JACKSON HIGHWAY TINY HOMES
TRAFFIC IMPACT ANALYSIS

Lewis County, WA

07/30/2021

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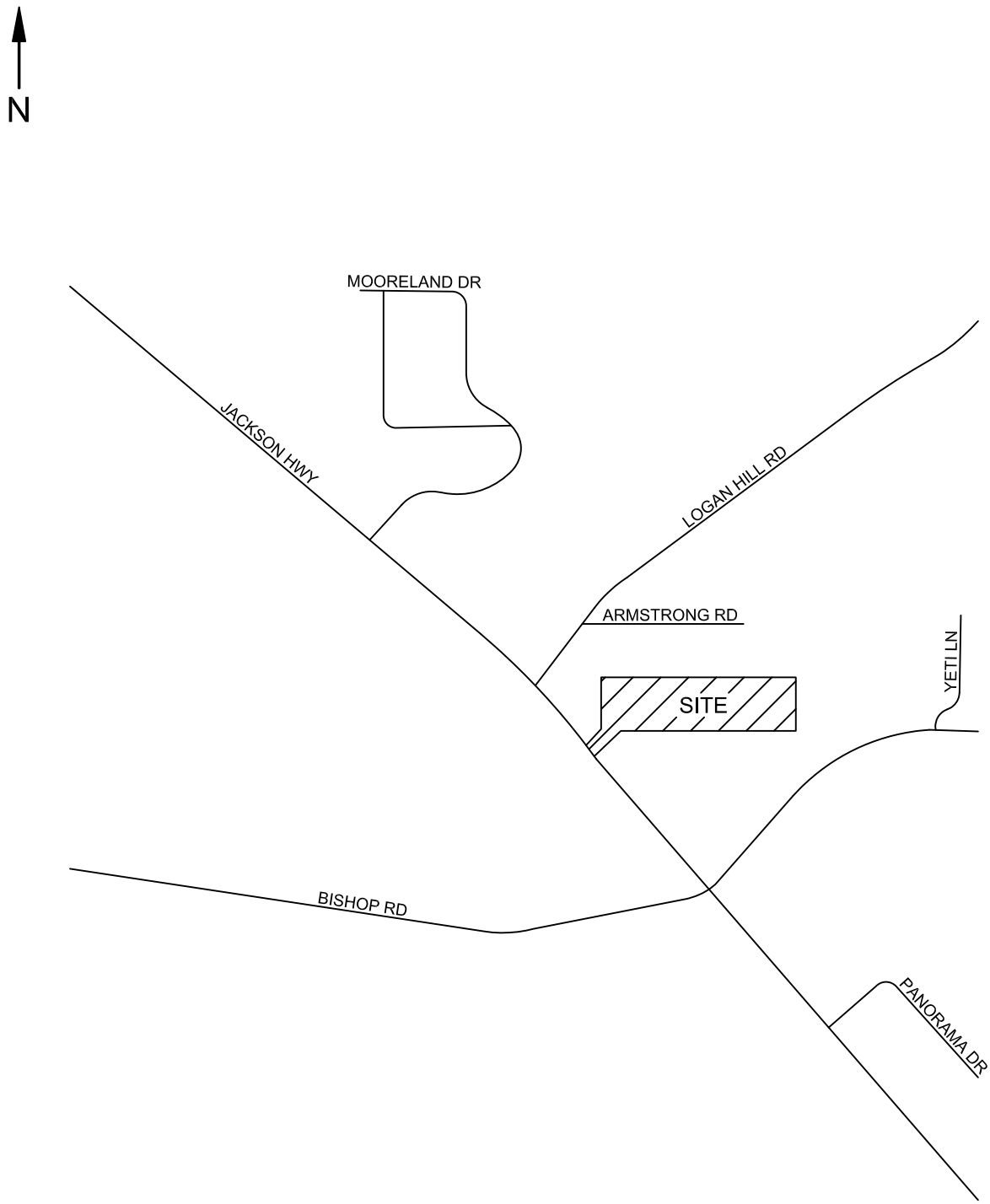
1. INTRODUCTION

The main goals of this study focus on the analysis of existing roadway conditions and forecasts of newly generated project traffic. The first task includes the review of general roadway information on the adjacent street system, baseline vehicular volumes, and entering sight distance data. Forecasts of future traffic and dispersion patterns on the street system are then determined using established trip generation and distribution techniques. As a final step, appropriate conclusions and mitigation measures are defined.

2. PROJECT DESCRIPTION

Jackson Highway Tiny Homes is a proposed tiny home community consisting of up to 56 dwelling units located in the Chehalis Urban Growth Area of Lewis County. The subject property is located south of Armstrong Road and northeast of Jackson Highway on a cumulative 8.34-acres within undeveloped tax parcel #'s: 01780800-1044; & -1006. Access to the subject site is to be provided via one new driveway extending northeast from Jackson Highway. A site aerial is provided below. Figure 1 on the following page identifies the adjacent street system and general project vicinity. A conceptual site plan of the project is presented in Figure 2.



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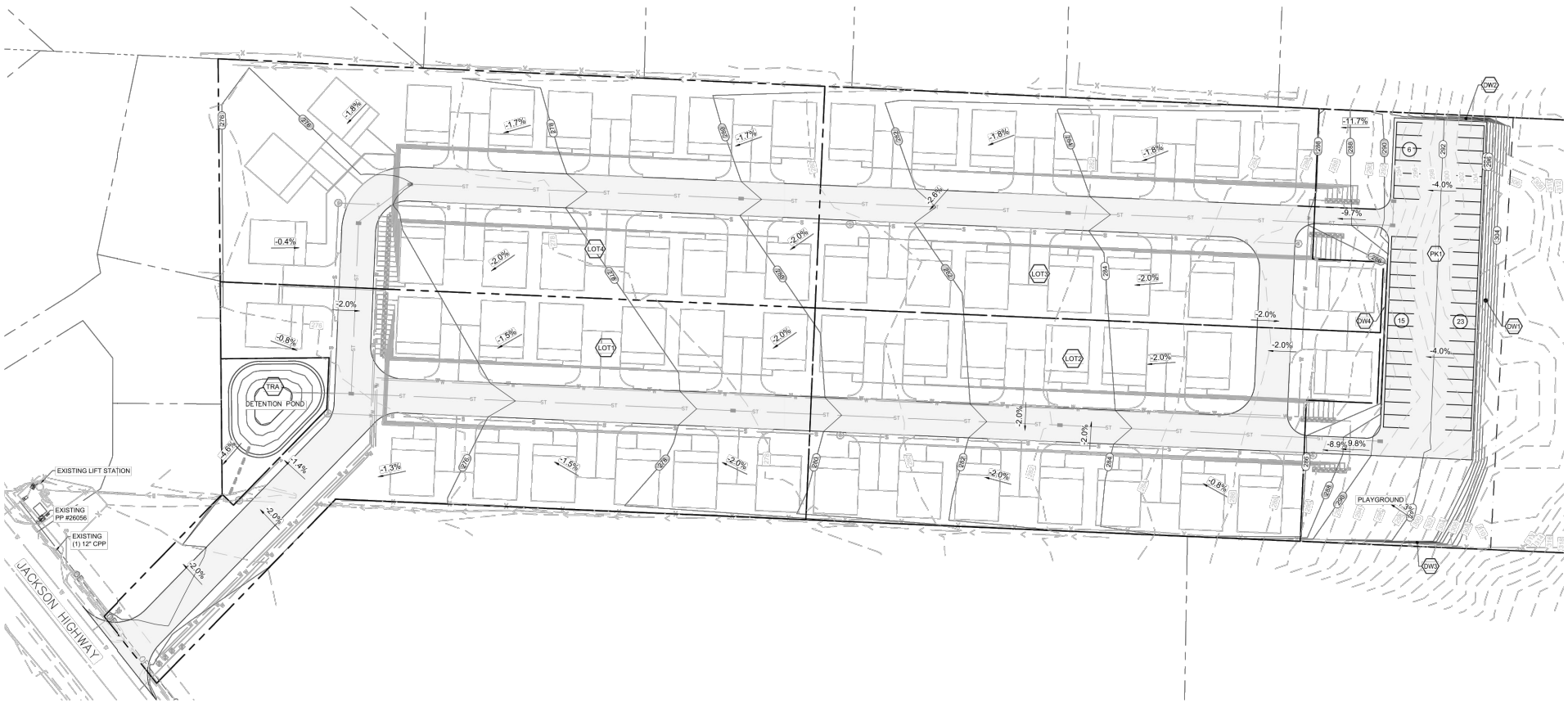
VICINITY MAP & ROADWAY SYSTEM
FIGURE 1



