

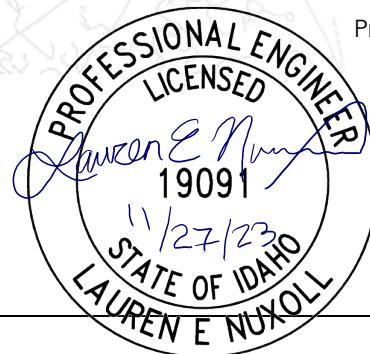
Technical Memorandum

November 27, 2023

Project# 29533.2

To: Wade Thomas
TNT Enterprises

From: Lauren Nuxoll, PE, PTOE

RE: **Pastry Residential Development Traffic Study**

This memorandum summarizes the traffic study for the Pastry Residential Development along SH 44 (Glenwood Street) in Garden City, Idaho. The purpose of this study is to address any concerns associated with this development. A scope was agreed upon with ITD in November 2023. *Attachment A* contains the scoping emails. The memorandum is organized as follows:

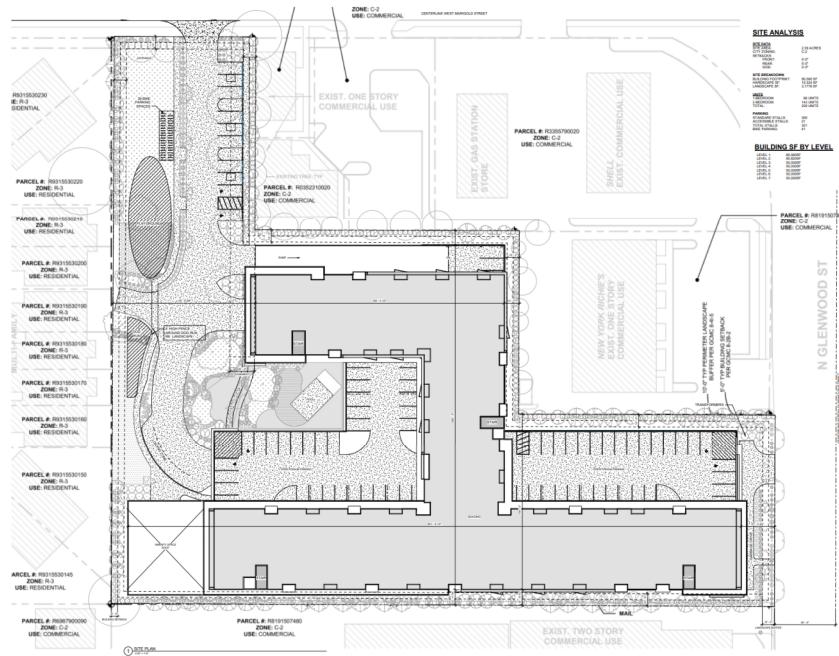
- Proposed Development
- Trip Generation
- Trip Distribution
- Total Traffic Access Operations
- Impact to Ada County Fire & Rescue
- Potential Neighborhood Cut Through

Proposed Development

The Pastry Residential Development is a proposed multi-family development in the southwest quadrant of the SH 44 (Glenwood Street) & Marigold Street intersection. The proposed development is mostly infill with the exception of replacing the existing Pastry Perfection business, as shown in Exhibit 1.

The proposed development consists of a seven-story building with 229 multi-family units. The first two floors will be amenities and parking for the residents. Access to the development will be along Marigold Street aligned with River Point Drive as well as along SH 44 (Glenwood Street) approximately 375 feet south of Marigold Street.

Exhibit 1. Proposed Site Plan



Trip Generation

The project weekday daily, a.m. and p.m. peak hour vehicle trips for the Pastry Residential Development were estimated based on the *ITE Trip Generation Manual, 11th Edition* (Reference 1). The development is replacing a current business along the corridor. Therefore, existing trips to/from the site for the Pastry Perfection business were also estimated using the *ITE Trip Generation Manual, 11th Edition* (Reference 1) and subtracted from the proposed development.

The existing Pastry Perfection building can be classified as a *Coffee/Donut Shop without a Drive-Through*, however it is also a bakery and a bigger kitchen. While, the building is approximately 9,700 square feet, only 5,000 square feet were used in the calculation since the front half of the building is used as the coffee/donut shop with indoor seating.

