Seacoast Reliability Project
Little Bay Road & Gundalow Landing
Route 125 & Laydown Area

Traffic Impact Analysis Report

Submitted by:

Louis Berger

June, 2018

1.0 Introduction and Purpose

This report documents the traffic analysis completed by Louis Berger to evaluate the potential for traffic impacts associated with construction related activities for the Seacoast Reliability Project. The report is designed to aid in the Site Evaluation Committee's review of the criteria found in New Hampshire Site Evaluation Committee Rules 301.04(b)–(c), regarding the technical and managerial capability to construct the project, and Site 301.09 regarding the orderly development of the region.

The traffic impact analysis was performed at two locations. The Locations were selected because one site is representative of a typical municipally maintained road in Seacoast region and the other site was selected because it is located on a heavily-travelled state-maintained road between major towns and cities in New Hampshire. Both locations, are therefore, representative of typical roads that the Project will utilize during construction. The two selected locations are as follows:

1. The intersection of Little Bay Road & Gundalow Landing in the Town of Newington, New Hampshire. This location is representative of one-lane-two-way alternative traffic controlled by a flagger as well as an Eversource Right-of-Way (ROW) access point.

2. The laydown area on Route 25, approximately 0.92 miles north of the US 4 & Route 125 roundabout intersection in the Town of Lee, New Hampshire. This location is the known Lee Laydown Area for the Project.

1.1 Site Description

The location of the Little Bay Road & Gundalow Landing intersection site area is shown in **Figure 1**. The location of Route 125 & the Lee Laydown Area is shown in **Figure 2**.

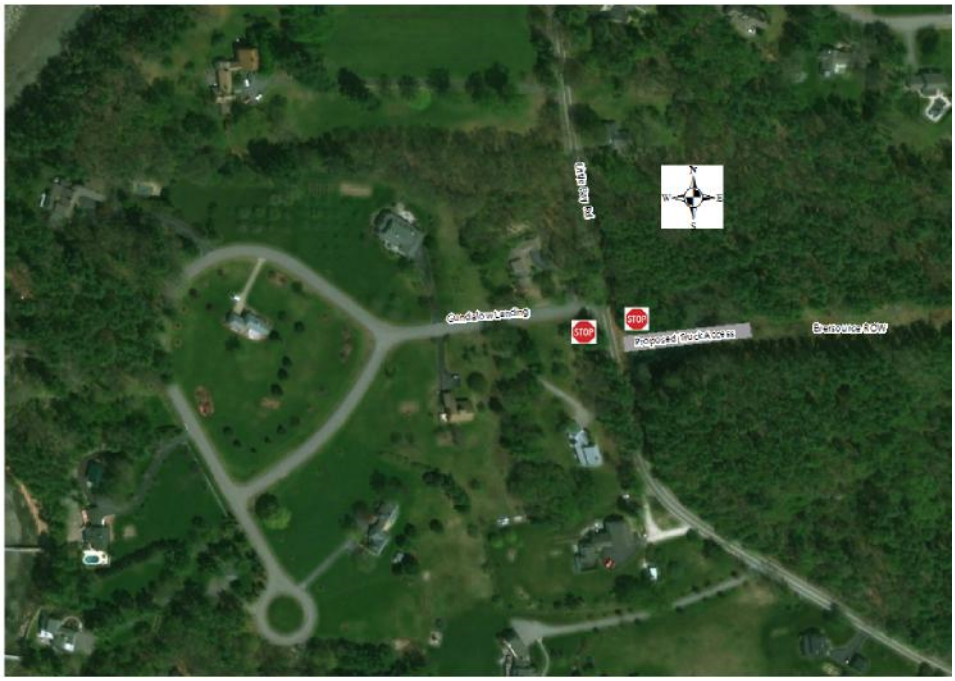


Figure 1: Little Bay Road & Gundalow Landing Site Location

Figure 2: Route 125 & Laydown Area Site Location

1.2 Little Bay Road & Gundalow Landing Existing Conditions

Little Bay Road is a two-lane local road of approximately 1.8 miles between Nimble Hill Road and Fox Point Road in the Town of Newington, New Hampshire. It serves residential neighborhoods and the posted speed limit is 30 mph. Lane width is 11 feet on each direction with no shoulders.

Gundalow Landing is a residential road of approximately 430 feet, then making a loop of approximately 1,460 feet. Gundalow Landing serves 12 residences. The road is 24 feet wide and not delineated.

Access from Gundalow Landing to US 4 can be achieved from either the north or south approach of the intersection with Little Bay Road. Access through the north approach is approximately 2.5 miles while the south approach is approximately 2.25 miles.

A six-hour traffic count was performed on Wednesday, May 2nd, 2018. The counts covered three hours in the morning between 6:00 AM and 9:00 AM, and three hours in the afternoon between 3:00 PM and 6:00 PM. Counting during these windows of time is a standard practice to capture the AM and PM peak hours of traffic, also known as rush hour. **Appendix A** shows the traffic count data obtained in the field. **Appendix B** shows the volumes, truck composition and bus composition used for the analysis of the existing conditions.

A total of 58 vehicles passed through the intersection throughout the three-hour AM period while the volume doubled in the PM with a total of 119 vehicles. A total of 8 bicyclists were observed during the three-hour PM period. Neither pedestrians nor trucks were observed throughout the six-hour traffic count period. Four school buses were observed; 2 in the morning and 2 in the afternoon. The AM peak hour occurred between 6:30 AM and 7:30 AM with a total of 25 vehicles passing through the intersection. The PM peak hour was observed to occur between 5:00 PM and 6:00 PM with a total of 48 vehicles passing through the intersection.

1.3 Route 125 & Laydown Area Existing Conditions

Route 125 is a major north-south route with heavy commuter traffic between Rochester, New Hampshire, Route 101, and Massachusetts. It carries large trucks and tourist traffic which is known to increase during the summer months. The posted speed limit is 50 mph. There is one (1) 12-foot lane in each direction with 9 foot shoulders.

The city of Rochester, New Hampshire is approximately 9 miles north of the site. Route 101, which is an east-west freeway between I-95 and Manchester, New Hampshire is approximately 10.5 miles to the south. The city of Portsmouth, New Hampshire and I-95 are located approximately 17.5 miles east via US 4. The distance between the Route 125 Laydown Area & Gundalow Landing is approximate 14 miles via US 4.

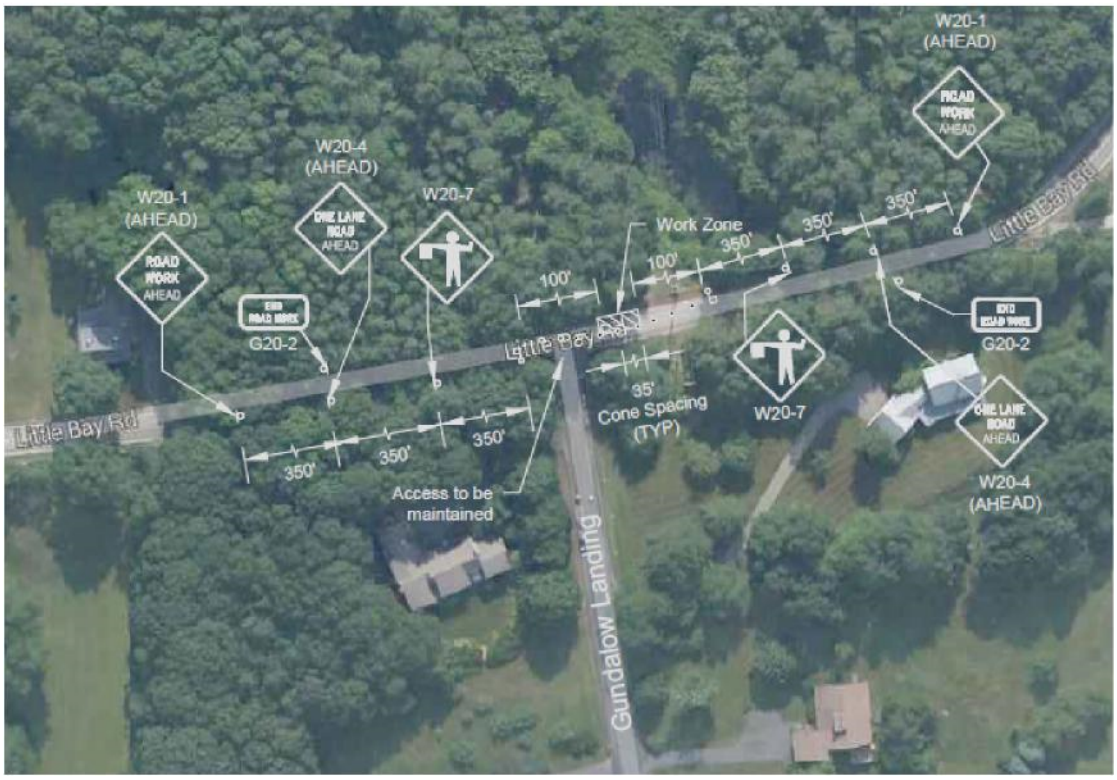
A six-hour traffic count was performed on Tuesday, May 8th, 2018. The counts covered three hours in the morning between 6:00 AM and 9:00 AM, and three hours in the afternoon between 3:00 PM and 6:00 PM. **Appendix C** shows the traffic count data obtained in the field. **Appendix D** shows the volume, truck composition and bus composition used for the analysis of the existing conditions.

A total of 3,322 vehicles passed through the intersection thorughout the three-hour AM period while the number increased to 4,132 vehicles in the three-hour PM period. Neither bicyclists nor pedestrians were observed throughout the six-hour traffic count period. The AM peak hour occurred between 7:15 AM and 8:15 AM with a total of 1,313 vehicles; 764 vehicles traveled from the north, while 549 traveled from the south. The truck composition for the AM peak hour was 9.8% for the northbound and 5.2% for the southbound direction. The bus composition for the AM peak hour was 1.3% for the northbound and 0.7% for the southbound direction.

The PM peak hour was observed to occur between 4:15 PM and 5:15 PM with a total of 1,540 vehicles; 892 vehicles traveled from the south, 646 vehicles traveled from the north, and 2 vehicles came out of the laydown area. The truck composition for the PM peak hour was 2.2% for the northbound 3.9% for the southbound direction. The bus composition for the PM peak hour was 0.2% for the northbound and 0% for the southbound direction.

1.4 Construction Conditions for Little Bay Road & Gundalow Landing

Proposed traffic control to accommodate construction of the buried lines crossing Little Bay Road and the overhead lines in the existing ROW is shown in **Figure 3**. During a brief period Little Bay Road will be reduced to a single lane serving alternating traffic with a flagger in place during daylight hours only for no more than a week to allow for construction. There will also be truck traffic accessing the Eversource right of way at this location for overhead construction for a longer period of time. The traffic analysis has been performed for the existing conditions and with the proposed construction traffic control, for comparison.



Louis Berger

Figure 3: Gundalow Landing Traffic Control Plan

The construction will add trucks along Little Bay Road to ingress and egress the ROW. During the AM peak it is anticipated that 10 trucks will be entering and 2 trucks will be egressing the ROW. Of the 10 trucks entering, 9 trucks will be coming from the south, while 1 truck will be coming from the north. Of the 2 trucks egressing, 1 truck will proceed in each direction on Little Bay Road. During the PM peak, it is anticipated that 10 trucks will be egressing the ROW and 2 trucks will be entering. Of the 10 trucks egressing, 9 trucks will make a left turn towards southbound Little Bay Road, and 1 truck will make a right turn towards northbound Little Bay Road. Of the 2 trucks entering the ROW, 1 truck will come from both the north and one from the south. **Appendix E** shows volumes, truck composition, and bus composition used for the analysis of the construction conditions. These volumes were created by adding estimated construction vehicle counts to the existing condition.

1.5 Construction Conditions for Route 125 & the Laydown Area

There is no proposed construction along Route 125. The Lee laydown area will only be used to store the construction equipment. The traffic analysis has been performed for the existing conditions and the conditions that will be generated as construction begins which will increase the amount of heavy vehicles entering and egressing the laydown/staging area.

During the AM peak, it is anticipated that a total of 20 vehicles will be added to the existing number of vehicles entering the laydown area from Route 125. Those 20 vehicles will be personal vehicles of the workers. It is assumed that 10 vehicles will be coming from both the northbound and southbound direction of Route 125. During the same AM peak, a total of 10 trucks will be added to the existing total of trucks egressing the laydown area, each truck being occupied by 2 workers. All of the trucks will make a left turn to proceed south on Route 125.

During the PM peak, a total of 10 trucks will be added to the existing total of trucks entering the laydown area. All of the trucks will be coming from the south on Route 125. Also, there will be an additional 20 vehicles egressing the laydown area, 10 vehicles will be departing in both the northbound and southbound direction of Route 125. **Appendix F** shows volumes, truck composition, and bus composition used for the analysis of the construction conditions. These volumes were created by adding estimated construction vehicle counts to the existing condition. No traffic control measures are necessary at this location as they would only disrupt the daily traffic along Route 125. For example by adding a flagger to assist trucks exiting the Lee Laydown area Route 125 traffic would need to be slowed or stopped. Without a flagger the construction vehicles will be required to wait for an adequate gap in traffic.

2.0 Traffic Operations Analysis

Planung Transport Verkehr (PTV) Vissim 10 software was used to perform the traffic analysis of the existing conditions and construction conditions for both study locations. During construction, the traffic control will require a flagger to control the alternating traffic using the one lane provided on Little Bay Road. The flagger was simulated as an actuated signalized intersection allowing green phases to respond to approaching vehicles much as a flagger would.

Vissim provides delay per vehicle as well as queue length results. Based on the resulting delay, and following the methods outlined in the Highway Capacity Manual (HCM), the results are reported as Level of Service (LOS). The LOS ranges from A through F, with A being the best and F being the worst. A Highway Capacity Software (HCS) analysis was also performed to compare the results obtained in Vissim.

The HCM lists the following definitions for each grade:

- A= Free flow
- B= Reasonably free flow
- C= Stable flow
- D= Approaching unstable flow
- E= Unstable flow
- F= Forced flow, volume is greater than capacity

The level of service assignments for two-way stop-controlled intersections as compared to delay values are shown in **Table 1**.

Table 1: LOS Criteria for Two-Way Stop-Controlled (TWSC) Intersections

Level of Service	Delay per Vehicle (sec) TWSC
A	0 to 10
B	>10 to 15
C	>15 to 25
D	>25 to 35
E	>35 to 50
F	>50

The level of service assignments for signalized intersections, which was used to simulate the flagging operations during construction, are shown in **Table 2**.

Table 2: LOS Criteria for Signalized Intersections

Level of Service	Delay per Vehicle (sec) Signalized
A	0 to 10
B	>10 to 20
C	>20 to 35
D	>35 to 55
E	>55 to 80
F	>80

2.1 Little Bay Road & Gundalow Landing Intersection Capacity Analysis

The traffic analysis results for the intersection of Little Bay Road & Gundalow Landing study area are described in this section. The analyses were performed for the AM and PM peak hours for both the existing conditions and construction conditions. An average of five Vissim microsimulation runs were performed to provide delay and maximum queue length. Results for the five simulated runs are provided in **Appendix G**.

2.1.1 Intersection Results During Existing Conditions

The results for the existing TWSC at Little Bay Road & Gundalow Landing intersection are presented in **Table 3**.

Table 3: Landing Results – Existing Conditions

Approach	AM Peak Hour				PM Peak Hour			
	Lane Group	Delay[1]	LOS	Queue Length[2]	Lane Group	Delay[1]	LOS	Queue Length[2]
SB Little Bay (Free)	TR	0.0	A (Free Flow)	0	TR	0.0	A (Free Flow)	0
NB Little Bay (Free)	LT	0.0	A (Free Flow)	0	LT	0.0	A (Free Flow)	0
EB Gundalow (Stop Control)	LR	2.3	A (Free Flow)	15	LR	2.7	A (Free Flow)	25

1 Delay is reported in seconds per vehicle.
2 Queue length is measured in feet.

The existing conditions at the Little Bay & Gundalow Landing intersection are acceptable with minimal or no delay and queues.