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SITE PLAN
FIGURE 2

PO Box 397 Puyallup, WA 98371 (253) 770 1401 heathtraffic.com

3. EXISTING CONDITIONS

3.1 Existing Roadway Characteristics

The major roadways and arterials defined in the study area are listed and described below.

Jackson Highway: is a northwest-southeast, two-lane arterial partially bordering the subject site partially to the southwest. Travel lanes are approximately 10- to 11-feet in width. Paved shoulders 4- to 8-feet in width are provided along either side of the roadway. No non-motorist facilities are present in the area. The roadway has a posted speed limit of 40-mph in the vicinity of the subject site.

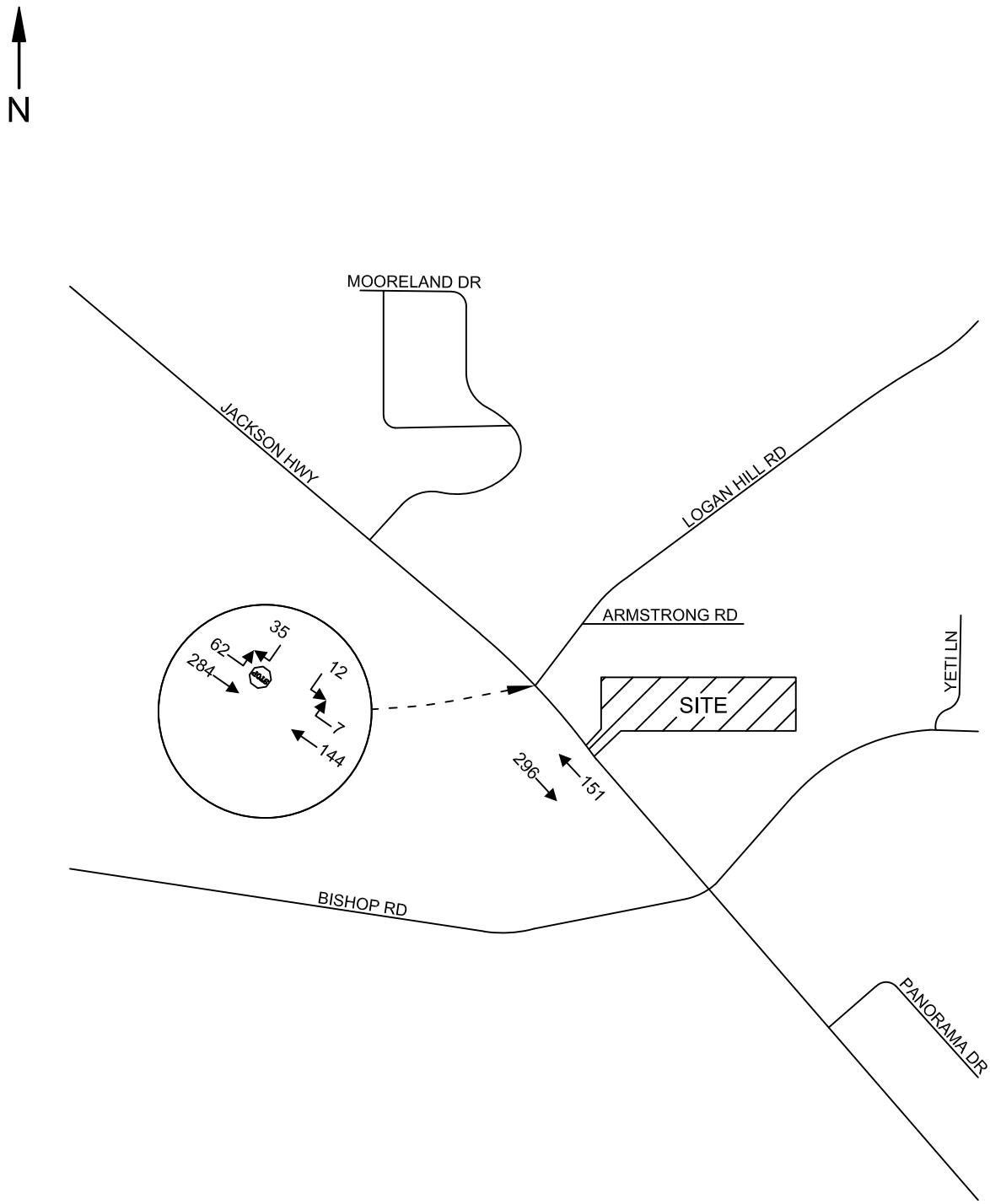
Logan Hill Road: is a southwest-northeast, two-lane local roadway located northwest of the subject site. Travel lanes are approximately 10-feet in width. No formal shoulder treatment or non-motorist infrastructure is provided along the majority of the roadway. The posted speed limit is 40-mph.

3.2 Pedestrian and Bicycle Activity

During field observations, no non-motorist transport was observed along Jackson Highway or Logan Hill Road. The area is rural in nature with limited walkable amenities. No significant increase with respect to non-motorist transport would be expected from the development given the limited non-motorist infrastructure in the vicinity of the subject site.

3.3 Existing Peak Hour Volumes and Patterns

Field data for this study was collected in July of 2021. Traffic counts were taken at the intersection of Jackson Highway & Logan Hill Road, which would receive the bulk of the anticipated vehicular demands. Data was obtained during the evening peak period between the hours of 4 PM to 6 PM, which generally translates to highest overall roadway volumes in a given 24-hour period. The one hour reflecting highest overall roadway volumes (peak hour) was then derived from these counts. Through-volumes along the proposed Jackson Highway project frontage were extrapolated from the administered count. Existing PM peak hour volumes at the study intersection and along the project frontage are illustrated in Figure 3 on the following page. Full-count sheets have been included in the appendix.



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EXISTING PM PEAK HOUR VOLUMES
FIGURE 3

3.4 Public Transit

A review of the Twin Transit regional bus schedule indicates that The Red Line provides service in the vicinity of the subject site. While the nearest stop in relation to the development is provided at Rush Road & Maurin Road (1.1 miles northwest), riders may flag down a bus at any safe and visible area along the route. Weekday service is provided from 6:00 AM – 7:00 PM (60-minute headways) while weekend service is provided from 7:00 AM – 4:00 PM (60-minute headways). Refer to the Twin Transit bus schedule for further details.

