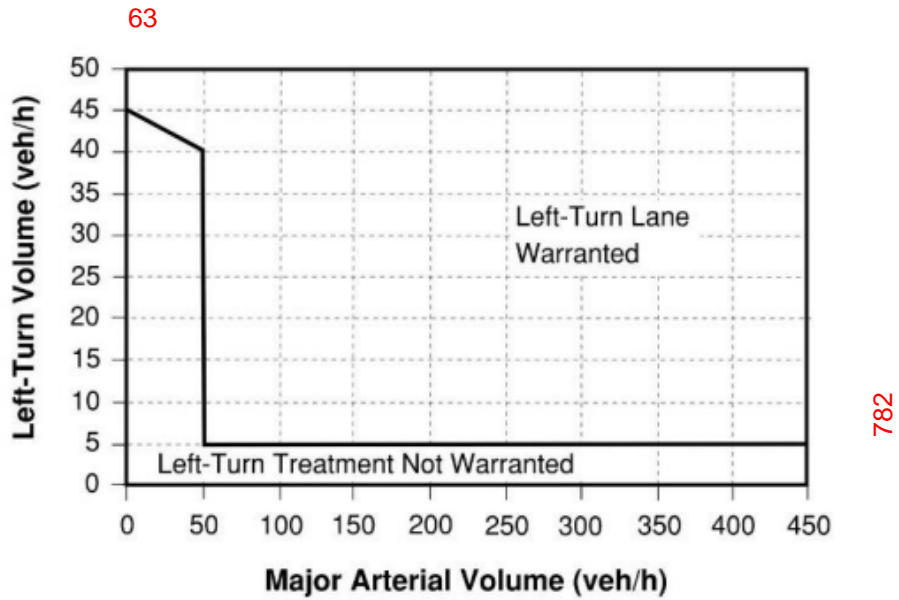


Build PM Phase 1

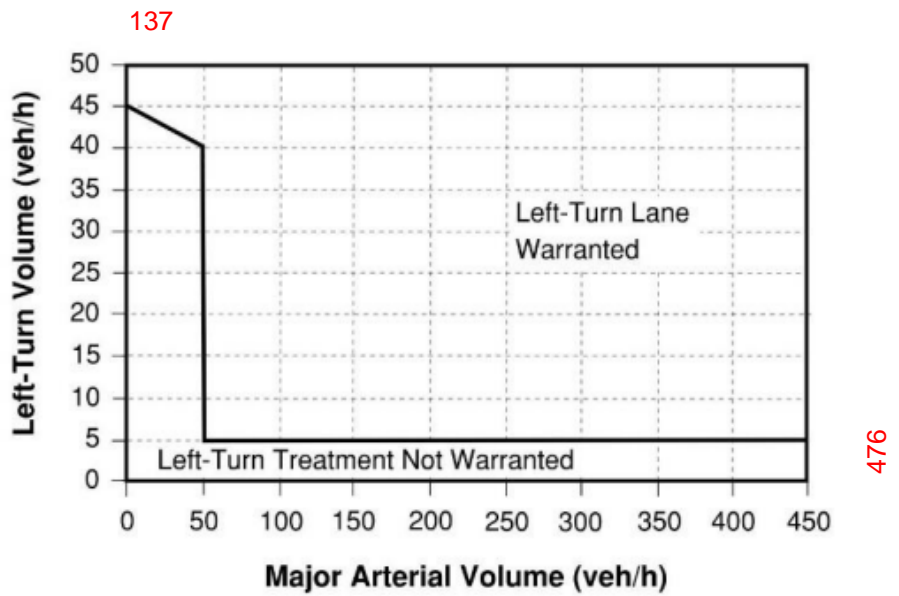


LT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