2.1.2 Intersection Results During Construction

The results during construction are shown in **Table 4**.

Table 4: Gundalow Landing Results – During Construction

Approach	AM Peak Hour				PM Peak Hour			
	Lane Group	Delay[1]	LOS	Queue Length[2]	Lane Group	Delay[1]	LOS	Queue Length[2]
SB Little Bay	LTR	4.0	A (Free Flow)	45	LTR	5.3	A (Free Flow)	50
NB Little Bay	LTR	1.8	A (Free Flow)	60	LTR	4.2	A (Free Flow)	55
EB Gundalow	LR	5.7	A (Free Flow)	15	LR	7.2	A (Free Flow)	35
WB Overhead ROW	LR	4.1	A (Free Flow)	50	LR	8.2	A (Free Flow)	65

1 Delay is reported in seconds per vehicle.
2 Queue length is measured in feet.

Pursuant to the Highway Capacity Manual (HCM), the intersection operations during construction are acceptable and continue to be characterized as "free flow". The maximum simulated delay is for trucks coming out of the ROW during the PM peak hour with 8.2 seconds

and a maximum queue of 65 feet. This queue will be fully confined to the access road. Therefore, the expected traffic impacts from project construction at Little Bay road and other similar roads is minimal or non-existent.

2.2 Route 125 & Laydown Area Intersection Capacity Analysis

The traffic analysis results for Route 125 & the Laydown Area are described in this section. The analyses were performed for the AM and PM peak hours for both the existing conditions and during construction which will increase the amount of heavy vehicles transporting materials to/from the laydown/staging area. An average of five Vissim microsimulation runs were performed to provide delay and maximum queue length. Results for the five simulated runs in Vissim are located in **Appendix H**.

2.2.1 Intersection Results During Existing Conditions

The results for the existing TWSC at Route 125 & Laydown Area intersection are shown in **Table 5**.

Table 5: Route 125 & Laydown Results – Existing Conditions

Approach	AM Peak Hour				PM Peak Hour			
	Lane Group	Delay[1]	LOS	Queue Length[2]	Lane Group	Delay[1]	LOS	Queue Length[2]
SB Route 125 (Free)	LT	0.0	A (Free Flow)	0	LT	0.0	A (Free Flow)	0
NB Route 125 (Free)	TR	0.0	A (Free Flow)	0	TR	0.0	A (Free Flow)	0
EB Laydown Area (Stop Control)	LR	45	B (Reasonably Free Flow)	13.4	LR	22.2	C (Stable Flow)	35

1 Delay is reported in seconds per vehicle.
2 Queue length is measured in feet.

The existing intersection operations are acceptable with minimal delays and queue lengths.

2.2.1 Intersection Results During Construction

The intersection results during construction are shown in **Table 6**.

Table 6: Route 125 & Laydown Results – During Construction

Approach	AM Peak Hour				PM Peak Hour			
	Lane Group	Delay[1]	LOS	Queue Length[2]	Lane Group	Delay[1]	LOS	Queue Length[2]
SB Route 125 (Free)	LT	0.0	A (Free Flow)	10	LT	0.0	A (Free Flow)	0
NB Route 125 (Free)	TR	0.0	A (Free Flow)	0	TR	0.0	A (Free Flow)	0
EB Laydown Area (Stop Control)	LR	11.3	B (Reasonably Free Flow)	75	LR	17.4	C (Stable Flow)	65

1 Delay is reported in seconds per vehicle.
2 Queue length is measured in feet.

The intersection operations during construction are acceptable with minimal delays and queue lengths. The maximum simulated delay is 17.4 seconds for the vehicles (cars/trucks) coming out of the Laydown Area during the PM peak hour. Maximum simulated queue length is for the same approach during the AM peak hour for the construction condition with 75 feet. These queues and delays will be confined to the Lee Laydown Area driveway. Therefore, the expected traffic impacts from Project construction along Route 125 and other similar roads is minimal.

3.0 Recommendations

Louis Berger has completed a traffic impact analysis for both the existing conditions and the conditions during construction for both the Little Bay Road & Gundalow Landing intersection and the Route 125 & Lee Laydown Area intersection. Based on this analysis, the traffic operations for both intersections will not be noticeably affected during construction.

APPENDIX A

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106 Lafayette Street, Suite 2F
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Little Bay Rd & Gundalow Landing
AM Traffic Counts
6:00 AM - 9:00 AM

Groups Printed- Cars - Trucks - School Buses

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
06:00 AM	0	3	0	3	0	1	1	2	0	0	0	0	5
06:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
06:30 AM	0	3	0	3	0	2	1	3	0	0	0	0	6
06:45 AM	0	3	0	3	0	3	1	4	0	0	0	0	7
Total	0	9	0	9	0	7	3	10	1	0	0	1	20
07:00 AM	1	2	0	3	0	0	1	1	0	0	0	0	4
07:15 AM	0	6	0	6	0	1	0	1	1	0	0	1	8
07:30 AM	0	4	0	4	0	0	2	2	0	0	0	0	6
07:45 AM	0	1	0	1	0	0	1	1	2	0	0	2	4
Total	1	13	0	14	0	1	4	5	3	0	0	3	22
08:00 AM	0	1	0	1	0	0	1	1	0	0	1	1	3
08:15 AM	1	2	0	3	0	1	0	1	0	0	0	0	4
08:30 AM	0	1	0	1	0	2	0	2	0	0	0	0	3
08:45 AM	0	2	0	2	0	0	1	1	3	0	0	3	6
Total	1	6	0	7	0	3	2	5	3	0	1	4	16

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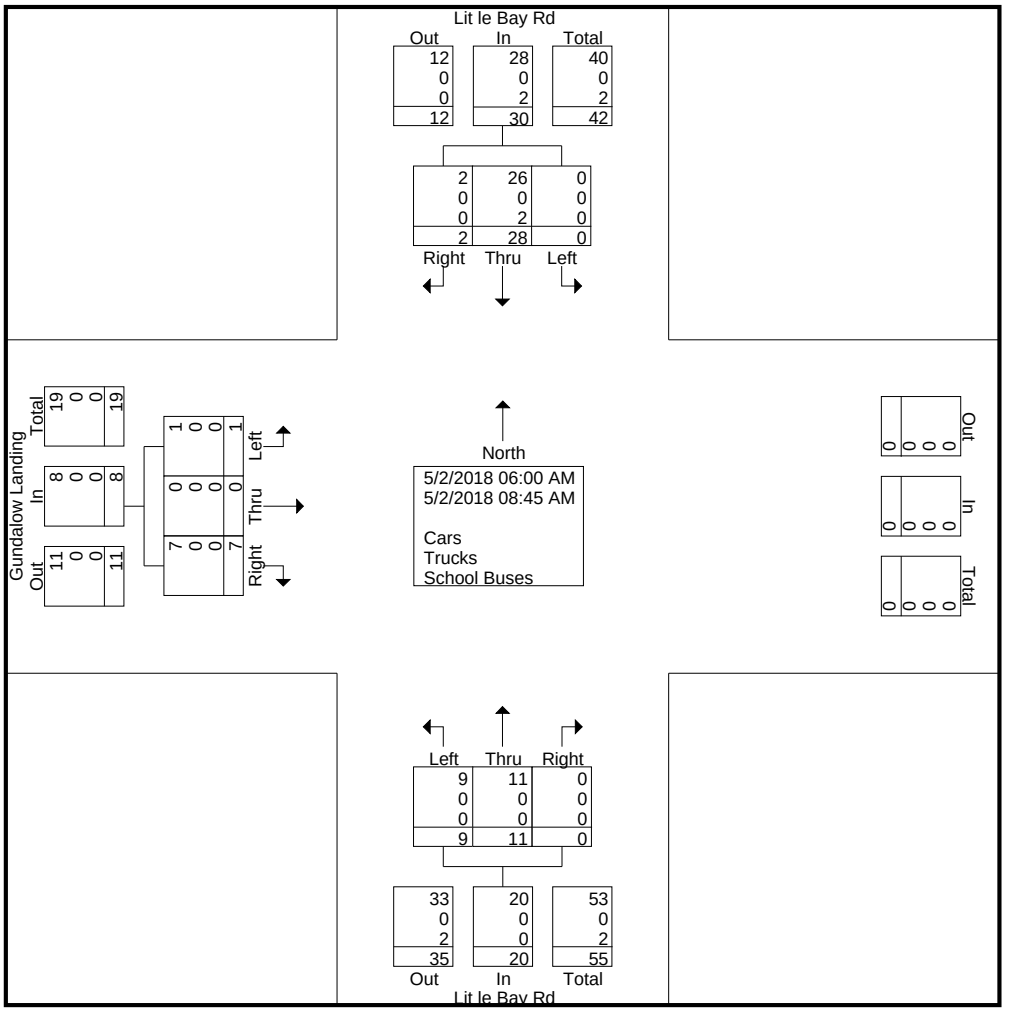
Little Bay Rd & Gundalow Landing
AM Traffic Counts
6:00 AM - 9:00 AM

Groups Printed- Cars - Trucks - School Buses

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	2	28	0	30	0	11	9	20	7	0	1	8	58
Apprch %	6.7	93.3	0		0	55	45		87.5	0	12.5		
Total %	3.4	48.3	0	51.7	0	19	15.5	34.5	12.1	0	1.7	13.8	
Cars	2	26	0	28	0	11	9	20	7	0	1	8	56
% Cars	100	92.9	0	93.3	0	100	100	100	100	0	100	100	96.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	2	0	2	0	0	0	0	0	0	0	0	2
% School Buses	0	7.1	0	6.7	0	0	0	0	0	0	0	0	3.4



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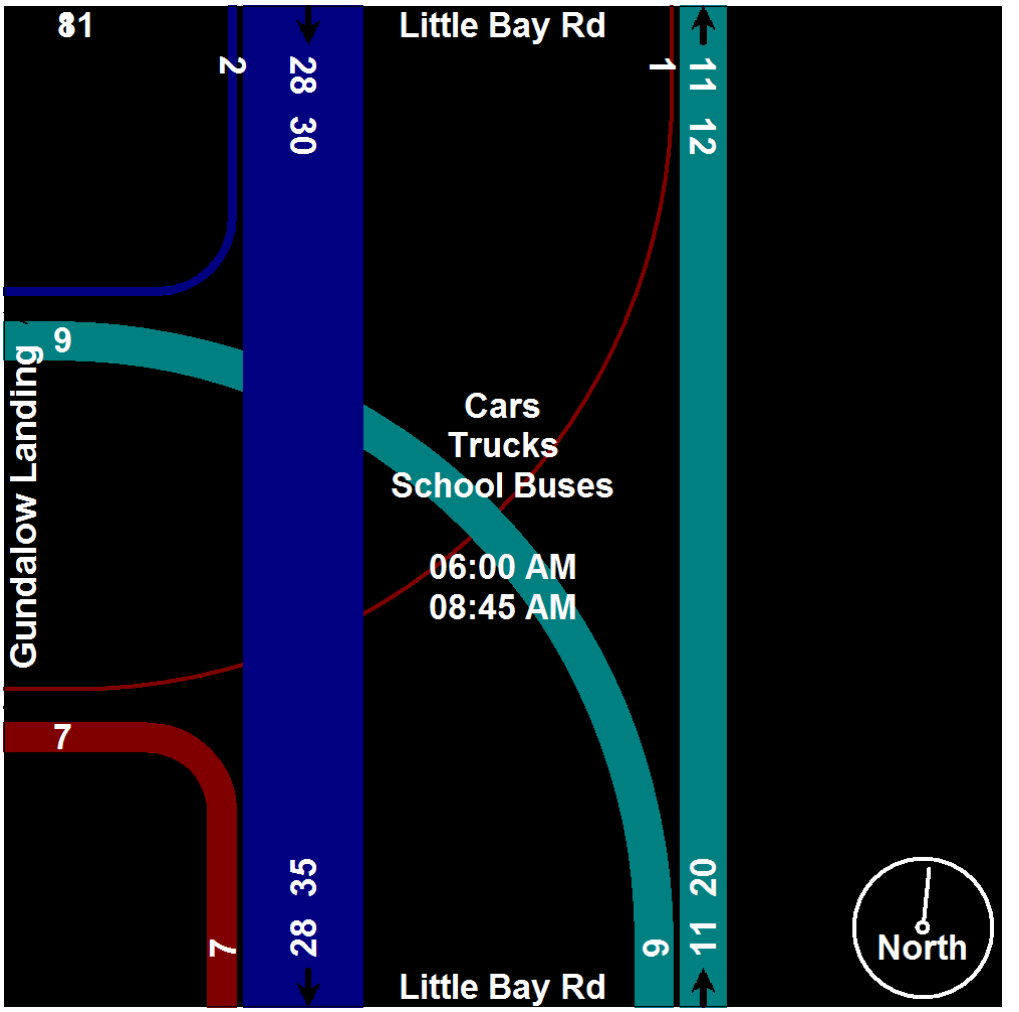
Little Bay Rd & Gundalow Landing
AM Traffic Counts
6:00 AM - 9:00 AM



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Little Bay Rd & Gundalow Landing
AM Traffic Counts
6:00 AM - 9:00 AM

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:30 AM													
06:30 AM	0	3	0	3	0	2	**1**	3	0	0	0	0	6
06:45 AM	0	3	0	3	0	**3**	1	**4**	0	0	0	0	7
07:00 AM	**1**	2	0	3	0	0	1	1	0	0	0	0	4
07:15 AM	0	**6**	0	**6**	0	1	0	1	**1**	0	0	**1**	**8**
Total Volume	1	14	0	15	0	6	3	9	1	0	0	1	25
% App. Total	6.7	93.3	0		0	66.7	33.3		100	0	0		
PHF	.250	.583	.000	.625	.000	.500	.750	.563	.250	.000	.000	.250	.781
Cars	1	13	0	14	0	6	3	9	1	0	0	1	24
% Cars	100	92.9	0	93.3	0	100	100	100	100	0	0	100	96.0
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	1	0	1	0	0	0	0	0	0	0	0	1
% School Buses	0	7.1	0	6.7	0	0	0	0	0	0	0	0	4.0

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Little Bay Rd & Gundalow Landing
AM Traffic Counts
6:00 AM - 9:00 AM

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	06:45 AM				06:00 AM				07:15 AM				
+0 mins.	0	3	0	3	0	1	**1**	2	1	0	0	1	
+15 mins.	**1**	2	0	3	0	1	0	1	0	0	0	0	
+30 mins.	0	**6**	0	**6**	0	2	1	3	**2**	0	0	**2**	
+45 mins.	0	4	0	4	0	**3**	1	**4**	0	0	**1**	1	
Total Volume	1	15	0	16	0	7	3	10	3	0	1	4	
% App. Total	6.2	93.8	0		0	70	30		75	0	25		
PHF	.250	.625	.000	.667	.000	.583	.750	.625	.375	.000	.250	.500	
Cars	1	13	0	14	0	7	3	10	3	0	1	4	
% Cars	100	86.7	0	87.5	0	100	100	100	100	0	100	100	
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
School Buses	0	2	0	2	0	0	0	0	0	0	0	0	
% School Buses	0	13.3	0	12.5	0	0	0	0	0	0	0	0	