3.5 Roadway Improvements

A review of the City of Chehalis Six-Year (2021-2026) Transportation Improvement Program indicates that no projects are planned in the general area of the subject site. A review of the Lewis County Six-Year (2021-2026) Transportation Improvement Program indicates the following planned projects in the general area.

> *Rush Road Improvements (Bishop Road to s/o Holloway Drive; Priority #15):* This project entails a major widening of the roadway to include curb, gutter sidewalk and more. Local funds allocated to the project total $2,280,000 and construction is to begin in 2023.
>
> *Downie Road Extension (southerly extension; Priority #25):* This project entails extending the roadway south to Maurin Road. Federal discretionary funding totals $1,200,000 and construction is to begin in 2025.

3.6 Site Access & Driveway Design

As illustrated in the site plan presented in Figure 2, one access extending northeast from Jackson Highway is proposed for site ingress/egress. Field measurements indicate sight lines to exceed 500 feet in either direction on Jackson Highway–meeting applicable code standards[1]. No sight distance deficiencies are identified with the proposed access driveway.

[1] City of Chehalis Engineering Development Code Chapter 12.04.280 Streets, Section M. Sight Obstruction. Based on 40 mph roadway and two-lane roadway, 410 feet of intersection sight distance is required.

3.7 Level of Service

Baseline intersection delays were determined through the use of the *Highway Capacity Manual* 6th Edition. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. The range[2] for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Detailed descriptions of intersection LOS are given in the 2016 Highway Capacity Manual. Level of service calculations were made through the use of the *Synchro 10* analysis program. For side-street, stop-controlled intersections, LOS is determined by the approach with the highest delay. Table 1 below presents existing PM peak hour LOS delays for the key outlying intersection of study.

Table 1: Existing PM Peak Hour Level of Service

Delays given in seconds per vehicle

Intersection	Control	Movement	LOS	Delay
Jackson Highway & Logan Hill Road	Stop	SWB	B	10.5

SWB: Southwest-bound

Existing PM peak hour conditions are shown to operate with minimal delays at LOS B indicating stable operations during the critical PM peak hour of travel.

---

2 *Signalized Intersections - Level of Service*

Level of Service	Control Delay per Vehicle (sec)
A	≤10
B	> 10 and ≤20
C	> 20 and ≤35
D	> 35 and ≤55
E	> 55 and ≤80
F	> 80

Stop Controlled Intersections – Level of Service

Level of Service	Control Delay per Vehicle (sec)
A	≤10
B	> 10 and ≤15
C	> 15 and ≤25
D	> 25 and ≤35
E	> 35 and ≤50
F	> 50

Highway Capacity Manual, 6th Edition

4. FUTURE TRAFFIC CONDITIONS

4.1 Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. This is usually denoted by the quantity or specific number of new trips that enter and exit a project during a designated time period, such as a specific peak hour (AM or PM) or an entire day. Data presented in this report was taken from the Institute of Transportation Engineer's publication *Trip Generation,* 10th Edition. Given site characteristics associated with the development proposal, the designated land use determined to be most representative of the proposed tiny home community is Multi-Family Housing Low-Rise (LUC 220). Table 2 below summarizes the estimated project trip generation using ITE rates. Included are the average weekday daily traffic (AWDT) and the AM and PM peak hours. Refer to the appendix for trip generation output.

Table 2: Project Trip Generation

Land Use	Size	AWDT	AM Peak-Hour Trips			PM Peak-Hour Trips		
			In	Out	Total	In	Out	Total
Tiny Home Community	56 units	410	6	20	**26**	19	12	**31**

Based on ITE data, the project is anticipated to generate 410 new average weekday daily trips with 26 AM (6 in / 20 out) peak hour trips and 31 PM (19 in / 12 out) peak hour trips.

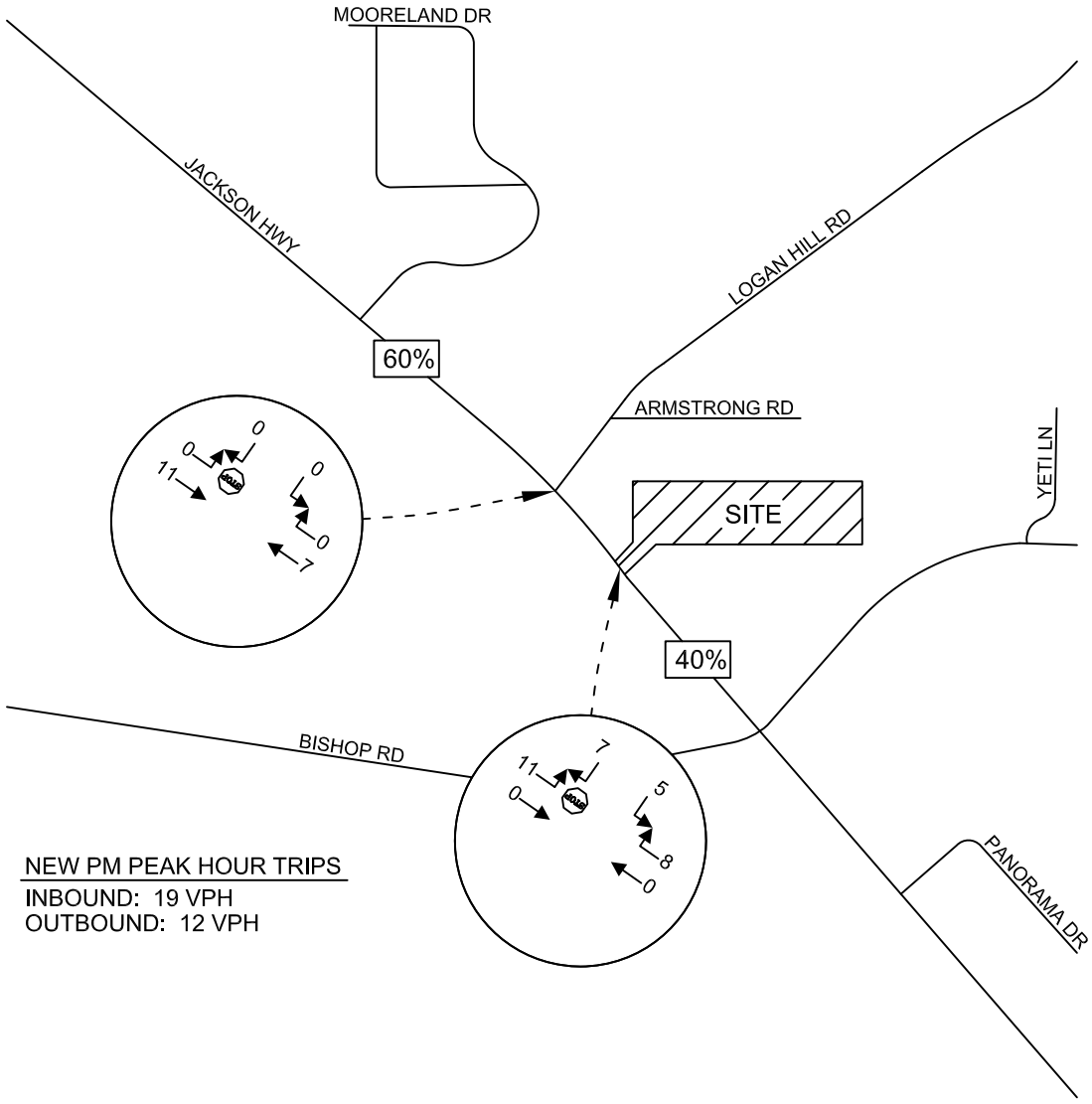
4.2 Trip Distribution and Assignment

Trip distribution describes the anticipated travel routes for inbound and outbound project traffic during the peak hour study period. Trip distribution percentages are based on the location of nearby major arterials and amenities. PM peak hour trips are primarily comprised of commuter-based (returning home) and recreational-based trips. Anticipated PM peak hour distribution percentages and travel routes are illustrated in Figure 4.