Table 1 summarizes the estimated trip generation for the proposed development.

Table 1. Proposed Trip Generation

Land Use	ITE Code	Units	Daily	Weekday AM Peak Hour Total	In	Out	Weekday PM Peak Hour Total	In	Out
Mid-Rise Multi Family	221	229	1,046	89	21	68	90	55	34
Coffee/Donut Shop w/no drive-through	936	5,000 sq ft	-	465	237	228	161	81	80
			Total	-376	-216	-160	-71	-26	-46

As shown in Table 1, when the existing business is removed and replaced with the mid-rise multi-family development, trips are removed from the system. This is typical as businesses tend to generate more trips than residential developments.

Trip Distribution

The proposed Pastry Residential Development is located along a corridor that has access on either end to the greater Treasure Valley. To the north, State Street (SH 44) runs east-west throughout the valley and into downtown Boise. To the south, Chinden Boulevard (US 20/26) runs east-west throughout the valley, into downtown Boise and provides access to I-84.

Based on the surrounding area and existing 24-hour tube counts, it is estimated that approximately 60% of the development will head south towards Chinden Boulevard (US 20/26) and approximately 40% of the development will head north towards State Street (SH 44).

Total Traffic Access Operations

This section evaluates the future projected 2025 access operations for the Pastry Residential Development. Access to the development will be along Marigold Street aligned with River Point Drive as well as along SH 44 (Glenwood Street) approximately 375 feet south of Marigold Street.

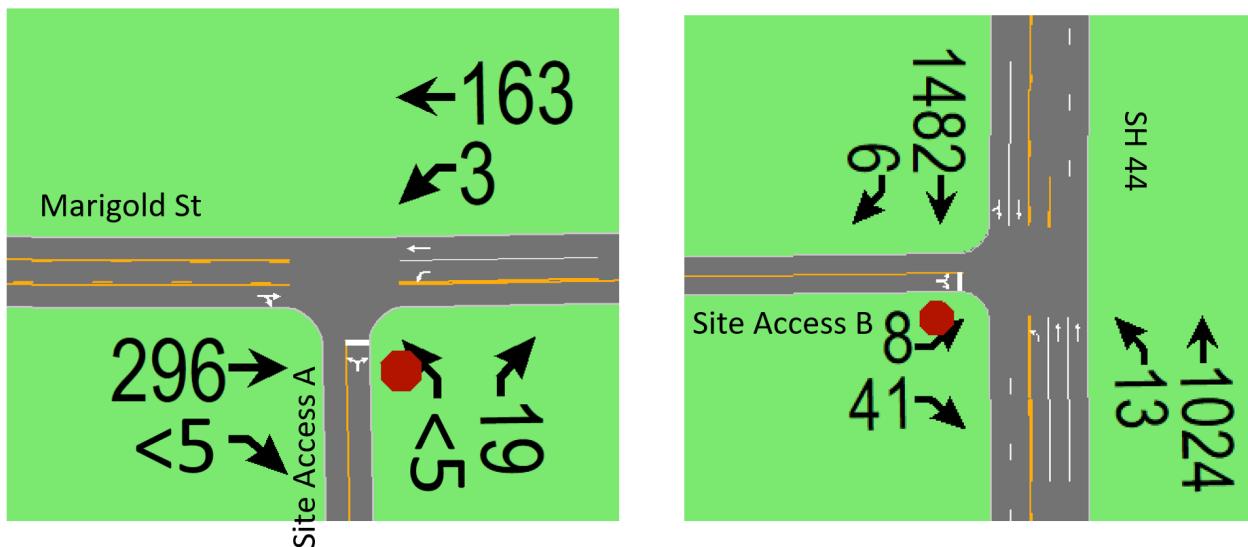
Traffic Volumes

The 2025 traffic volumes were projected by using the existing through volumes along Marigold Street and SH 44 (Glenwood Street) and grown by 1% per year. ITD's ATR #217 shows less than a 1% per year growth rate over the past several years. Attachment B contains the traffic volumes from ACHD.

Although the driveway volumes on SH 44 & Site Access B would be negative with the removal of the existing Pastry Perfection business, to be conservative, the existing turning volumes were removed and only the trips generated by the new development were shown.

Exhibit 2 illustrates the lane configurations, traffic control devices and the estimated 2025 total traffic volumes for the two site accesses.