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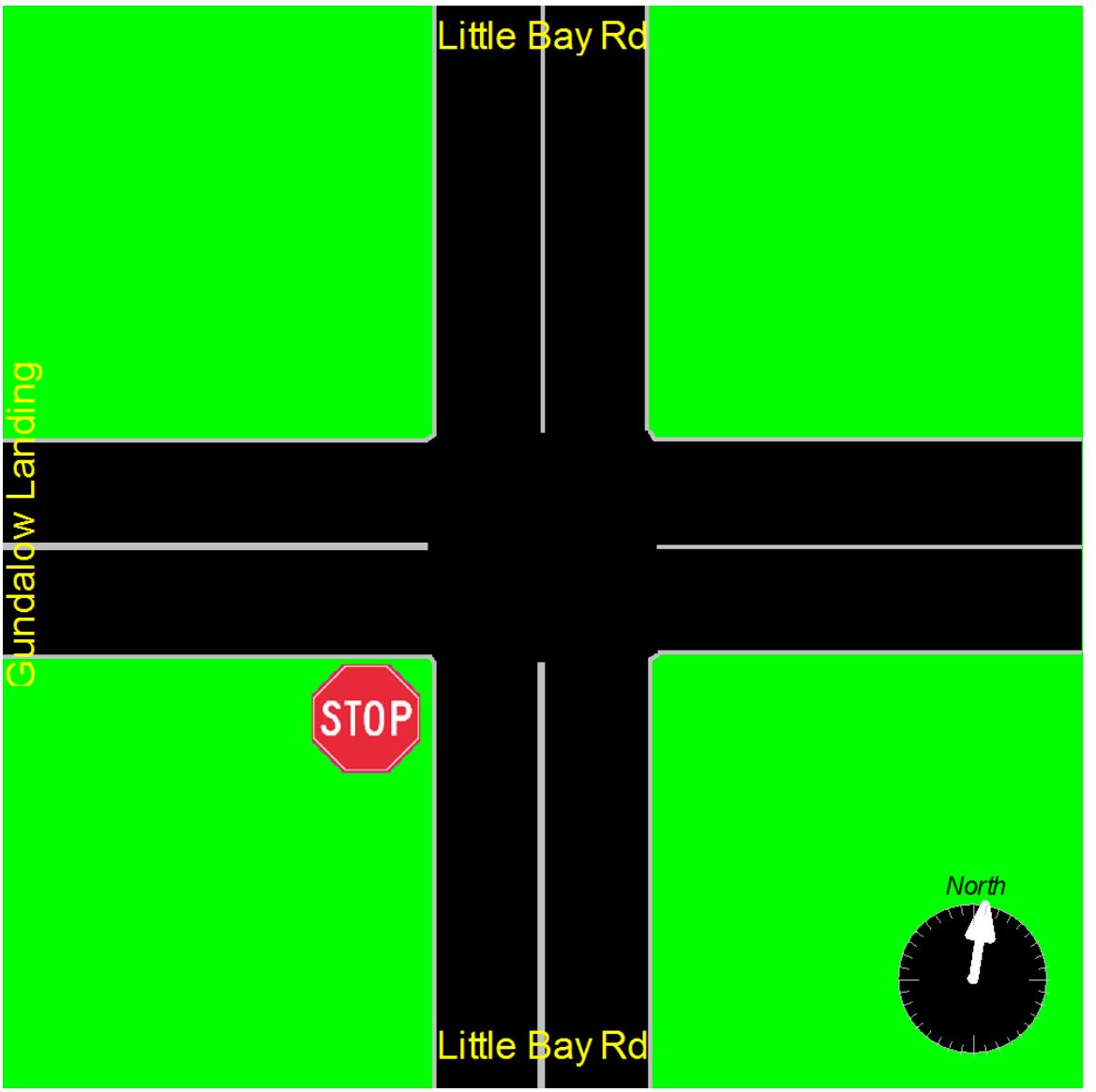
Little Bay Rd & Gundalow Landing
AM Traffic Counts
6:00 AM - 9:00 AM



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Little Bay Rd & Gundalow Landing
PM Traffic Counts
3:00 PM - 6:00 PM

Groups Printed- Cars - Trucks - School Buses

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
03:00 PM	0	1	0	1	0	1	0	1	2	0	0	2	4
03:15 PM	1	1	0	2	0	3	2	5	1	0	0	1	8
03:30 PM	0	2	0	2	0	1	1	2	0	0	0	0	4
03:45 PM	1	5	0	6	0	3	0	3	1	0	0	1	10
Total	2	9	0	11	0	8	3	11	4	0	0	4	26
04:00 PM	0	3	0	3	0	5	1	6	2	0	0	2	11
04:15 PM	0	6	0	6	0	6	0	6	0	0	1	1	13
04:30 PM	1	3	0	4	0	5	0	5	1	0	0	1	10
04:45 PM	0	3	0	3	0	7	0	7	1	0	0	1	11
Total	1	15	0	16	0	23	1	24	4	0	1	5	45
05:00 PM	0	4	0	4	0	5	0	5	0	0	0	0	9
05:15 PM	0	6	0	6	0	8	0	8	0	0	0	0	14
05:30 PM	0	2	0	2	0	4	3	7	1	0	1	2	11
05:45 PM	0	4	0	4	0	4	1	5	5	0	0	5	14
Total	0	16	0	16	0	21	4	25	6	0	1	7	48

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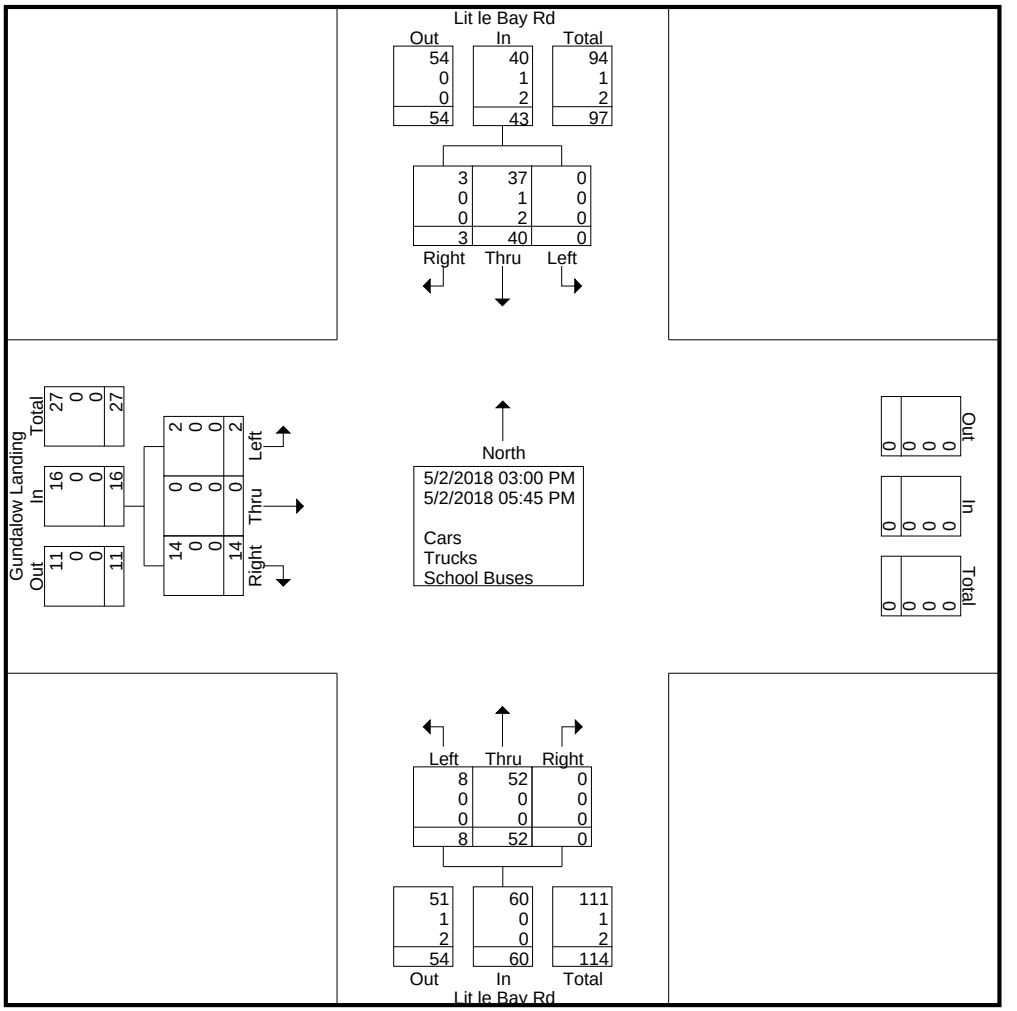
Little Bay Rd & Gundalow Landing
PM Traffic Counts
3:00 PM - 6:00 PM

Groups Printed- Cars - Trucks - School Buses

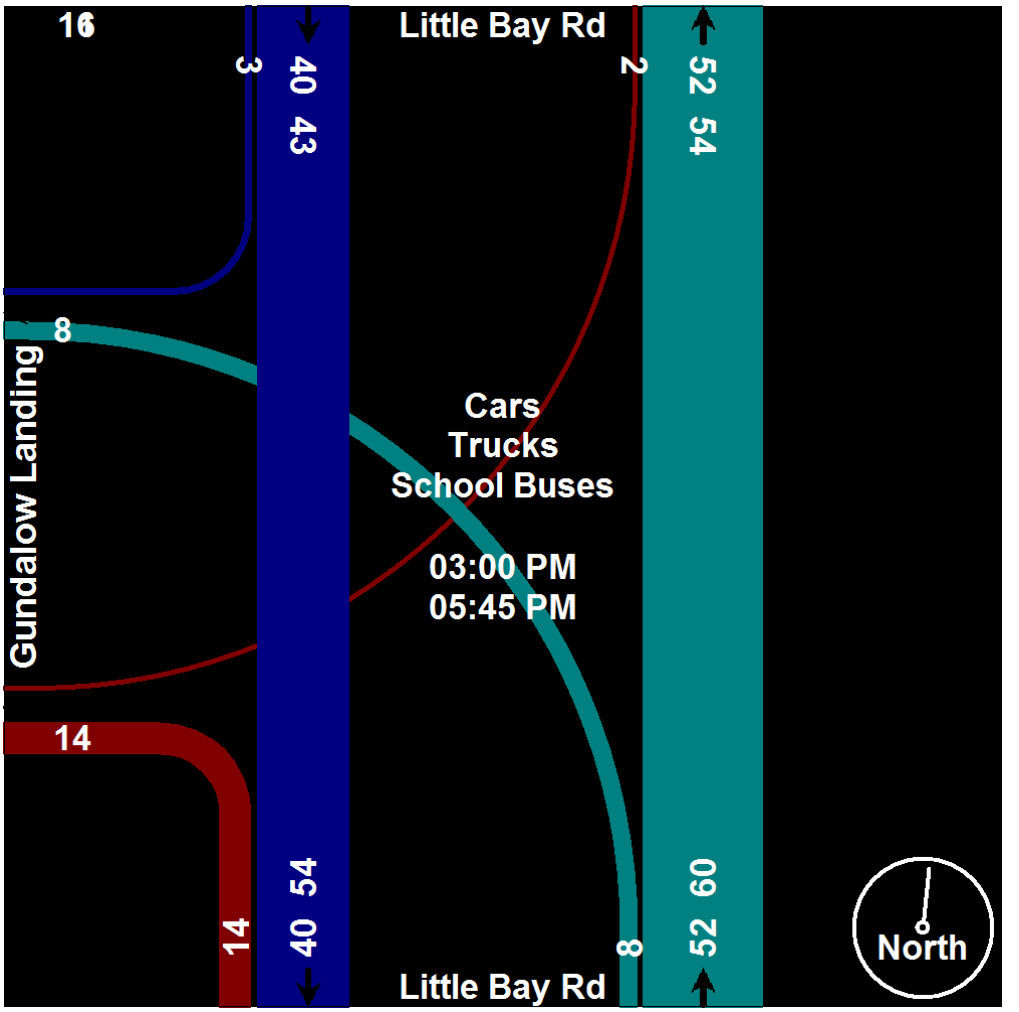
	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	3	40	0	43	0	52	8	60	14	0	2	16	119
Apprch %	7	93	0		0	86.7	13.3		87.5	0	12.5		
Total %	2.5	33.6	0	36.1	0	43.7	6.7	50.4	11.8	0	1.7	13.4	
Cars	3	37	0	40	0	52	8	60	14	0	2	16	116
% Cars	100	92.5	0	93	0	100	100	100	100	0	100	100	97.5
Trucks	0	1	0	1	0	0	0	0	0	0	0	0	1
% Trucks	0	2.5	0	2.3	0	0	0	0	0	0	0	0	0.8
School Buses	0	2	0	2	0	0	0	0	0	0	0	0	2
% School Buses	0	5	0	4.7	0	0	0	0	0	0	0	0	1.7



Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

Little Bay Rd & Gundalow Landing
PM Traffic Counts
3:00 PM - 6:00 PM

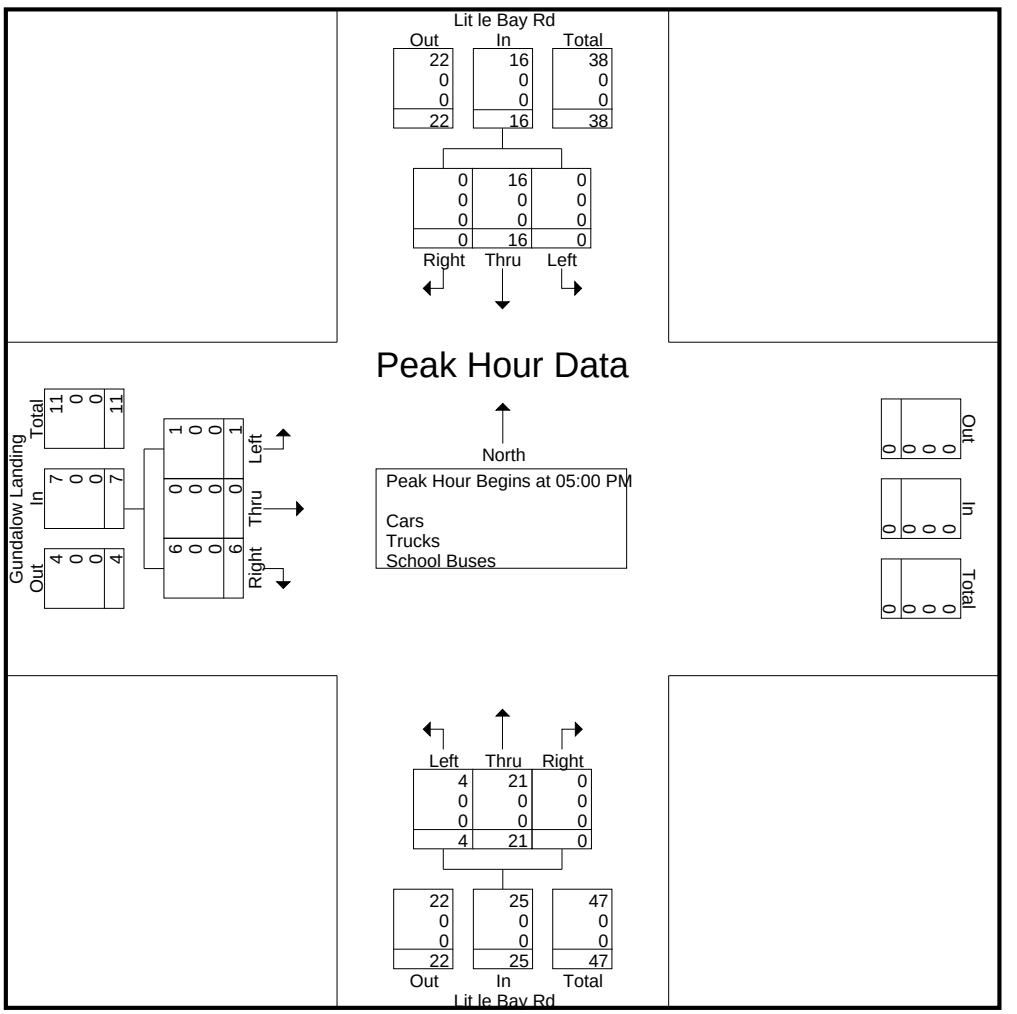


Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

Little Bay Rd & Gundalow Landing
PM Traffic Counts
3:00 PM - 6:00 PM

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	4	0	4	0	5	0	5	0	0	0	0	9
05:15 PM	0	**6**	0	**6**	0	**8**	0	**8**	0	0	0	0	**14**
05:30 PM	0	2	0	2	0	4	**3**	7	1	0	**1**	2	11
05:45 PM	0	4	0	4	0	4	1	5	**5**	0	0	**5**	14
Total Volume	0	16	0	16	0	21	4	25	6	0	1	7	48
% App. Total	0	100	0		0	84	16		85.7	0	14.3		
PHF	.000	.667	.000	.667	.000	.656	.333	.781	.300	.000	.250	.350	.857
Cars	0	16	0	16	0	21	4	25	6	0	1	7	48
% Cars	0	100	0	100	0	100	100	100	100	0	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