4.3 Future Peak Hour Volumes

A 5-year horizon of 2026 was used to assess future conditions with project-buildout. Jackson Highway Tiny Homes is to be located within Chehalis' Urban Growth Area. The City is anticipated to grow at an annual rate of 1.50%[3] according to the Chehalis Comprehensive Plan (2017). As such, a compound annual growth rate of 1.50% was applied to the existing volumes illustrated in Figure 3 to derive forecast 2026 background traffic volumes. Moreover, pipeline volumes associated with the Jackson Villas 4 and Jackson Highway Warehouse projects were included in forecast volumes. PM peak hour volumes are illustrated in Figure 5. Forecast 2026 PM peak hour volumes without and with the addition of project-generated traffic are shown in Figures 6 and 7.

[3] Chehalis Comprehensive Plan 2017: Chapter 3 Land Use, pg. 4



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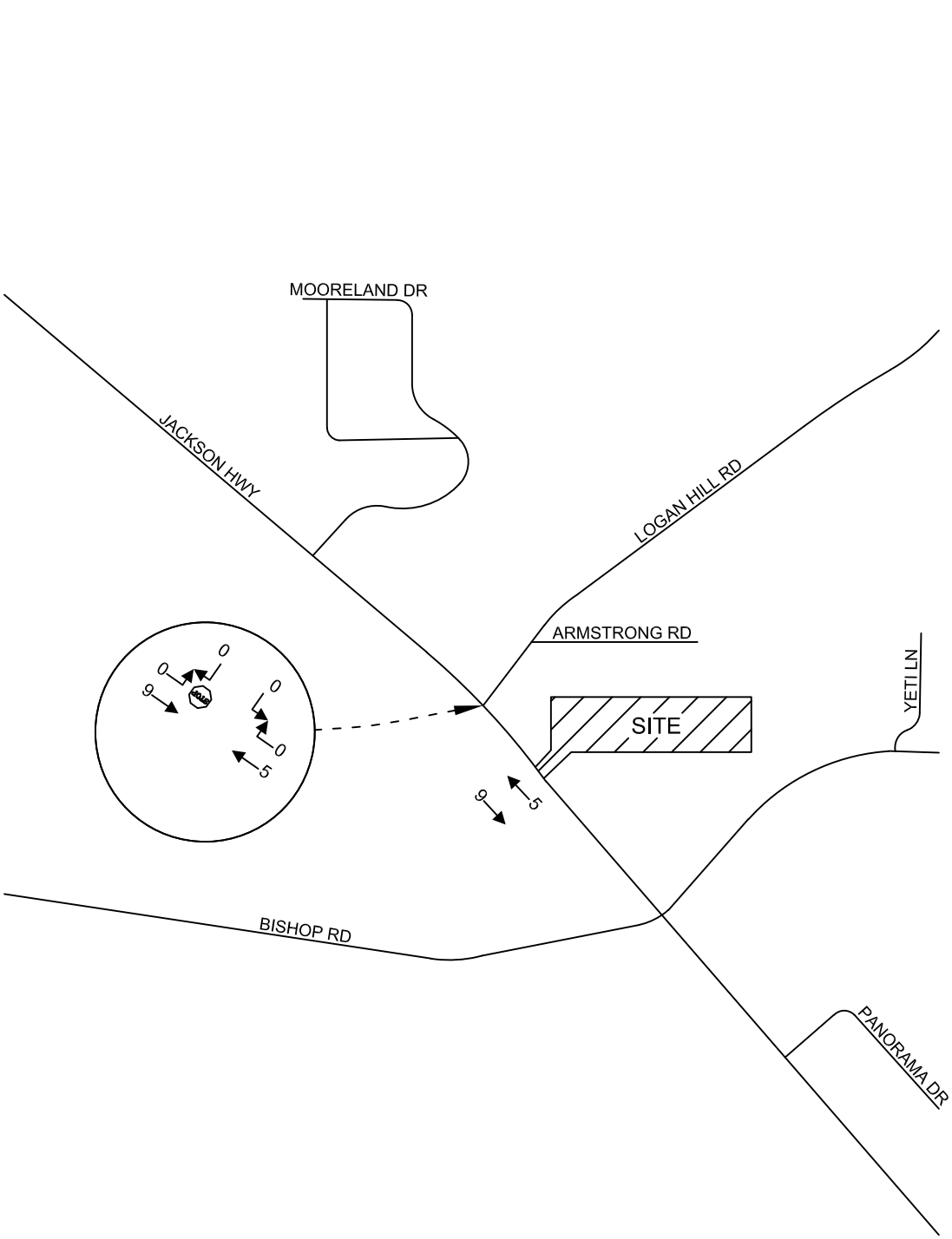
PM PEAK HOUR TRIP DISTRIBUTION & ASSIGNMENT
FIGURE 4