Exhibit 2. Year 2025 Total Traffic Access Volumes



Analysis Tools

The intersection operational analysis was performed using the Highway Capacity Manual (HCM) 6th Edition analysis procedures (Reference 2). To ensure that this analysis is based on a reasonable worst-case scenario, the peak 15-minute flow rate during all peak hours was used in the evaluation of all intersection level-of-service (LOS) and volume-to-capacity (V/C) ratios. This analysis reflects conditions that are only likely to occur for 15 minutes out of each average peak hour. The transportation system will likely operate better than the conditions described in this report during all other time periods.

Performance Measures

The operating standards identified in the ACHD Policy Manual (Reference 3) were used to assess the traffic operations of the Marigold Street access. ITD operation standards were used to assess the operations of the Glenwood Street access. Table 2 summarizes the operating standards for the two driveways.

Table 2. Access Operating Standards

ID	Intersection	Agency	Traffic Control	ACHD Target Operating Standard	ITD Operating Standard
1	Site Access A & Marigold St	ACHD	Full Access	- LOS D or better - Critical Lane Group V/C Ratio ≤ 1.0	N/A
2	SH 44 (Glenwood St) & Site Access B	ITD	Full Access	N/A	- LOS E or better - Critical Lane Group V/C Ratio ≤ 0.90

Level of Service Analysis

Table 3 presents the traffic operation results for the site accesses during total traffic weekday AM and PM peak periods. Attachment C includes the year 2025 total traffic conditions Synchro worksheets.

Table 3. Year 2025 Total Traffic Conditions Operations

ID	Intersection	Intersection Control	Lane Group	AM Peak Hour			PM Peak Hour		
				V/C	LOS	Delay	V/C	LOS	Delay
1	Site Access A & Marigold St	TWSC	NBLR	0.03	B	10.2	0.02	B	11.0
			WBL	0.01	A	7.9	0.01	A	8.2
2	SH 44 (Glenwood St) & Site Access B	TWSC	NBL	0.04	B	14.5	0.10	C	15.5
			EBLR	0.22	C	23.9	0.12	C	23.7

As Table 3 shows, all study intersections operate acceptably during the year 2025 total traffic conditions weekday AM and PM peak hours.

Impact to Ada County Fire & Rescue

This section discusses the impact of the proposed development to the Ada County Fire & Resue located across SH 44 (Glenwood Street) from the development.

The existing Pastry Perfection access is located directly across the Ada County Fire & Rescue exit access. The proposed residential development is relocating the access approximately 35 feet north. While this offsets the access from the Ada County Fire & Rescue, the 95th percentile northbound left-turn queue expected from the proposed residential development is less than 25 feet (approximately one vehicle).

The biggest impact will be the reduction of trips from the existing land use. The proposed development will greatly reduce the number of turning movements along Glenwood Street. Reducing the turning movements in front of the Ada County Fire & Rescue should allow for a safer entrance and exit to the building.

Therefore, this proposed residential development will have a positive impact to the Ada County Fire & Rescue.

Potential Neighborhood Cut Through

This section discusses the potential neighborhood cut through to the existing neighborhoods in the area.

The proposed Pastry Residential Development will have access onto Marigold Street and Glenwood Street. Given that the commercial development and access to major roadways are along Glenwood Street, cut through traffic through the neighborhoods to the east is not expected. Marigold Street provides a signalized access to Glenwood Street to help with left-turns out of the site and also creates gaps for vehicles when turning into the site from the Glenwood access.

Summary

The findings in this memorandum show that the proposed Pastry Residential Development will operate acceptably in 2025 total traffic conditions. It will significantly reduce the number of trips currently using the SH 44 access which will have a positive impact on the Ada County Fire & Rescue access. Since the development has access to both Marigold Street and SH 44, neighborhood cut-through is not expected.

We trust that this memorandum addresses the concerns with the Pastry Residential Development. If you have any questions or need additional information, please contact Lauren Nuxoll at lnuxoll@kittelson.com.

References

1. Institute of Transportation Engineers. *Trip Generation Manual*, 11th Edition. September 2021.
2. Transportation Research Board. *Highway Capacity Manual*, 6th Edition. April 2016.
3. Ada County Highway District. Policy Manual Section 7106. December 16, 2020.