No Build AM Phase 2

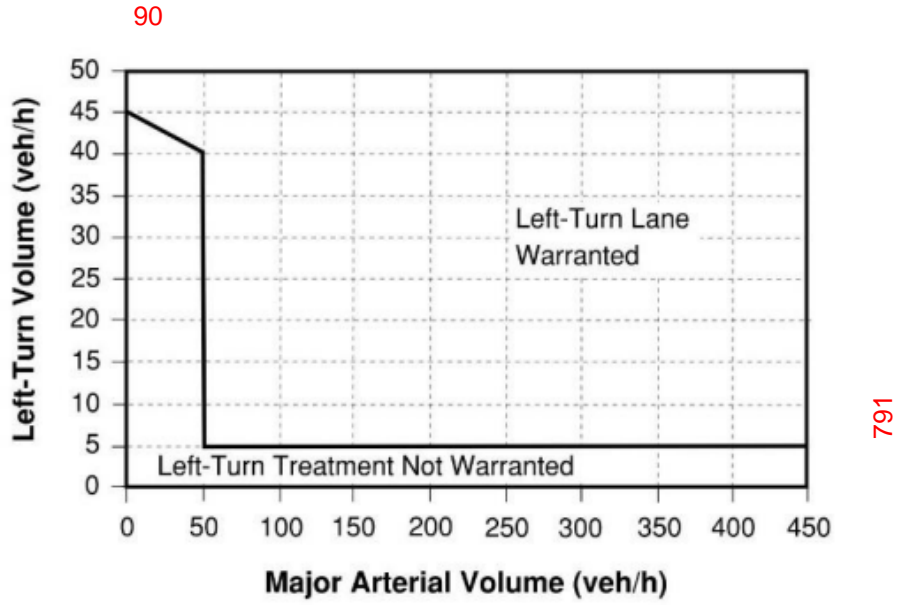


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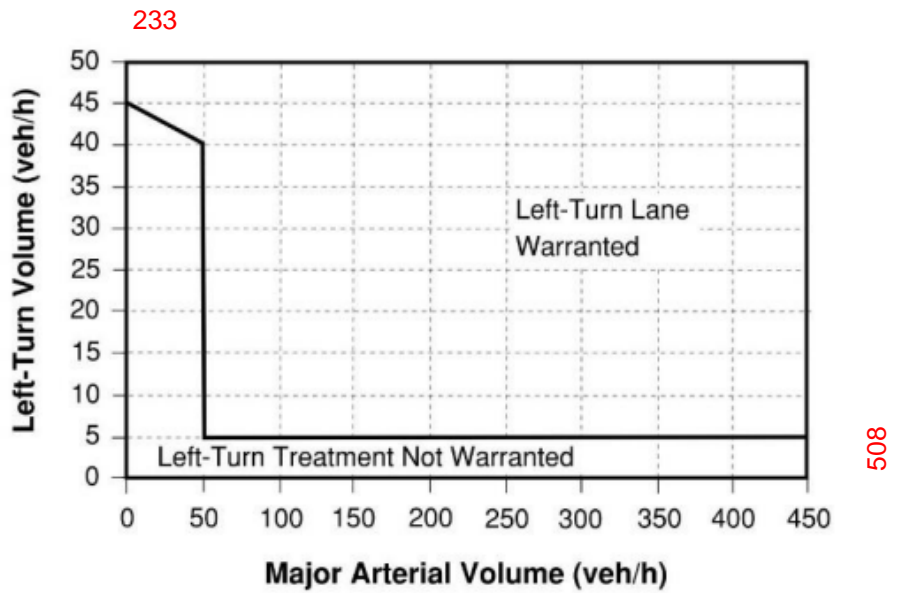