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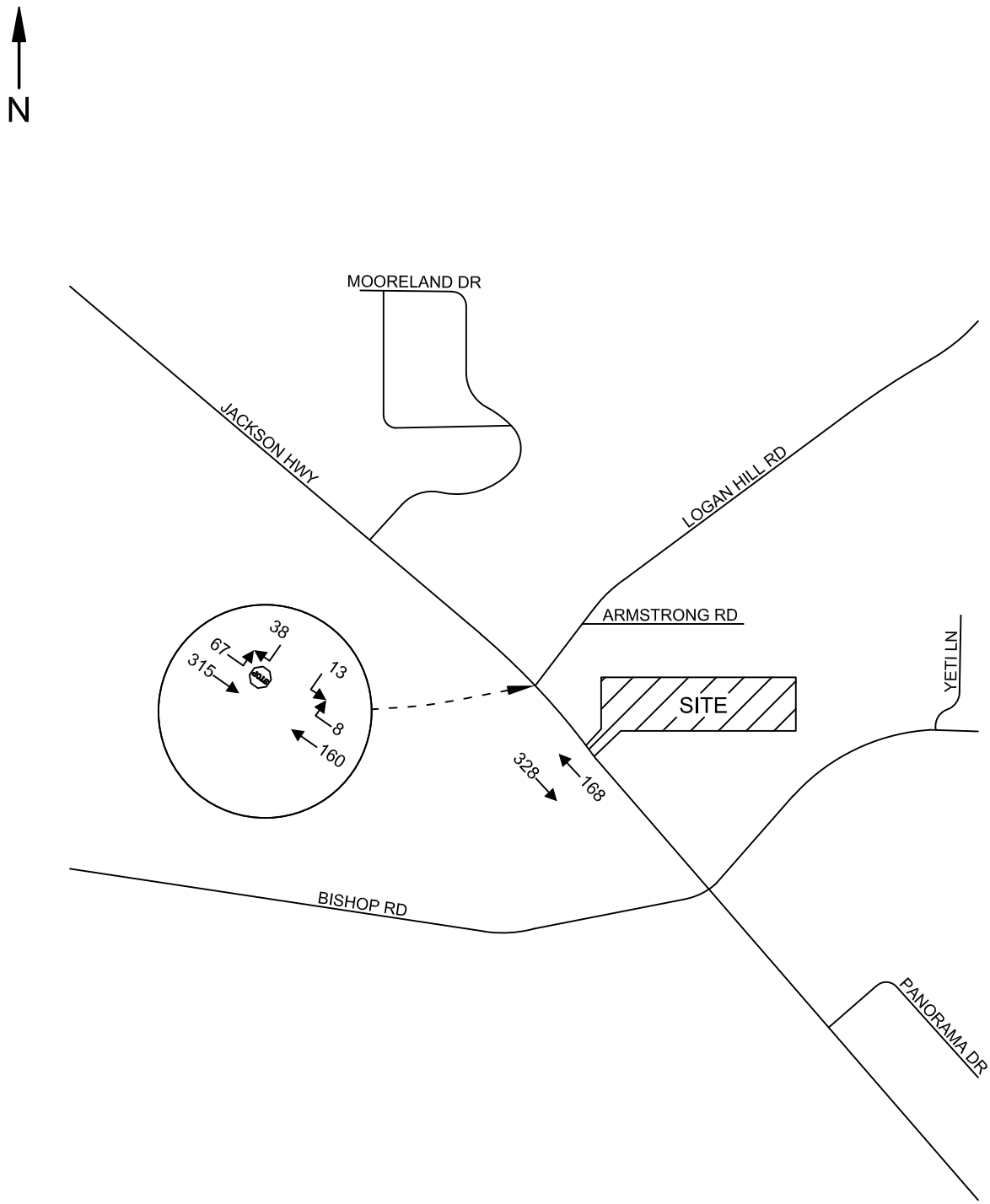
PM PEAK HOUR PIPELINE VOLUMES
FIGURE 5



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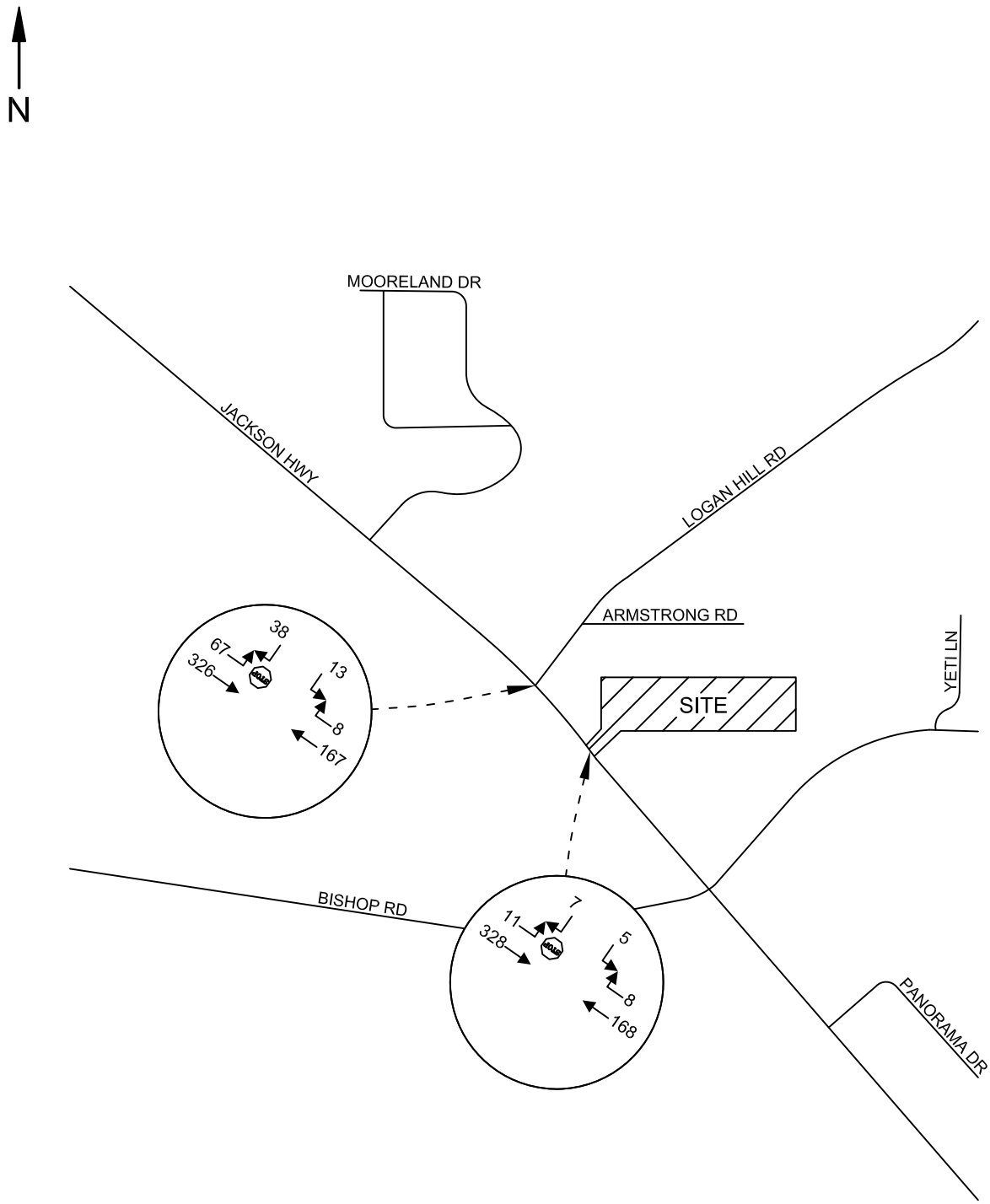
FORECAST 2026 PM PEAK HOUR BACKGROUND VOLUMES
FIGURE 6



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FORECAST 2026 PM PEAK HOUR VOLUMES WITH PROJECT

FIGURE 7

4.4 Future Level of Service

Level of service analyses were made of the future PM peak hour volumes without (background) and with project related trips added to the key roadways and intersections. This analysis once again involved the use of the *Synchro 10* analysis program. Delays for the study intersection and access under forecast 2026 PM peak hour conditions are shown below in Table 3.

Table 3: Forecast 2026 PM Peak Hour Level of Service

Delays given in seconds per vehicle

			Background		*With Project*	
Intersection	**Control**	**Movement**	**LOS**	**Delay**	**LOS**	**Delay**
Jackson Highway & Logan Hill Road	Stop	SWB	B	10.8	B	10.9
Jackson Highway & Project Access	Stop	NWB	-	-	B	10.7

SWB: Southwest-bound NWB: Northwest-bound

Forecast 2026 PM peak hour Level of Service at the proposed access and study intersection are shown to operate at LOS B. No operational deficiencies are identified as a result of the proposed development.

4.5 Left Turn Lane Warrants

Left turn lanes are a means of providing necessary storage space for left turning vehicles at intersections. For this impact study, procedures prescribed by the WSDOT Design Manual Exhibit 1310-7a were used to ascertain storage requirements at the proposed access location on Jackson Highway. Based on forecast 2026 PM peak hour volumes with project traffic – a left turn lane *would not be warranted* at the proposed access. Refer to the appendix for the warrant nomographs.