Attachments

- A. Scoping Emails with ITD
- B. ACHD Tube Counts
- C. Synchro Worksheets

Attachment A Scoping Emails with ITD

RE: Pastry Development Scoping on Glenwood

Luke Rudolph <Luke.Rudolph@itd.idaho.gov>

Wed 2023-11-08 6:55 AM

To:Lauren Nuxoll <lnuxoll@kittelson.com>;Saran Becker <Saran.Becker@itd.idaho.gov>

[External Sender]

Hello,

Sorry for the slow reply I'm in a Urban Drainage class all week. As to this development I think Lauren's proposed scope would be perfect only 27 new trips.



Luke Rudolph P.E.
Staff Engineer D3
Desk: (208) 334-8929
Cell: (208) 871-1152

From: Lauren Nuxoll <lnuxoll@kittelson.com>
Sent: Tuesday, November 7, 2023 11:42 AM
To: Saran Becker <Saran.Becker@itd.idaho.gov>
Cc: Luke Rudolph <Luke.Rudolph@itd.idaho.gov>
Subject: Re: Pastry Development Scoping on Glenwood

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

That works, thank you!

Lauren Nuxoll, PE, PTOE
Senior Engineer



Transportation Engineering / Planning
208.472.9817 (direct)

From: Saran Becker <Saran.Becker@itd.idaho.gov>
Sent: Tuesday, November 7, 2023 11:35 AM
To: Lauren Nuxoll <lnuxoll@kittelson.com>
Cc: Luke Rudolph <Luke.Rudolph@itd.idaho.gov>
Subject: RE: Pastry Development Scoping on Glenwood

[External Sender]

Thank you, Lauren. Let me touch base with Luke and see what his thoughts are. I will loop back with you within a couple of days if that's ok?

Thank you,
Saran

From: Lauren Nuxoll <lnuxoll@kittelson.com>
Sent: Tuesday, November 7, 2023 9:24 AM
To: Saran Becker <Saran.Becker@itd.idaho.gov>

Cc: Luke Rudolph <Luke.Rudolph@itd.idaho.gov>
Subject: Re: Pastry Development Scoping on Glenwood

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Hi Saran,

I completely agree that the corridor is very congested. The good thing is the development is closing one of their accesses and also has access to Marigold so left-turns can be protected by a signal. Most people will go to a signal during congested times vs waiting for gaps.

The number of net new PM peak hour trips that will be new to the corridor is 27. Of those 27 trips, only 4 net new trips will be exiting during the PM peak hour according to the percentages in the trip generation manual. Of those 4 trips, only 2 net new trips would be taking a left-turn and would most likely use the signal to do so.

The development now does not have access to Marigold and approximately 15 of their 31 outbound trips are making left-turns out of the driveway today. So, this development actually reduces the number of left-turns at these accesses on Glenwood.

In all I think we can address your concerns in the memo. Because the proposed development has access to Marigold, access operations are going to improve at this location. However, if you would still like to see them, I would propose the scope of the memo includes:

- Trip generation
- Proposed trip distribution
- Access operations in total traffic
- Impact to the Ada County Fire & Rescue
- Cut through in existing neighborhoods

Let me know if there is anything else that I could add to the memo to address your concerns.

Thanks!
Lauren

Lauren Nuxoll, PE, PTOE
Senior Engineer



Transportation Engineering / Planning
208.472.9817 (direct)

From: Saran Becker <Saran.Becker@itd.idaho.gov>
Sent: Monday, November 6, 2023 6:27 AM
To: Lauren Nuxoll <lnuxoll@kittelson.com>
Cc: Luke Rudolph <Luke.Rudolph@itd.idaho.gov>
Subject: RE: Pastry Development Scoping on Glenwood

[External Sender]

Hi Lauren,

Thanks for your email and also for providing the traffic counts for the planned development on Glenwood.

I am concerned about the full access to/from Glenwood/SH-44. This corridor is already very congested with gaps for left turns rare at times, especially the area between the stadium and Marigold. With the stadium and North ADA County Fire & Rescue directly

across the street, I have safety concerns, and also want to make sure North ADA County Fire & Rescue does not get impacted by more turning traffic right across their exit.

I have talked with the City, and they are sharing the same concerns. Looking at your trip numbers, I think a TIA would address our turning movement and full access concerns on Glenwood.