LT Warrant - Site Access/Joe Daniels at Oak Ridge Highway

Build AM Phase 2

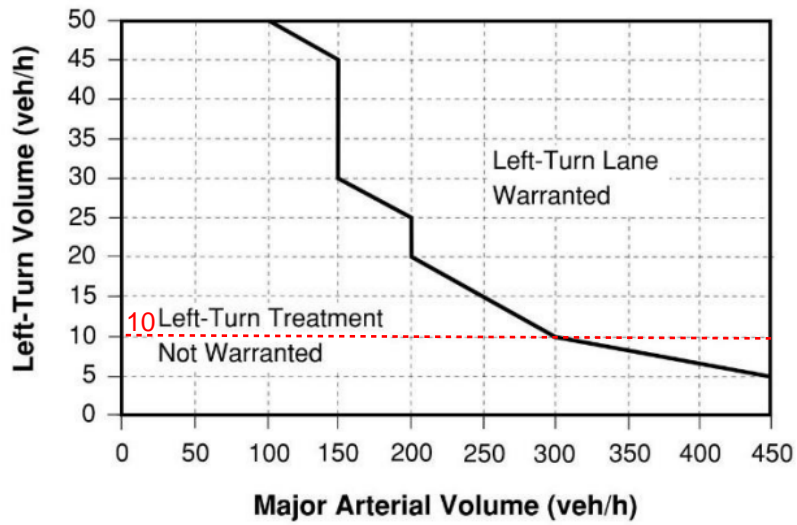


Build PM Phase 2



LT Warrant - W Emory Road at Oak Ridge Highway

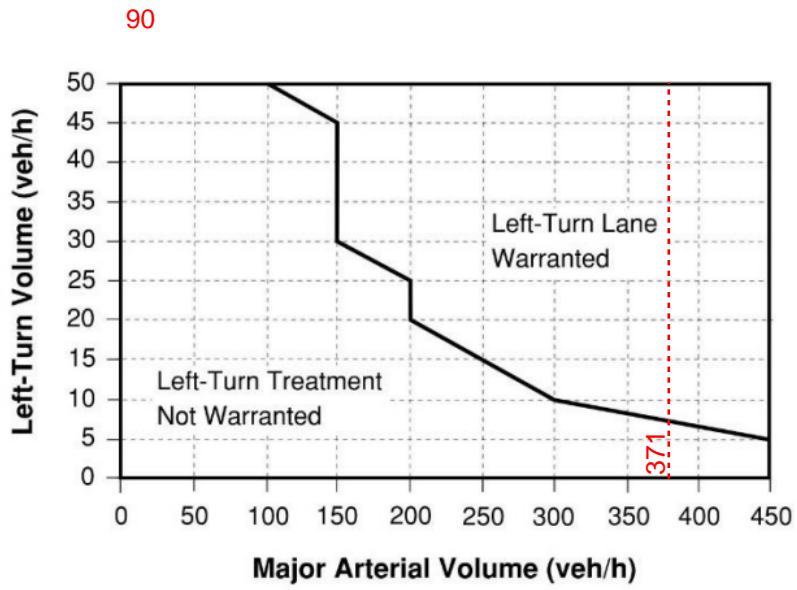
Existing AM



639

(a) Three-Leg Intersections

Existing PM



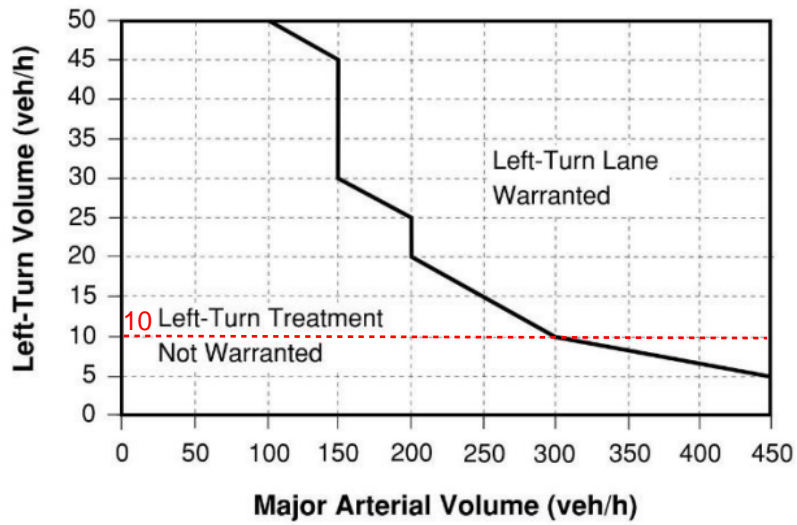
90

371

(a) Three-Leg Intersections

LT Warrant - W Emory Road at Oak Ridge Highway

No Build AM Phase 1