5. SUMMARY

Jackson Highway Tiny Homes is a proposed tiny home community comprising 56 dwelling units located in the Chehalis Urban Growth Area of Lewis County. The subject site is located northeast of Jackson Highway on a cumulative, undeveloped 8.34-acres within tax parcel #'s: 01780800-1044; & -1006. A conceptual site design illustrating the proposed access extending northeast from Jackson Highway and dwelling unit layout is illustrated in Figure 2. In total, approximately 410 average weekday daily trips can be anticipated as a result of the development with 26 AM (6 inbound / 20 outbound) peak hour trips and 31 PM (19 inbound / 12 outbound) peak hour trips.

Existing level of service (LOS) is summarized in Table 1 and indicates Jackson Highway & Logan Hill Road operating with delays of LOS B. For forecast analyses, a five-year horizon was evaluated to asses impacts under future conditions. Table 3 summarizes forecast 2026 PM peak hour LOS delays without and with the project. Forecast 2026 conditions are shown to operate satisfactorily with LOS B conditions indicating no operational deficiencies. A left turn lane was found to not be warranted at the proposed access intersection on Jackson Highway.

Based on the analysis above, no mitigation is identified at this time.

Please feel free to contact me should you have further questions or concerns.

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TRAFFIC IMPACT ANALYSIS

APPENDIX

LEVEL OF SERVICE

The following are excerpts from the *2016 Highway Capacity Manual - Transportation Research Board Special Report 209.*

Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions.

Level-of-Service definitions

Level of service A represents primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at signalized intersections is minimal.

Level of service B represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver in the traffic stream is only slightly restricted and delays are not bothersome.

Level of service C represents stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial classification.

Level of service D borders on a range in which small increases in flow may cause substantial increases in approach delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.

Level of service E is characterized by significant delays and average travel speeds of one-third the free-flow speed or less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level of service F characterizes arterial flow at extremely low speeds, from less than one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with long delays and extensive queuing.

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File Name : 4690a
Site Code : 00004690
Start Date : 7/21/2021
Page No : 1

Groups Printed- Passenger + - Heavy

	Logan Hill Rd Southbound			Jackson Hwy Westbound			Jackson Hwy Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
04:00 PM	9	0	9	2	43	45	75	15	90	144
04:15 PM	8	2	10	2	37	39	68	14	82	131
04:30 PM	8	4	12	1	39	40	75	18	93	145
04:45 PM	10	6	16	2	25	27	66	15	81	124
Total	35	12	47	7	144	151	284	62	346	544
05:00 PM	5	1	6	1	37	38	54	21	75	119
05:15 PM	19	1	20	2	36	38	63	11	74	132
05:30 PM	5	1	6	1	35	36	69	11	80	122
05:45 PM	5	1	6	2	25	27	58	16	74	107
Total	34	4	38	6	133	139	244	59	303	480
Grand Total	69	16	85	13	277	290	528	121	649	1024
Apprch %	81.2	18.8		4.5	95.5		81.4	18.6		
Total %	6.7	1.6	8.3	1.3	27.1	28.3	51.6	11.8	63.4	
Passenger +	68	16	84	13	275	288	526	121	647	1019
% Passenger +	98.6	100	98.8	100	99.3	99.3	99.6	100	99.7	99.5
Heavy	1	0	1	0	2	2	2	0	2	5
% Heavy	1.4	0	1.2	0	0.7	0.7	0.4	0	0.3	0.5

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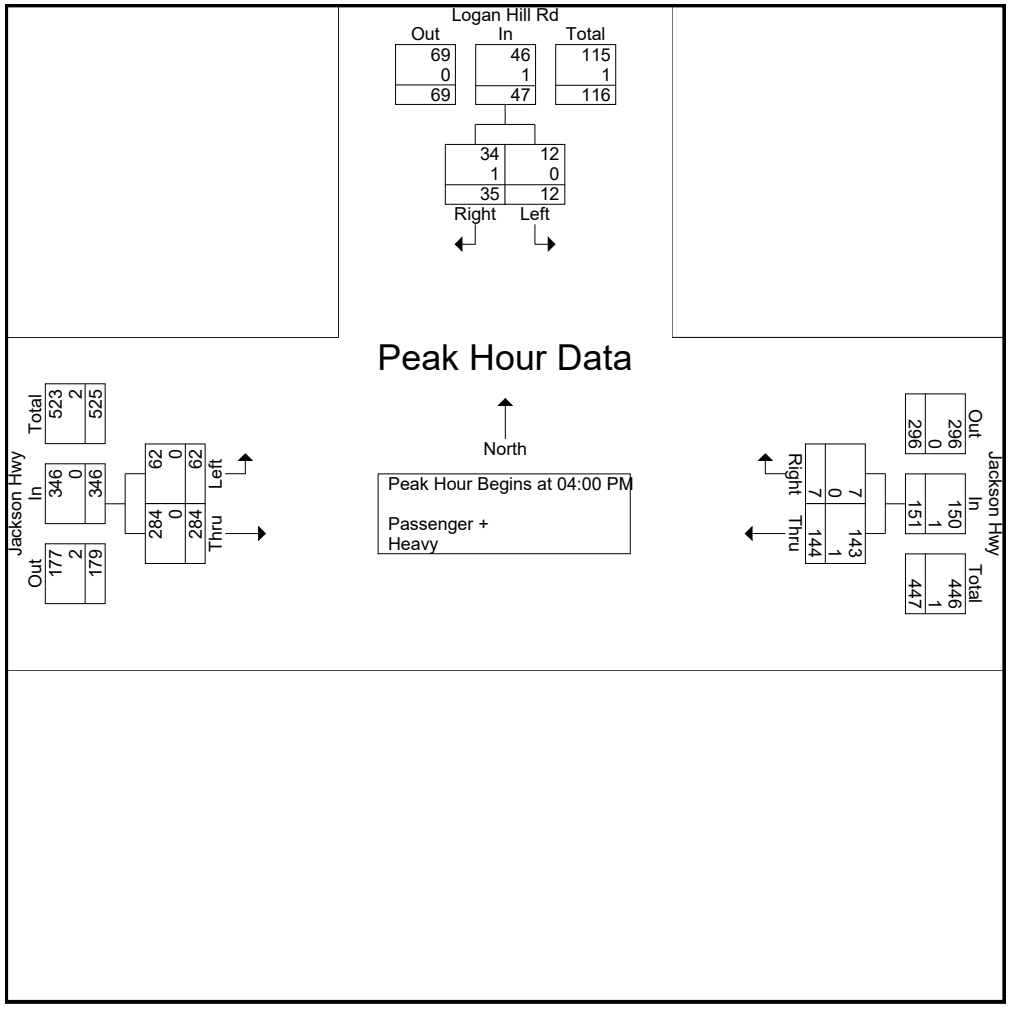
File Name : 4690a
Site Code : 00004690
Start Date : 7/21/2021
Page No : 2

	Logan Hill Rd Southbound			Jackson Hwy Westbound			Jackson Hwy Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	9	0	9	**2**	**43**	**45**	**75**	15	90	144
04:15 PM	8	2	10	2	37	39	68	14	82	131
04:30 PM	8	4	12	1	39	40	75	**18**	**93**	**145**
04:45 PM	**10**	**6**	**16**	2	25	27	66	15	81	124
Total Volume	35	12	47	7	144	151	284	62	346	544
% App. Total	74.5	25.5		4.6	95.4		82.1	17.9		
PHF	.875	.500	.734	.875	.837	.839	.947	.861	.930	.938
Passenger +	34	12	46	7	143	150	284	62	346	542
% Passenger +	97.1	100	97.9	100	99.3	99.3	100	100	100	99.6
Heavy	1	0	1	0	1	1	0	0	0	2
% Heavy	2.9	0	2.1	0	0.7	0.7	0	0	0	0.4