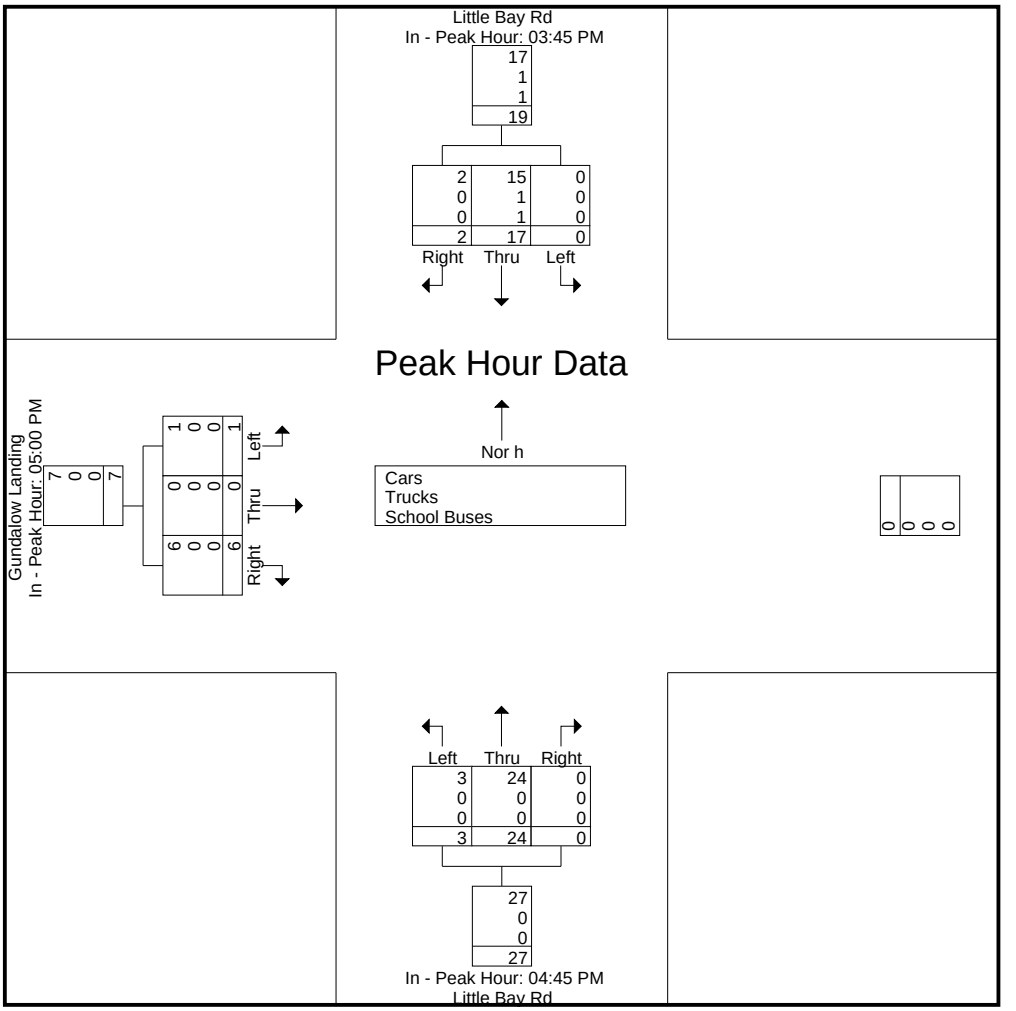


Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

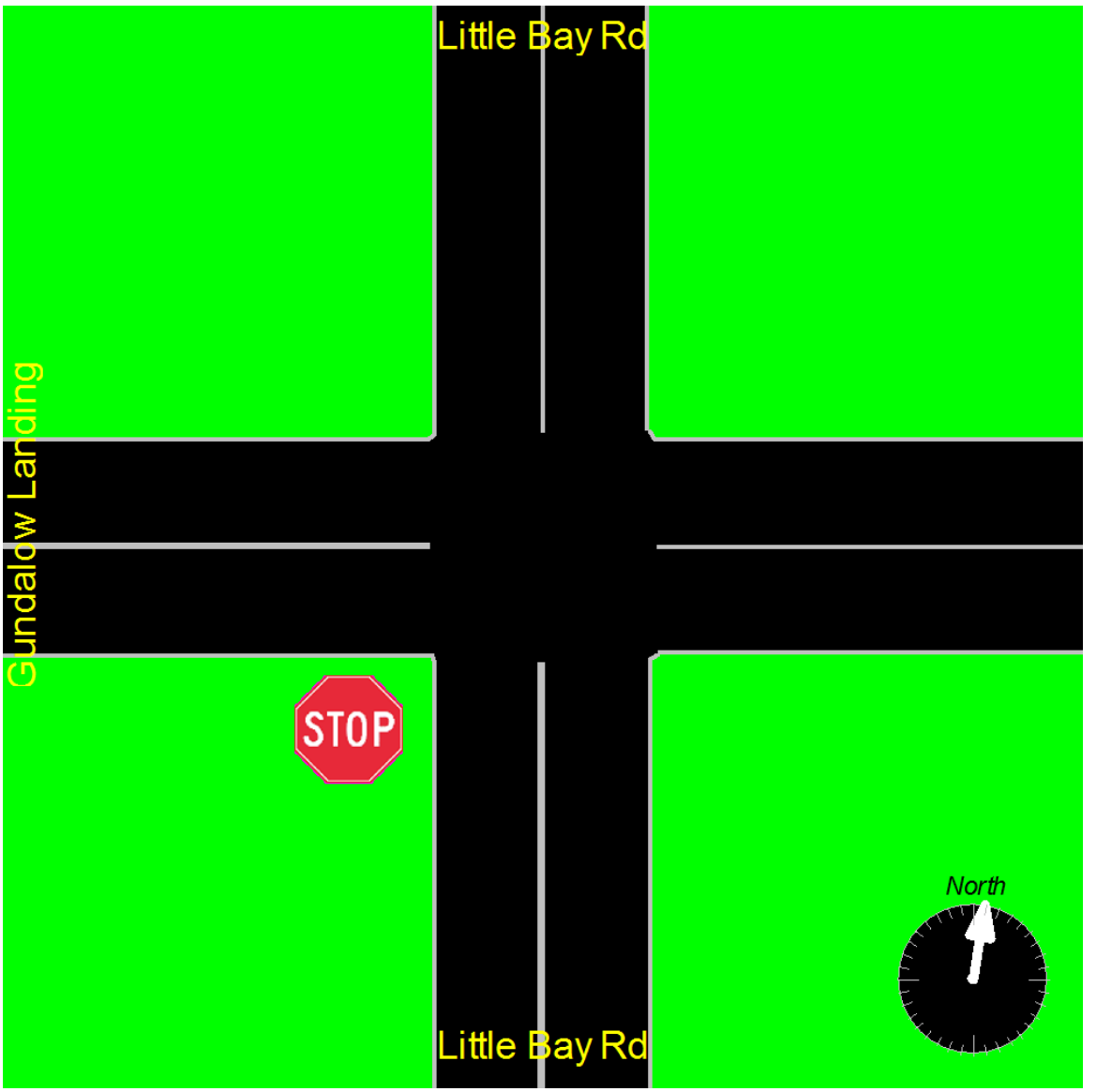
Little Bay Rd & Gundalow Landing
PM Traffic Counts
3:00 PM - 6:00 PM

	Little Bay Rd From North				Little Bay Rd From South				Gundalow Landing From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	03:45 PM				04:45 PM				05:00 PM				
+0 mins.	**1**	5	0	**6**	0	7	0	7	0	0	0	0	
+15 mins.	0	3	0	3	0	5	0	5	0	0	0	0	
+30 mins.	0	**6**	0	6	0	**8**	0	**8**	1	0	**1**	2	
+45 mins.	1	3	0	4	0	4	**3**	7	**5**	0	0	**5**	
Total Volume	2	17	0	19	0	24	3	27	6	0	1	7	
% App. Total	10.5	89.5	0		0	88.9	11.1		85.7	0	14.3		
PHF	.500	.708	.000	.792	.000	.750	.250	.844	.300	.000	.250	.350	
Cars	2	15	0	17	0	24	3	27	6	0	1	7	
% Cars	100	88.2	0	89.5	0	100	100	100	100	0	100	100	
Trucks	0	1	0	1	0	0	0	0	0	0	0	0	
% Trucks	0	5.9	0	5.3	0	0	0	0	0	0	0	0	
School Buses	0	1	0	1	0	0	0	0	0	0	0	0	
% School Buses	0	5.9	0	5.3	0	0	0	0	0	0	0	0	



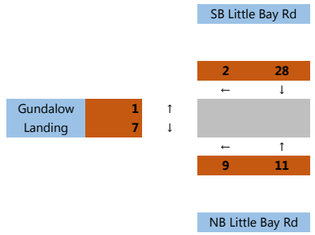
Louis Berger
106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

Little Bay Rd & Gundalow Landing
PM Traffic Counts
3:00 PM - 6:00 PM

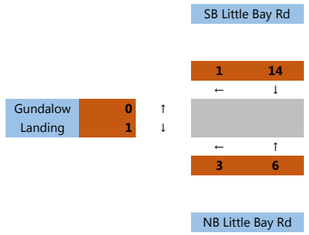


APPENDIX B

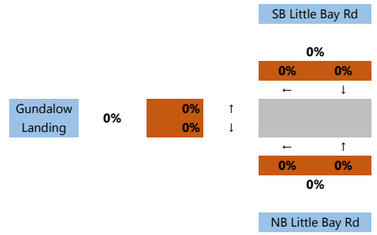
Gundalow Landing
6:00 AM - 9:00 AM



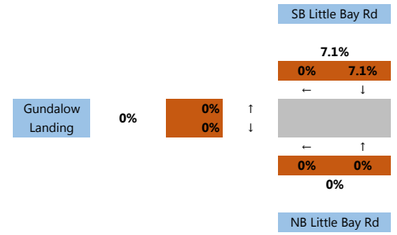
Gundalow Landing
AM Peak - 6:30 AM - 7:30 AM



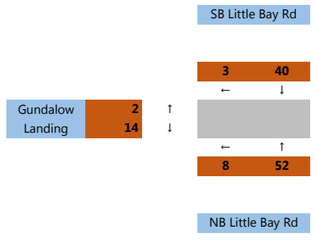
Gundalow Landing
AM Peak - Truck Composition



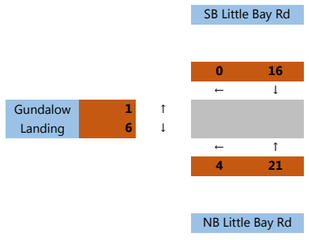
Gundalow Landing
AM Peak - Bus Composition (School Bus)



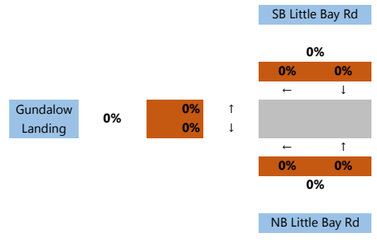
Gundalow Landing
3:00 PM - 6:00 PM



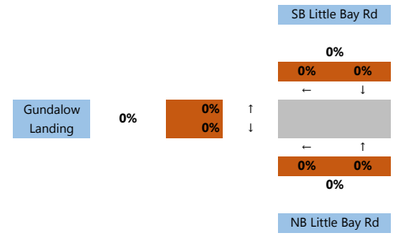
Gundalow Landing
PM Peak - 5:00 PM - 6:00 PM



Gundalow Landing
PM Peak - Truck Composition



Gundalow Landing
PM Peak Bus Composition (School Bus)



APPENDIX C

Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
AM Traffic Counts
6:00 AM - 9:00 AM

Groups Printed- Cars - Trucks - School Buses

	RTE 125 From North					From East					RTE 125 From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:00 AM	0	126	0	0	126	0	0	0	0	0	0	48	0	0	48	0	0	0	0	0	174
06:15 AM	0	168	0	0	168	0	0	0	0	0	0	58	0	0	58	0	0	0	0	0	226
06:30 AM	0	178	0	0	178	0	0	0	0	0	0	105	0	0	105	0	0	0	0	0	283
06:45 AM	0	190	0	0	190	0	0	0	0	0	1	104	0	0	105	0	0	0	0	0	295
Total	0	662	0	0	662	0	0	0	0	0	1	315	0	0	316	0	0	0	0	0	978
07:00 AM	0	156	0	0	156	0	0	2	0	2	1	120	0	0	121	0	0	0	0	0	279
07:15 AM	0	184	0	0	184	0	0	0	0	0	2	117	0	0	119	0	0	0	0	0	303
07:30 AM	0	229	0	0	229	0	0	0	0	0	0	141	0	0	141	0	0	0	0	0	370
07:45 AM	0	184	0	0	184	0	0	0	0	0	0	147	0	0	147	0	0	0	0	0	331
Total	0	753	0	0	753	0	0	2	0	2	3	525	0	0	528	0	0	0	0	0	1283
08:00 AM	0	167	0	0	167	0	0	0	0	0	1	141	0	0	142	0	0	0	0	0	309
08:15 AM	0	159	0	0	159	0	0	1	0	1	0	104	0	0	104	0	0	0	0	0	264
08:30 AM	0	129	0	0	129	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	229
08:45 AM	0	131	0	0	131	0	0	0	0	0	0	128	0	0	128	0	0	0	0	0	259
Total	0	586	0	0	586	0	0	1	0	1	1	473	0	0	474	0	0	0	0	0	1061

Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
AM Traffic Counts
6:00 AM - 9:00 AM

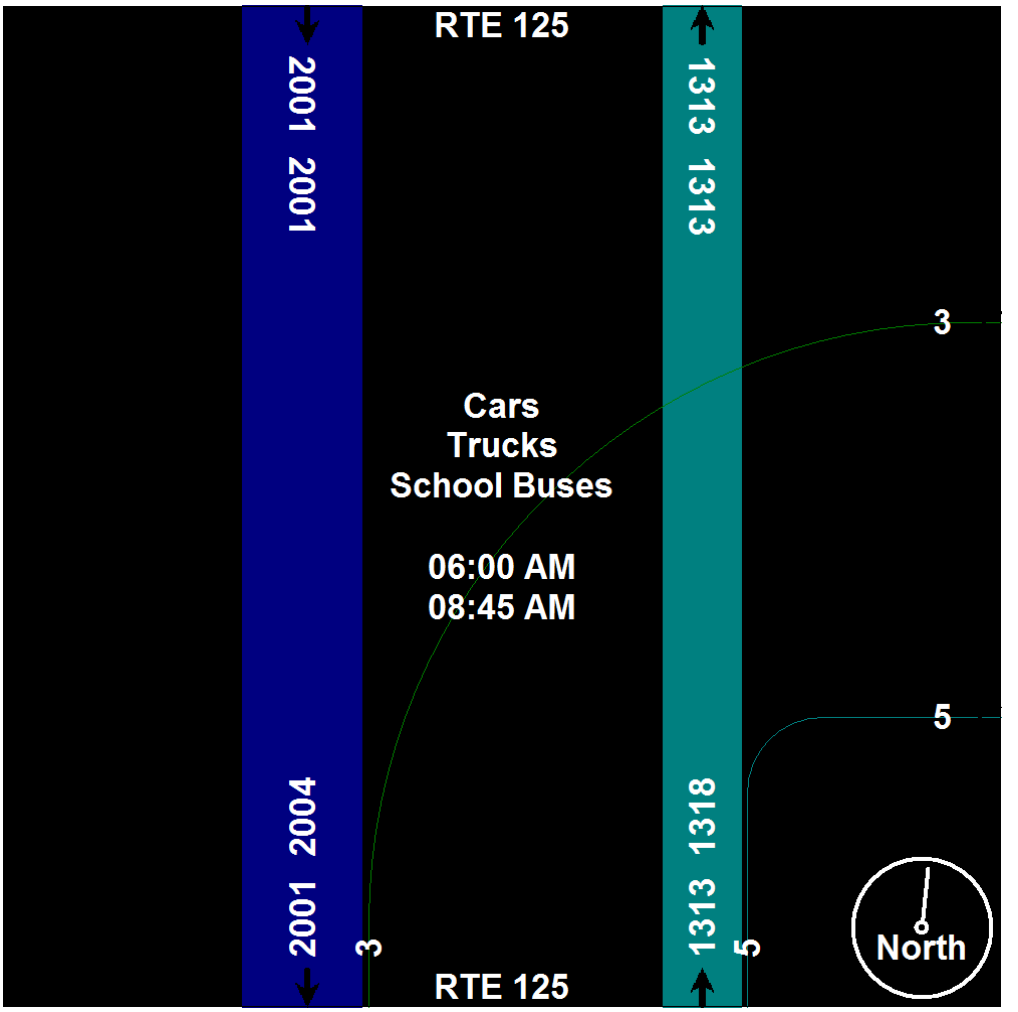
Groups Printed- Cars - Trucks - School Buses