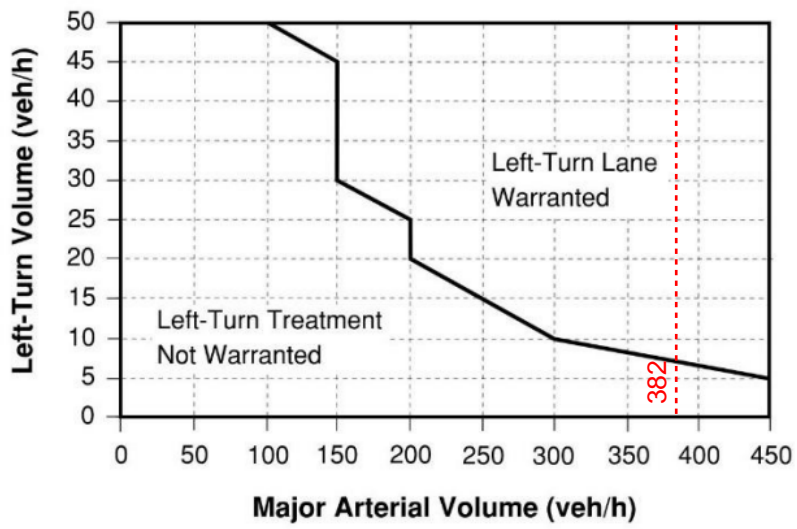


658

(a) Three-Leg Intersections

No Build PM Phase 1

93

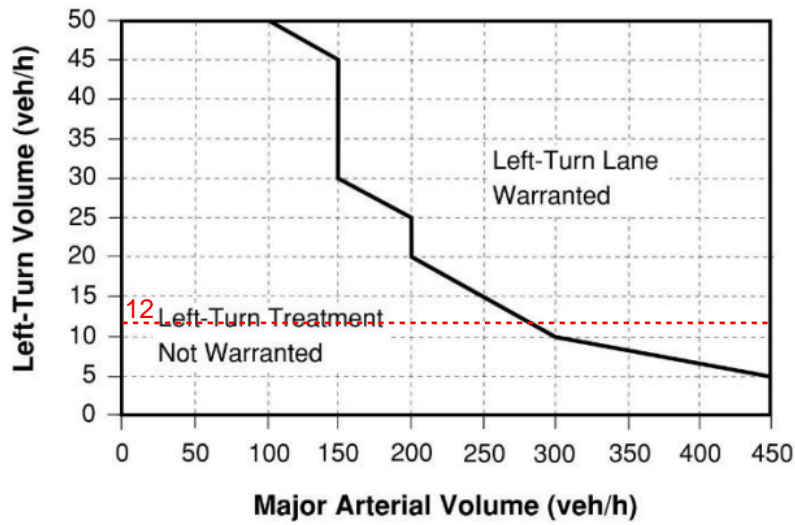


382

(a) Three-Leg Intersections

LT Warrant - W Emory Road at Oak Ridge Highway

Build AM Phase 1

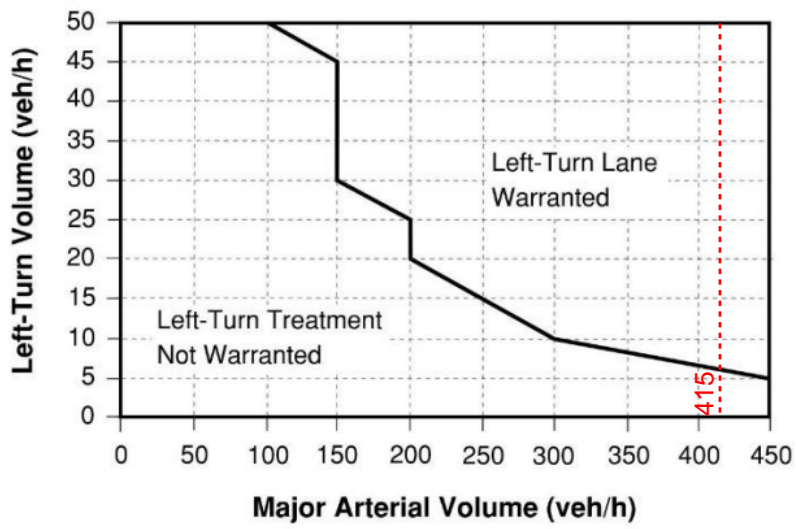


(a) Three-Leg Intersections

669

Build PM Phase 1

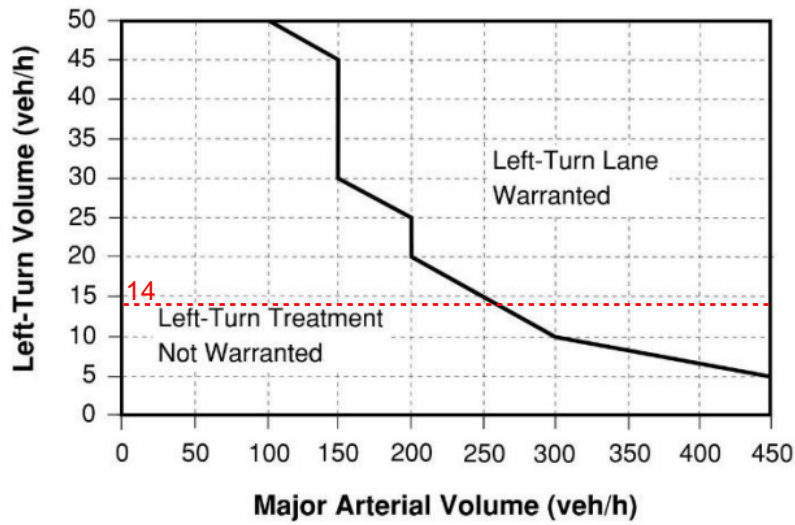
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(a) Three-Leg Intersections