Multifamily Housing (Low-Rise)
(220)

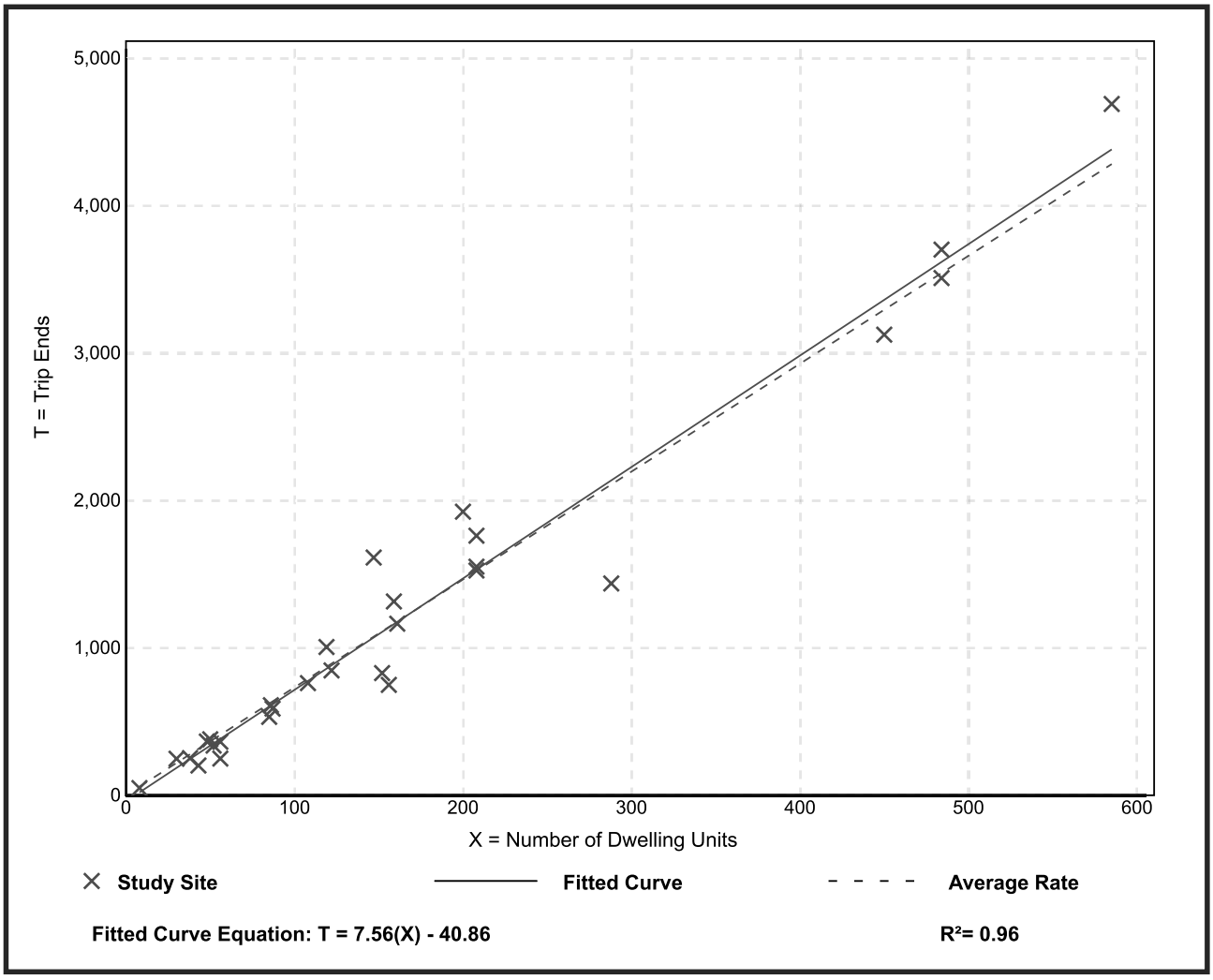
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 29
Avg. Num. of Dwelling Units: 168
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31

Data Plot and Equation



Trip Generation Manual, 10th Edition ● Institute of Transportation Engineers

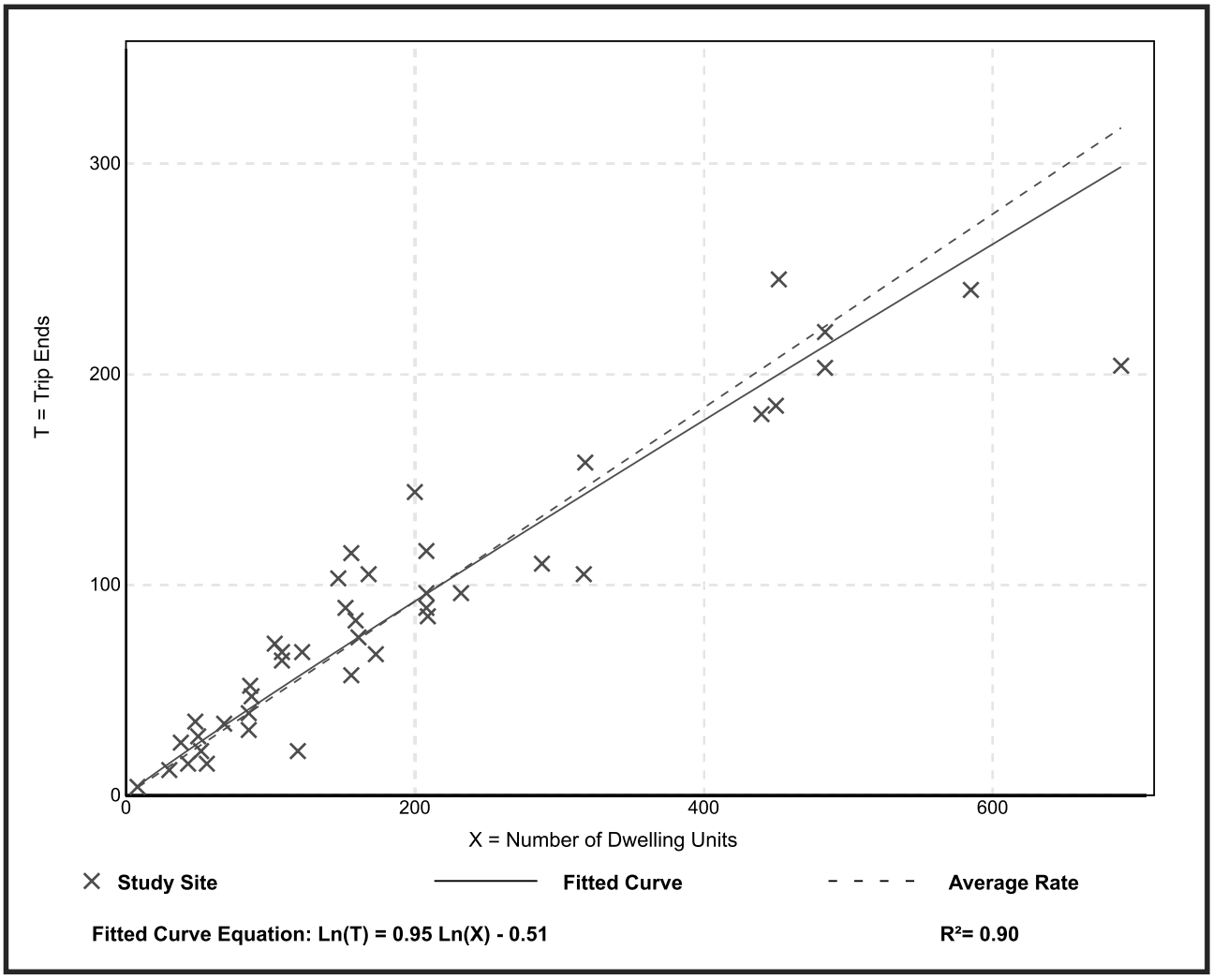
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs: **Dwelling Units**
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: 42
Avg. Num. of Dwelling Units: 199
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