	RTE 125 From North					From East					RTE 125 From South					From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Grand Total	0	2001	0	0	2001	0	0	3	0	3	5	1313	0	0	1318	0	0	0	0	0	3322
Apprch %	0	100	0	0		0	0	100	0		0.4	99.6	0	0		0	0	0	0		
Total %	0	60.2	0	0	60.2	0	0	0.1	0	0.1	0.2	39.5	0	0	39.7	0	0	0	0	0	
Cars	0	1892	0	0	1892	0	0	0	0	0	1	1190	0	0	1191	0	0	0	0	0	3083
% Cars	0	94.6	0	0	94.6	0	0	0	0	0	20	90.6	0	0	90.4	0	0	0	0	0	92.8
Trucks	0	96	0	0	96	0	0	3	0	3	4	106	0	0	110	0	0	0	0	0	209
% Trucks	0	4.8	0	0	4.8	0	0	100	0	100	80	8.1	0	0	8.3	0	0	0	0	0	6.3
School Buses	0	13	0	0	13	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	30
% School Buses	0	0.6	0	0	0.6	0	0	0	0	0	0	1.3	0	0	1.3	0	0	0	0	0	0.9

Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
AM Traffic Counts
6:00 AM - 9:00 AM

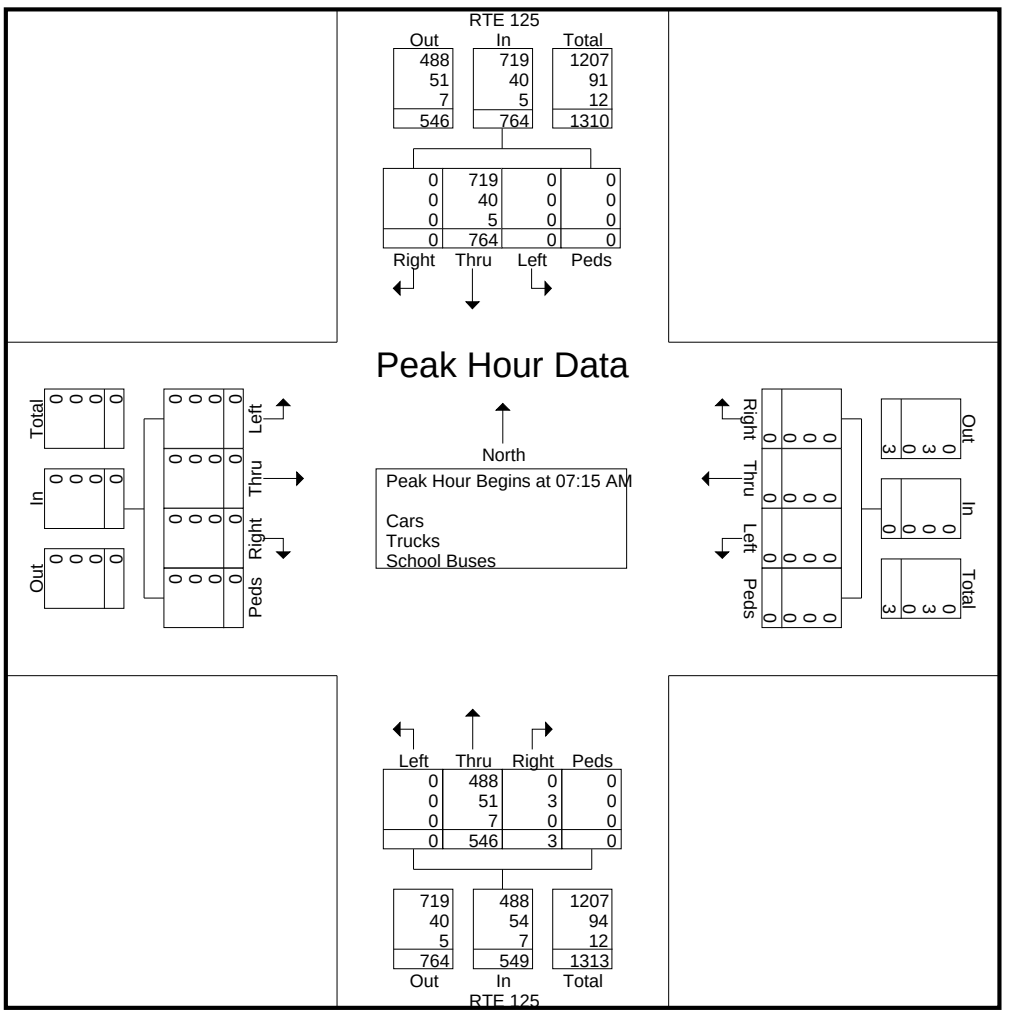


Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
AM Traffic Counts
6:00 AM - 9:00 AM

	RTE 125 From North					From East					RTE 125 From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	184	0	0	184	0	0	0	0	0	**2**	117	0	0	119	0	0	0	0	0	303
07:30 AM	0	**229**	0	0	**229**	0	0	0	0	0	0	141	0	0	141	0	0	0	0	0	**370**
07:45 AM	0	184	0	0	184	0	0	0	0	0	0	**147**	0	0	**147**	0	0	0	0	0	331
08:00 AM	0	167	0	0	167	0	0	0	0	0	1	141	0	0	142	0	0	0	0	0	309
Total Volume	0	764	0	0	764	0	0	0	0	0	3	546	0	0	549	0	0	0	0	0	1313
% App. Total	0	100	0	0		0	0	0	0		0.5	99.5	0	0		0	0	0	0		
PHF	.000	.834	.000	.000	.834	.000	.000	.000	.000	.000	.375	.929	.000	.000	.934	.000	.000	.000	.000	.000	.887
Cars	0	719	0	0	719	0	0	0	0	0	0	488	0	0	488	0	0	0	0	0	1207
% Cars	0	94.1	0	0	94.1	0	0	0	0	0	0	89.4	0	0	88.9	0	0	0	0	0	91.9
Trucks	0	40	0	0	40	0	0	0	0	0	3	51	0	0	54	0	0	0	0	0	94
% Trucks	0	5.2	0	0	5.2	0	0	0	0	0	100	9.3	0	0	9.8	0	0	0	0	0	7.2
School Buses	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	12
% School Buses	0	0.7	0	0	0.7	0	0	0	0	0	0	1.3	0	0	1.3	0	0	0	0	0	0.9

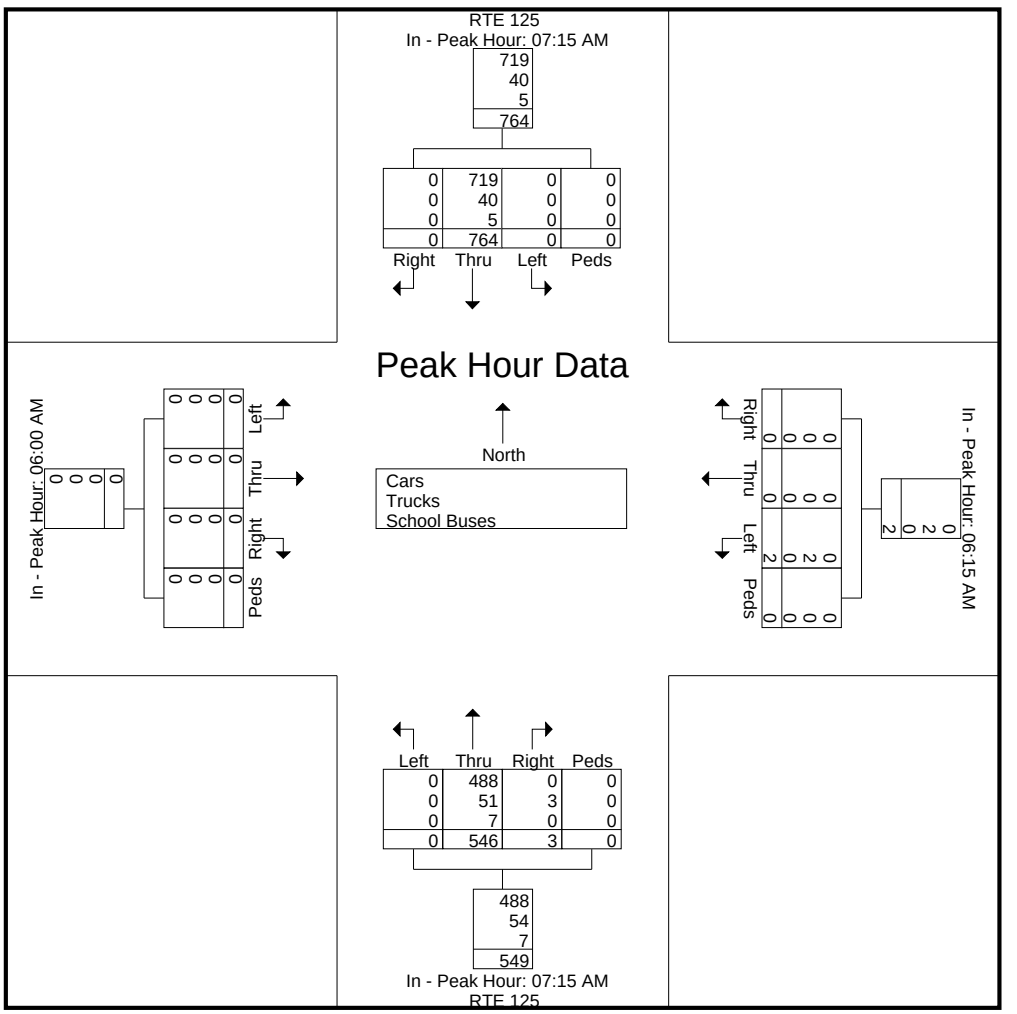


Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

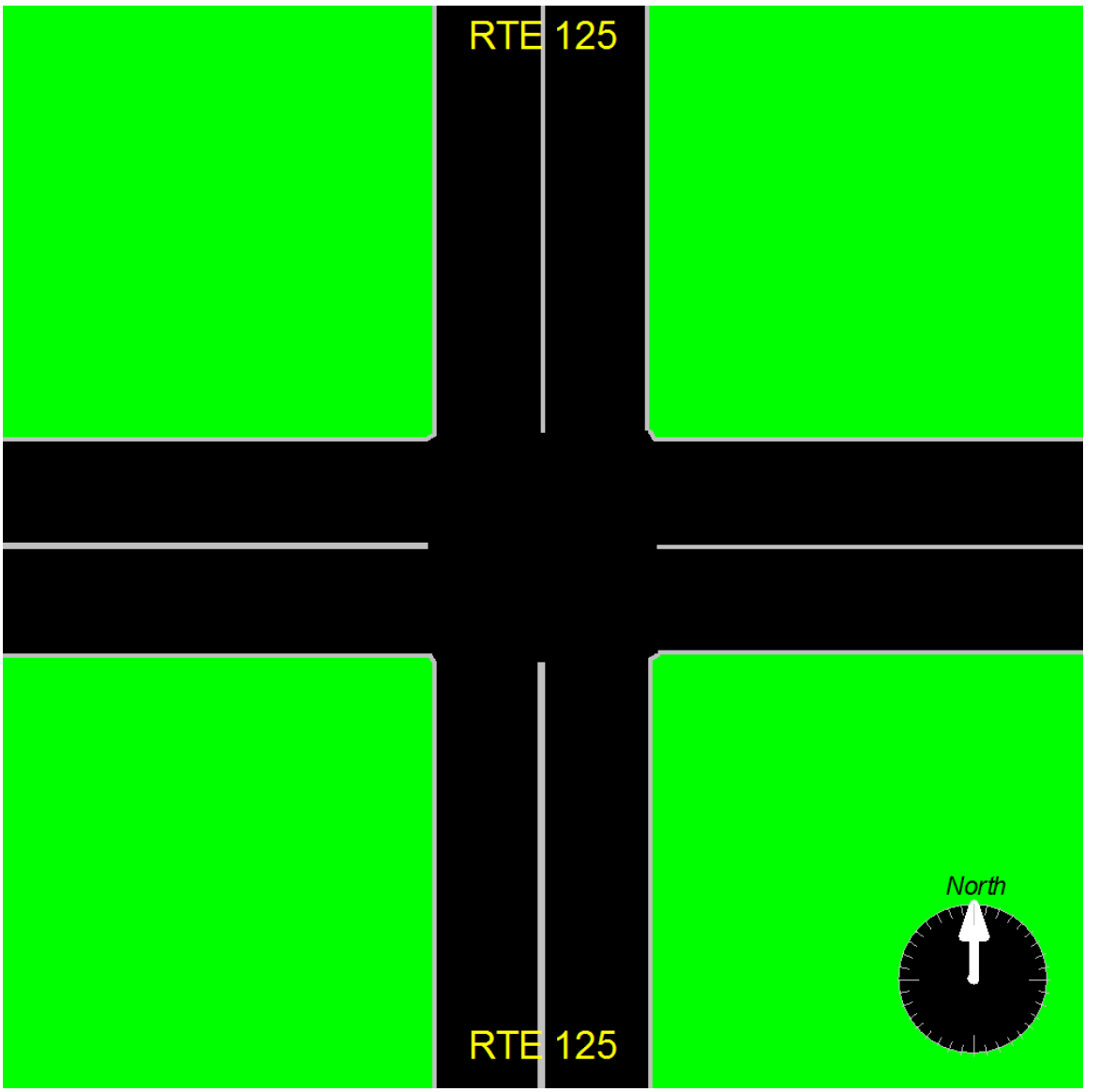
RTE 125 & Flynn Pit
AM Traffic Counts
6:00 AM - 9:00 AM

	RTE 125 From North					From East					RTE 125 From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15 AM					06:15 AM					07:15 AM					06:00 AM					
+0 mins.	0	184	0	0	184	0	0	0	0	0	**2**	117	0	0	119	0	0	0	0	0	
+15 mins.	0	**229**	0	0	**229**	0	0	0	0	0	0	141	0	0	141	0	0	0	0	0	
+30 mins.	0	184	0	0	184	0	0	0	0	0	0	**147**	0	0	**147**	0	0	0	0	0	
+45 mins.	0	167	0	0	167	0	0	**2**	0	**2**	1	141	0	0	142	0	0	0	0	0	
Total Volume	0	764	0	0	764	0	0	2	0	2	3	546	0	0	549	0	0	0	0	0	
% App. Total	0	100	0	0		0	0	100	0		0.5	99.5	0	0		0	0	0	0		
PHF	.000	.834	.000	.000	.834	.000	.000	.250	.000	.250	.375	.929	.000	.000	.934	.000	.000	.000	.000	.000	
Cars	0	719	0	0	719	0	0	0	0	0	0	488	0	0	488	0	0	0	0	0	
% Cars	0	94.1	0	0	94.1	0	0	0	0	0	0	89.4	0	0	88.9	0	0	0	0	0	
Trucks	0	40	0	0	40	0	0	2	0	2	3	51	0	0	54	0	0	0	0	0	
% Trucks	0	5.2	0	0	5.2	0	0	100	0	100	100	9.3	0	0	9.8	0	0	0	0	0	
School Buses	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	
% School Buses	0	0.7	0	0	0.7	0	0	0	0	0	0	1.3	0	0	1.3	0	0	0	0	0	