LT Warrant - W Emory Road at Oak Ridge Highway

No Build AM Phase 2

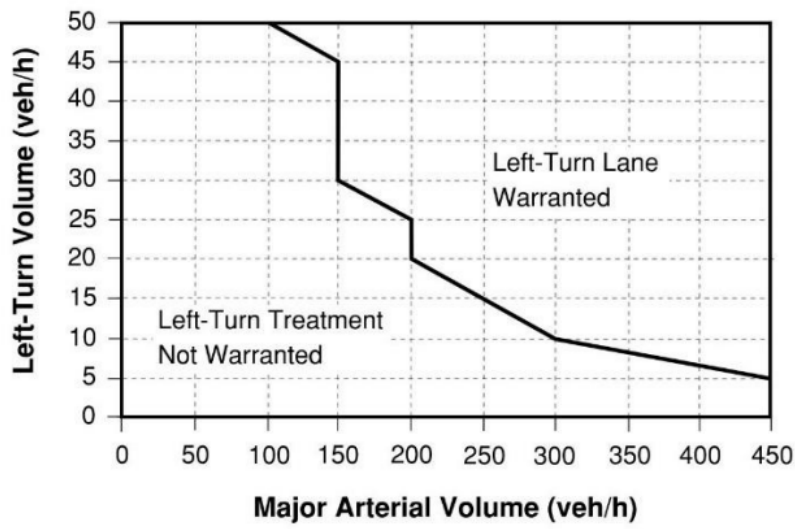


(a) Three-Leg Intersections

745

No Build PM Phase 2

108

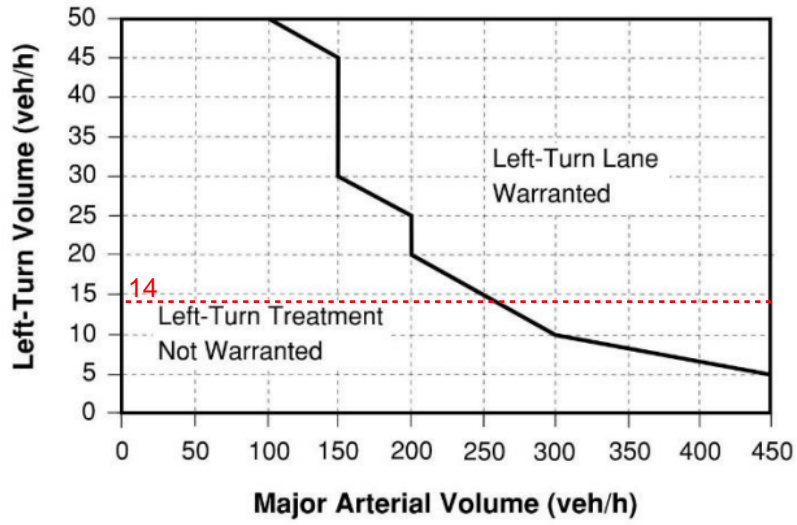


(a) Three-Leg Intersections

460

LT Warrant - W Emory Road at Oak Ridge Highway

Build AM Phase 2

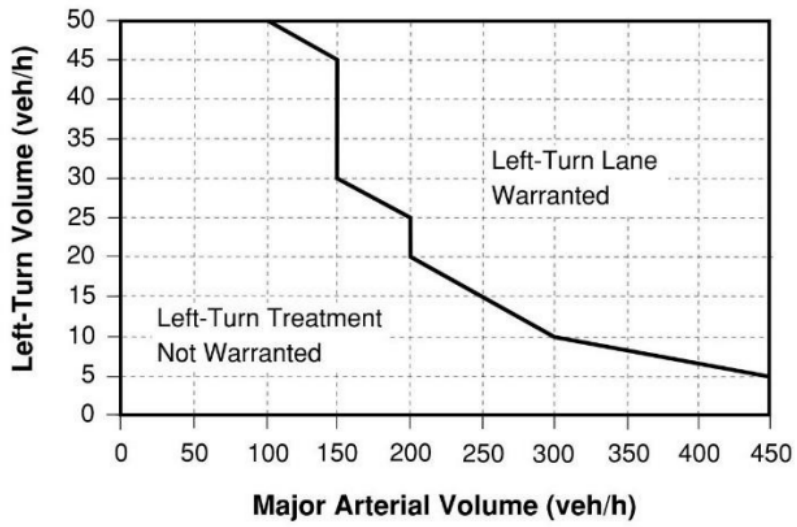


(a) Three-Leg Intersections

754

Build PM Phase 2

108



(a) Three-Leg Intersections

492