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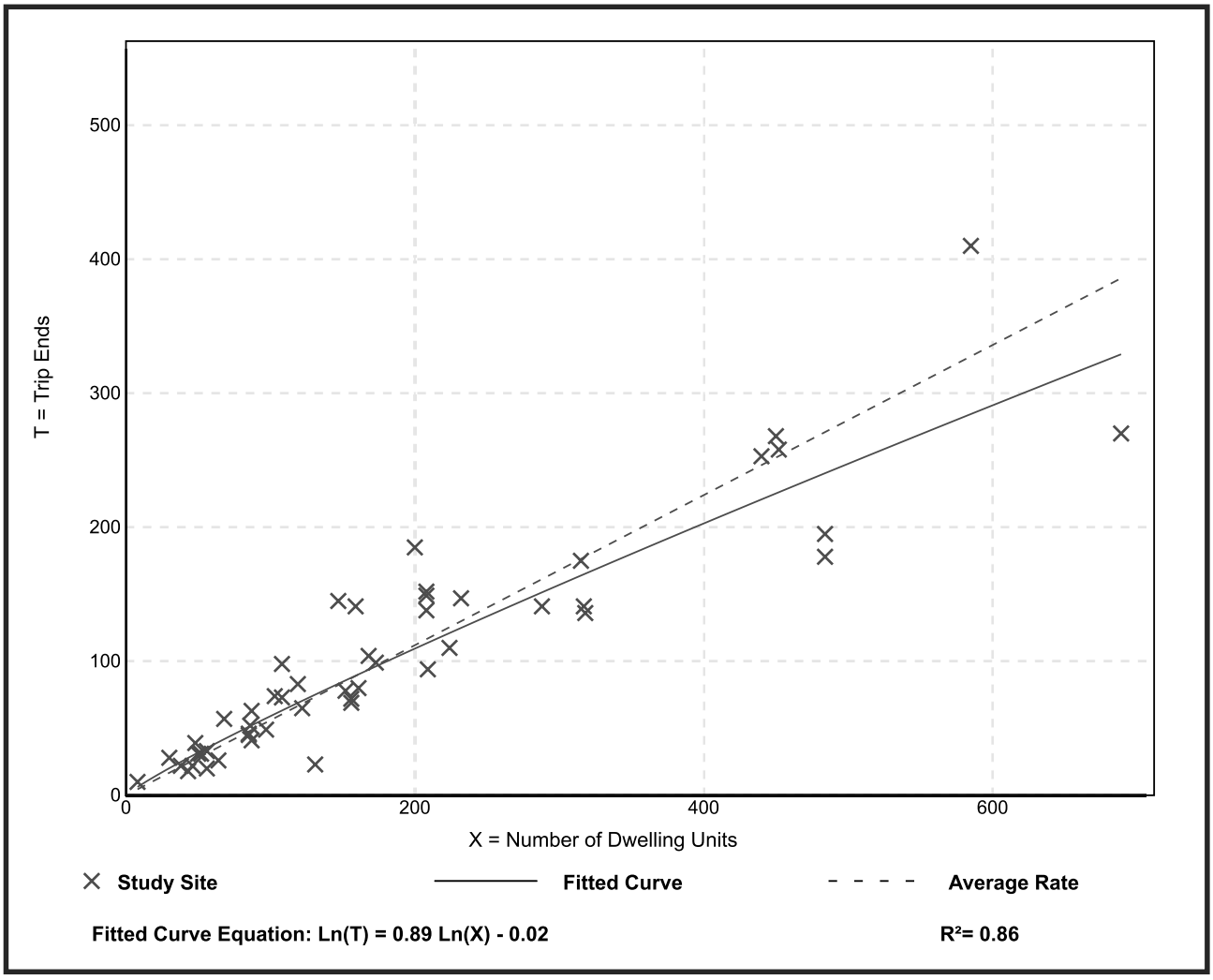
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs: **Dwelling Units**
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: 50
Avg. Num. of Dwelling Units: 187
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



Trip Generation Manual, 10th Edition ● Institute of Transportation Engineers

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	62	284	144	7	12	35
Future Vol, veh/h	62	284	144	7	12	35
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	94	94	94	94	94	94
Heavy Vehicles, %	1	1	1	1	1	3
Mvmt Flow	66	302	153	7	13	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	160	0	-	0	591	157
Stage 1	-	-	-	-	157	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	4.11	-	-	-	6.41	6.23
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.327
Pot Cap-1 Maneuver	1425	-	-	-	471	886
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1425	-	-	-	445	886
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1425	-	-	-	707
HCM Lane V/C Ratio	0.046	-	-	-	0.071
HCM Control Delay (s)	7.6	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

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Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	67	315	160	8	13	38
Future Vol, veh/h	67	315	160	8	13	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	94	94	94	94	94	94
Heavy Vehicles, %	1	1	1	1	1	3
Mvmt Flow	71	335	170	9	14	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	179	0	-	0	652	175
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	477	-
Critical Hdwy	4.11	-	-	-	6.41	6.23
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.327
Pot Cap-1 Maneuver	1403	-	-	-	434	866
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1403	-	-	-	407	866
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	626	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1403	-	-	-	673
HCM Lane V/C Ratio	0.051	-	-	-	0.081
HCM Control Delay (s)	7.7	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

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Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	67	326	167	8	13	38
Future Vol, veh/h	67	326	167	8	13	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	94	94	94	94	94	94
Heavy Vehicles, %	1	1	1	1	1	3
Mvmt Flow	71	347	178	9	14	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	672	183
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	489	-
Critical Hdwy	4.11	-	-	-	6.41	6.23
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.327
Pot Cap-1 Maneuver	1393	-	-	-	423	857
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1393	-	-	-	396	857
Mov Cap-2 Maneuver	-	-	-	-	396	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	619	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1393	-	-	-	661
HCM Lane V/C Ratio	0.051	-	-	-	0.082
HCM Control Delay (s)	7.7	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

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Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	328	168	8	5	7
Future Vol, veh/h	11	328	168	8	5	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	12	357	183	9	5	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	192	0	-	0	569	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	381	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1388	-	-	-	485	857
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	693	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1388	-	-	-	480	857
Mov Cap-2 Maneuver	-	-	-	-	480	-
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	693	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1388	-	-	-	646
HCM Lane V/C Ratio	0.009	-	-	-	0.02
HCM Control Delay (s)	7.6	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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Exhibit 1310-7a Left-Turn Storage Guidelines: Two-Lane, Unsignalized