Louis Berger
106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
AM Traffic Counts
6:00 AM - 9:00 AM



Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
PM Traffic Counts
3:00 PM - 6:00 PM

Groups Printed- Cars - Trucks - School Buses

	RTE 125 From North					From East					RTE 125 From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	145	0	0	145	0	0	2	0	2	1	156	0	0	157	0	0	0	0	0	304
03:15 PM	0	151	0	0	151	0	0	1	0	1	0	164	0	0	164	0	0	0	0	0	316
03:30 PM	0	152	0	0	152	0	0	0	0	0	0	175	0	0	175	0	0	0	0	0	327
03:45 PM	0	148	0	0	148	0	0	0	0	0	0	199	0	0	199	0	0	0	0	0	347
Total	0	596	0	0	596	0	0	3	0	3	1	694	0	0	695	0	0	0	0	0	1294
04:00 PM	0	144	0	0	144	0	0	0	0	0	1	208	0	0	209	0	0	0	0	0	353
04:15 PM	0	166	0	0	166	0	0	0	0	0	0	201	0	0	201	0	0	0	0	0	367
04:30 PM	0	156	0	0	156	0	0	0	0	0	0	230	0	0	230	0	0	0	0	0	386
04:45 PM	0	145	0	0	145	0	0	1	0	1	1	225	0	0	226	0	0	0	0	0	372
Total	0	611	0	0	611	0	0	1	0	1	2	864	0	0	866	0	0	0	0	0	1478
05:00 PM	0	179	0	0	179	0	0	1	0	1	1	234	0	0	235	0	0	0	0	0	415
05:15 PM	0	102	0	0	102	0	0	1	0	1	0	222	0	0	222	0	0	0	0	0	325
05:30 PM	0	148	0	0	148	0	0	0	0	0	0	191	0	0	191	0	0	0	0	0	339
05:45 PM	0	84	0	0	84	0	0	0	0	0	0	197	0	0	197	0	0	0	0	0	281
Total	0	513	0	0	513	0	0	2	0	2	1	844	0	0	845	0	0	0	0	0	1360

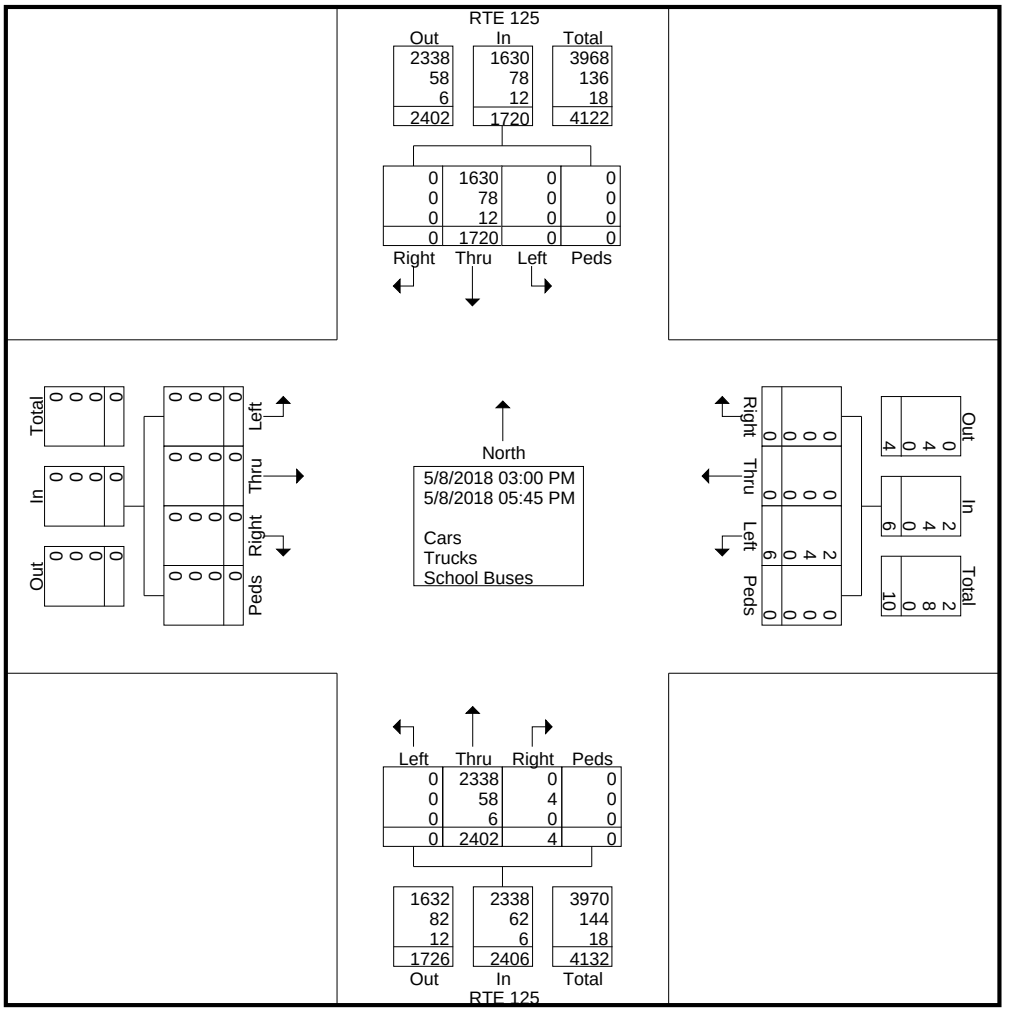
Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
PM Traffic Counts
3:00 PM - 6:00 PM

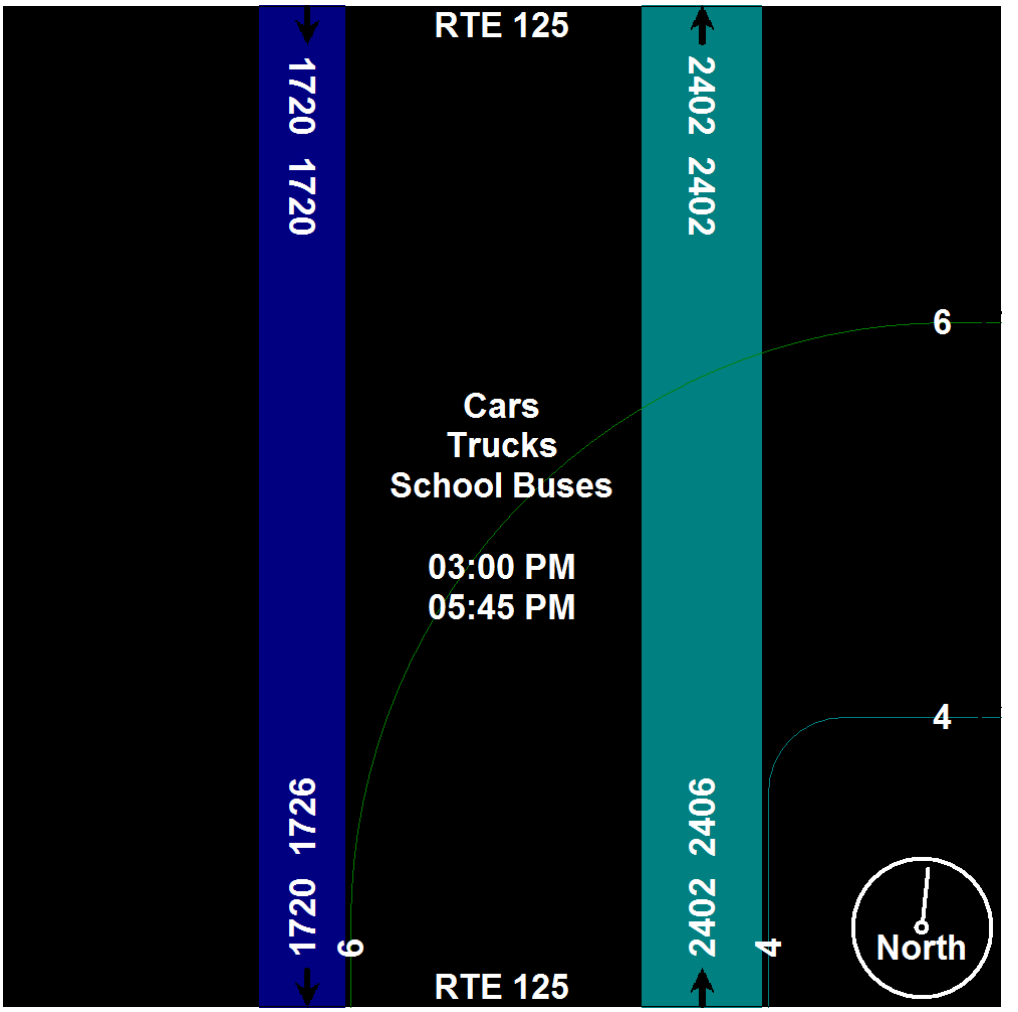
Groups Printed- Cars - Trucks - School Buses

	RTE 125 From North					From East					RTE 125 From South					From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Grand Total	0	1720	0	0	1720	0	0	6	0	6	4	2402	0	0	2406	0	0	0	0	0	4132
Apprch %	0	100	0	0		0	0	100	0		0.2	99.8	0	0		0	0	0	0		
Total %	0	41.6	0	0	41.6	0	0	0.1	0	0.1	0.1	58.1	0	0	58.2	0	0	0	0	0	
Cars	0	1630	0	0	1630	0	0	2	0	2	0	2338	0	0	2338	0	0	0	0	0	3970
% Cars	0	94.8	0	0	94.8	0	0	33.3	0	33.3	0	97.3	0	0	97.2	0	0	0	0	0	96.1
Trucks	0	78	0	0	78	0	0	4	0	4	4	58	0	0	62	0	0	0	0	0	144
% Trucks	0	4.5	0	0	4.5	0	0	66.7	0	66.7	100	2.4	0	0	2.6	0	0	0	0	0	3.5
School Buses	0	12	0	0	12	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	18
% School Buses	0	0.7	0	0	0.7	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.4



Louis Berger
106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
PM Traffic Counts
3:00 PM - 6:00 PM

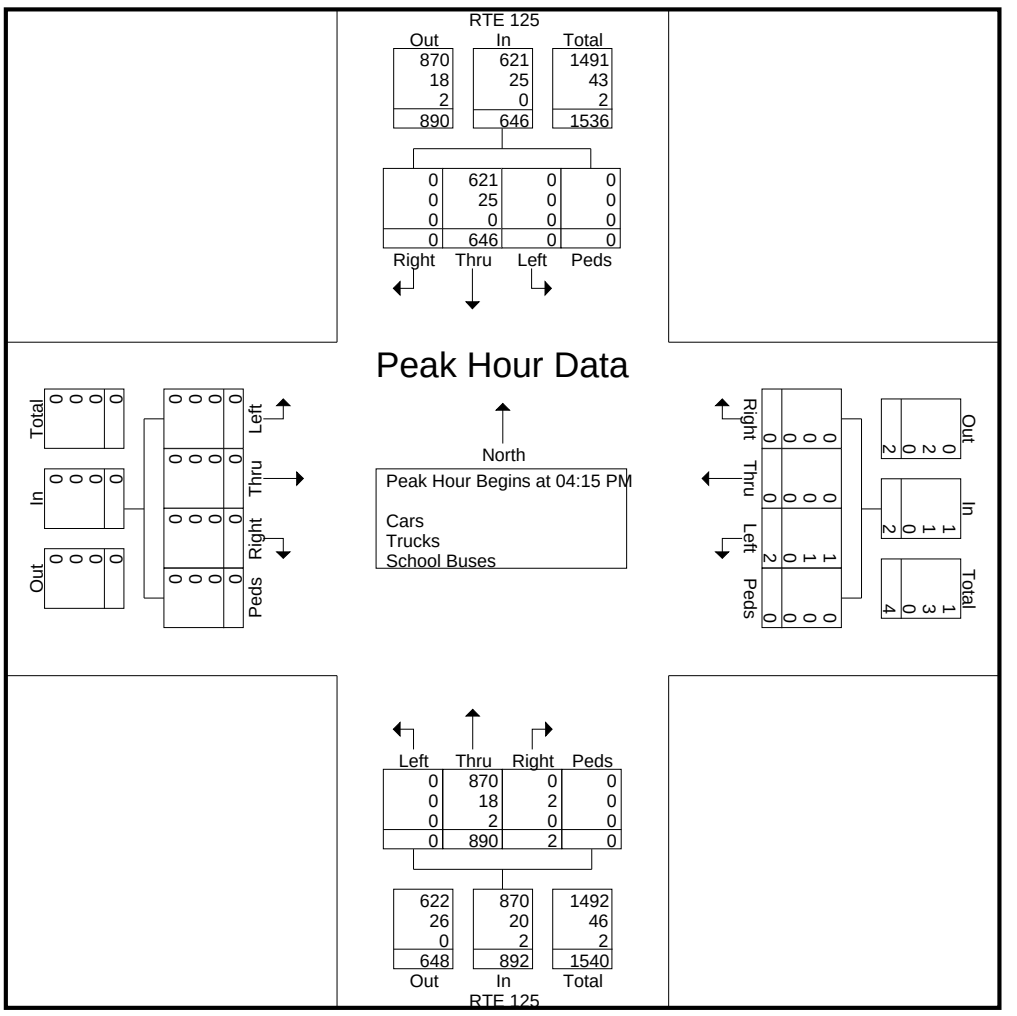


Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
PM Traffic Counts
3:00 PM - 6:00 PM

	RTE 125 From North					From East					RTE 125 From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	166	0	0	166	0	0	0	0	0	0	201	0	0	201	0	0	0	0	0	367
04:30 PM	0	156	0	0	156	0	0	0	0	0	0	230	0	0	230	0	0	0	0	0	386
04:45 PM	0	145	0	0	145	0	0	**1**	0	**1**	**1**	225	0	0	226	0	0	0	0	0	372
05:00 PM	0	**179**	0	0	**179**	0	0	1	0	1	1	**234**	0	0	**235**	0	0	0	0	0	**415**
Total Volume	0	646	0	0	646	0	0	2	0	2	2	890	0	0	892	0	0	0	0	0	1540
% App. Total	0	100	0	0		0	0	100	0		0.2	99.8	0	0		0	0	0	0		
PHF	.000	.902	.000	.000	.902	.000	.000	.500	.000	.500	.500	.951	.000	.000	.949	.000	.000	.000	.000	.000	.928
Cars	0	621	0	0	621	0	0	1	0	1	0	870	0	0	870	0	0	0	0	0	1492
% Cars	0	96.1	0	0	96.1	0	0	50.0	0	50.0	0	97.8	0	0	97.5	0	0	0	0	0	96.9
Trucks	0	25	0	0	25	0	0	1	0	1	2	18	0	0	20	0	0	0	0	0	46
% Trucks	0	3.9	0	0	3.9	0	0	50.0	0	50.0	100	2.0	0	0	2.2	0	0	0	0	0	3.0
School Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.1