I have cc'd our engineer Luke to this email. Luke, what are your thoughts?

Thank you,
Saran

From: Lauren Nuxoll <lnuxoll@kittelson.com>
Sent: Friday, November 3, 2023 11:23 AM
To: Saran Becker <Saran.Becker@itd.idaho.gov>
Subject: Pastry Development Scoping on Glenwood

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Hi Saran,

Happy Friday! I wanted to scope with you this proposed development along Glenwood (SH 44) between Chinden and Marigold Street.

This is an infill development that will be replacing the current thrift shop and the office of the Assistsances League of Boise. The plot of land currently has two accesses to Glenwood. We will be closing one of the accesses and be maintaining the other. The second access to the development will be on Marigold Street at an existing access across from River Pointe Dr. The proposed development is 229 multi-family housing that generates approximately 90 p.m. peak hour trips.

Land Use	ITE Code	Units	Daily	In	Out	Total	In	Out	Total
Mid-Rise Multi Family	221	229	1046	21	68	89	55	35	90

I used the trip generation manual to come up with the number of existing trips from the thrift store and office of the Assistsances League of Boise. There isn't a great comparison, but I decided to just use the square footage of the thrift store to get a conservative estimate. Currently this plot of land is generating approximately 63 p.m. peak hour trips.

Land Use	ITE Code	Units	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
Fee-Standing Discount Store	815	9,000 sq. ft.	847	9	4	13	32	31	63

This would mean this development will be producing 27 new p.m. peak hour trips.

We have already attempted to scope this project with ACHD, but they said no traffic impact study is needed for this development. We wanted to also check in with ITD since while, we don't meet ITD's 100 peak hour trip threshold nor are we asking for a new access, we do have more than 100 units which is one of the three ITD thresholds.

We are proposing do a trip generation letter that states the difference in trip generation, proposed distribution and shows that there should be no cut through in existing neighborhoods. We are not proposing to do any operational analysis because it's such a minor increase to the roadway and intersections around it and the area is already built out. Would a letter like this suffice ITD's needs for this development?

Thanks! Have a great weekend!
Lauren

Lauren Nuxoll, PE, PTOE
Senior Engineer

Attachment B
ACHD Tube Counts

Street	Date	Date2	Location	City	Comment	EBNBPeakAM	EBNBPeakPM	EBNB	WBSBPeakAM	WBSBPeakPM	WBSB
MARIGOLD ST	3/16/2022	3/16/2022	West of Glenwood St	Garden City	Approach & Total	279	384	EB	154	226	WB

From ACHD GIS Traffic
Counts Website



Ada County Highway District

3775 Adams St
Garden City, ID 83714

Location 1: Glenwood St
Location 2: N-O Chinden Blvd
Latitude: 43 39.0940'
Longitude: -116 16.8020'

9/25/2023	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Week Average		
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	
12:00 AM	*	*	73	57	62	53	*	*	*	*	*	*	*	*	*	68	55
1:00	*	*	28	22	36	43	*	*	*	*	*	*	*	*	*	32	32
2:00	*	*	24	29	31	33	*	*	*	*	*	*	*	*	*	28	31
3:00	*	*	42	72	44	59	*	*	*	*	*	*	*	*	*	43	66
4:00	*	*	55	122	45	126	*	*	*	*	*	*	*	*	*	50	124
5:00	*	*	166	370	164	323	*	*	*	*	*	*	*	*	*	165	346
6:00	*	*	381	770	396	730	*	*	*	*	*	*	*	*	*	388	750
7:00	*	*	849	1431	773	1384	*	*	*	*	*	*	*	*	*	811	1408
8:00	*	*	974	1396	994	1453	*	*	*	*	*	*	*	*	*	984	1424
9:00	*	*	1041	1217	1117	1318	*	*	*	*	*	*	*	*	*	1079	1268
10:00	*	*	1033	1211	1008	1284	*	*	*	*	*	*	*	*	*	1020	1248
11:00	*	*	1214	1328	1180	1353	*	*	*	*	*	*	*	*	*	1197	1340
12:00 PM	*	*	1235	1400	1297	1440	*	*	*	*	*	*	*	*	*	1266	1420
1:00	*	*	1320	1377	1221	1328	*	*	*	*	*	*	*	*	*	1270	1352
2:00	*	*	1234	1401	1263	1455	*	*	*	*	*	*	*	*	*	1248	1428
3:00	*	*	1566	1333	1604	1371	*	*	*	*	*	*	*	*	*	1585	1352
4:00	*	*	1522	1381	1483	1412	*	*	*	*	*	*	*	*	*	1502	1396
5:00	*	*	1581	1459	1329	1456	*	*	*	*	*	*	*	*	*	1455	1458
6:00	*	*	1220	1222	953	1218	*	*	*	*	*	*	*	*	*	1086	1220
7:00	*	*	866	839	933	810	*	*	*	*	*	*	*	*	*	900	824
8:00	*	*	712	591	686	598	*	*	*	*	*	*	*	*	*	699	594
9:00	*	*	445	333	531	406	*	*	*	*	*	*	*	*	*	488	370
10:00	*	*	222	214	258	228	*	*	*	*	*	*	*	*	*	240	221
11:00	*	*	134	89	37	29	*	*	*	*	*	*	*	*	*	86	59
Total Day	0	0	17937	19664	17445	19910	0	0	0	0	0	0	0	0	0	17690	19786
			37601		37355		0		0		0		0		0	37476	
AM Peak Volume			11:00 1214	7:00 1431	11:00 1180	8:00 1453										11:00 1197	8:00 1424
PM Peak Volume			5:00 1581	5:00 1459	3:00 1604	5:00 1456										3:00 1585	5:00 1458
Comb Total ADT	0		37601		37355		0		0		0		0		0		37476
			ADT: 37,552		AADT: 37,552												

Attachment C
Synchro Worksheets

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	Y	Y
Traffic Vol, veh/h	296	0	3	163	0	19
Future Vol, veh/h	296	0	3	163	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	329	0	3	181	0	21
Major/Minor						
Conflicting Flow All	Major1	Major2		Minor1		
	0	0	329	0	516	329
Stage 1	-	-	-	-	329	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1242	-	523	717
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1242	-	522	717
Mov Cap-2 Maneuver	-	-	-	-	594	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	848	-
Approach						
HCM Control Delay, s	EB	WB		NB		
	0	0.1		10.2		
HCM LOS				B		
Minor Lane/Major Mvmt						
Capacity (veh/h)	NBLn1	EBT	EBR	WBL	WBT	
	717	-	-	1242	-	
HCM Lane V/C Ratio	0.029	-	-	0.003	-	
HCM Control Delay (s)	10.2	-	-	7.9	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	↑↑	↑↑	
Traffic Vol, veh/h	8	41	13	1024	1482	6
Future Vol, veh/h	8	41	13	1024	1482	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	9	46	14	1138	1647	7
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2248	827	1654	0	-	0
Stage 1	1651	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	36	319	395	-	-	-
Stage 1	145	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	35	319	395	-	-	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	140	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	23.9	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	395	-	244	-	-	
HCM Lane V/C Ratio	0.037	-	0.223	-	-	
HCM Control Delay (s)	14.5	-	23.9	-	-	
HCM Lane LOS	B	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	Y	Y
Traffic Vol, veh/h	408	0	7	240	0	10
Future Vol, veh/h	408	0	7	240	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	453	0	8	267	0	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3	Minor4
Conflicting Flow All	0	0	453	0	736	453
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1118	-	389	611
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1118	-	386	611
Mov Cap-2 Maneuver	-	-	-	-	493	-
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11
HCM LOS		B	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	611	-	-	1118	-
HCM Lane V/C Ratio	0.018	-	-	0.007	-
HCM Control Delay (s)	11	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	↑↑	↑↑	
Traffic Vol, veh/h	4	20	33	1514	1517	15
Future Vol, veh/h	4	20	33	1514	1517	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	4	22	37	1682	1686	17
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2610	852	1703	0	-	0
Stage 1	1695	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	20	307	379	-	-	-
Stage 1	137	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	18	307	379	-	-	-
Mov Cap-2 Maneuver	90	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	23.7	0.3		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	379	-	219	-	-	
HCM Lane V/C Ratio	0.097	-	0.122	-	-	
HCM Control Delay (s)	15.5	-	23.7	-	-	
HCM Lane LOS	C	-	C	-	-	
HCM 95th %tile Q(veh)	0.3	-	0.4	-	-	