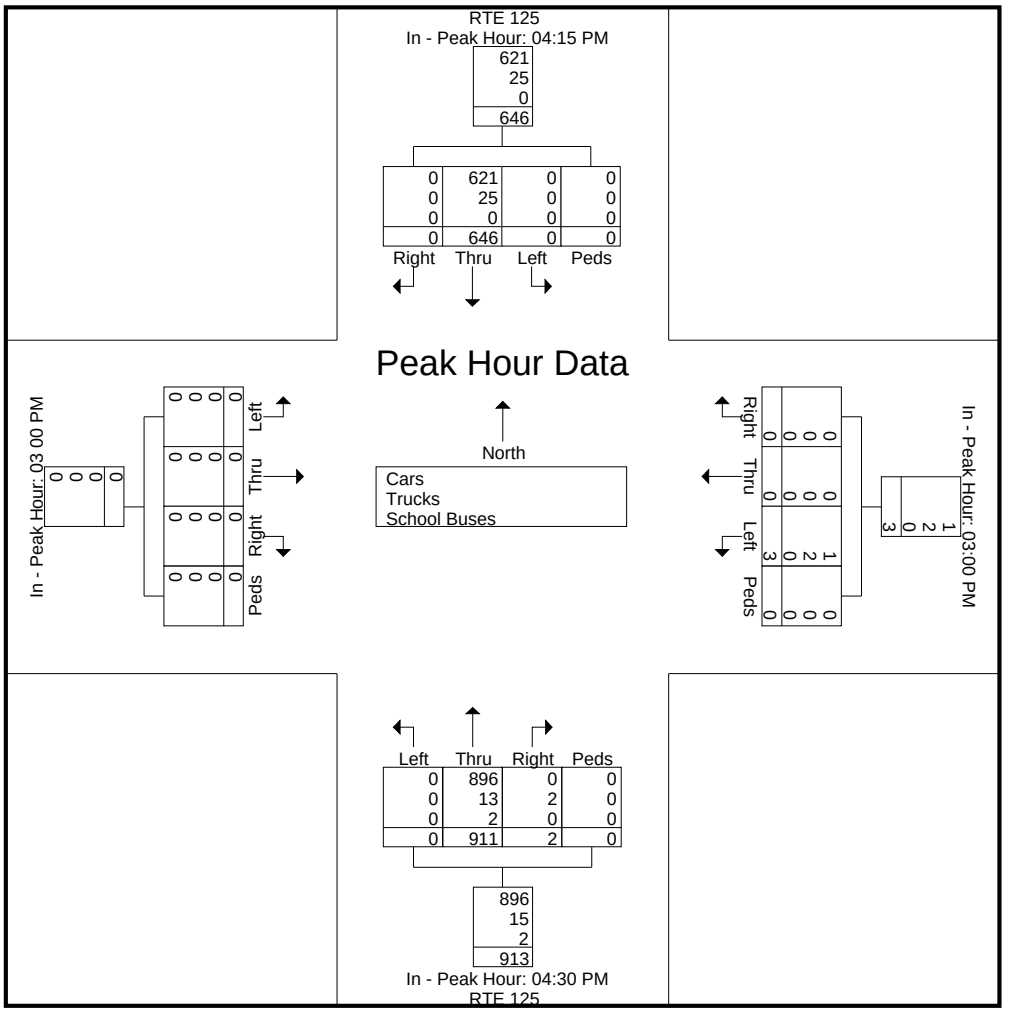


Louis Berger

106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

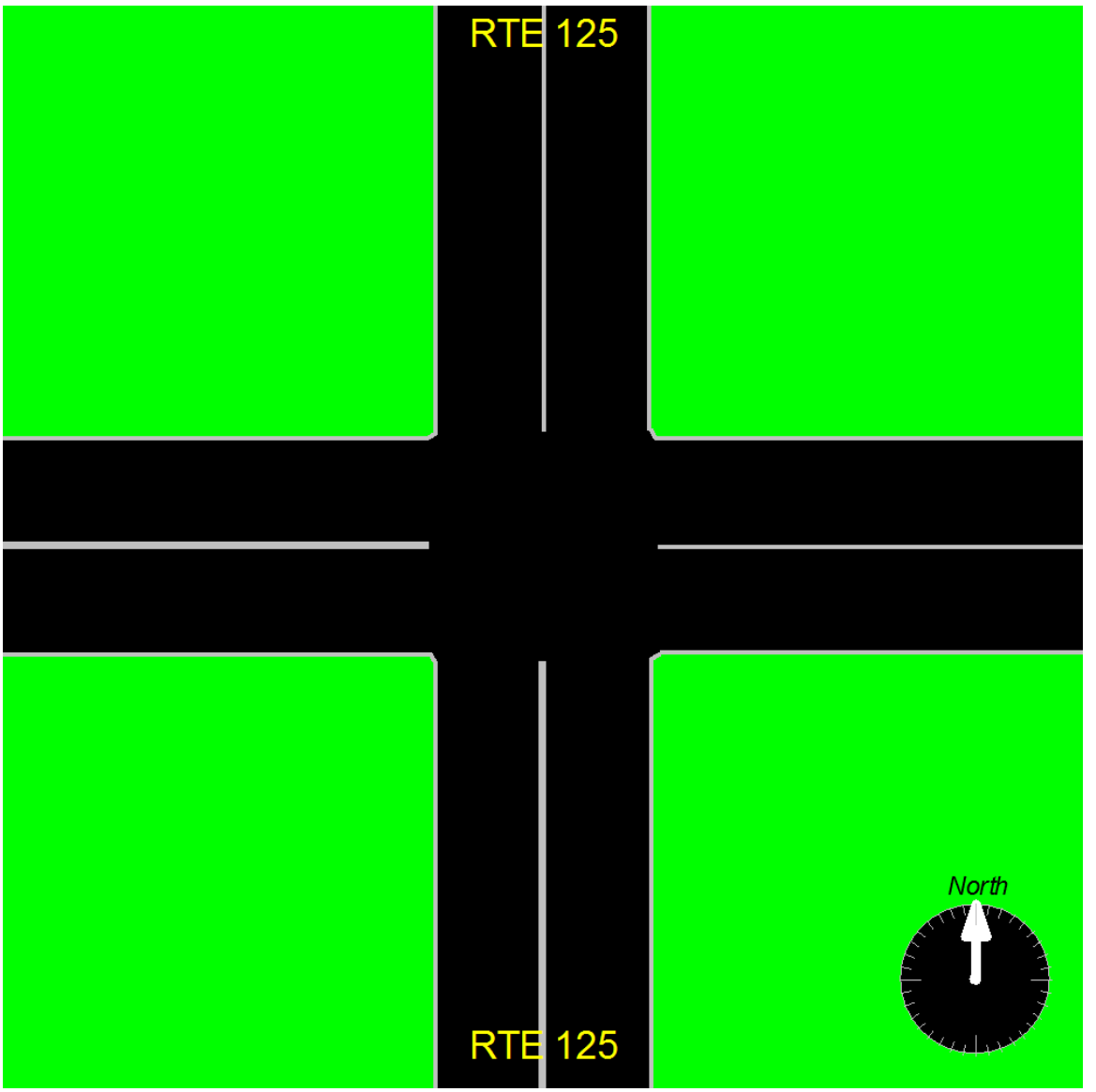
RTE 125 & Flynn Pit
PM Traffic Counts
3:00 PM - 6:00 PM

	RTE 125 From North					From East					RTE 125 From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					03:00 PM					04:30 PM					03:00 PM					
+0 mins.	0	166	0	0	166	0	0	**2**	0	**2**	0	230	0	0	230	0	0	0	0	0	
+15 mins.	0	156	0	0	156	0	0	1	0	1	**1**	225	0	0	226	0	0	0	0	0	
+30 mins.	0	145	0	0	145	0	0	0	0	0	1	**234**	0	0	**235**	0	0	0	0	0	
+45 mins.	0	**179**	0	0	**179**	0	0	0	0	0	0	222	0	0	222	0	0	0	0	0	
Total Volume	0	646	0	0	646	0	0	3	0	3	2	911	0	0	913	0	0	0	0	0	
% App. Total	0	100	0	0		0	0	100	0		0.2	99.8	0	0		0	0	0	0		
PHF	.000	.902	.000	.000	.902	.000	.000	.375	.000	.375	.500	.973	.000	.000	.971	.000	.000	.000	.000	.000	
Cars	0	621	0	0	621	0	0	1	0	1	0	896	0	0	896	0	0	0	0	0	
% Cars	0	96.1	0	0	96.1	0	0	33.3	0	33.3	0	98.4	0	0	98.1	0	0	0	0	0	
Trucks	0	25	0	0	25	0	0	2	0	2	2	13	0	0	15	0	0	0	0	0	
% Trucks	0	3.9	0	0	3.9	0	0	66.7	0	66.7	100	1.4	0	0	1.6	0	0	0	0	0	
School Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	



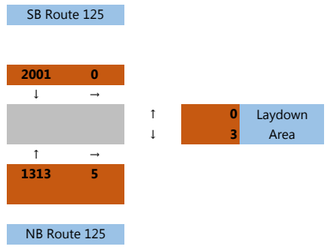
Louis Berger
106 Lafayette Street, Suite 2F
Yarmouth, ME 04096

RTE 125 & Flynn Pit
PM Traffic Counts
3:00 PM - 6:00 PM

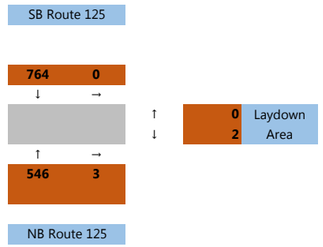


APPENDIX D

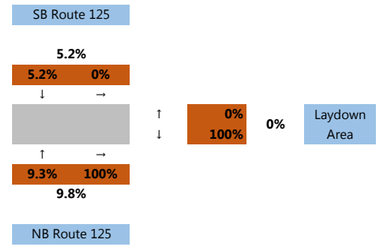
Route 125
6:00 AM - 9:00 AM



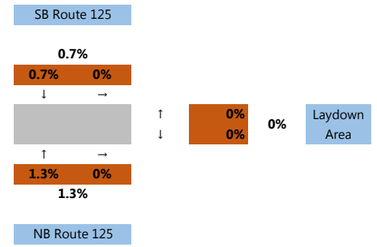
Route 125
AM Peak - 7:15 AM - 8:15 AM



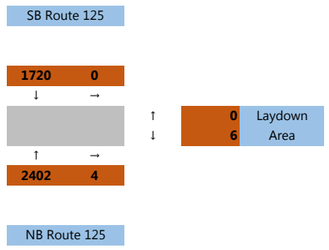
Route 125
AM Peak - Truck Composition



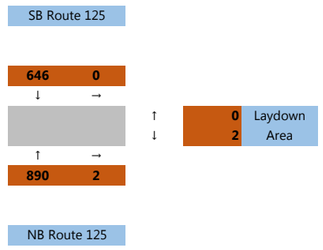
Route 125
AM Peak - Bus Composition



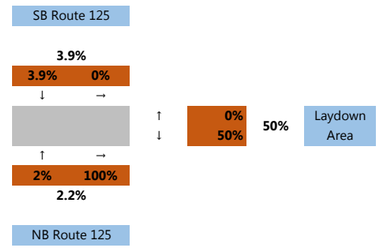
Route 125
3:00 PM - 6:00 PM



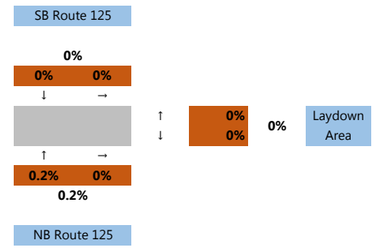
Route 125
PM Peak - 4:15 PM - 5:15 PM



Route 125
PM Peak - Truck Composition

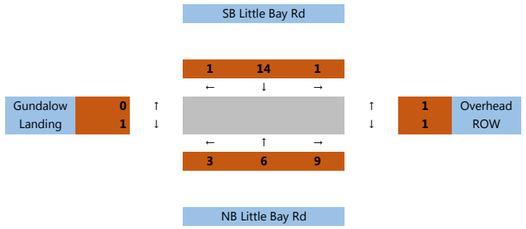


Route 125
PM Peak - Bus Composition

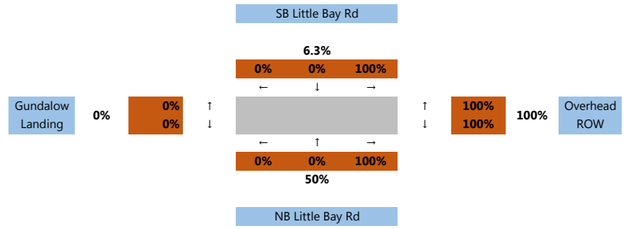


APPENDIX E

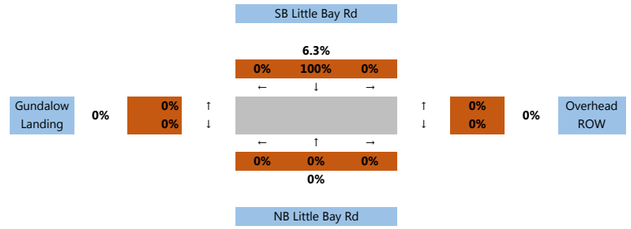
Gundalow Landing - Construction
AM Peak - 6:30 AM - 7:30 AM



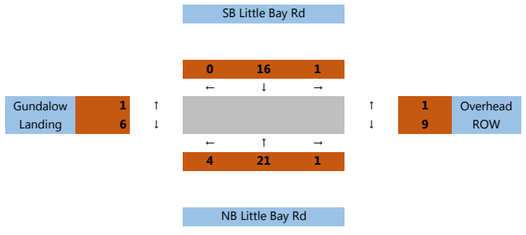
Gundalow Landing - Construction
AM Peak - Truck Composition



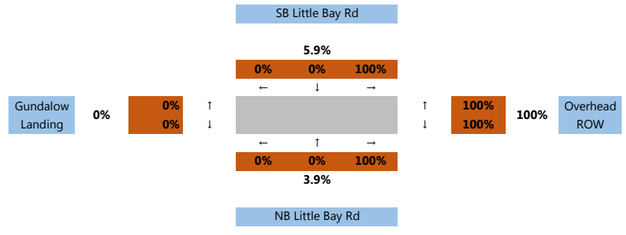
Gundalow Landing - Construction
AM Peak - Bus Composition (School Bus)



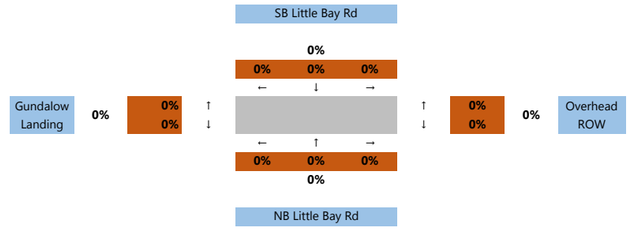
Gundalow Landing - Construction
PM Peak - 5:00 PM - 6:00 PM



Gundalow Landing - Construction
PM Peak - Truck Composition

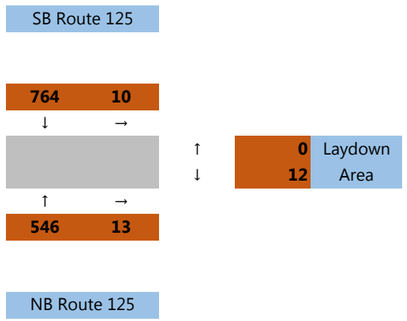


Gundalow Landing - Construction
PM Peak - Bus Composition (School Bus)

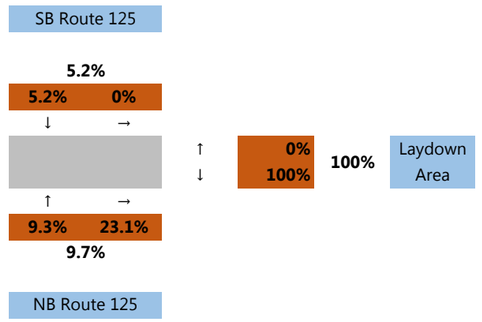


APPENDIX F

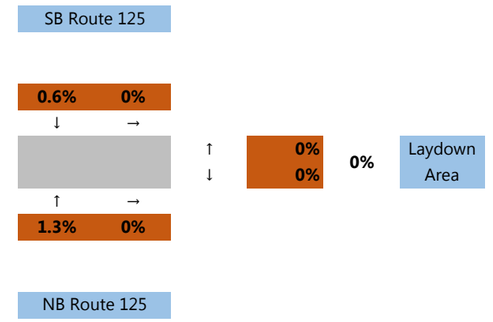
Route 125 - Construction
AM Peak - 7:15 AM - 8:15 AM



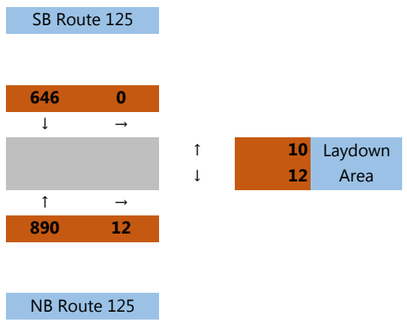
Route 125 - Construction
AM Peak - Truck Composition



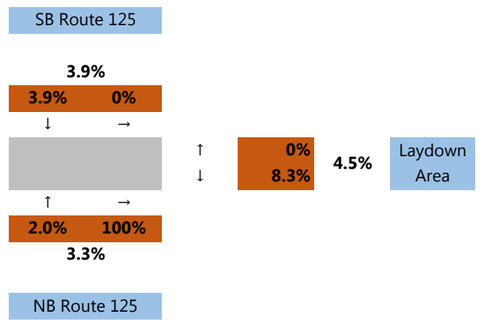
Route 125 - Construction
AM Peak - Bus Composition



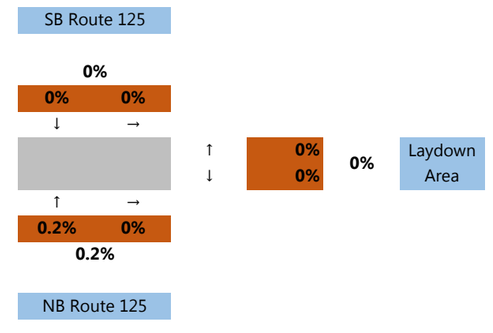
Route 125 - Construction
PM Peak - 4:15 PM - 5:15 PM



Route 125 - Construction
PM Peak - Truck Composition



Route 125 - Construction
PM Peak - Bus Composition



APPENDIX G

Volume Validation - Gundalow Landing

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Existing Conditions AM	SB Little Bay Rd	SBT	14	13	0.3		16	0.5	18	1.0	17	0.8	7	2.2	7	2.2
		SBR	1	1	0.0		1	0.0	1	0.0	1	0.0	0	1.4	0	1.4
	NB Little Bay Rd	NBL	3	3	0.0		5	1.0	0	2.4	4	0.5	5	1.0	2	0.6
		NBT	6	7	0.4		9	1.1	8	0.8	6	0.0	5	0.4	7	0.4
	EB Gundalow Landing	EBL	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
		EBR	1	2	0.8		2	0.8	2	0.8	2	0.8	2	0.8	0	1.4

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Existing Conditions PM	SB Little Bay Rd	SBT	16	14	0.5		17	0.2	20	0.9	18	0.5	7	2.7	7	2.7
		SBR	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
	NB Little Bay Rd	NBL	4	4	0.0		4	0.0	3	0.5	5	0.5	3	0.5	4	0.0
		NBT	21	23	0.4		19	0.4	26	1.0	26	1.0	22	0.2	23	0.4
	EB Gundalow Landing	EBL	1	1	0.0		2	0.8	0	1.4	2	0.8	2	0.8	1	0.0
		EBR	6	5	0.4		4	0.9	4	0.9	7	0.4	4	0.9	5	0.4

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Work Zone AM	SB Little Bay Rd	SBL	1	1	0.0		3	1.4	0	1.4	0	1.4	0	1.4	2	0.8
		SBT	14	14	0.0		18	1.0	20	1.5	19	1.2	9	1.5	6	2.5
		SBR	1	1	0.0		1	0.0	1	0.0	1	0.0	0	1.4	0	1.4
	NB Little Bay Rd	NBL	3	3	0.0		5	1.0	0	2.4	4	0.5	5	1.0	2	0.6
		NBT	6	8	0.8		10	1.4	9	1.1	8	0.8	5	0.4	7	0.4
		NBR	9	8	0.3		10	0.3	7	0.7	11	0.6	10	0.3	4	2.0
	EB Gundalow Landing	EBL	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
		EBR	1	2	0.8		2	0.8	2	0.8	2	0.8	2	0.8	0	1.4
	WB Flynn Pit	WBL	1	1	0.0		0	1.4	1	0.0	0	1.4	2	0.8	0	1.4
		WBR	1	1	0.0		2	0.8	1	0.0	2	0.8	0	1.4	0	1.4

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Work Zone PM	SB Little Bay Rd	SBL	1	1	0.0		3	1.4	0	1.4	0	1.4	0	1.4	2	0.8
		SBT	16	19	0.7		21	1.2	24	1.8	25	2.0	11	1.4	12	1.1
		SBR	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
	NB Little Bay Rd	NBL	4	4	0.0		4	0.0	3	0.5	5	0.5	3	0.5	4	0.0
		NBT	21	24	0.6		20	0.2	27	1.2	28	1.4	23	0.4	24	0.6
		NBR	1	1	0.0		0	1.4	1	0.0	1	0.0	3	1.4	2	0.8
	EB Gundalow Landing	EBL	1	1	0.0		2	0.8	0	1.4	2	0.8	2	0.8	1	0.0
		EBR	6	5	0.4		4	0.9	4	0.9	7	0.4	4	0.9	5	0.4
	WB Flynn Pit	WBL	9	7	0.7		8	0.3	9	0.0	5	1.5	6	1.1	6	1.1
		WBR	1	1	0.0		1	0.0	1	0.0	2	0.8	1	0.0	1	0.0

Average Queue Length - Gundalow Landing

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Existing Conditions AM	EB Gundalow	15		22	20	20	19	0

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Existing Conditions PM	EB Gundalow	25		22	21	46	22	26

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Work Zone AM	NB Little Bay	60		62	61	61	61	59
	SB Little Bay	45		61	29	29	44	63
	EB Gundalow	15		23	22	21	22	0
	WB Flynn	50		62	60	61	62	0

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Work Zone PM	NB Little Bay	55		44	63	63	62	50
	SB Little Bay	50		62	47	29	45	63
	EB Gundalow	35		46	22	45	23	43
	WB Flynn	65		63	64	63	63	61

Average Delay - Gundalow Landing

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Existing Conditions AM	EB Gundalow	2.3		2.5	2.5	3.5	3.0	0.0

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Existing Conditions PM	EB Gundalow	2.7		2.9	2.5	2.9	2.3	2.7

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Work Zone AM	NB Little Bay	1.8		2.2	2.1	1.2	1.9	1.9
	SB Little Bay	4.0		3.0	4.7	3.2	4.9	4.3
	EB Gundalow	5.7		13.1	5.0	5.1	5.3	0.0
	WB Flynn	4.1		5.5	4.2	5.0	5.6	0.0

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Work Zone PM	NB Little Bay	4.2		3.5	6.4	4.3	2.5	4.0
	SB Little Bay	5.3		4.8	5.5	4.6	4.9	6.7
	EB Gundalow	7.2		10.3	4.8	7.1	7.7	6.1
	WB Flynn	8.2		6.0	7.1	8.0	10.6	9.3

Level of Service - Little Bay & Gundalow Landing

	Aproach	Movement	Target Volume (veh)	Simulated Volume (veh)	Max Simulated Queue (ft)	Simulated Delay (s/veh)	Level of Service
Existing Conditions AM	**SB Little Bay Rd**	SBT	*14*	13	0	0.0	A
		SBR	*1*	1			
	NB Little Bay Rd	NBL	*3*	3	0	0.0	A
		NBT	*6*	7			
	EB Gundalow Landing	EBL	*0*	0	15	2.3	A
		EBR	*1*	2			

	Aproach	Movement	Target Volume (veh)	Simulated Volume (veh)	Max Simulated Queue (ft)	Simulated Delay (s/veh)	Level of Service
Existing Conditions PM	**SB Little Bay Rd**	SBT	*16*	14	0	0.0	A
		SBR	*0*	0			
	NB Little Bay Rd	NBL	*4*	4	0	0.0	A
		NBT	*21*	23			
	EB Gundalow Landing	EBL	*1*	1	25	2.7	A
		EBR	*6*	5			

	Aproach	Movement	Target Volume (veh)	Simulated Volume (veh)	Max Simulated Queue (ft)	Simulated Delay (s/veh)	Level of Service
Work Zone AM	**SB Little Bay Rd**	SBL	*1*	1	45	4.0	A
		SBT	*14*	14			
		SBR	*1*	1			
	NB Little Bay Rd	NBL	*3*	3	60	1.8	A
		NBT	*6*	8			
		NBR	*9*	8			
	EB Gundalow Landing	EBL	*0*	0	15	5.7	A
		EBR	*1*	2			
	WB Flynn Pit	WBL	*1*	1	50	4.1	A
		WBR	*1*	1			

	Aproach	Movement	Target Volume (veh)	Simulated Volume (veh)	Max Simulated Queue (ft)	Simulated Delay (s/veh)	Level of Service
Work Zone PM	**SB Little Bay Rd**	SBL	*1*	1	50	5.3	A
		SBT	*16*	19			
		SBR	*0*	0			
	NB Little Bay Rd	NBL	*4*	4	55	4.2	A
		NBT	*21*	24			
		NBR	*1*	1			
	EB Gundalow Landing	EBL	*1*	1	35	7.2	A
		EBR	*6*	5			
	WB Flynn Pit	WBL	*9*	7	65	8.2	A
		WBR	*1*	1			

APPENDIX H

Volume Validation - Route 125

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Existing Conditions AM	SB RTE 125	SBL	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
		SBT	764	764	0.0		806	1.5	731	1.2	758	0.2	758	0.2	766	0.1
	NB RTE 125	NBT	546	559	0.6		583	1.6	587	1.7	554	0.3	520	1.1	551	0.2
		NBR	3	3	0.0		3	0.0	3	0.0	2	0.6	4	0.5	3	0.0
	WB Laydown	WBL	2	1	0.8		3	0.6	0	2.0	1	0.8	1	0.8	2	0.0
		WBR	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Existing Conditions PM	SB RTE 125	SBL	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
		SBT	646	642	0.2		679	1.3	616	1.2	650	0.2	637	0.4	628	0.7
	NB RTE 125	NBT	890	910	0.7		940	1.7	964	2.4	908	0.6	849	1.4	889	0.0
		NBR	2	2	0.0		3	0.6	3	0.6	0	2.0	2	0.0	3	0.6
	WB Laydown	WBL	2	2	0.0		5	1.6	1	0.8	1	0.8	1	0.8	2	0.0
		WBR	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Work Zone AM	SB RTE 125	SBL	10	12	0.6		11	0.3	11	0.3	17	1.9	10	0.0	10	0.0
		SBT	764	765	0.0		805	1.5	731	1.2	755	0.3	762	0.1	772	0.3
	NB RTE 125	NBT	546	558	0.5		582	1.5	586	1.7	551	0.2	521	1.1	550	0.2
		NBR	13	15	0.5		13	0.0	10	0.9	14	0.3	21	1.9	15	0.5
	WB Laydown	WBL	12	11	0.3		15	0.8	7	1.6	10	0.6	10	0.6	13	0.3
		WBR	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!

	Aproach	Movement	Target Volume	Average Simulated	GEH		Run 1 Simulated	Run 1 GEH	Run 2 Simulated	Run 2 GEH	Run 3 Simulated	Run 3 GEH	Run 4 Simulated	Run 4 GEH	Run 5 Simulated	Run 5 GEH
Work Zone PM	SB RTE 125	SBL	0	0	#DIV/0!		0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
		SBT	646	642	0.2		679	1.3	616	1.2	650	0.2	637	0.4	628	0.7
	NB RTE 125	NBT	890	910	0.7		941	1.7	964	2.4	914	0.8	837	1.8	896	0.2
		NBR	12	11	0.3		10	0.6	10	0.6	7	1.6	18	1.5	10	0.6
	WB Laydown	WBL	12	12	0.0		15	0.8	12	0.0	13	0.3	12	0.0	7	1.6
		WBR	10	10	0.0		5	1.8	11	0.3	14	1.2	9	0.3	11	0.3

Average Queue Length - Route 125

Standard deviation

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Existing Conditions AM	NB RTE 125	0		0	0	0	0	0
	SB RTE 125	0		0	0	0	0	0
	Laydown Area	45		62	0	40	61	60

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Existing Conditions PM	NB RTE 125	0		0	0	0	0	0
	SB RTE 125	0		0	0	0	0	0
	Laydown Area	35		62	20	22	22	60

	Location	Ave. Maximum Queue Length (ft)		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Work Zone AM	NB RTE 125	0		0	0	0	0	0
	SB RTE 125	10		0	0	53	0	0
	Laydown Area	75		80	61	63	101	79

	Location	Ave. Maximum Queue Length		Run 1 Max Queue Length (ft)	Run 2 Max Queue Length (ft)	Run 3 Max Queue Length (ft)	Run 4 Max Queue Length (ft)	Run 5 Max Queue Length (ft)
Work Zone PM	NB RTE 125	0		0	0	0	0	0
	SB RTE 125	0		0	0	0	0	0
	Laydown Area	65		62	50	97	56	70

Average Delay - Route 125

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Existing Conditions AM	NB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	SB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	Laydown Area	13.4		17.1	0.0	20.0	15.4	14.7

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Existing Conditions PM	NB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	SB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	Laydown Area	22.2		12.0	26.2	10.1	35.3	27.3

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Work Zone AM	NB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	SB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	Laydown Area	11.3		10.6	17.9	8.8	11.9	7.5

	Aproach	Average Delay (sec)		Run 1 Average Delay (sec)	Run 2 Average Delay (sec)	Run 3 Average Delay (sec)	Run 4 Average Delay (sec)	Run 5 Average Delay (sec)
Work Zone PM	NB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	SB RTE 125	0.0		0.0	0.0	0.0	0.0	0.0
	Laydown Area	17.4		18.8	15.1	24.0	14.8	14.5

Level of Service - Route 125 & Laydown/Staging Area

	Aproach	Movement	Target Volume (veh)	Simulated Volume (veh)	Max Simulated Queue (ft)	Simulated Delay (s/veh)	Level of Service
Existing Conditions AM	**NB Route 125**	NBT	*546*	559	0	0.0	A
		NBR	*3*	3			
	SB Route 125	SBL	*0*	0	0	0.0	A
		SBT	*764*	764			
	Laydown Area	WBL	*2*	1	45	13.4	B
		WBR	*0*	0			

	Aproach	Movement	Target Volume (veh)	Simulated Volume (veh)	Max Simulated Queue (ft)	Simulated Delay (s/veh)	Level of Service
Existing Conditions PM	**NB Route 125**	NBT	*890*	910	0	0.0	A
		NBR	*2*	2			
	SB Route 125	SBL	*0*	0	0	0.0	A
		SBT	*646*	642			
	Laydown Area	WBL	*2*	2	35	22.2	C
		WBR	*0*	0			

	Aproach	Movement	Target Volume	Simulated Volume	Max Simulated Queue (ft)	Simulated Delay	Level of Service
Work Zone AM	**NB Route 125**	NBT	*546*	558	0	0.0	A
		NBR	*13*	15			
	SB Route 125	SBL	*10*	12	10	0.0	A
		SBT	*764*	765			
	Laydown Area	WBL	*12*	11	75	11.3	B
		WBR	*0*	0			

	Aproach	Movement	Target Volume	Simulated Volume	Max Simulated Queue (ft)	Simulated Delay	Level of Service
Work Zone PM	**NB Route 125**	NBT	*890*	910	0	0.0	A
		NBR	*12*	11			
	SB Route 125	SBL	*0*	0	0	0.0	A
		SBT	*646*	642			
	Laydown Area	WBL	*12*	12	65	17.4	C
		WBR	*10*	10			